Explanations regarding the pulse diagram:

1. Starting of the job by setting "Start" ("Job completed" and "Error in job" must be reset)
2. Job completed without errors (the results of the individual variables must still be evaluated)
3. Resetting "Start" after receiving the result
4. Signal change by PLC operating system
5. If the "Start" signal is reset inadvertently before receiving the result, the output signals are not refreshed without influence on the internal execution of the function triggered
6. Error in job

1.6.1.2 PI service ASUB

Initialization

With the ASUB PI service, it is possible to assign the interrupt numbers 1 and 2 fixed program names from the PLC. Prerequisite for this is the existence of the PLCASUP1_SPF or PLCASUP2_SPF programs in the CMA directory.

PI index	Function
VB1200 0001 = 1	Assignment of Interrupt 1 to the CMA_DIR/PLCASUP1_SPF program. The interrupt has Priority 1.
VB1200 0001 = 2	Assignment of Interrupt 2 to the CMA_DIR/PLCASUP2_SPF program. The interrupt has Priority 2.

The following must be taken into account during the initialization:

- The PI service ASUB requires executing only once after a restart and is then retained.
- An initialization may only be performed when the channel is not active.
- If a "Ramp-up" program event has been configured, the initialization may only be started after the end of the program event.

Relevant interface signals

	Address	Name	Valid values
Job	V1200 0000.0	Start	0/1
	V1200 0000.1	Write variable	0
	V1200 0000.2	PI service	1
	V1200 0001	PI index	1,2
Result	V1200 2000.0	Request completed	0/1
	V1200 2000.1	Error in job	0/1

1.6.1.3 Reading variables from the NCK area

1 to 8 values can be read with a read job (variable x: 0...7). There is a variable-specific part of the interface for this:

- Job: V120x 1000
- Result: V120x 3000

Job, variable-specific part

NC variable:

The NC variable is selected in the variable index (VB120x 1000), see Section: NC variable

Area number, column / line index (VB120x 1001 ... VB120x 1005)

Various variables are declared as fields. For flexible addressing, the relevant field index must be specified as a column and/or line index (e.g. R parameter no.).

Values:

The range 120x 1008 ... 11 is not relevant for reading.

Result, variable-specific part

A result is reported for each variable in the job.

If the read process was successful, "Variable valid" (V120x 3000.0) is set to 1; the access result VB120x 3001 is 0.

When reading, the data from VB120x 3004 are entered type-specifically.

In case of error, V120x 3000.0 remains "0", and an entry is made in the access result VB120x 3001:

- 0: No error
- 3: Illegal access to object
- 5: Invalid address
- 10: Object does not exist

Values:

When reading, the read data are in the range 120x 3004...7, in the data type specific for the respective variable (if required, the values are converted from 64-bit to32-bit REAL).

Relevant interface signals

	Address	Name	Valid values
Job, global part	V1200 0000.0	Start	0/1
	V1200 0000.1	Write variable	0
	V1200 0000.2	PI service	0
	VB1200 0001	Number of variables	1 ... 8
Job, variable-specific part	VB120x 1000	Variable index	See Section NC variable
	VB120x 1001	Area number	
	VB120x 1002	Line index, NCK variable	
	VB120x 1004	Column index, NCK variable	
Job, global part	V1200 2000.0	Request completed	0/1
	V1200 2000.1	Error in job	0/1
Result, variable-specific part	V120x 3000.0	Invalid variable	0/1
	VB120x 3001	Access result	0/3/5/10
	VB120x 3004/ VW120x 3004/ VD120x 3004	Value of NCK variable, data type depends on variable index	See Section NC variable

1.6.1.4 Writing variables from the NCK area

1 to 8 values can be written with a write job (variable x: 0...7). There is a variable-specific part of the interface for this:

- Job: V120x 1000
- Result: V120x 3000

Job, variable-specific part

NC variable:

The NC variable is selected in the variable index (VB120x 1000), see Section: NC variable

Area number, column / line index (VB120x 1001 ... VB120x 1005)

Various variables are declared as fields. For flexible addressing, the relevant field index must be specified as a column and/or line index (e.g. R parameter no.).

Values:

The values to be written must be entered in the range 120x 1008...11 in the data type specific for the appropriate variable.

If necessary, the values are converted (e.g. NCL floating-point values (64-bit) into the PLC format (32-bit) and vice versa). A loss of accuracy results from the conversion from 64-bit to 32-bit REAL. The maximum accuracy of 32-bit REAL numbers is approximately 10^7.

Result, variable-specific part

A result is reported for each variable in the job.

If the read process was successful, "Variable valid" (V120x 3000.0) is set to 1; the access result VB120x 3001 is 0.

When reading, the data as of VB120x 3004 is entered type-specifically.

In case of error, V120x 3000.0 remains "0", and an entry is made in the access result VB120x 3001:

- 0: No error
- 3: Illegal access to object
- 5: Invalid address
- 10: Object does not exist

Values:

The range 120x 3004...07 is not relevant for writing.

Relevant interface signals

	Address	Name	Valid values
Job, global part	V1200 0000.0	Start	0/1
	V1200 0000.1	Write variable	1
	V1200 0000.2	PI service	0
	VB1200 0001	Number of variables	1 ... 8
Job, variable-specific part	VB120x 1000	Variable index	See Section NC variable
	VB120x 1001	Area number	
	VB120x 1002	Line index, NCK variable	
	VB120x 1004	Column index, NCK variable	
	VB120x 3004/ VW120x 3004/ VD120x 3004	Value of NCK variable, data type depends on variable index	
Job, global part	V1200 2000.0	Request completed	0/1
	V1200 2000.1	Error in job	0/1
Result, variable-specific part	V120x 3000.0	Invalid variable	0/1
	VB120x 3001	Access result	0/3/5/10