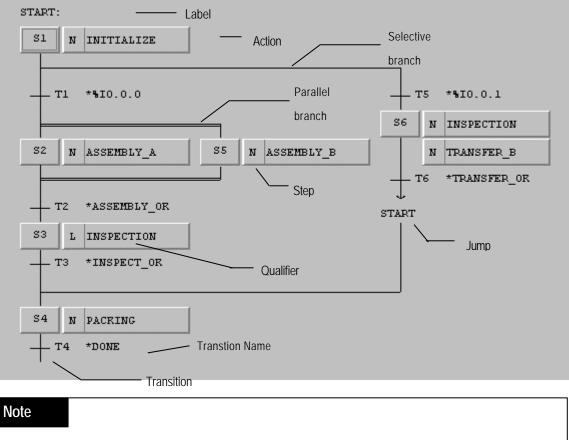
5.7. Edit SFC

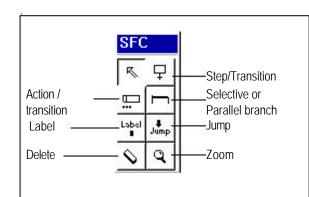
SFC supports the method that divides a PLC language (IL,LD) into step and transition according to the execution order. SFC consists of the following elements.



In case of executing the automatic control of a machine with PLC, SFC (Sequential

Function Chart) is the most optimal structural programming method.

SFC Toolbox.



₽	Step	Indicates the unit of a sequence control with connecting to action	
<u>+</u>	Transition	Indicates the condition for executing from an active step to next step	
	Selective Branch	The executing flow is determined by executive condition	
	Parallel Branch	Used to control several sequences simultaneously	
Label ■	Label	The position where an executive flow start by jump	
,∎ Jump	Jump	Used to change an executive flow	
D:	Action	Indicates an executing content in the specified step	

Select the element to insert and click the left button of the mouse on a desired position.

5.7.1. Create a Step/Transition

Step/Transition or Transition/Step is created in pairs by current position.

- ĺ ♠ Init
 - Initial screen of SFC program is as below.

🏂 c:\gmwin\source\robot3.src	
	SFC
 Select () in toolbox. Move the muse to the position marked , then 	• (+) symbol appears in the scree

• Click the left button of mouse on the position marked \Box .

🚴 c:\gmwin\source\robot3.src	
SI	SFC
T1	
	Label Jump
	<u>\</u> q

New Step/Transition is created on the position marked +



......ð

Ĥ

- Move the cursor with key to the position that you want to creates step/transition.
- Select Toolbox-Step(F2).

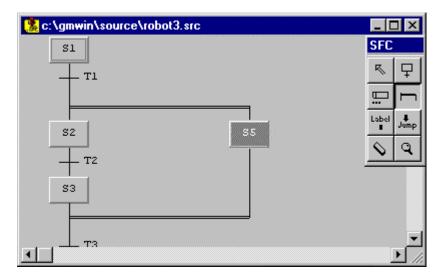
5.7.2. Create a Parallel Branch

- 1) To create a parallel branch for the first time
 - Select () in toolbox and move the mouse to the transition(T1) where branch starts and click a left button (You can see a mark).

🐍 c:\gmwin\source\robot3.src	_ 🗆 ×
S1	SFC
C1	
S2	Label Jump
	• • • •
3 3	
T3	
54	
-+ T4	

Transition (T2,T3,T4) are active in red.

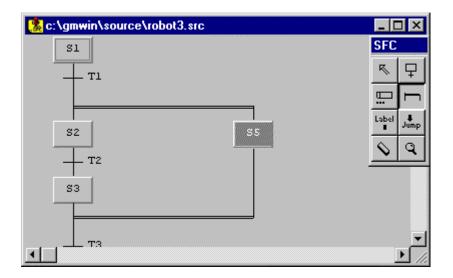
Move the mouse to the transition (T3) where branch ends and click a left button.



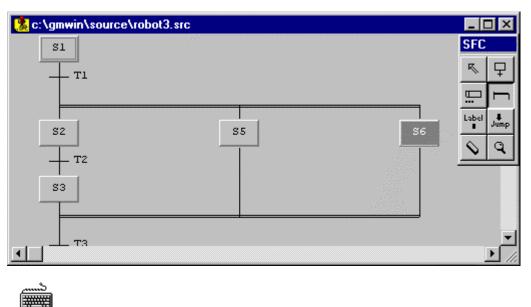
Parallel branch and new step (S5) are created.



- Move the cursor to the transition where branch starts with key.
- Select Toolbox-Branch(F3).
- Move the cursor to the transition where branch ends with key.
- Select Toolbox-Branch(F3).
- 2) To expand a parallel branch
 - Ů
 - Select (L') in toolbox .
 - Move the mouse to the start position of the parallel branch and click a left button.



• Parallel branch and new step (S6) are created.

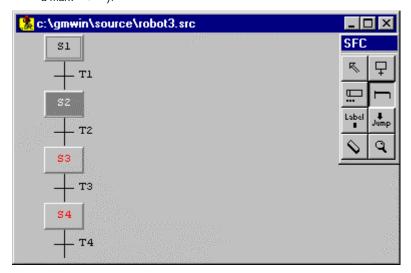


- Move the cursor to the start position of a parallel branch where you want to insert a branch with key.
- Select Toolbox-Branch(F3).

5.7.3. Create a Selective Branch

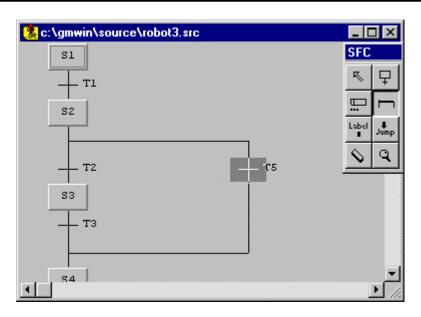
円

- 1) To create a selective branch initially.
 - Select () in toolbox and move the mouse to the step(S2) where branch starts and click a left button (You can see a mark).



- Steps(S3,S4) are active in red.
- Move the mouse to the step(S4) where branch ends and click a left button.

GMWIN Manual

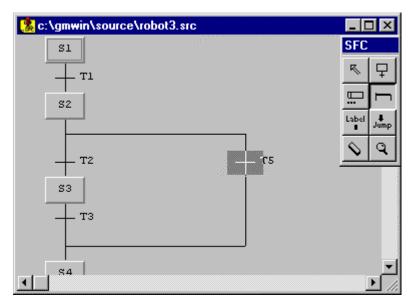


- Selective branch and new transition (T5) are created.

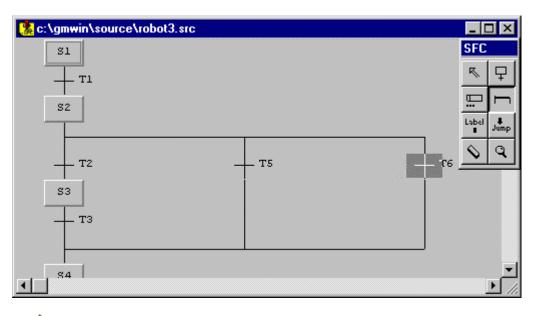
Ĥ

- Move the cursor to the step where branch starts with key.
- Select Toolbox-Branch(F3).
- Move the cursor to the step where branch ends with key.
- Select Toolbox-Branch(F3).
- 2) To expand a selective branch

 - Select () in toolbox.
 - Move the mouse to the start position of a selective branch and click a left button.

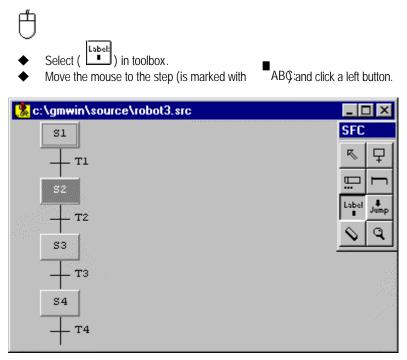


• Selective branch and new transition (T6) are created.



- Move the cursor to the start position of a selective branch where you want to insert a branch with key.
- Select Toolbox-Branch(F3).

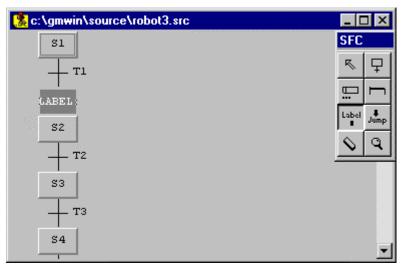
5.7.4. Create a Label



- Input a label name in Lable dialog box and click OK button.
- Maximum size of a label name is 10 characters.

Label	X
Label Name	ОК
LABEL	Cancel
	Help

Create a label



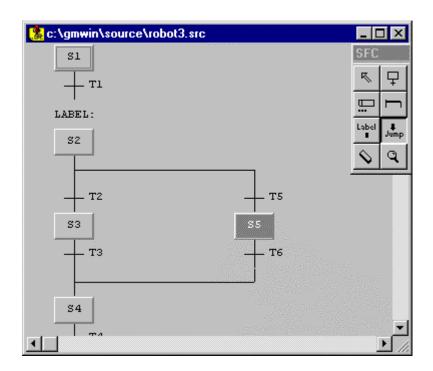
Note	
	Label is only inserted in the front of Step.



- Move a cursor to the step with key. ٠
- Select Toolbox-Label(F5). ٠
- Input a label name in Label dialog box and click OK button. •

5.7.5. Create a Jump





• Enter the jump name in Jump dialog box and click OK button.

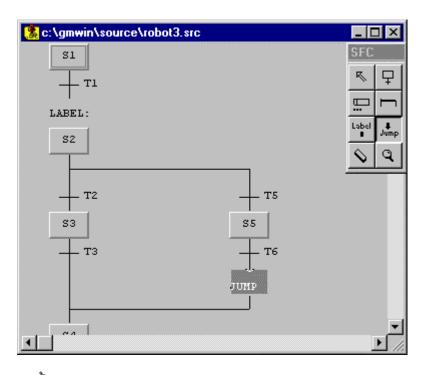
Jump	×
Jump Name JUMP Label Used LABEL	OK Cancel Help

Maximum size of the jump name is 10 characters.

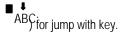
Note

Available position for Jump

- Transition at the end of the selective branch
- Transition at the last end of SFC program



• Move a cursor to a desired position (is marked with



- Select Toolbox-Jump(F6).
- Enter the jump name in **Jump** dialog box and click **OK** button.

5.7.6. Create an Action

To connect an action to a step.

Select (🛄) in toolbox.

• Move the mouse to a step and click a left button.



ſΉ

Move the cursor to the step with key.

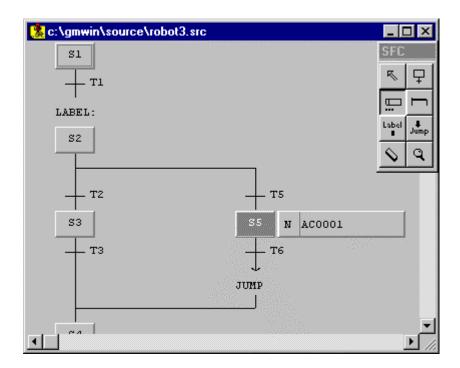
Ac	tion				X
}	-Kind	Name			
	 Program Variable 	Comment	(c)		
	List		I		
	Name	Kind	ł	Flag	1990
	•				
	Qualifier		Time		
	N(Non-stored)	•	ſ	 	
[ОК	Can	cel	Help	

• Select Toolbox-Action/Transition(F4).

Select whether you setup an action as a program or as a Boolean variable output in Kind radio button of Action dialog box.

If you setup an action as a variable output, the designated variable is outputted as '1' when the action is in active.

- 1) In case of setting up an action as a program
 - Enter the variable name in the Name edit box (maximum size is 16 characters). When you want to connect an already used action, select the action in list box.
 - Enter the comment for the action in the Comment edit box (maximum size is 40 characters).
- 2) In case of setting up an action as a variable
 - Enter the variable name in the Name edit box (maximum size is 16 characters).
 When you want to connect an already declared variable, select the variable in list box. Select a desired qualifier in Qualifier list box.
 - If the selected qualifier has a time value (D,L,SD,SL,DS), enter the time value in the **Time**edit box. Example)T#10s.
 - click OK button.



3) Kind and Function of Qualifier

Step: Active Condition

Symbol	Function		Passive Condition
N(Non-stored)	Action is executed while Step is in active.		
R(overriding Reset)	R(overriding Reset) makes stopping the execution of action executed by qualifier(S,SD,DS,SL) before.		
S(Set)	After Step is in active, an action is executed until R qualifier acts.		R
L(time Limited)	After Step is in active, an action is executed as long as setting time.		Setting Time
D(time Delayed)	After Step is in active, the execution of action is delayed as long as setting time.		Setting Time
P(Pulse)	Action is executed at the only moment when Step is in active.	11 Scan	
SD(stored & time Delay)	After Step is in active, an action is executed after the lapse of setting time until R qualifier acts. If the R qualifier, However, acts before the lapse of setting time, the action is not executed.		R
DS(Delayed & stored)	After Step is in active, an action is executed after the lapse of setting time until R qualifier acts. But, if the step is in passive or the R qualifier acts before the lapse of setting time, the action is not executed.		R R R
SL(stored & time Limited)	After Step is in active, an action is executed as long as setting time, and when the setting time elapses or R qualifier acts, the action is stopped.	←	

5.7.7. Create a Transition

Ĥ

To connect Name to Transition.

	toolbox. a transition and call a transition	n dialog box by clicking a left button.
Select Toolbox-A	a transition with key . ction/Transition(F4).	
Kind Program Variable	Comment	
List Name	Kind	System Flag
ОК	Cancel	Help

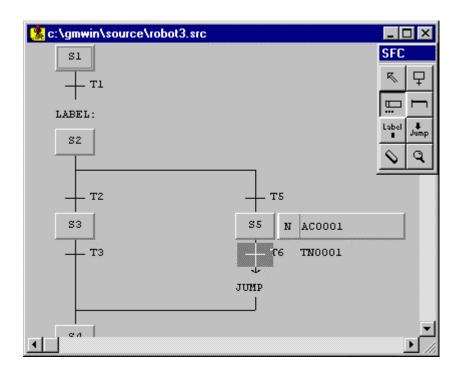
 Select whether you setup an executive condition as a program or as a Boolean variable in kind button of Transition dialog box.

1) In case of setting up Transition as a program,

- Enter he transition name in the Name edit box(maximum size is 16 characters).
 When you want to connect the already declared transition, select the transition in list box.
- Enter the comment for the transition in the **Comment** edit box(maximum size is 40 characters).

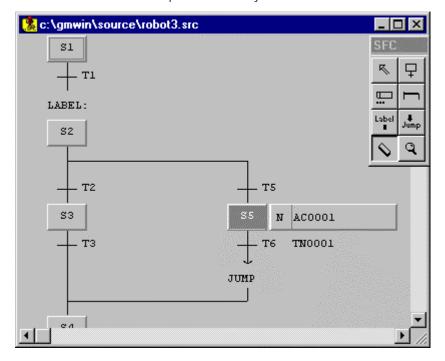
2) In case of setting up Transition as a variable,

- Enter he transition name in the Name edit box(maximum size is 16 characters).
 When you want to connect the already declared variable, select the variable in list box.
- Enter the comment for the transition in the Comment edit box(maximum size is 40 characters).
- Click OK button

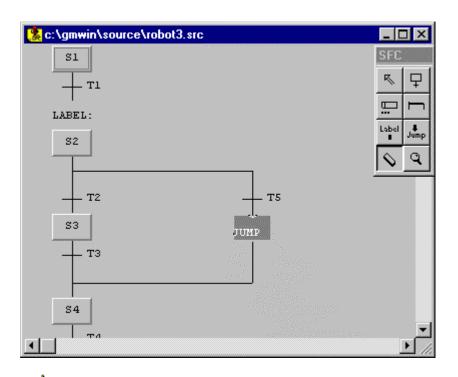


5.7.8. Delete

- 1) Delete a Step/ Transition
 - Ĥ
 - Select (🔊) in toolbox.
 - Move the mouse to the step or transition that you want to delete.



• Click the left button of the mouse.



- Move the cursor to a step or transition that you want to delete with key.
- Select Edit-Delete.

Note

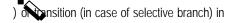
Although you delete a transition in SFC program, a transition program is not deleted. If you want to delete the program, you must delete it in transition list. (select **Program-Transition List**)

2) Delete a Branch

To delete the branch, All elements must be deleted before deleting a branch. Namely, there must be only Step(in case of parallel branch) or Transition (in case of selective branch) in branch

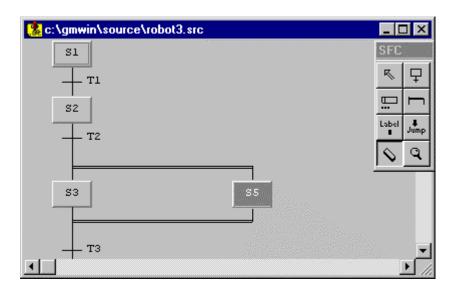


- Select () in toolbox.
- Move the mouse to Step(in case of parallel branch, is marked with branch and click a left button.





- Move the cursor to a step (or transition) in the branch that you want to delete.
- Select Edit-Delete.



3) Delete a Label

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- Select () in toolbox.
- Move the mouse to the label that you want to delete and click a left button.



- Move the cursor to the label that you want to delete.
- Select Edit-Delete.

4) Delete a Jump



Move the mouse to the Jump that you want to delete and click a left button.

- Move the cursor to the Jump that you want to delete with key.
- Select Edit-Delete.

5) Delete a Action



-) in toolbox.
- Move the mouse to the Action that you want to delete and click a left button.

.....

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- Move the cursor to the Action that you want to delete with key.
- Select Edit-Delete.

Note

Although you delete an action in SFC program, an adtion program is not deleted. If you want

to delete the program, you must delete it in action list (select **Program-Action List**)

5.7.9. Zoom In Action/Transition

Note

This Function is used for editing an action or transition program.

A variable used in action or transition is commonly shared in other actions or transitions.

- Select (🕥) in toolbox.
- Move the mouse to an action or transition and call a Select language dialog box by clicking a left button. At this time, if it is declared as a variable, you cannot zoom in.
- Selecting a language type is omitted for the action or transition that selected a program type before.



- Select a desired language type in Language option button of Select Language dialog box.
- Call the screen of making a program by clicking **OK** button, and create a program.
- When you edit a transition, the execution condition must be outputted as TRANS variable.

🚼 c: \gmwi	n\sourc	e\robot3.src[Action:#	AC0001]			_ 🗆 ×	1
Row 0		SWITCH1 SWITCH2 			MOTORI		
Row 1	😫 c:\g	mwin\source\robot3	.src[Transitic	n:TN0001]			_ 🗆 ×
	Comma	nd LD %IX0.0.0			-	Comment	t
Row 2	Nu	Instruction	Input	Variable		Comment	Value
Row 3	0	LD		%IX0.0.0		(* *)	
1.000 0	1	AND		%IX0.0.1		(* *)	
1.19	2	ORN		%M101		(* *)	
Row 4	3	ST		MOTOR1		(* *)	
	4	LD		%M100		(* *)	
	5	ST		MOTOR2		(* *)	
	6	LD		SWITCH1		(* *)	
	7	ST		LAMP1		(* *)	
	8	NOP				(* *)	
	•						Þ

Note

Action and transition programs are not saved by individually. They are also saved when SFC Program as saved. So if you saved SFC program in window, then action and transition are also saved

5.7.10. Arrange Number

This is function for putting the number added to Step and Transition in order. Step or Transition number is added in inserted order, and they have no other meaning. It is arranged automatically when you compile or save the program.

• Select Edit-Arrange Number.

Edit			×
•	o you want to arrar	nge step and tra	nsion numbers?
	OK)	Cancel]

🐍 c:\gmwin\source\robot3.src		_ 🗆 🗙	🚼 c:\gmwin\source\robot3.src		_ 🗆 ×
Sl		SFC	SI		SFC
ті					
37					
57		Label Jump	\$2		
т6	— тв		T2	т5	<u>\</u>
	S11 N ACOOO1		 	S5 N ACOOO1	
				N ACOUNT	
T7	- T11 TN0001		— ТЗ	- T6 TN0001	
54			54		
			54		
T4			T4		
		Þ			Þ

• Click **OK** button and the numbers are given in order.

Before arrangement

After arrangement

5.7.11. Action/ Transition List

Select Program-Action List(or Transition List).

Action List					×
<u>L</u> ist			[Close	
AC0001 AC0002 AC0003]	<u>A</u> dd	
AC0003]	<u>D</u> elete	
				<u>R</u> eplace	
				<u>E</u> dit	
I				Help	
Attribute Language : Comment :	Used :	1	Size :	0 bytes	
					a ant a ^{r an} t

Action list and the attribute of the selected action appears in **Action List** dialog box.

Language	: Language type of the action
Used	: The number of being used in SFC program
Size	: Program size of the action (byte)
Comment	: Comment for the action

- 1) Add the action
 - Click Add button in Action List dialog box.
 - Enter the action name and comment, and click **OK** button.
- 2) Replace the action name
 - Click **Replace** button in **Action List** dialog box.
 - Enter the action anme and comment that you want to replace and click, Ok button. At this time, the action on using in SFC program is also replaced in SFC program.
- 3) Delete the action
 - Click Delete button in Action List dialog box. At this time, you cannot delete the action on using in SFC program.
- 4) Edit the action

To edit an action program.

• Click Edit button in Action List dialog box.

5.7.12. Edit a Block

Before editing a block, you must setupthe range to be applied as a block.

Namely, if you want to copy or delete a continuous program, you must designate the desired content as a block before selecting edit a block function.

When you fix a block in SFC, a correct program is only available.

For example, you must setup the block, which starts from a step, as a transition for the end of the program.

To setup a block,





In SFC program window, move the mouse to the start point of the block and drag it to the last row of the range to select with clicking the left button.

- In SFC program window, move the cursor to the start point of the block.
- With pressing Shift key, move the cursor with arrow key to the last row of the range to select.

1) Cut

After selecting a block

Select Edit-Cut(Ctrl+X,

2) Copy

After selecting a block



3) Paste

After copying or cutting,

- In SFC program window, move the cursor to the position that you want to paste.
- Select Edit-Paste(Ctrl+V, Labeled).
- 4) Delete

After selecting a block

◆ Select Edit-Delete(Delete, 🛄

5.7.13. Find

- Select Edit-Find (
- In Name edit box of Find dialog box, enter the string that you want to find.
- Select the following option and click **OK** button.

1) Kind

Select the type of string that you want to find.

2) Origin

Select the range where Find function is executed. From cursor : Find from current cursor position. Entire scope : Find through the whole range.

3) Direction

Select the direction that Find function is executed. Forward : Find function is executed forward. Backward : Find function is executed backward.

5.7.14. Replace

- Select Edit-Replace
- In Name edit box of Replace dialog box, enter the character that you want to find.
- Enter the new character in **New Name** edit box of **Replace** dialog box,
- Select options in the same way as Find function and click **OK** button.

5.7.15. Again

If you executed Find.Replace function before, executes the function again with the condition that designated before...

◆ Select Edit-Again(Ctrl+F3, 🍱

5.7.16. Goto

- Select Edit-Goto.
- In Go to Position dialog box, enter the Y(vertical), X(horizontal) coordinates that you want to go.

5.7.17. Condense Screen

To adjust the screen size,

- Select Edit-Condense screen.
- Select a desired screen size in Condense screen dialog box and click Ok button.

5.7.18. Print

If you click **View Comment** button to see the comments that you edited in the program. Select **Project-Print** in the pull-down menu.

SF	C Print		×			
	Item	Condense	ОК			
	☐ <u>S</u> FC	O 100%	Cancel			
	☐ <u>A</u> ction	⊙ 80%	Preview			
	Transition	C 50%	Setup			
	☐ <u>V</u> ariable	O 25%	Help			
	Left margine					
	Option Print Action, Transition Continuously					

- Setup the conditions to print in SFC program.
- To preview the program, select Preview button.
- Close Preview screen and click OK button to print.

5.8. Edit IL

IL is a language that consists of instructions, whose elements are operators, functions, function block and label.

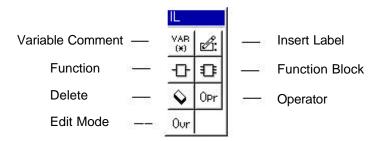
The input of an instruction and a variable is accomplished in edit control box for command and the input of a comment is accomplished in a comment input box.

A blank separates instruction from variable and in case of several variables, they are separated by ' ,' .

Example) ADD A,B,2

😫 c:\g	🔹 c:\gmwin\source\robot2.src					_ 🗆 ×
Comman	nd			•	Comment	t 🗌
Nu	Instruction	Input	Variable		Comment	Value
0	LD		%IX0.0.0		(* *)	
1	AND		%IX0.0.1		(* *)	
2	ORN		%M101		(* *)	
3	ST		MOTOR1		(* *)	
4	LD		M100		(* *)	
5	ST		MOTOR2		(* *)	
6	LD		SWITCH1		(* *)	
7	ST		LAMP1		(* *)	-
•						

Toolbox for IL



Ð	Function Input	Select a function to input
₽	Function Block Input	Select a function block to input
Ľ	Label Input	Input a label
0pr	Operator Input	Select an operator to input
0	Delete a Row	Delete a present row
-(*) -(*)	Row Comment Input	Input a row comment
VAR (*)	Variable Comment Input	Input a variable comment
Ins	Insert Mode	Change into insert mode
Our	Overwrite Mode	Change into overwrite mode

The below picture is the menu that is displayed with clicking the right button of the mouse in IL. You can execute each command simply using this menu.

Undo(<u>U)</u>	
Cut(<u>I</u>)	Ctrl+X
Copy(<u>C</u>)	Ctrl+C
Paste(<u>P</u>)	Ctrl+V
Delete(<u>D</u>)	Del
Find(<u>F</u>) Replace(R)	
Replace(<u>R</u>)	Ctrl+F3
Search Again(<u>S</u>) Go To(<u>G)</u>	ouni-a
Show/Hide Comment(<u>M)</u> Select Array Index([) Watch Current Result(<u>N</u>)	**

5.8.1. Operator Input

END indicates the end of the main program and the program after END is a subroutine program.

If there is not **END**, the whole program is the main program.

You can use SCAL, SCALC, SCALN for calling a subroutine and RET, RETC, RETN for return from a subroutine. The name created in SCAL(C,N) must not be in front of END.

If JMP(C,N) is in front/rear of END, the appropriate label is in front/rear of END. Although RET(C,N) is not in the rear of END, the last is regarded as the return from a subroutine.

		ľ
		l
U	J	
~	~	

- To insert the operator.
- Click (Opr) in toolbox.

Operator List	×		×
Operator ADC ADC ANC ANC ANC ANC			
ОК	Help	Cancel	

• Select the operator in **Operator List** dialog box.

cal Variables					2
Name	Var. Kind	Allocation	Used	Data Type	Close
LAMP1 M100 MOTOR1	VAR VAR VAR	<auto> <auto> <auto></auto></auto></auto>		BOOL BOOL BOOL	<u>A</u> dd
MOTOR2 SWITCH1	VAR VAR	<auto> <auto> <auto></auto></auto></auto>		BOOL BOOL	<u>D</u> elete
					<u>E</u> dit
					Help
Browse Glot	bal Variables		Browsel	In/Out Variables	
Description Name : LAMF Variable Kind Data Type : E Allocation : « Initial Value : Comments :	I : VAR BOOL ≺Auto> : ≺Default>				

- Enter the variable name in **Name** edit box of **Variables** dialog box.
- Click OK button.

Note

If you want to enter the already declared variable, select the variable in list box of **Variable** dialog box..



method 1

- Move the cursor in program region to the position in where you want to insert an operator.
- Input an operator and object in **Command** edit box.



Press Enter key.

method 2

- Move the cursor in the display region which you want to insert an operator.
- Select Toolbox-Operator.
- Select an operator in **Operator List** dialog box.
- Enter the variable name in **Name** edit box of **ariables** dialog box.
- Press Enter key.

5.8.2. Function Input



- To insert the Function in IL.
- ◆ Click (□) in toolbox.

Function List			×
Fun Groups All Arithmetic Function Bit Function Comparision Functio String Function System Function Time/Date Function Type Function		Fun Select	
Fun Comment			
<no></no>			
	ок	Cancel	Help

- Select the function in **Function List** dialog box.
- Enter the variable as many as you want in edit box of Function List dialog box.
- Click OK button.

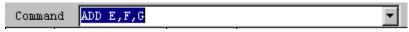
Note

If you want to use the already declared variables as the variable, click Variable list button of **Function** dialog box and select the variable in the list box of **Variables** dialog box.

Function		×
	Name	ADD
IN1:=	CURRENT RESULT	Input the variable as you need.
INT:=		IN2:=
IN5:=		IN6:=
IN7:=		IN8:=
	I	
OK	Flag Varial	ble List Cancel Help
		Cancer Hep

method 1

- Move the cursor in the display region which you want to insert a function.
- Enter the function and variable in **Command** edit box.



Press an Enter key.

method 2

- Move the cursor in the display region which you want to insert a function.
- Select Toolbox-Function.
- Select the function that you want to insert in Fnction List dialog box.
- Enter the variables for the function in **Function** dialog box.
- Press OK button.

Note

I case of extensible function (refer to GMWIN commands for the detail information), the number of input for the variable is not designated.

5.8.3. Function Block Input

Function Block List		E
FB Groups All communi.1fb remote3.1fb remote4.1fb special.1fb Standard FB	FB Select AD3ARD AD3INI AD3RD AD4RD AD4BARD AD4BRD	
FB Comment	 ·	

After selecting a function block to use in Function Block List dialog box, click OK button.

Chapter 5. Edit a Program

Function Block			×
	Name	СТИВ	
	CAL	CAL	
	Instance Name		
Input			Output
CU:= CD:=		QU:=BOOL	QD:=BOOL
R:= LD:=		CV:=INT	
PV:=			
ОК	Flag Varial	ble List Cancel	Help
	vana	Cancel	

- Input an instance name in **Instance Name** edit box.
- Click **Ok** button.

Note

If you want to insert the already declared variable, click Variable list button of **Function Block** dialog box and select the variable in list box of **Variables** dialog box.



method 1

- Move the cursor in the display region which you want to insert a function block.
- Enter CAL/CALC/CALN in **Command** edit box.

Comman	d	CAL		•

- Select the function block in **Function Block List** dialog box.
- Enter the instance name and variables in **Function Block** dialog box.
- Press Enter key.

method 2

- ٠ Move the cursor in the display region which you want to insert a function block.
- Select Toolbox-Function Block. ۵
- ٠ Select the function block in Function Block List dialog box.
- Enter the instance name and variables in Function Block dialog box.
- Press Enter key ٠

5.8.4. Label Input

Ů		
•	To input the label.	
•	Click (
La	bel	×
	Label Name :	ОК
		Cancel
		Help
•	Enter the label name (maximu	ım size is 8 characters) ir

- Label dialog box.
- Click **OK** button.



method 1

- Move the cursor in the display region which you want to insert a label.
- Enter the label name and ':' in Command edit box.

Command	START:		•	1

Press Enter key.

method 2

- Move the cursor in the display region which you want to insert a label.
- Select Toolbox-Label.
- Enter the label name in Label dialog box. ٠
- Click OK button. ۵

5.8.5. Comment Input

Comment is created in Comment edit box in IL program screen. You can insert a line comment and variable comment separately by the comment display of toolbox. You can edit directly the comment in Comment edit box.

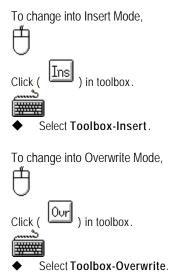


- Move the cursor in the display region which you want to insert a comment. ٠
- Make a comment (maximum size 24 characters) in Comment edit box.



- Move the cursor in the display region which you want to insert a comment.
- Select Toolbox-Variable Comment (Line Comment).
- Enter the comment in **Comment** edit box.

5.8.6. Change an Inseet/ Overwrite Mode of Program



5.8.7. Delete a Program



- Move the cursor in the display region which you want to delete.
- Click (🕥) in toolbox.



- Move the cursor in the display region which you want to delete.
- Select Toolbox-Delete.

5.8.8. Edit a Block

Before editing a block, you must setup the range to be applied as a block. Namely, if you want to copy or delete a continuous program, you must designate a desired range as a block before selecting Edit Block Function.



- Move the mouse to the row of the display range to select.
- Drag the mouse to the last row of the range to select with clicking the left button.



- Move the cursor to the row of the display range to select.
- With pressing Shift key, move he cursor with arrow key to the last row of the range to select

1) Cut

After selecting a block,

Select Edit-Cut(Ctrl+X,

2) Copy After selecting a block, Select Edit-Copy(Ctrl+C, ٠ 3) Paste After copying or cutting, Move the cursor in the display region which you want to paste. Select Edit-Paste(Ctrl+V, 4) Delete After selecting a block, \square Select Edit- Delete (Delete, ٠ 5.8.9. Find To find an instruction or variable in the program on editing, Select Edit- Find (

rinu	<u>^</u>
Text to Find :	
Kind	Origin
Instruction	From Cursor
Operand	C Entire Scope
Direction	Word
Forward	Match Whole Word
O Backward	C Match Partial Word
ОК	Cancel Help

In Text to Find edit box of Find dialog box, enter the string that you want to find.
 Select the following option and click OK button

1) Kind

- Select the string type to find.
- 2) Origin
 - Select the range where Find functions executed.
 - (1) From cursor : Find from the current cursor position
 - (2) Entire scope : Find through the whole program

3) Direction

Select the direction that Find function is executed.
 (1) Forward : Find function is executed forward
 (2) Backward : Find function os executed backward

4) Word

Select an accordance degree in finding a word.
 (1) Match Whole Word : Find only an exact same word
 (2) Match Partial Word : Find also a partial same word

5.8.10. Replace

To replace a variable with a desired variable in the program on editing,

Select Edit-Replace

Rep	lace			×
	Text to Find		New Text	
	 Kind	<u> </u>	Origin	
	 Instruction Operand 		 From Cursor Entire Scope 	
	- Direction		-Word	
	 Forward Backward 	li	 Match Whole Word Match Partial Word 	
	ОК	Cancel	Replace All Help	

- In Text to find edit box of Replace dialog box, enter the string that you want to find.
- In New Text edit box, enter the new string.
- Select options in the same way as Find function and click **OK** button.
- Click **Replace All** button to replace all string at once.

Note

You can replace the string only for a variable.

5.8.11. Again

If you executed Find/ Replace command before, executed the command again with condition that designated before.

Select Edit-Again(Ctrl+F3,

5.8.12. Go to

This function allows you to find the desired line in the program.

- Select Edit-Goto.
- In Goto dialog box, enter the line number that you want to find.
- Click OK button.

Go To	×
Input the Line Number to go to (0 based)	er er er er er er
The Last Line No. : 13	
Go to the Line :	
OK Cancel Help	

5.8.13. Print

If you click a Preview button before printing a program, the outline of content is printed on the screen.

Select Project-Print.

IL Print Option	×
IL Print Option Select the Range for printin Print the Whole file Print from Cursor to En Print Selected Lines Start Line : D End Line : D	ng — F Include Variables
OK Cancel	Preview Printer Setup

- Select the Range for printing in IL Print Option dialog box. Print Whole file : Print the whole program Print from Cursor to End : Print from a cursor to the end Print selected lines : Print from start line to end line
- To print variables, select **Include Variables** check box.
- Setup the margin to print in **Margin** edit box.