

# Friendly for Fuji MICREX-F users!!

## MICREX-SX SPH

# SX-Programmer Standard

The "Standard" is the programming support tool that makes the most of the operability of Windows to greatly improve the working efficiency from the design through debugging to maintenance stage. It supports full keyboard operation, which is convenient in the field. You can start editing or downloading immediately after startup. It is also possible to modify a program during operation.

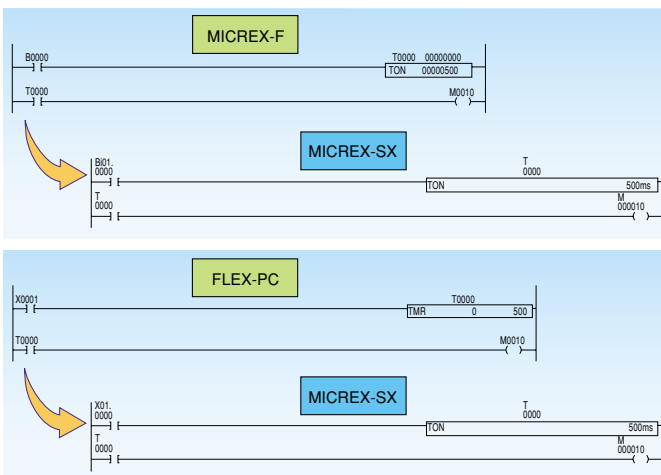
The screenshot shows the SX-Programmer Standard software interface. On the left, a ladder logic diagram is displayed with rungs for 'Lnk Wash ing' and 'Compress air OFF'. On the right, a variable declaration table is visible:

Compress air ON	M	018683	( )
Compress air OFF	T	0345	
Compress air OFF	M	018684	( )
Compress air OFF	T	0346	

Below the software window, a laptop is connected to a rack of PLC modules labeled 'MICREX-SX SPH'.

### Utilization of program resources

- With the Cut & Paste function, you can utilize the program resources of Fuji Electric MICREX-F and FLEX-PC series PLCs. For the circuits and instructions that cannot be pasted, alternative methods will be provided by Help.



### Excellent environment for program development

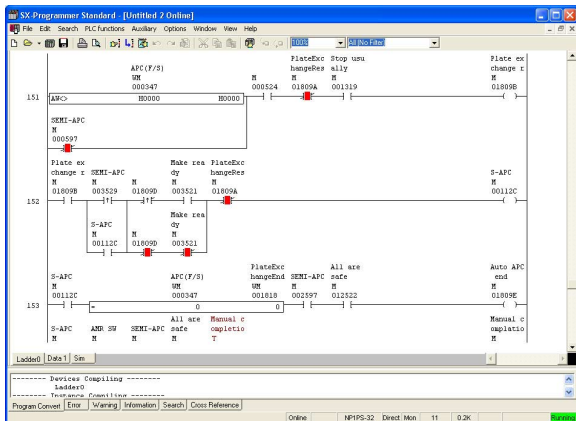
- Address assignment and online modification (rewriting during run) are available for programming.
- Adapted to structured design and modularization using FBs (Function Blocks)
- It is possible to copy and paste comments that is edited by spreadsheet software (EXCEL).

The screenshot shows the 'Tag Editor' window with the following table:

Address	Tag	Description
EN0	Result_Terminal	Set ON if an operation has been normally
SM0000	Running	Set ON while the User Program is running
SM0001	Stopped	Set ON while the User Program is stopped
SM0002	Fatal_Fault	Set ON if a fatal fault occurs
SM0003	Nonfatal_Fault	Set ON if a non fatal fault occurs
SM043F	One_scanning_ON	
WL000000	Arm_automatic_rise	POC->PLC
WL000001	Initial_setting_1	
WL000003	Initial_setting_2	
WL000004	Initial_setting_3	

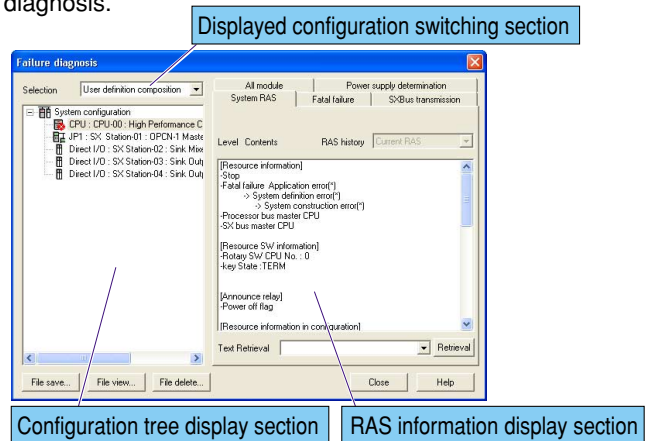
## Resume function

- When started up, automatically displays previously edited or monitored position.
- In online mode, displays previously monitored position and starts monitoring.
- In offline mode, displays previously edited position and shifts to Edit mode.



## Failure diagnostic & Debug function

- Failure diagnosis is easy because you can analyze failure information while checking the configuration information.
- Provides powerful debugging functions, including stepwise execution, condition monitoring, sampling trace and failure diagnosis.



## Operating environment

Item	Specification
Hardware	IBM-PC/AT compatible
CPU	Intel Pentium 233MHz or higher recommended
Hard disk	Free space of 200MB or more
Memory capacity	64MB or more
CD-ROM unit	1 unit (x4 speed or faster)
Keyboard	101 keyboard
Mouse	USB mouse, bus mouse, PS2 mouse
Indicator	800 x 600-dots resolution or higher (1024 x 768-dots resolution or higher recommended)
OS	Windows95/98/ME/NT4.0/2000/XP
Connections to the SPH	Support tool connection cable: <b>NP4H-CB2</b> + RS-232C/RS-422 signal converter: <b>NW0H-CNV</b>

## Types

Names	Types (= Ordering code)	Products number
Windows adapted SX-Programmer Standard	<b>NP4H-SWN</b>	<b>NP4H014</b>

## Advantages of MICREX-SX SPH

- **Realize advanced high-speed mechanical control**  
Maximum 117K steps of program capacity and maximum 8192 points of I/O control enable constructing optimum systems, from small- to large-scale ones.  
1-ms program scan and 1-ms I/O refresh are possible.  
It is possible to construct a multi-CPU system with maximum 8 CPUs and thus distribute load among them.
- **Adapted to SX bus and a wide variety of network system**  
High-speed SX bus of maximum 25 Mbps enables connecting to a programmable operation display, a servo and or an inverter and thus constructing a flexible system. A wide variety of open networking modules are prepared, including DeviceNet and ASI, to meet diversified needs.
- **Adapted to international safety standards**  
As standard, not only UL/cUL/CE marked but also conforming to NK/LR standards

## Safety Considerations

- For safe operation, before using the product read the instruction manual or user manual that comes with the product carefully or consult the Fuji sales representative from which you purchased the product.
- The modules covered in these operating instructions have not been designed or manufactured for use in equipment or systems which, in the event of failure, can lead to loss of human life.
- If you intend to use the modules covered in these operating instructions for special applications, such as for nuclear energy control, aerospace, medical, or transportation, please consult your Fuji Electric agent.
- Be sure to provide protective measures when using the module covered in these operating instructions in equipment which, in the event of failure, may lead to loss of human life or other grave results.
- For safe operation, wiring should be conducted only by qualified engineers who have sufficient technical knowledge about electrical work or wiring.

● Appearance and specifications are subject to change without prior notice for the purpose of product improvement.

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