

2.2 INDOOR/OUTDOOR LIGHTING OF A HOME

Specifications:

A homeowner would like to install a system capable of controlling the lighting of a stairway and outdoor entrance providing access to the home.

Outdoor lighting: The circuit is activated every year from June 1st to October 1st and at night by a twilight switch. A sensor detects any passage and activates the outdoor lighting for 2 minutes.

Indoor lighting: Two pushbuttons are situated in the stairwell; one in the entrance, the other at the top of the stairs. Their function is identical.

÷ Time-delayed (30 seconds) lighting is obtained by quickly pressing one of the buttons. The timer can be inhibited by renewed action on one of the buttons.

÷ Permanent lighting is activated if one button is depressed for at least 2 seconds. A quick press stops it.

Table of inputs/outputs:

INPUTS:	OUTPUTS:
I1 Passage sensor	Q1 Outdoor lighting
I2 Twilight switch	Q4 Indoor lighting
I3 Pushbutton	
I4 Pushbutton	

Model Required:

Zelio Logic with clock:

SR2 B121 BD (24 VDC) for example.

Program Description:

Programming is possible at two levels.

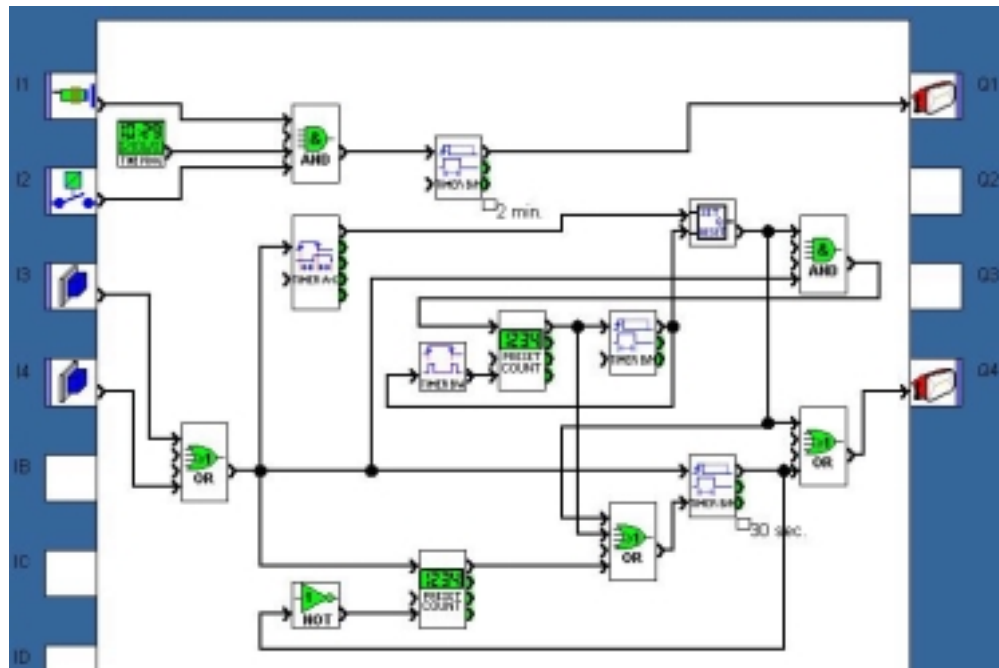
Level 1 : Program satisfying the specifications.

Level 2: Use of SFC/Grafcet functions

Advantages of the application:

It is possible to handle the application with sequential functions.

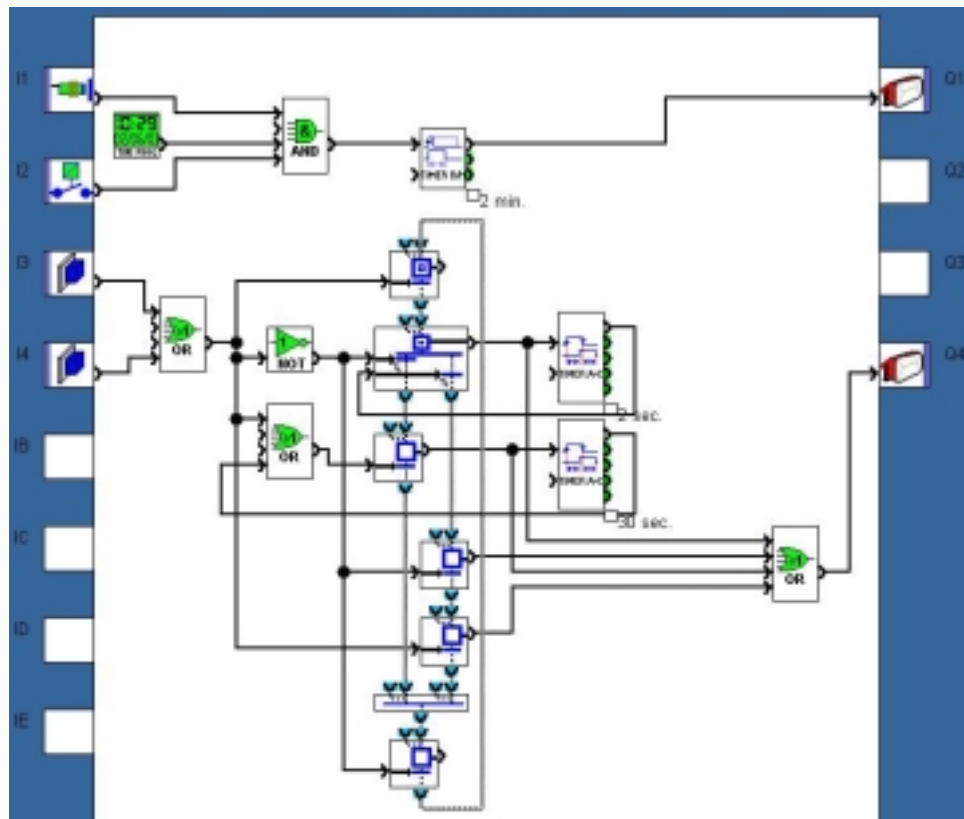
Logic diagram Level 1:



Click on the link below to access the application:

[Indoor/Outdoor lightning of a home - level 1](#)

Logic diagram Level 2 (SFC/Grafcet) :



Click on the link below to access the application:

[Indoor/Outdoor lightning of a home - level 2 \(SFC-Grafcet\)](#)