

# Adding 16-bit data

## WSUM(P)(\_U)

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

These instructions add the (n) point(s) of 16-bit binary data in the device starting from the one specified by (s), and store the result in the device specified by (d).

**Ladder diagram**

**Structured text**

ENO:=WSUM(EN,s,n,d);  
ENO:=WSUMP(EN,s,n,d);

ENO:=WSUM\_U(EN,s,n,d);  
ENO:=WSUMP\_U(EN,s,n,d);

**FBD/LD**

### Setting data

#### ■Descriptions, ranges, and data types

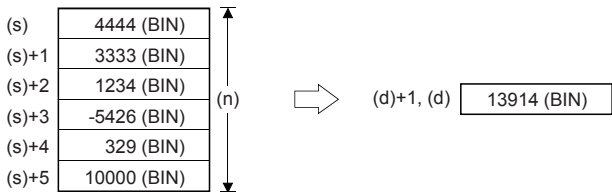
Operand		Description	Range	Data type	Data type (label)
(s)	WSUM(P)	Head device number where the addition target data are stored	—	16-bit signed binary	ANY16_S
	WSUM(P)_U			16-bit unsigned binary	ANY16_U
(d)	WSUM(P)	Head device number storing sum	—	32-bit signed binary	ANY32_S
	WSUM(P)_U			32-bit unsigned binary	ANY32_U
(n)		Number of data	—	16-bit unsigned binary	ANY16
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)	—	○	○	—	—	—	○	—	—	—	—
(d)	○	○	○	○	○	○	○	—	—	—	—
(n)	○	○	○	○	—	—	○	○	—	—	—

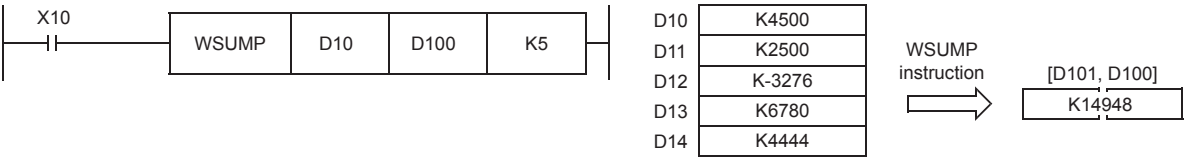
### Processing details

- These instructions add the (n) point(s) of 16-bit binary data in the device starting from the one specified by (s), and store the result in the device specified by (d).



## Program example

In the program shown below, the sum of 16-bit data stored in D10 to D14 is stored in [D101, D100] when X10 is set to ON.



## Operation error

Error code (SD0/SD8067)	Description
2820H	The device range specified by (d) exceeds the corresponding device range.
	The (n) point(s) of data in the device starting from (s) exceed the corresponding device range.
3405H	The data stored in a device specified by (n) is 0.