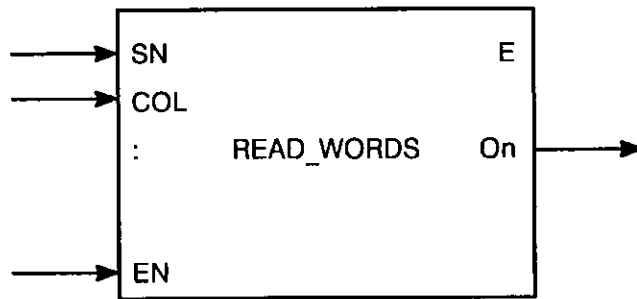


24.0 READ WORDS

This function can be used in AutoMax Control Block tasks only. It cannot be used in UDC Control Block tasks.



Maximum 'n' = 8

Function

This function reads data from a column in the specified INTEGER data structure.

Program Statement

```
CALL READ_WORDS(STRUCTURE_NAME=structure_name%,    &
                COLUMN=column%, ENABLE=enable@,    &
                ERROR=error@,                      &
                OUTPUT1=output1%,...OUTPUTn=outputn%)
```

Inputs

SN (STRUCTURE_NAME) =

Name of the INTEGER data structure where data is to be read from. This parameter must be specified by name only (literal value not accepted). The data structure name is limited to a maximum length of 15 characters and must be type INTEGER. The specified data structure must be created by a control block within the task. Refer to the SHIFT_WORDS block for an example of a control block that creates an INTEGER data structure.

COL (COLUMN) =

Selects a column within the specified INTEGER data structure, type INTEGER. This parameter is required. The columns are numbered from 0 to MCOL - 1, where MCOL is equal to the number of columns (depth) defined by the control block that created the data structure.

EN (ENABLE) =

Enable input, type **BOOLEAN**. This parameter is required. The values read from the column specified by **COLUMN** are written to the outputs when **ENABLE** is **TRUE**. If this parameter is **FALSE**, the values at the outputs will remain unchanged from the previous scan.

Outputs

E (ERROR) =

Error output, type **BOOLEAN**. This is an optional parameter. The output is **TRUE** if the value of **COLUMN** selects a non-existent column for the specified data structure. Valid values for **COLUMN** range from 0 to **MCOL - 1**; see **COLUMN** above.

On (OUTPUTn) =

Data output n, type **INTEGER**. The outputs can be specified in any order.

Notes

1. The **READ_WORDS** block must reference an **INTEGER** data structure that was created by a control block within the task. A minimum of one output must be programmed. The order in which the outputs (output1...output8) are programmed is unimportant. However, all of the outputs programmed by the **READ_WORDS** block must also be defined by the control block that created the data structure. If these requirements are not met, a compilation error will occur.
2. If the value of **COLUMN** selects a non-existent column, the output **ERROR** is set **TRUE**, the output(s) of the **READ_WORDS** block are set equal to zero, and the appropriate run time error is logged.
3. When **ENABLE** is **FALSE**, the output(s) are not updated. Therefore if an output is forced and then unforced, it will not return to its original value.