Programming Languages

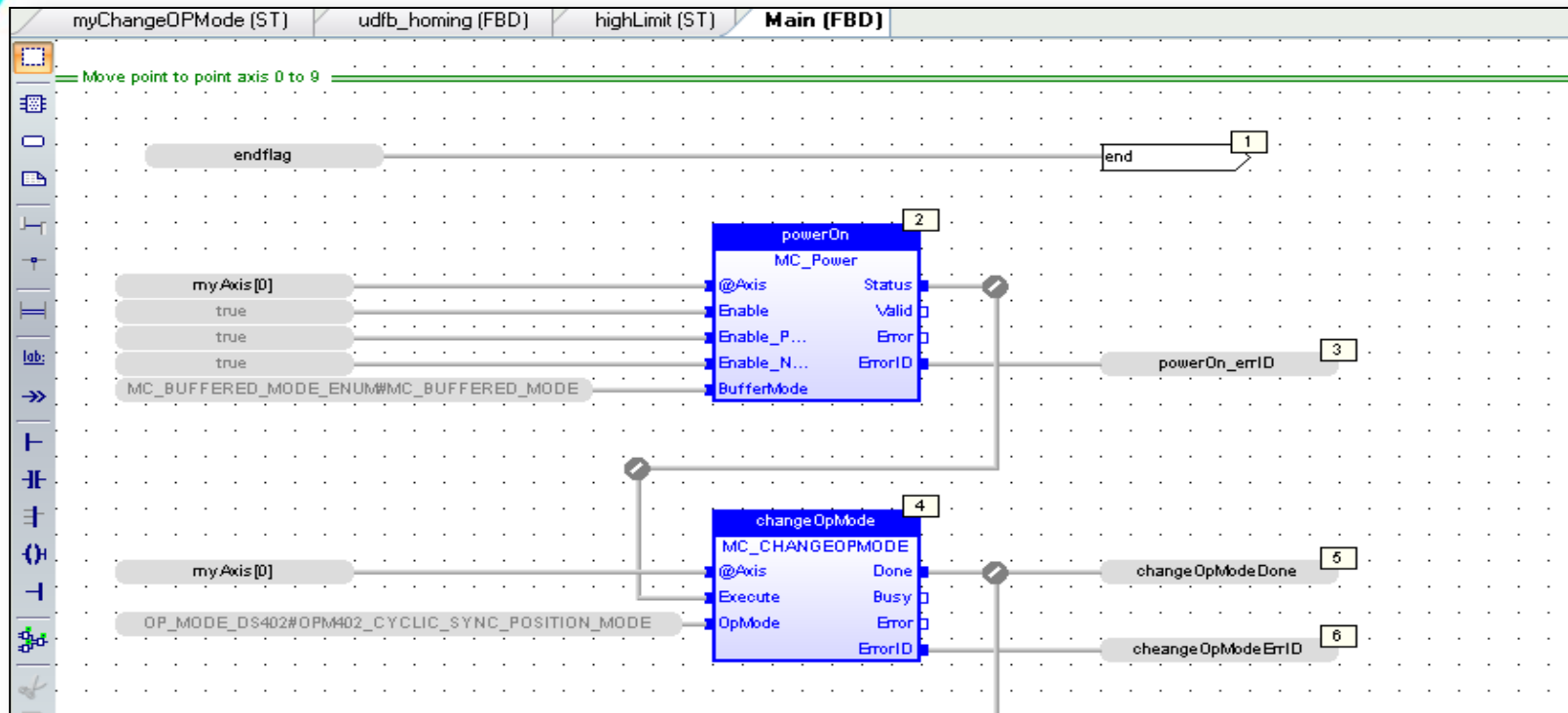## Function Block Diagram (FBD)

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Programming Languages
Function Block Diagram (FBD)

▶ Data flow:
▶ The data flow direction is from top to bottom and left to right.
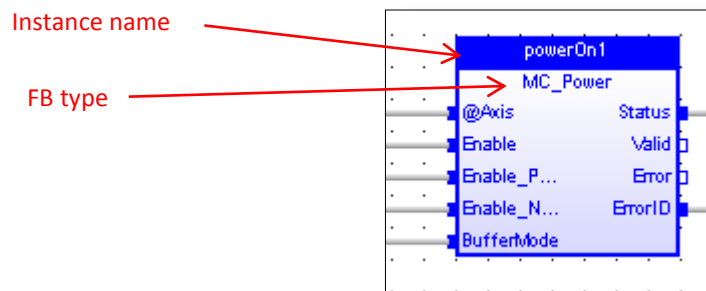
Programming Languages Function Block Diagram (FBD)

▶ 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:

Instance name →

FB type →

| powerOn1 |
| MC_Power |
| @Axis   Status |
| Enable   Valid |
| Enable_P...   Error |
| Enable_N...   ErrorID |
| BufferMode |

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Function Block Diagram (FBD)

▶ 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.

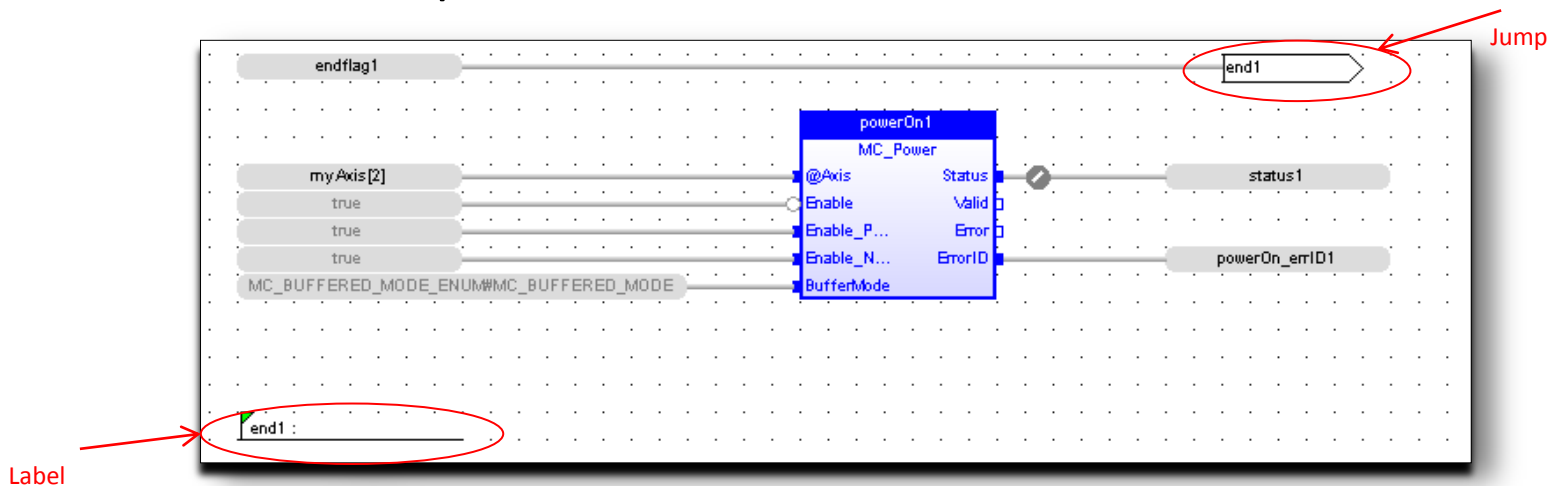   ▶ A small circle at the end of the link indicates the negation.
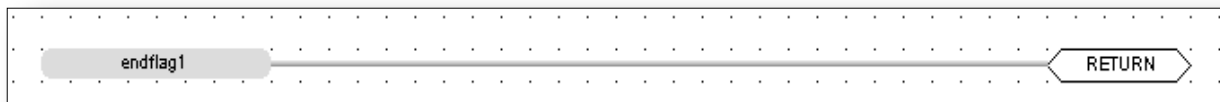
Negation

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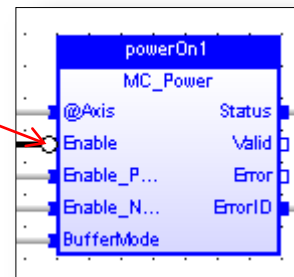
Programming Languages Function Block Diagram (FBD)

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.
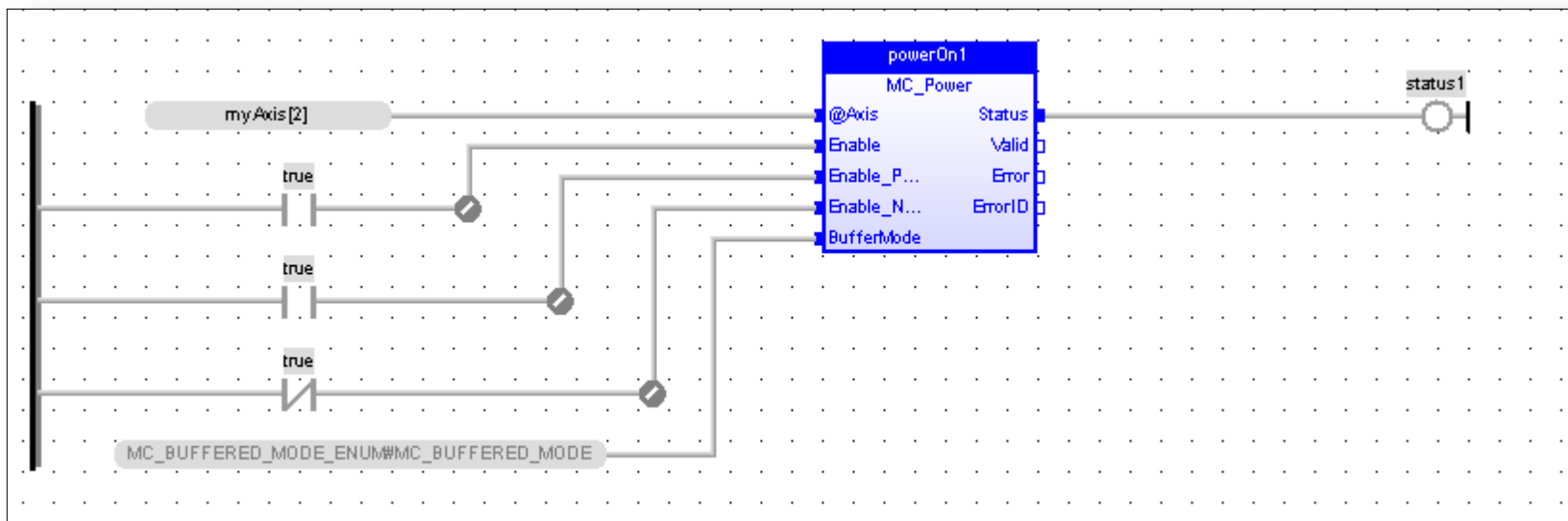

- Jump to the end of the program.

Programming Languages Function Block Diagram (FBD)

- ⚡ Ladder Diagram in FBD
  - ⚡ LD symbols may also be entered in FBD language and linked to FBD objects.

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Thank You!

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