Inspiring Motion Since 1988

Programming Languages

Function Block Diagram (FBD)



Data flow:

The data flow direction is from top to bottom and left to right.

| / | myChangeOPMode (ST) | udfb_homing (FBD) highLimit (ST) Main (FBD) | ٦ |
|-------------|-------------------------------------|---|---|
| | — Move point to point axis 0 to 9 — | | |
| ₩ | | | |
| • | endflag | end | |
| <u> </u> | | · · · · · · · · · · · · · · · · · · · | |
| J-r · | | | |
| - | | MC_Power @Axis Status | |
| Ξ. | true | Enable Valid | |
| <u>lab:</u> | true true | Enable_P Error D Enable_N Error D Bnable_N Error D PowerOn_errID | |
| - >> | MC_BUFFERED_MODE_EN | | |
| F | | | |
| -11- | | · · · · · · · · · · · · · · · · · · · | |
| ≣ ' | | · · · · · · · · · · · · · · · · · · · | |
| 0 | | MC_CHANGEOPMODE | |
| H | | Execute Busy | |
| \$ 0 | OP_MODE_DS402#OPM40 | 02_CYCLIC_SYNC_POSITION_MODE OpMode Error D cheangeOpModeErrID 6 | |
| at . | | · · · · · · · · · · · · · · · · · · · | |
| _ | | | |

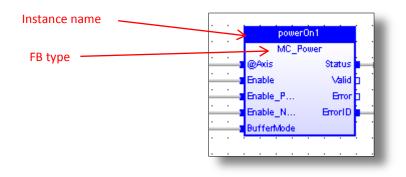


2



Instance

- The name of the operation or function, or the type of function block is written within the block rectangle.
- In case of a function block call, the name of the called instance must be written upon the block rectangle.
 - You have to create the instance and select it !
 - Blocks are indicated in lists with the following symbol:



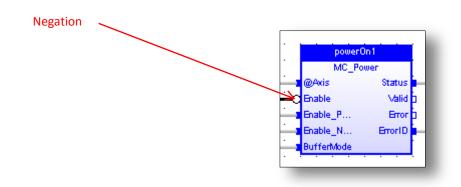




Boolean negation

In case of a Boolean connection, you can make the Boolean negation of the data flow by activating the space bar while the link is selected.

A small circle at the end of the link indicates the negation.





Label/Jump/Return

- Labels are used as the destination for a jump instruction.
- Jumping to a label branches the execution of the program after the specified label.

| | Ju |
|----|---|
| | endflag1 |
| | |
| | powerOn1 |
| | MC_Power |
| | myAxis[2] |
| | true Calida Valida |
| | true |
| | true powerOn errID1 |
| | MC BUFFERED MODE ENUM#MC BUFFERED MODE BufferMode |
| | twe_portexted_woode_contexted_woodebutterwoode |
| | |
| | |
| | |
| | |
| | |
| | |
| el | |
| | |
| | Jump to the end of the program. |
| | |
| | samp to the end of the program. |
| | |
| | · · · · · · · · · · · · · · · · · · · |
| | endflag1 |





Ladder Diagram in FBD

LD symbols may also be entered in FBD language and linked to FBD objects.

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | P | owe | rOn | 1 | | | | | | | | | | | | | | | | | | | |
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Thank You!

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