

8.27 Module Access Instruction

I/O refresh

REF(P)/RFS(P)

FX5S**FX5UJ****FX5U****FX5UC**

These instructions refresh the (n) points of devices starting from the device specified by (s), and receive an external input or generate an output.

The REF(P) instructions can also be used as RFS(P).

Ladder diagram	Structured text
	ENO:=REF(EN,s,n); ENO:=REFP(EN,s,n); ENO:=RFS(EN,s,n); ENO:=RFSP(EN,s,n);

FBD/LD

Setting data

■Descriptions, ranges, and data types

Operand	Description	Range	Data type	Data type (label)
(s)	Head device number to be refreshed	—	Bit	ANY_BOOL
(n)	Number of devices to be refreshed	0 to 65535	16-bit unsigned binary	ANY16_U
EN	Execution condition	—	Bit	BOOL
ENO	Execution result	—	Bit	BOOL

■Applicable devices

Operand	Bit	Word			Double word		Indirect specification	Constant			Others
	X, Y, M, L, SM, F, B, SB, S	T, ST, C, D, W, SD, SW, R	U□\G□	Z	LC	LZ		K, H	E	\$	
(s)	○*1	—	—	—	—	—	—	—	—	—	—
(n)	○	○	○	○	—	—	○	○	—	—	—

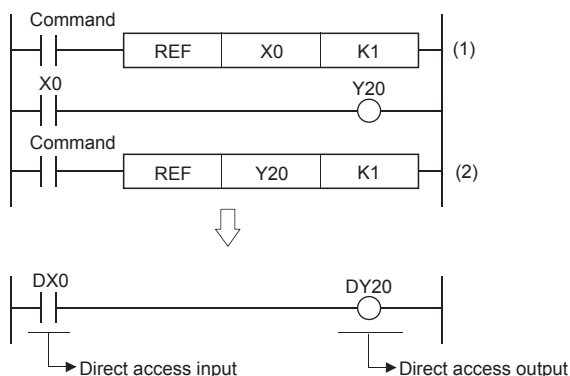
*1 Only X and Y can be used.

Processing details

- This function refreshes only the corresponding devices in the middle of a scan and receives an external input or generates an output.
- Since the input receptions and external outputs are performed at one time only after the END instruction is executed in the program, a pulse signal cannot be output externally in the middle of a scan. The execution of the I/O refresh instruction forcibly refreshes the corresponding input (X) or output (Y) in the middle of program execution, and then a pulse signal can be output externally in the middle of a scan.
- To refresh an input (X) or an output (Y) in 1 point units, use the direct access input (DX) or the direct access output (DY).

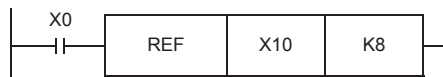
Ex.

When a program using the RFS instruction is changed to a program using direct access input/output

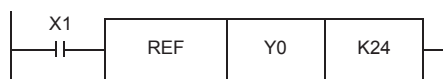


Program example

In the program example shown below, when X0 is set to ON, X10 to X17 (8 points in total) are refreshed.



In the program example shown below, when X1 is set to ON, Y0 to Y7, Y10 to Y17 and Y20 to Y27 (24 points in total) are refreshed.



Operation error

Error code (SD0/SD8067)	Description
2820H	The (n) points of device range starting from the device specified by (s) exceed the range of proximal I/O.