B. Interface Output Signals (#1100 Through #1115, #1132)†

a. When one of system variables #1100 through #1115 is specified to the left-hand of an operational expression, an on or off signal can be sent to each of user-macro-dedicated 16-point output signals. The relationships between the output signals and the system variables are as shown below:

#1107	#1106	#1105	#1104	#1103	#1102	#1101	#1100
UO7 2^7	UO6 2^6	UO5 2^5	UO4 2^4	UO3 2^3	UO2 2^2	UO1 2^1	UO0 2^0
#1115	#1114	#1113	#1112	#1111	#1110	#1109	#1108
U15 2^{15}	U14 2^{14}	U13 2^{13}	U12 2^{12}	U11 2^{11}	U10 2^{10}	U09 2^9	U08 2^8

Variable Value	Output Signal
1	Contact Closed
0	Contact Open

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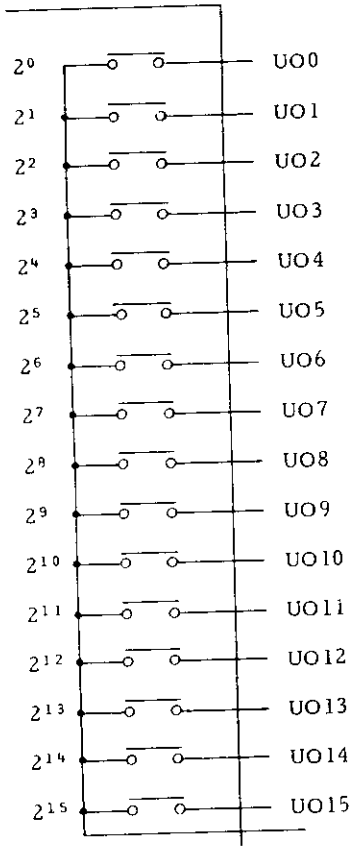

When 1.0 or 0.0 are substituted in any of #1100 through #1115, the associated output contact is output in the "closed" or "open"state.

b. When system variable #1132 is specified, the output signals (UO0 through UO15) that consist of 16 points (16 bits) are collectively output. At this time, the decimal positive value substituted in #1132 is output in the form of binary 16-bit value.

$$\#1132 = \sum_{i=0}^{15} \#\left[1100 + i\right] * 2i$$

c. With system variables #1100 through #1132, the value sent last is retained. Hence, when one of them is written to the right-hand of an operational expression, its value is read.

d. Considerations

When any values other than 1.0 or 0.0 are substituted into one of #1100 through #1115, the values are handled as follows:

"Blank" is assumed to be "0."
Values other than "blank" and 0 are assumed to be "1."

Sample Program

#1107 = #10 ; (#10 = 1.5)

The output signal of bit 2^7 (UO7) is output in the contact (closed) state.

#1132 = (#1132 AND 240) OR (#8 AND 15;)

The output signal of bits 2^4 through 2^7 (UO4 through UO7) are output without change and the contents of local variable #8 are output to the output signals of bits 2^0 through 2^3 (UO0 through UO3).
(Decimal 240) = 11110000,
(Decimal 15) = 00001111)

C. Tool Offset Amount And Work Coordinate System Shift Amount (#2001 Through #2099, #2500 Through #2086)

a. When one of system variables #2001 through #2099 is specified to the right-hand of an operational expression, the tool offset amount can be read.

b. When one of system variables #2500 through #2806 is specified to the right-hand of an operational expression, the work coordinate system shift amount (and the external work coordinate system correction amount) can be read.