File   Edit   View   Project   SFC   Build   Online   Debug   Tools   Window   Help

Application [Device: PLC Logic]

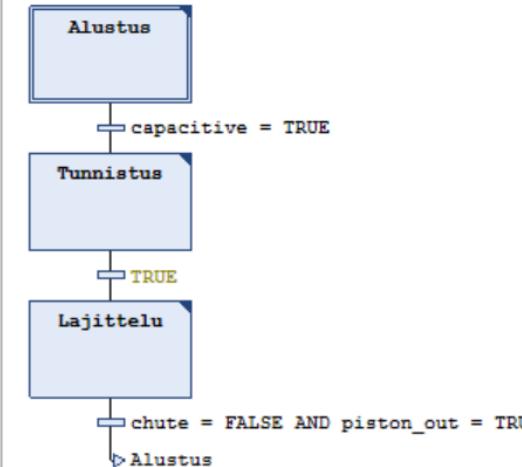Devices
- BallSorting_student1
  - Device (CODESYS Control Win V3)
    - PLC Logic
      - Application
        - BALL (STRUCT)
        - PISTON (STRUCT)
        - Library Manager
        - Model (PRG)
        - PLC_PRG (PRG)
          - Alustus_active
          - Lajittelu_active
          - Tunnistus_active
        - Task Configuration
          - MainTask (IEC-Tasks)
            - Model
            - PLC_PRG
        - Visualization Manager
        - Visualization

PLC_PRG ✕   PLC_PRG.Alustus_active   PLC_PRG.Tunnistus_active   PLC_PRG.Lajittelu_active

```
1    PROGRAM PLC_PRG
2    VAR_INPUT
3        piston_in:BOOL;
4        piston_out:BOOL;
5        capacitive:BOOL;
6        optical:BOOL;
7        inductive:BOOL;
8        chute:BOOL;
9    END_VAR
10   VAR_OUTPUT
11       eject:BOOL;
12       gate1:BOOL;
13       gate2:BOOL;
14   END_VAR
```

100 %

Alustus

┤ capacitive = TRUE

Tunnistus

┤ TRUE

Lajittelu

┤ chute = FALSE AND piston_out = TRUE

▷ Alustus

Properties
Filter   Sort by   Sort order

Property	Value

Devices   POUs   90 %   Visualization Tool...   Propert...   ToolBox

Last build: ● 0 ⚠ 0   Precompile ✔   SIMULATION   Project user: (nobody)

Kirjoita tähän hakeaksesi kohteista   FIN   20.32 22.11.2021

Application [Device: PLC Logic]

| PLC_PRG | PLC_PRG.Alustus_active ✕ | PLC_PRG.Tunnistus_active | PLC_PRG.Lajittelu_active |

```
1    gate1 := FALSE;
2    gate2 := FALSE;
3    eject := FALSE;
```

Devices

- BallSorting_student1
  - Device (CODESYS Control Win V3)
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      - Application
        - BALL (STRUCT)
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        - Task Configuration
          - MainTask (IEC-Tasks)
            - Model
            - PLC_PRG
        - Visualization Manager
        - Visualization

Properties

Filter   Sort by   Sort order

| Property | Value |

Last build: ● 0 ● 0   Precompile ✓   SIMULATION

Project user: (nobody)

File   Edit   View   Project   Build   Online   Debug   Tools   Window   Help

Application [Device: PLC Logic]

Devices

- BallSorting_student1
  - Device (CODESYS Control Win V3)
    - PLC Logic
      - Application
        - BALL (STRUCT)
        - PISTON (STRUCT)
        - Library Manager
        - Model (PRG)
        - PLC_PRG (PRG)
          - Alustus_active
          - Lajittelu_active
          - Tunnistus_active
        - Task Configuration
          - MainTask (IEC-Tasks)
            - Model
            - PLC_PRG
        - Visualization Manager
        - Visualization

PLC_PRG | PLC_PRG.Alustus_active | **PLC_PRG.Tunnistus_active** | PLC_PRG.Lajittelu_active

```
1    IF inductive = TRUE THEN;
2        gate1 := TRUE;
3    ELSIF optical = TRUE AND inductive = FALSE THEN;
4        gate2 := TRUE;
5    END_IF
```

Properties

Filter   Sort by   Sort order

Property	Value

Devices   POUs

100 %

Visualization Tool...   Propert...   ToolBox

Last build: ● 0 ● 0   Precompile ✓   SIMULATION

Project user: (nobody)

Kirjoita tähän hakeaksesi kohteista

FIN   20.33   22.11.2021   1°C

File   Edit   View   Project   Build   Online   Debug   Tools   Window   Help

Application [Device: PLC Logic]

Devices

- BallSorting_student1
  - Device (CODESYS Control Win V3)
    - PLC Logic
      - Application
        - BALL (STRUCT)
        - PISTON (STRUCT)
        - Library Manager
        - Model (PRG)
        - PLC_PRG (PRG)
          - Alustus_active
          - Lajittelu_active
          - Tunnistus_active
        - Task Configuration
          - MainTask (IEC-Tasks)
            - Model
            - PLC_PRG
        - Visualization Manager
        - Visualization

PLC_PRG | PLC_PRG.Alustus_active | PLC_PRG.Tunnistus_active | PLC_PRG.Lajittelu_active

```
1    eject := TRUE;
```

Properties

Filter   Sort by   Sort order

Property	Value

Devices   POUs

Visualization Tool...   Propert...   ToolBox

Last build: ● 0 ● 0   Precompile ✓   SIMULATION   Project user: (nobody)

Kirjoita tähän hakeaksesi kohteista

Reflektointi

Järjestelmässä turhia antureita ovat työntömännän anturit *piston in* ja *piston out.*
Käyttämättä antureiden arvoja, työntömäntä oltaisiin voitu ohjelmoida siten, että
työnnettyään pallon kuiluun, se palaisi tietyn ajan kuluttua automaattisesti takaisin
alkuasentoon. Tämä oltaisiin voitu toteuttaa helposti esimerkiksi FDB-kielen TOF-lohkolla
(Timer Off-Delay).