PLC a SIMATIC 3b - Riešenia a programy :)

FC14

Block: FC14 as Ladder diagram

Network: 1

Network: 2

Network: 3

```
      M16.2                                               Q8.2
     "bit_2_          M10.3                             "rozsvieth
     senzora"         "2hz"                                 2"
       ┤ ├─────┬──────┤ ├──────────────────────────────────( S )──
              │                                            Q8.2
              │       M10.3                             "rozsvieth
              │       "2hz"                                 2"
              └───────┤/├──────────────────────────────────( R )──
                                                           Q8.1
                                                        "rozsvieth
                                                            1"
                      └──────────────────────────────────────( R )──
```

Network: 4

```
                      M13.1
                      "prep_
       I8.0           podla_                              M16.1
    "optozavor       hranynabez                          "bit_1_
        a"             ne1"                               senzora"
       ┤/├─────────────( N )──────────────────────────────( R )──
```

Network: 5

```
                      M13.2
                      "prep_
       I8.0           podla_                              M16.2
    "optozavor       hranynabez                          "bit_2_
        a"             ne2"                               senzora"
       ┤/├─────────────( N )──────────────────────────────( R )──
```

FC14

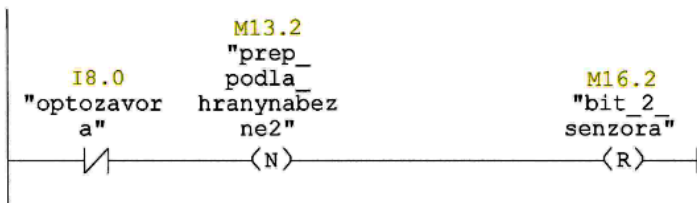**Block: FC14** as **STL**

Network: 1

```
A       "zariadenie_zapnute"    M15.0
A       "automatika"            M15.1
=       L       0.0
A       L       0.0
AN      "induksenzor1"          I8.5
AN      "induksenzor2"          I8.6
S       "rozsvieth1"            Q8.1
S       "rozsvieth2"            Q8.2
A       L       0.0
A       "induksenzor1"          I8.5
AN      "pas>>"                 Q8.5
=       L       0.1
A       L       0.1
A       "1hz"                   M10.5
S       "rozsvieth1"            Q8.1
A       L       0.1
AN      "1hz"                   M10.5
R       "rozsvieth1"            Q8.1
A       L       0.0
A       "induksenzor2"          I8.6
AN      "pas>>"                 Q8.5
=       L       0.1
A       L       0.1
A       "1hz"                   M10.5
S       "rozsvieth2"            Q8.2
A       L       0.1
AN      "1hz"                   M10.5
R       "rozsvieth2"            Q8.2
A       L       0.0
A       "S1"                    I8.1
A       "induksenzor1"          I8.5
S       "bit_1_senzora"         M16.1
A       L       0.0
A       "S2"                    I8.2
A       "induksenzor2"          I8.6
S       "bit_2_senzora"         M16.2
```

Network: 2

```
A       "bit_1_senzora"  M16.1
=       L       0.0
A       L       0.0
A       "2hz"           M10.3
S       "rozsvieth1"    Q8.1
A       L       0.0
AN      "2hz"           M10.3
R       "rozsvieth1"    Q8.1
A       L       0.0
BLD     102
R       "rozsvieth2"    Q8.2
```

Network: 3

```
A       "bit_2_senzora"  M16.2
=       L       0.0
A       L       0.0
A       "2hz"           M10.3
S       "rozsvieth2"    Q8.2
A       L       0.0
AN      "2hz"           M10.3
R       "rozsvieth2"    Q8.2
A       L       0.0
BLD     102
R       "rozsvieth1"    Q8.1
```

Network: 4

```
AN      "optozavora"                    I8.0
FN      "prep_podla_hranynabezne1"      M13.1
R       "bit_1_senzora"                 M16.1
```
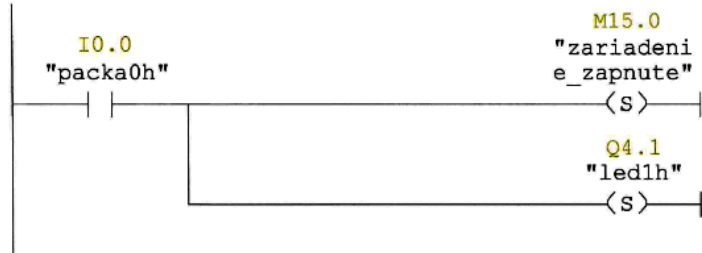
Network: 5

```
AN      "optozavora"                    I8.0
FN      "prep_podla_hranynabezne2"      M13.2
R       "bit_2_senzora"                 M16.2
```
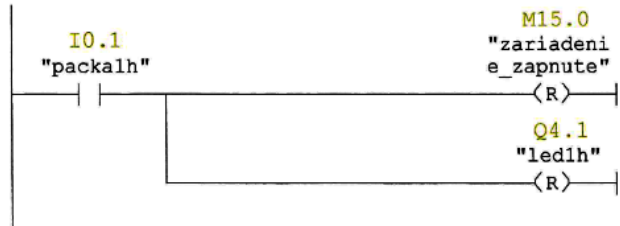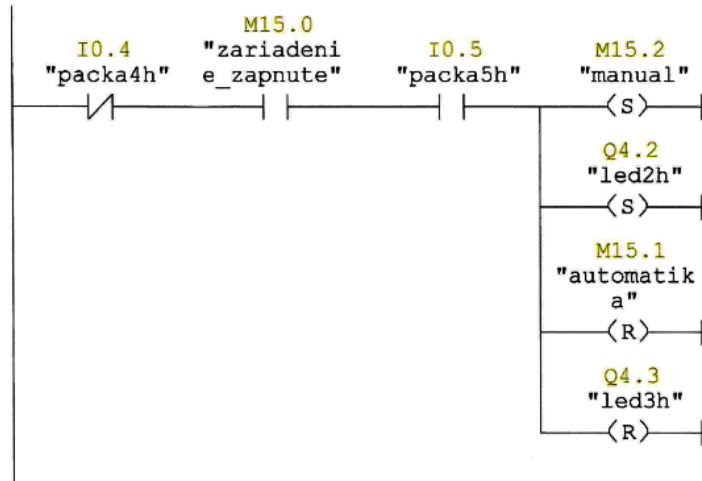
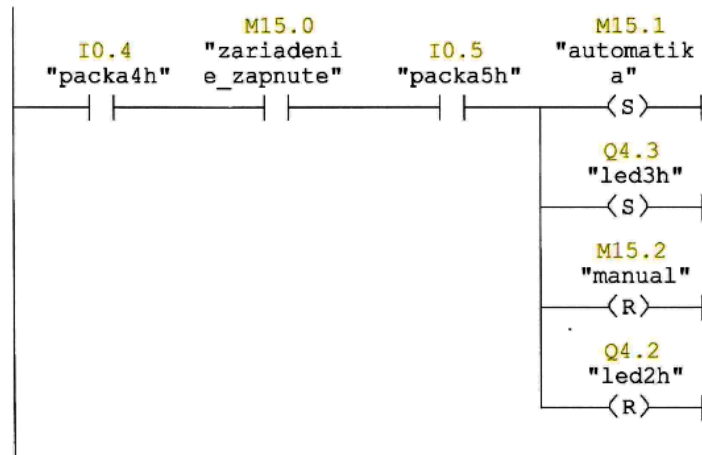## FC15

Block: FC15 as **Ladder diagram**

Network: 1

```
        I0.0                                    M15.0
      "packa0h"                              "zariadeni
                                             e_zapnute"
    ──┤├──┬────────────────────────────────────(S)────────
          │                                     Q4.1
          │                                    "led1h"
          └────────────────────────────────────(S)────────
```

Network: 2

```
        I0.1                                    M15.0
      "packa1h"                              "zariadeni
                                             e_zapnute"
    ──┤├──┬────────────────────────────────────(R)────────
          │                                     Q4.1
          │                                    "led1h"
          └────────────────────────────────────(R)────────
```

Network: 3

```
      I0.4        M15.0          I0.5        M15.2
    "packa4h"   "zariadeni     "packa5h"    "manual"
                e_zapnute"
    ──┤/├────────┤├────────────┤├──┬──────────(S)────────
                                   │          Q4.2
                                   │         "led2h"
                                   ├──────────(S)────────
                                   │          M15.1
                                   │        "automatik
                                   │           a"
                                   ├──────────(R)────────
                                   │          Q4.3
                                   │         "led3h"
                                   └──────────(R)────────
```

Network: 4

```
      I0.4        M15.0          I0.5        M15.1
    "packa4h"   "zariadeni     "packa5h"  "automatik
                e_zapnute"                    a"
    ──┤├────────┤├────────────┤├──┬──────────(S)────────
                                  │          Q4.3
                                  │         "led3h"
                                  ├──────────(S)────────
                                  │          M15.2
                                  │         "manual"
                                  ├──────────(R)────────
                                  │          Q4.2
                                  │         "led2h"
                                  └──────────(R)────────
```

Network: 5

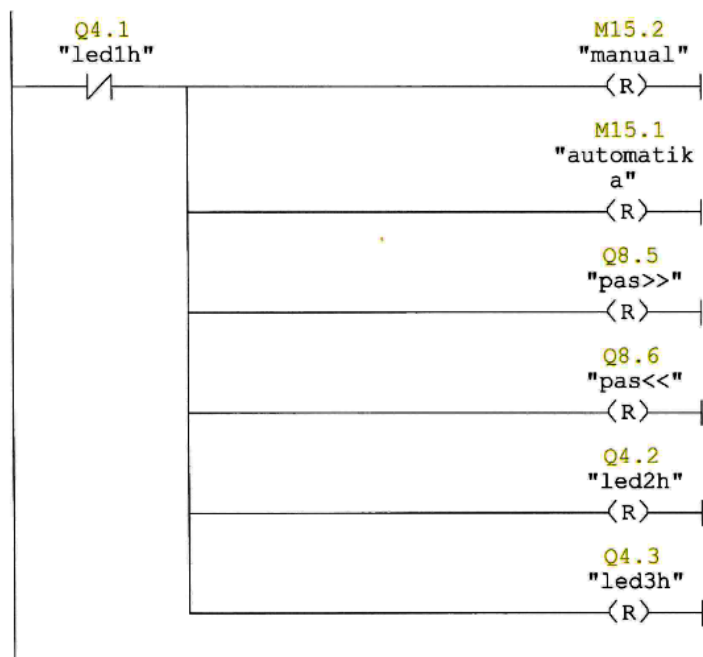**FC15**

Block: FC15 as STL

Network: 1

```
A       "packa0h"             I0.0
S       "zariadenie_zapnute"  M15.0
S       "led1h"               Q4.1
```

Network: 2

```
A       "packa1h"             I0.1
R       "zariadenie_zapnute"  M15.0
R       "led1h"               Q4.1
```

Network: 3

```
AN      "packa4h"             I0.4
A       "zariadenie_zapnute"  M15.0
A       "packa5h"             I0.5
S       "manual"              M15.2
S       "led2h"               Q4.2
R       "automatika"          M15.1
R       "led3h"               Q4.3
```

Network: 4

```
A       "packa4h"             I0.4
A       "zariadenie_zapnute"  M15.0
A       "packa5h"             I0.5
S       "automatika"          M15.1
S       "led3h"               Q4.3
R       "manual"              M15.2
R       "led2h"               Q4.2
```
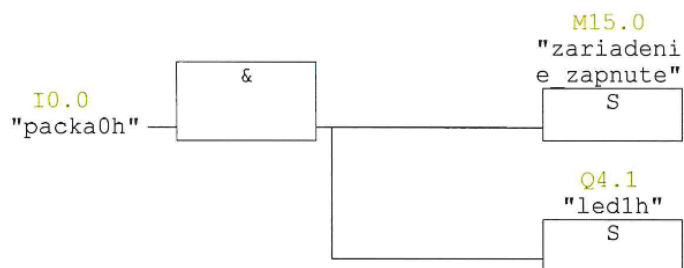
Network: 5

```
AN      "led1h"        Q4.1
R       "manual"       M15.2
R       "automatika"   M15.1
R       "pas>>"        Q8.5
R       "pas<<"        Q8.6
R       "led2h"        Q4.2
R       "led3h"        Q4.3
```
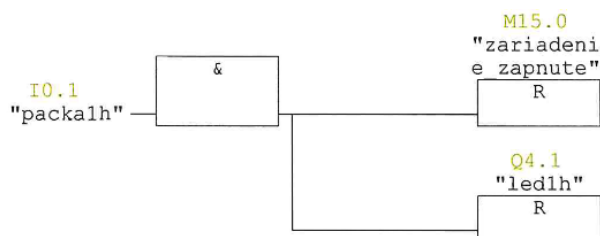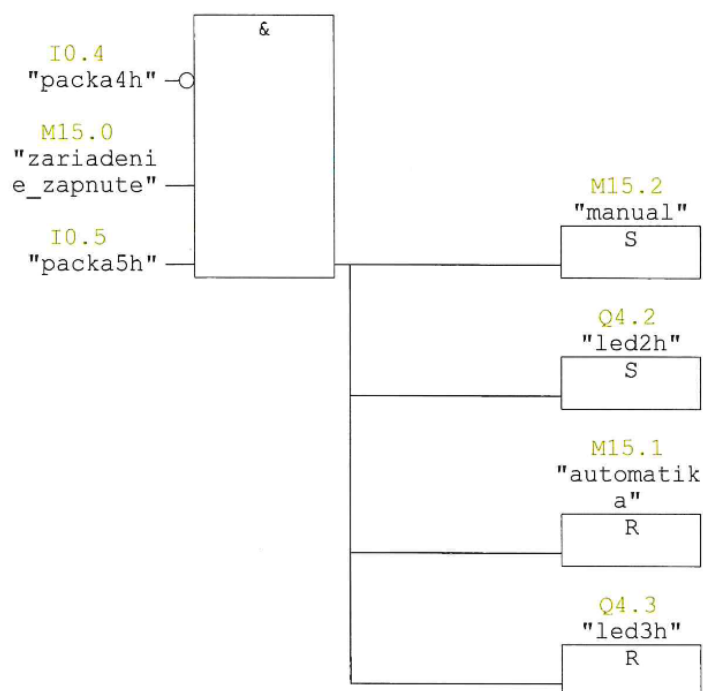
FC15

Block: FC15 as FBD

Network: 1

```
                                          M15.0
                                          "zariadeni
                                          e_zapnute"
       ┌──────────┐                      ┌──────────┐
       │    &     │                      │    S     │
I0.0   │          │                      └──────────┘
"packa0h"──┤          ├──┬───────────────────
       └──────────┘  │
                     │                    Q4.1
                     │                    "led1h"
                     │                   ┌──────────┐
                     │                   │    S     │
                     └───────────────────┤          │
                                         └──────────┘
```

Network: 2

```
                                          M15.0
                                          "zariadeni
                                          e_zapnute"
       ┌──────────┐                      ┌──────────┐
       │    &     │                      │    R     │
I0.1   │          │                      └──────────┘
"packa1h"──┤          ├──┬───────────────────
       └──────────┘  │
                     │                    Q4.1
                     │                    "led1h"
                     │                   ┌──────────┐
                     │                   │    R     │
                     └───────────────────┤          │
                                         └──────────┘
```

Network: 3

```
            ┌──────────┐
            │    &     │
I0.4        │          │
"packa4h"──○┤          │
            │          │                  M15.2
M15.0       │          │                  "manual"
"zariadeni  │          │                 ┌──────────┐
e_zapnute"──┤          │                 │    S     │
            │          ├──┬───────────────┤          │
I0.5        │          │  │              └──────────┘
"packa5h"──┤          │  │
            └──────────┘  │               Q4.2
                          │               "led2h"
                          │              ┌──────────┐
                          │              │    S     │
                          ├──────────────┤          │
                          │              └──────────┘
                          │
                          │               M15.1
                          │               "automatik
                          │               a"
                          │              ┌──────────┐
                          │              │    R     │
                          ├──────────────┤          │
                          │              └──────────┘
                          │
                          │               Q4.3
                          │               "led3h"
                          │              ┌──────────┐
                          │              │    R     │
                          └──────────────┤          │
                                         └──────────┘
```

Network: 4

```
            ┌──────────┐
            │    &     │
I0.4        │          │
"packa4h"──┤          │
            │          │                  M15.1
M15.0       │          │                  "automatik
"zariadeni  │          │                  a"
e_zapnute"──┤          │                 ┌──────────┐
            │          │                 │    S     │
I0.5        │          ├──┬───────────────┤          │
"packa5h"──┤          │  │              └──────────┘
            └──────────┘  │
                          │               Q4.3
                          │               "led3h"
                          │              ┌──────────┐
                          │              │    S     │
                          ├──────────────┤          │
                          │              └──────────┘
                          │
                          │               M15.2
                          │               "manual"
                          │              ┌──────────┐
                          │              │    R     │
                          ├──────────────┤          │
                          │              └──────────┘
                          │
                          │               Q4.2
                          │               "led2h"
                          │              ┌──────────┐
                          │              │    R     │
                          └──────────────┤          │
                                         └──────────┘
```
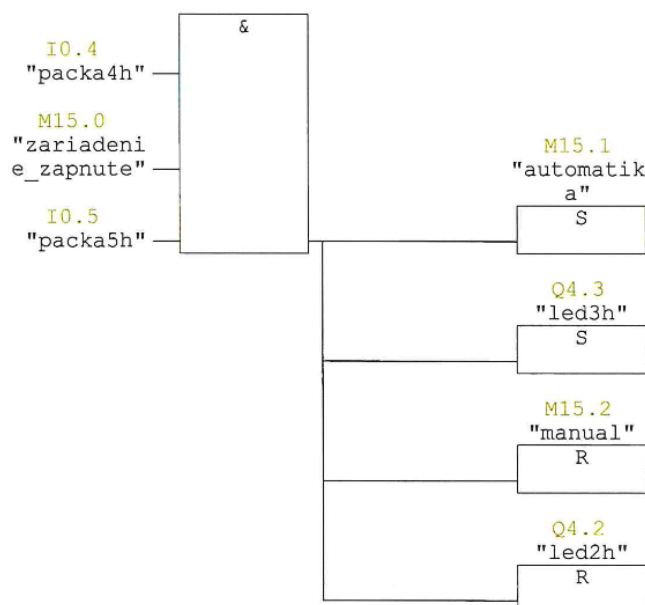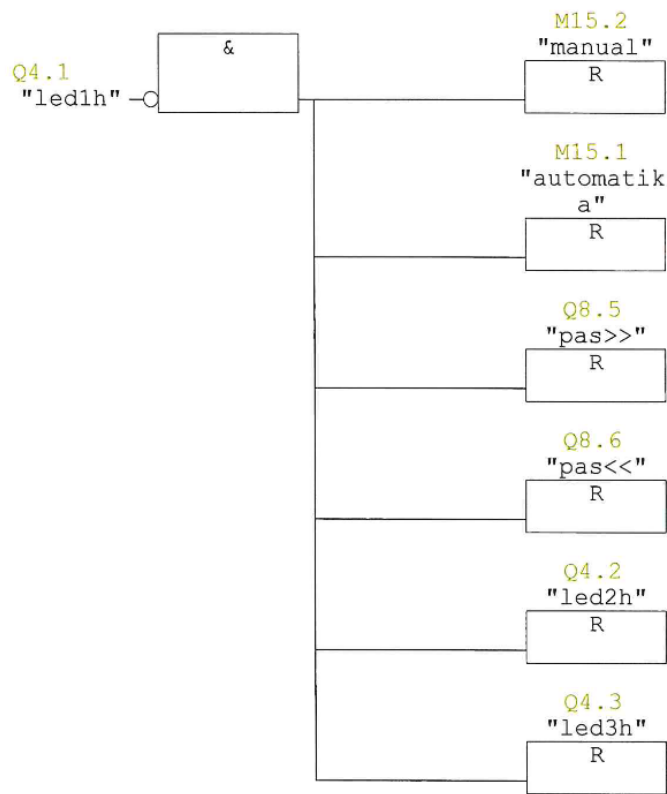
Network: 5

FC16

Block: FC16 as **Ladder diagram**
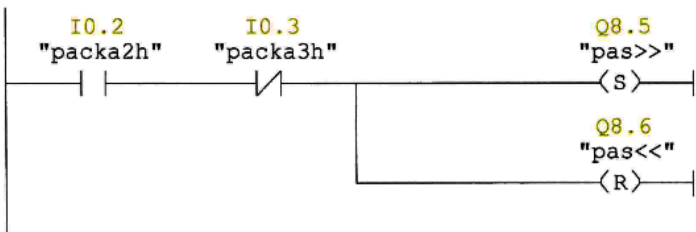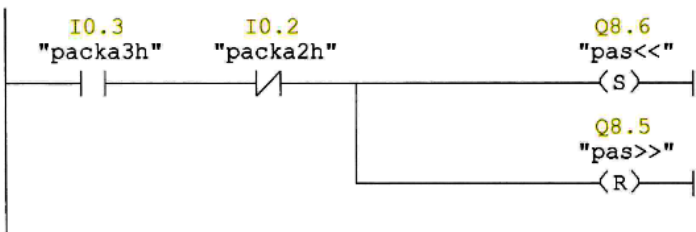
Network: 1
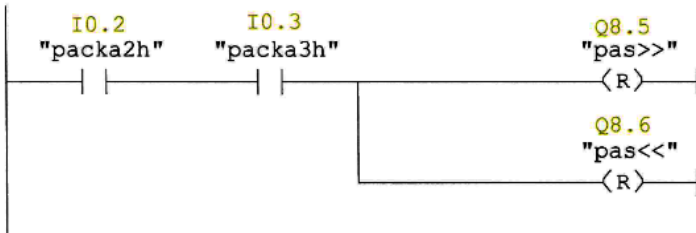
Network: 2

Network: 3

FC16

Block: FC16 as **STL**

Network: 1

```
A       "packa2h"   I0.2
AN      "packa3h"   I0.3
S       "pas>>"     Q8.5
R       "pas<<"     Q8.6
```

Network: 2

```
A       "packa3h"   I0.3
AN      "packa2h"   I0.2
S       "pas<<"     Q8.6
R       "pas>>"     Q8.5
```
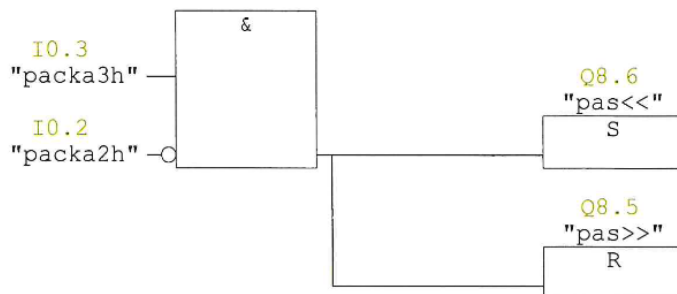
Network: 3

```
A       "packa2h"   I0.2
A       "packa3h"   I0.3
R       "pas>>"     Q8.5
R       "pas<<"     Q8.6

S       "pas>>"     Q8.5
R       "pas<<"     Q8.6
```
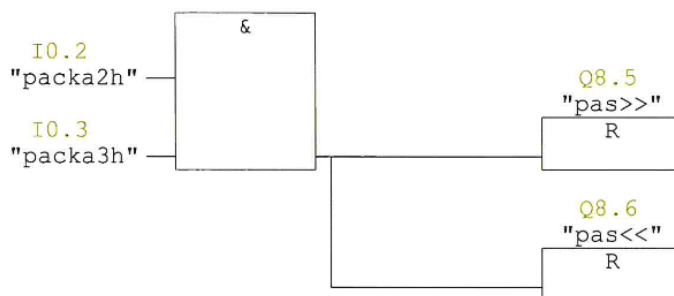
FC16
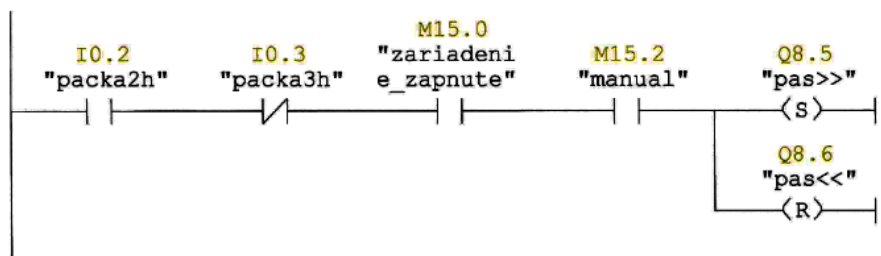
Block: FC16 as FBD

Network: 1
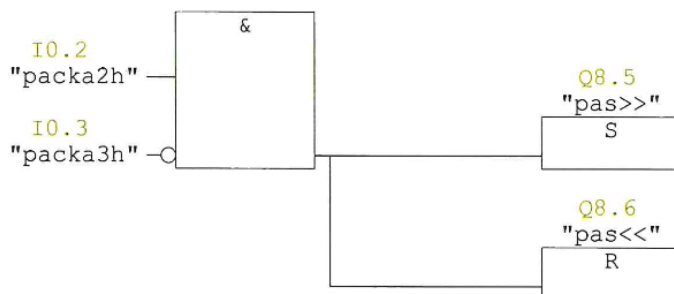
Network: 2

Network: 3

FC162

Block: FC162 as Ladder diagram

Network: 1

```
        I0.2              I0.3             M15.0            M15.2            Q8.5
      "packa2h"         "packa3h"       "zariadeni       "manual"         "pas>>"
                                        e_zapnute"                         ─(S)─
        ─┤ ├─            ─┤/├─            ─┤ ├─            ─┤ ├─
                                                                           Q8.6
                                                                         "pas<<"
                                                                          ─(R)─
```
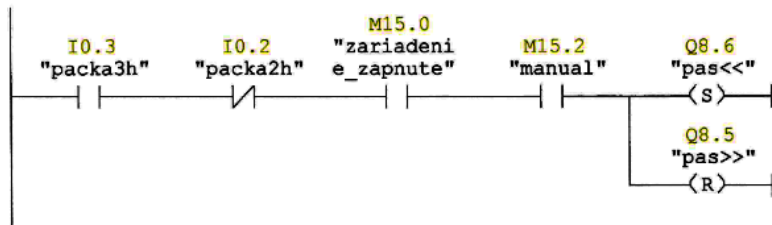
Network: 2

```
        I0.3              I0.2             M15.0            M15.2            Q8.6
      "packa3h"         "packa2h"       "zariadeni       "manual"         "pas<<"
                                        e_zapnute"                         ─(S)─
        ─┤ ├─            ─┤/├─            ─┤ ├─            ─┤ ├─
                                                                           Q8.5
                                                                         "pas>>"
                                                                          ─(R)─
```

Network: 3

```
        I0.2              I0.3                             Q8.5
      "packa2h"         "packa3h"                        "pas>>"
                                                          ─(R)─
        ─┤ ├─            ─┤ ├─
                                                          Q8.6
                                                        "pas<<"
                                                          ─(R)─
```

FC162

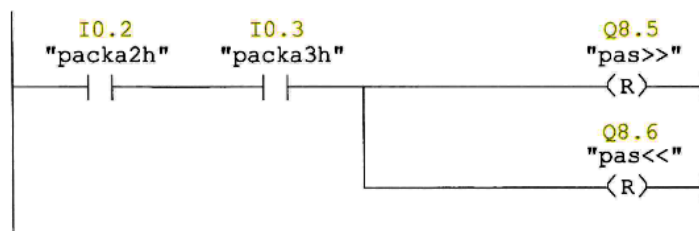**Block: FC162** as **STL**

Network: 1

```
    A       "packa2h"               I0.2
    AN      "packa3h"               I0.3
    A       "zariadenie_zapnute"    M15.0
    A       "manual"                M15.2
    S       "pas>>"                 Q8.5
    R       "pas<<"                 Q8.6
```

Network: 2

```
    A       "packa3h"               I0.3
    AN      "packa2h"               I0.2
    A       "zariadenie_zapnute"    M15.0
    A       "manual"                M15.2
    S       "pas<<"                 Q8.6
    R       "pas>>"                 Q8.5
```
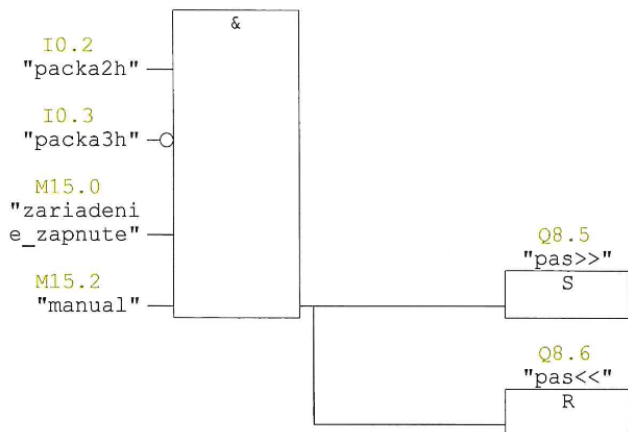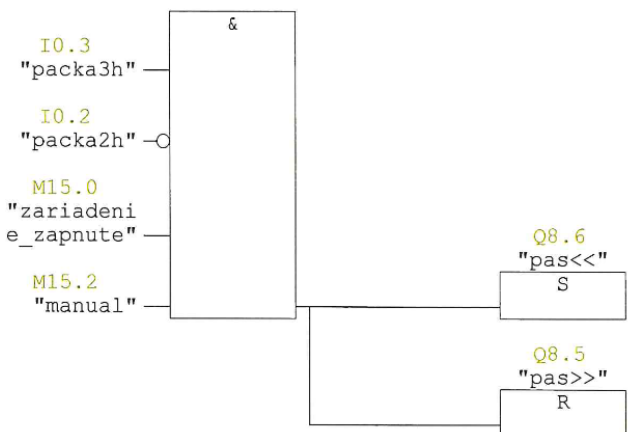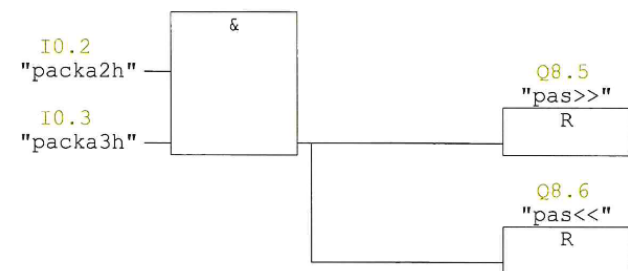
Network: 3

```
    A       "packa2h"   I0.2
    A       "packa3h"   I0.3
    R       "pas>>"     Q8.5
    R       "pas<<"     Q8.6
```

FC162

Block: FC162 as **FBD**

Network: 1

```
        &
I0.2
"packa2h" ───

I0.3
"packa3h" ──○

M15.0                              Q8.5
"zariadeni                        "pas>>"
e_zapnute" ──                       S

M15.2                              Q8.6
"manual" ───                      "pas<<"
                                    R
```

Network: 2

```
        &
I0.3
"packa3h" ───

I0.2
"packa2h" ──○

M15.0                              Q8.6
"zariadeni                        "pas<<"
e_zapnute" ──                       S

M15.2                              Q8.5
"manual" ───                      "pas>>"
                                    R
```

Network: 3

```
        &
I0.2                               Q8.5
"packa2h" ───                     "pas>>"
                                    R
I0.3
"packa3h" ───                      Q8.6
                                  "pas<<"
                                    R
```

FC163

Block: FC163 as **Ladder diagram**

Network: 1

```
   I0.2        I0.3      "zariadeni    M15.2       Q8.5
 "packa2h"   "packa3h"   e_zapnute"   "manual"   "pas>>"
 ──┤├──────────┤/├──────────┤├──────────┤├────────(S)──
            M15.0
                                                   Q8.6
                                                 "pas<<"
                                                  ─(R)──
```

Network: 2

```
   I0.3        I0.2      "zariadeni    M15.2       Q8.6
 "packa3h"   "packa2h"   e_zapnute"   "manual"   "pas<<"
 ──┤├──────────┤/├──────────┤├──────────┤├────────(S)──
            M15.0
                                                   Q8.5
                                                 "pas>>"
                                                  ─(R)──
```

Network: 3

```
        I0.2              I0.3                                    Q8.5
     "packa2h"         "packa3h"                                 "pas>>"
  ─────┤ ├───────────────┤ ├──────┬─────────────────────────────( R )───────
                                   │                              Q8.6
                                   │                             "pas<<"
                                   └─────────────────────────────( R )───────
```

Network: 4

```
      M15.0             M15.1            I8.5             I8.6
   "zariadeni        "automatik      "induksenz       "induksenz        I8.1           Q8.5
   e_zapnute"            a"             or1"             or2"           "S1"           "pas>>"
  ─────┤ ├───────────────┤ ├──────────────┤ ├──────────────┤/├──────────┤ ├─────┬───────( S )───────
      M15.0             M15.1            I8.5             I8.6                     │
   "zariadeni        "automatik      "induksenz       "induksenz        I8.2      │
   e_zapnute"            a"             or1"             or2"           "S2"       │
  ─────┤ ├───────────────┤ ├──────────────┤/├──────────────┤ ├──────────┤ ├──────┘
```

Network: 5

```
       I8.0                                               Q8.5
   "optozavor                                            "pas>>"
       a"
  ─────┤/├──────────────────────────────────────────────( R )───────
```
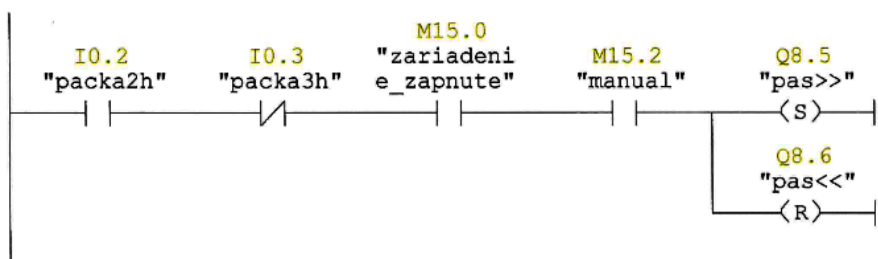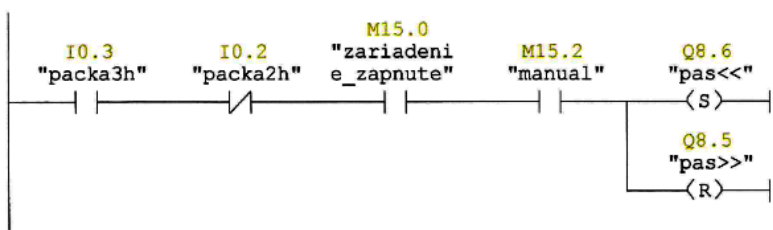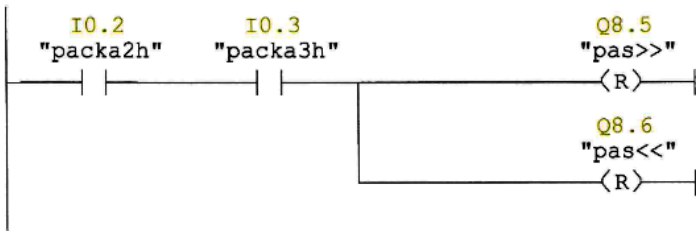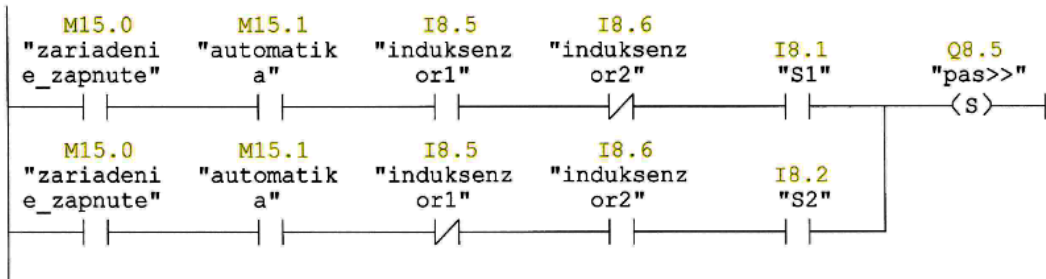
FC163

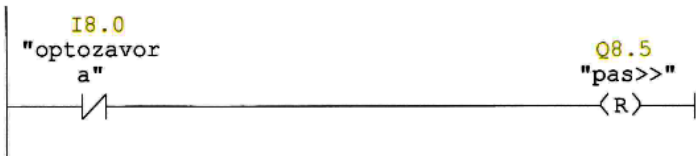**Block: FC163** as **STL**

Network: 1

```
A    "packa2h"              I0.2
AN   "packa3h"              I0.3
A    "zariadenie_zapnute"   M15.0
A    "manual"               M15.2
S    "pas>>"                Q8.5
R    "pas<<"                Q8.6
```

Network: 2

```
A    "packa3h"              I0.3
AN   "packa2h"              I0.2
A    "zariadenie_zapnute"   M15.0
A    "manual"               M15.2
S    "pas<<"                Q8.6
R    "pas>>"                Q8.5
```

Network: 3

```
A    "packa2h"   I0.2
A    "packa3h"   I0.3
R    "pas>>"     Q8.5
R    "pas<<"     Q8.6
```

Network: 4

```
A    "zariadenie_zapnute"   M15.0
A    "automatika"           M15.1
A    "induksenzor1"         I8.5
AN   "induksenzor2"         I8.6
A    "S1"                   I8.1
O
A    "zariadenie_zapnute"   M15.0
A    "automatika"           M15.1
AN   "induksenzor1"         I8.5
A    "induksenzor2"         I8.6
A    "S2"                   I8.2
S    "pas>>"                Q8.5
```
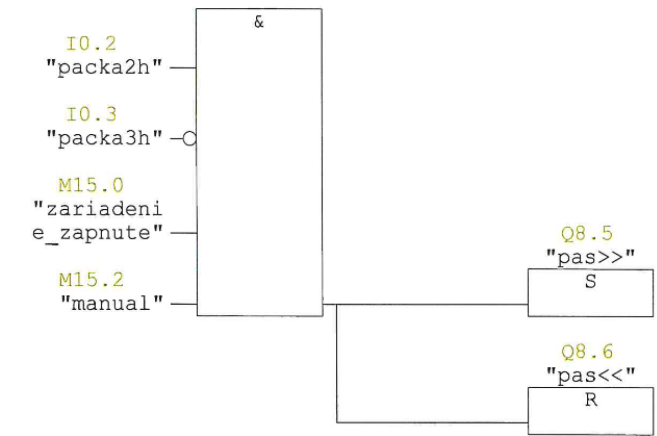
Network: 5
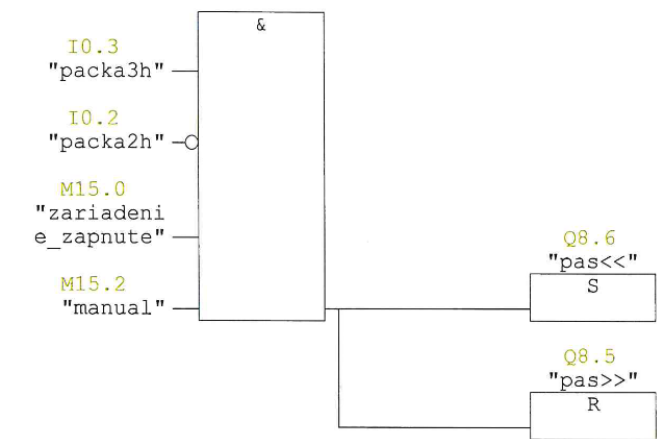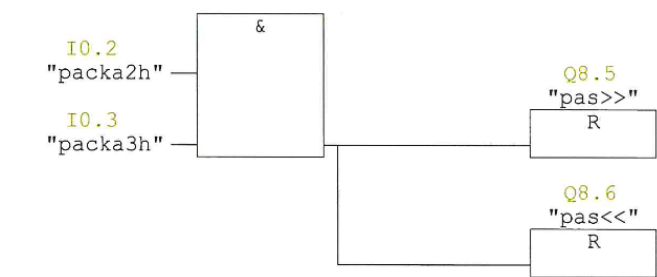
```
AN   "optozavora"   I8.0
R    "pas>>"        Q8.5
```

FC163

Block: FC163 as **FBD**

Network: 1

```
                 ┌─────┐
                 │  &  │
   I0.2          │     │
 "packa2h" ──────┤     │
                 │     │
   I0.3          │     │
 "packa3h" ─────○┤     │
                 │     │                    Q8.5
   M15.0         │     │                  "pas>>"
 "zariadeni      │     │                  ┌──────┐
 e_zapnute"──────┤     │                  │  S   │
                 │     │          ┌───────┤      │
   M15.2         │     │          │       └──────┘
  "manual" ──────┤     │          │
                 └─────┘          │         Q8.6
                                  │       "pas<<"
                                  │       ┌──────┐
                                  └───────┤  R   │
                                          └──────┘
```

Network: 2

```
                 ┌─────┐
                 │  &  │
   I0.3          │     │
 "packa3h" ──────┤     │
                 │     │
   I0.2          │     │
 "packa2h" ─────○┤     │
                 │     │                    Q8.6
   M15.0         │     │                  "pas<<"
 "zariadeni      │     │                  ┌──────┐
 e_zapnute"──────┤     │                  │  S   │
                 │     │          ┌───────┤      │
   M15.2         │     │          │       └──────┘
  "manual" ──────┤     │          │
                 └─────┘          │         Q8.5
                                  │       "pas>>"
                                  │       ┌──────┐
                                  └───────┤  R   │
                                          └──────┘
```

Network: 3

```
                 ┌─────┐
                 │  &  │
   I0.2          │     │                    Q8.5
 "packa2h" ──────┤     │                  "pas>>"
                 │     │                  ┌──────┐
   I0.3          │     │          ┌───────┤  R   │
 "packa3h" ──────┤     │          │       └──────┘
                 └─────┘          │
                                  │         Q8.6
                                  │       "pas<<"
                                  │       ┌──────┐
                                  └───────┤  R   │
                                          └──────┘
```

Network: 4

M15.0
"zariadeni
e_zapnute"

M15.1
"automatik
a"

I8.5
"induksenz
or1"

I8.6
"induksenz
or2"

I8.1
"S1"

&

M15.0
"zariadeni
e_zapnute"

M15.1
"automatik
a"

I8.5
"induksenz
or1"

I8.6
"induksenz
or2"

I8.2
"S2"

&

>=1

Q8.5
"pas>>"
S

Network: 5

I8.0
"optozavor
a"

&

Q8.5
"pas>>"
R
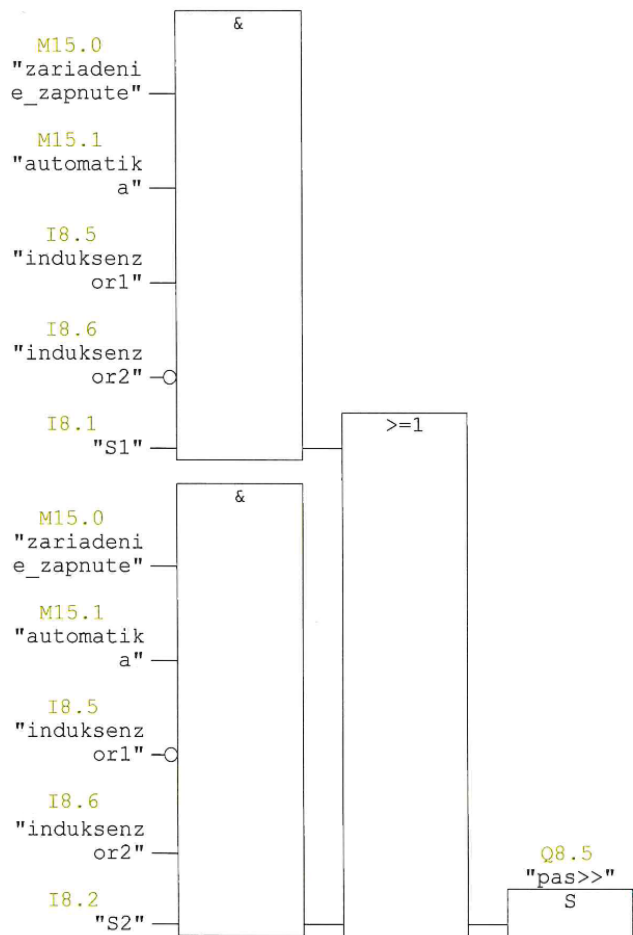
FC1632

Block: FC1632 as **Ladder diagram**

Network: 1

```
  I0.2        I0.3       M15.0        M15.2       Q8.5
"packa2h"   "packa3h"  "zariadeni   "manual"    "pas>>"
             —|/|—     e_zapnute"    —| |—       —(S)—
   —| |—                —| |—
                                                 Q8.6
                                                "pas<<"
                                                 —(R)—
```

Network: 2

```
  I0.3        I0.2       M15.0        M15.2       Q8.6
"packa3h"   "packa2h"  "zariadeni   "manual"    "pas<<"
   —| |—     —|/|—     e_zapnute"    —| |—       —(S)—
                        —| |—
                                                 Q8.5
                                                "pas>>"
                                                 —(R)—
```

Network: 3

```
        I0.2          I0.3                        Q8.5
      "packa2h"     "packa3h"                    "pas>>"
    ──┤ ├──────────┤ ├───────┬──────────────────( R )──

                                                 Q8.6
                                                "pas<<"
                             └──────────────────( R )──
```

Network: 4

```
    M15.0        M15.1        I8.5        I8.6        I8.7
 "zariadeni   "automatik  "induksenz  "induksenz  "induksenz    I8.1        Q8.5
 e_zapnute"       a"         or1"        or2"        or3"        "S1"       "pas>>"
 ──┤ ├────────┤ ├────────┤ ├────────┤/├────────┤/├────────┤ ├──────┬──( S )──

    M15.0        M15.1        I8.5        I8.6        I8.7
 "zariadeni   "automatik  "induksenz  "induksenz  "induksenz    I8.2
 e_zapnute"       a"         or1"        or2"        or3"        "S2"
 ──┤ ├────────┤ ├────────┤/├────────┤ ├────────┤/├────────┤ ├──────┤

    M15.0        M15.1        I8.5        I8.6        I8.7
 "zariadeni   "automatik  "induksenz  "induksenz  "induksenz    I8.3
 e_zapnute"       a"         or1"        or2"        or3"        "S3"
 ──┤ ├────────┤ ├────────┤/├────────┤/├────────┤ ├────────┤ ├──────┘
```

Network: 5

```
    I8.0         M15.1
 "optozavor   "automatik                  Q8.5
     a"           a"                     "pas>>"
 ──┤/├──────────┤ ├──────────────────────( R )──
```

FC1633

Block: FC1633 as **Ladder diagram**

Network: 1

```
                              M15.0
    I0.2         I0.3      "zariadeni     M15.2        Q8.5
 "packa2h"    "packa3h"   e_zapnute"    "manual"     "pas>>"
 ──┤ ├────────┤/├────────┤ ├──────────┤ ├───────┬───( S )──

                                                     Q8.6
                                                    "pas<<"
                                                └───( R )──
```

Network: 2

```
                              M15.0
    I0.3         I0.2      "zariadeni     M15.2        Q8.6
 "packa3h"    "packa2h"   e_zapnute"    "manual"     "pas<<"
 ──┤ ├────────┤/├────────┤ ├──────────┤ ├───────┬───( S )──

                                                     Q8.5
                                                    "pas>>"
                                                └───( R )──
```

Network: 3

```
    I0.2         I0.3                         Q8.5
 "packa2h"    "packa3h"            .        "pas>>"
 ──┤ ├────────┤ ├────────┬──────────────────( R )──

                                              Q8.6
                                             "pas<<"
                         └──────────────────( R )──
```
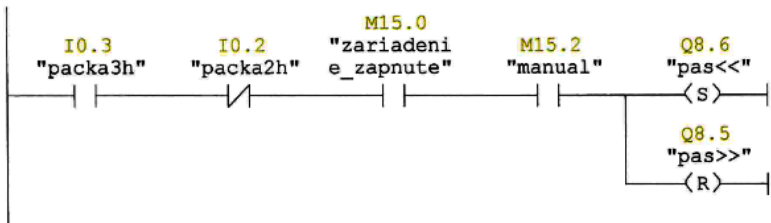
Network: 4

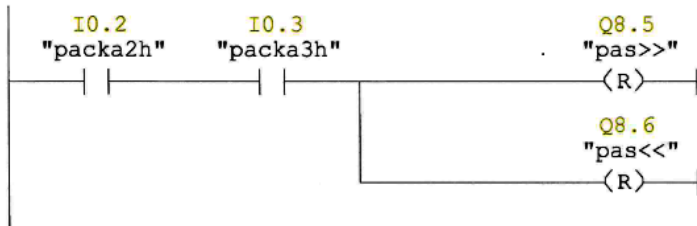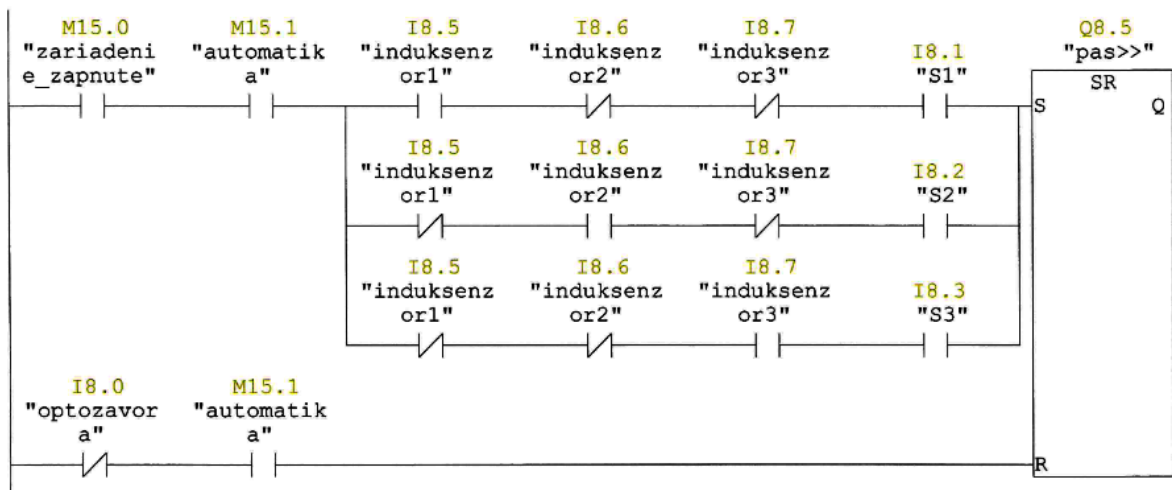**FC1633**

Block: FC1633 as STL

Network: 1

```
A     "packa2h"            I0.2
AN    "packa3h"            I0.3
A     "zariadenie_zapnute" M15.0
A     "manual"             M15.2
S     "pas>>"              Q8.5
R     "pas<<"              Q8.6
```

Network: 2

```
A     "packa3h"            I0.3
AN    "packa2h"            I0.2
A     "zariadenie_zapnute" M15.0
A     "manual"             M15.2
S     "pas<<"              Q8.6
R     "pas>>"              Q8.5
```

Network: 3

```
A     "packa2h"  I0.2
A     "packa3h"  I0.3
R     "pas>>"    Q8.5
R     "pas<<"    Q8.6
```

Network: 4

```
A     "zariadenie_zapnute" M15.0
A     "automatika"         M15.1
A(
A     "induksenzor1"       I8.5
AN    "induksenzor2"       I8.6
AN    "induksenzor3"       I8.7
A     "S1"                 I8.1
O
AN    "induksenzor1"       I8.5
A     "induksenzor2"       I8.6
AN    "induksenzor3"       I8.7
A     "S2"                 I8.2
O
AN    "induksenzor1"       I8.5
AN    "induksenzor2"       I8.6
A     "induksenzor3"       I8.7
A     "S3"                 I8.3
)
S     "pas>>"              Q8.5
AN    "optozavora"         I8.0
A     "automatika"         M15.1
R     "pas>>"              Q8.5
NOP   0
```
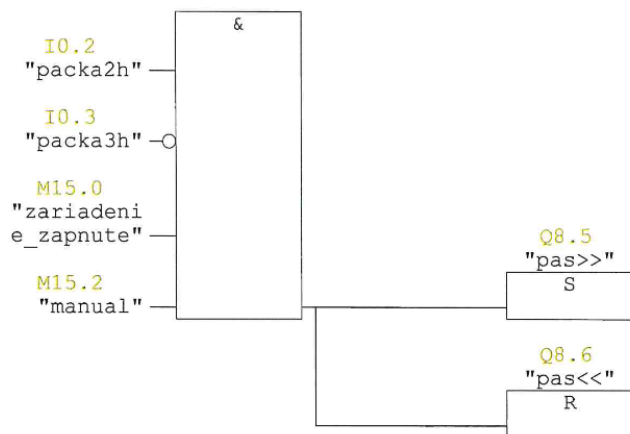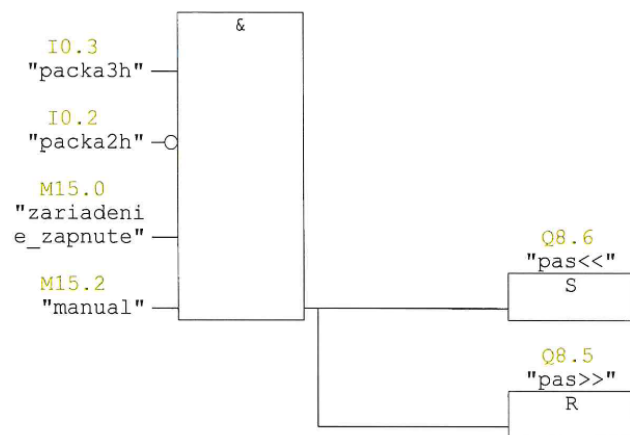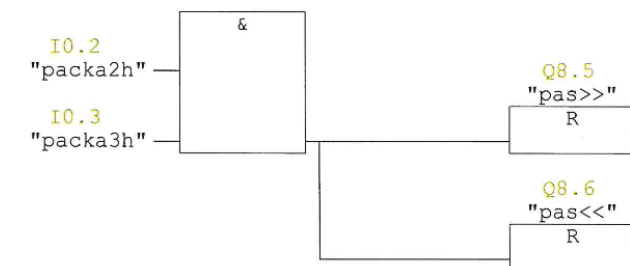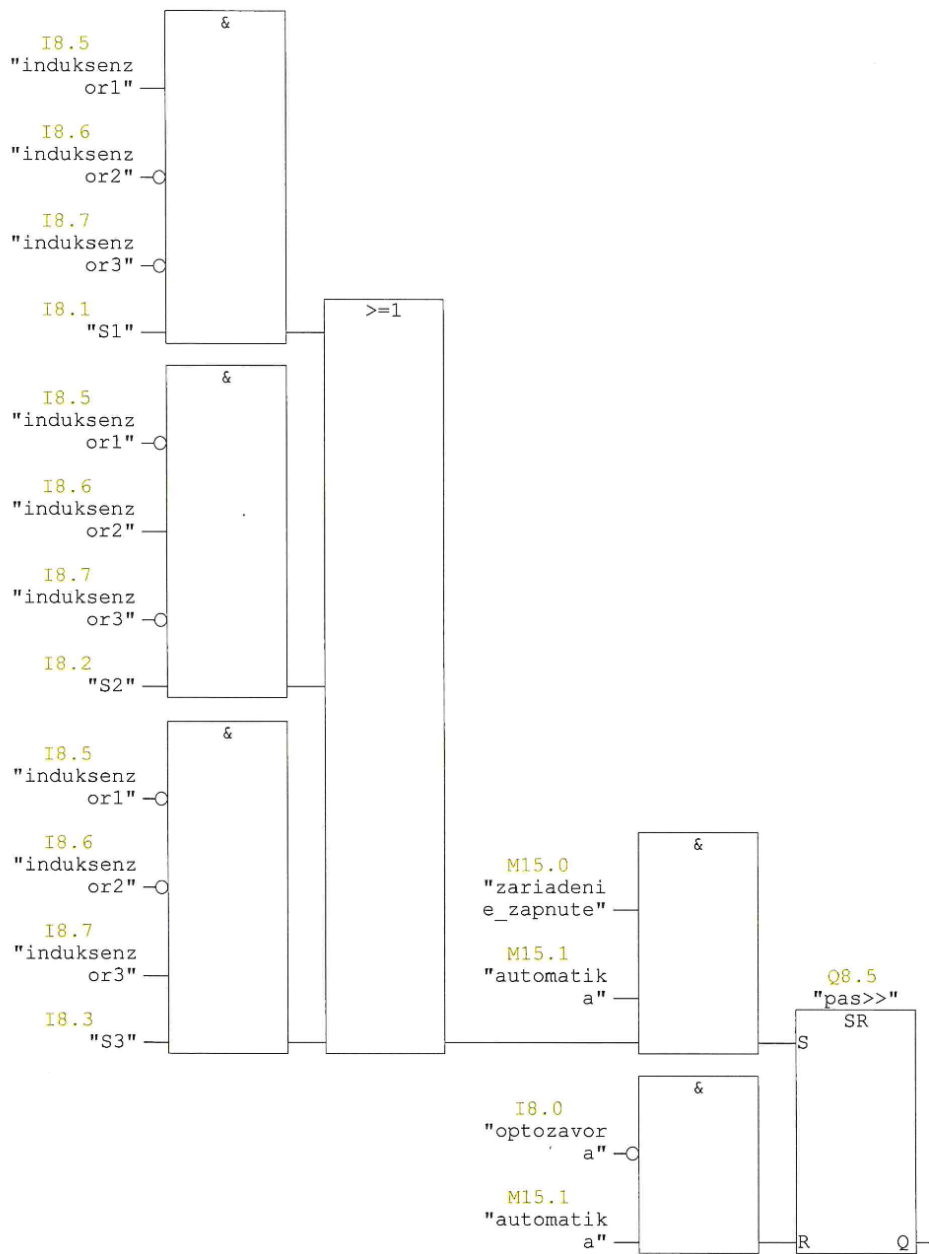
FC1633

Block: FC1633 as FBD

Network: 1

```
        ┌───────────┐
        │     &     │
  I0.2  │           │
"packa2h"├           │
        │           │
  I0.3  │           │
"packa3h"○           │
        │           │                Q8.5
 M15.0  │           │               "pas>>"
"zariadeni           │              ┌───────┐
e_zapnute"├          │              │   S   │
        │           │              └───────┘
 M15.2  │           │
"manual" ├          │                Q8.6
        └───────────┘               "pas<<"
                                    ┌───────┐
                                    │   R   │
                                    └───────┘
```

Network: 2

```
        ┌───────────┐
        │     &     │
  I0.3  │           │
"packa3h"├           │
        │           │
  I0.2  │           │
"packa2h"○           │
        │           │
 M15.0  │           │                Q8.6
"zariadeni           │               "pas<<"
e_zapnute"├          │              ┌───────┐
        │           │              │   S   │
 M15.2  │           │              └───────┘
"manual" ├          │
        └───────────┘                Q8.5
                                    "pas>>"
                                    ┌───────┐
                                    │   R   │
                                    └───────┘
```

Network: 3

```
        ┌───────────┐
        │     &     │
  I0.2  │           │                Q8.5
"packa2h"├           │               "pas>>"
        │           │              ┌───────┐
  I0.3  │           │              │   R   │
"packa3h"├           │              └───────┘
        └───────────┘
                                     Q8.6
                                    "pas<<"
                                    ┌───────┐
                                    │   R   │
                                    └───────┘
```

Network: 4

FC164

Block: FC164 as **Ladder diagram**

Network: 1

Network: 2

Network: 3

```
        I0.2           I0.3                                    Q8.5
      "packa2h"       "packa3h"                               "pas>>"
  ──────┤ ├───────────┤ ├──────┬──────────────────────────────( R )──────

                                                               Q8.6
                                                              "pas<<"
                             └────────────────────────────────( R )──────
```

Network: 4

```
     M15.0          M15.1          I8.5          I8.6          I8.1          Q8.5
  "zariadeni     "automatik     "induksenz     "induksenz      "S1"        "pas>>"
  e_zapnute"         a"            or1"           or2"                       ( S )
  ────┤ ├───────────┤ ├────────────┤ ├────────────┤/├────────────┤ ├───┬──────────────

     M15.0          M15.1          I8.5          I8.6
  "zariadeni     "automatik     "induksenz     "induksenz      I8.2
  e_zapnute"         a"            or1"           or2"          "S2"
  ────┤ ├───────────┤ ├────────────┤ ├────────────┤/├────────────┤ ├───┘
```

Network: 5

```
                                       M13.0
                                      "prep_
                                      podla_
        I8.0           M15.1         hranynabez        Q8.5
     "optozavor     "automatik         nej"           "pas>>"
         a"             a"
  ──────┤/├────────────┤ ├──────────────( N )──────────( R )──────
```
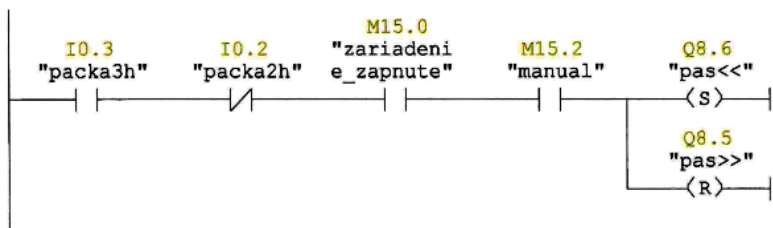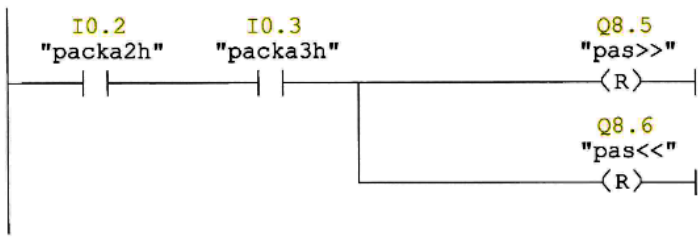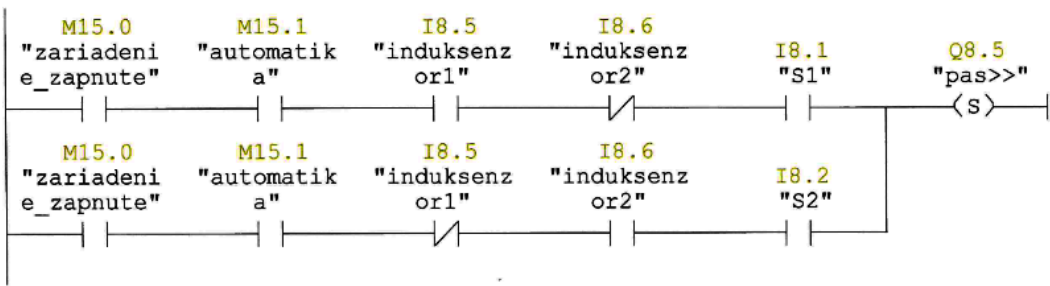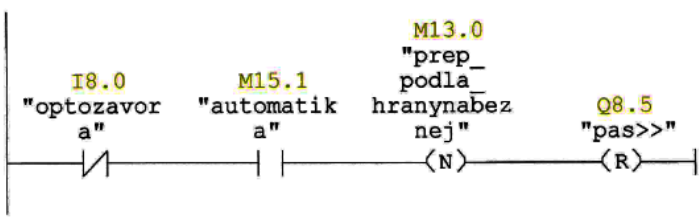
FC200

Block: FC200 as **Ladder diagram**

Network: 1

```
        I0.0
      "packa0h"                                       M50.1
  ──────┤ ├──────────────────────────────────────────( S )──────
```

Network: 2

```
                      M10.5                           Q8.5
     M50.1            "1hz"                           "pas>>"
  ────┤ ├─────────────┤ ├─────────────────────────────( )──────
```

Network: 3

```
        I0.0
      "packa0h"                                       M50.1
  ──────┤/├──────────────────────────────────────────( R )──────
```
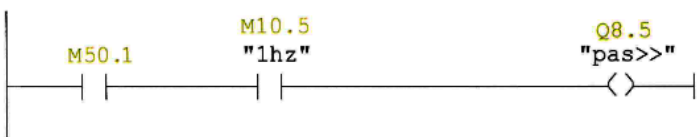
FC200

Block: FC200 as **STL**

Network: 1

```
      A    "packa0h"   I0.0
      S    M    50.1
```

Network: 2

```
      A    M    50.1
      A    "1hz"        M10.5
      =    "pas>>"      Q8.5
```
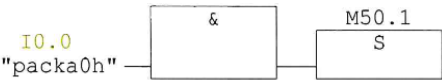
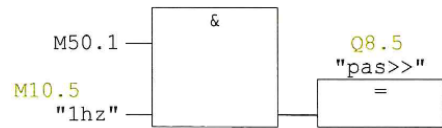**Network: 3**

```
AN    "packa0h"   I0.0
R     M     50.1
```

FC200

Block: FC200 as **FBD**

Network: 1

```
                ┌─────────┐
                │    &    │      ┌─────────┐
   I0.0         │         │ M50.1│         │
"packa0h" ──────│         │──────│    S    │
                │         │      │         │
                └─────────┘      └─────────┘
```

Network: 2

```
                ┌─────────┐
                │    &    │      Q8.5
   M50.1 ───────│         │      "pas>>"
                │         │      ┌─────────┐
                │         │──────│    =    │
   M10.5 ───────│         │      └─────────┘
   "1hz"        └─────────┘
```

Network: 3

```
                ┌─────────┐
                │    &    │ M50.1┌─────────┐
   I0.0         │         │      │         │
"packa0h" ──o───│         │──────│    R    │
                └─────────┘      └─────────┘
```