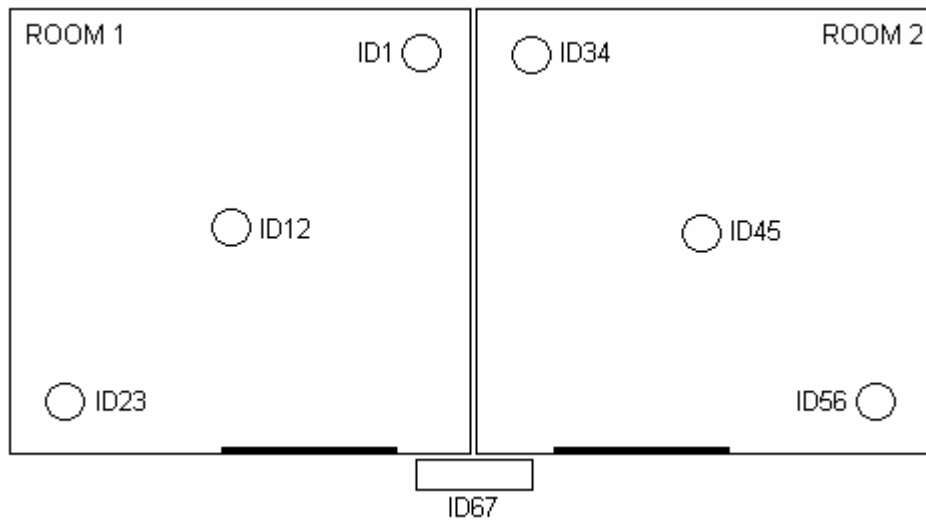


## EXAMPLE OF LOGICAL EQUATION



Think about two rooms nearness, for every room we want that, when all of the three detector in a room goes in alarm state, the optical/acoustic panel out of the two rooms must to turn on.

So:

ID1, ID12 and ID23 are the addresses of the three detector in the first room.

ID34, ID45 and ID56 are the addresses of the three detector in the second room.

ID67 is the address of the Output module that control the optical/acoustic panel.

To have the operation describe we must create an association with physical detectors and logical events:

ID1 → L.E. 1  
ID12 → L.E. 2  
ID23 → L.E. 3  
ID34 → L.E. 4  
ID45 → L.E. 5  
ID56 → L.E. 6  
ID67 → L.E. 7

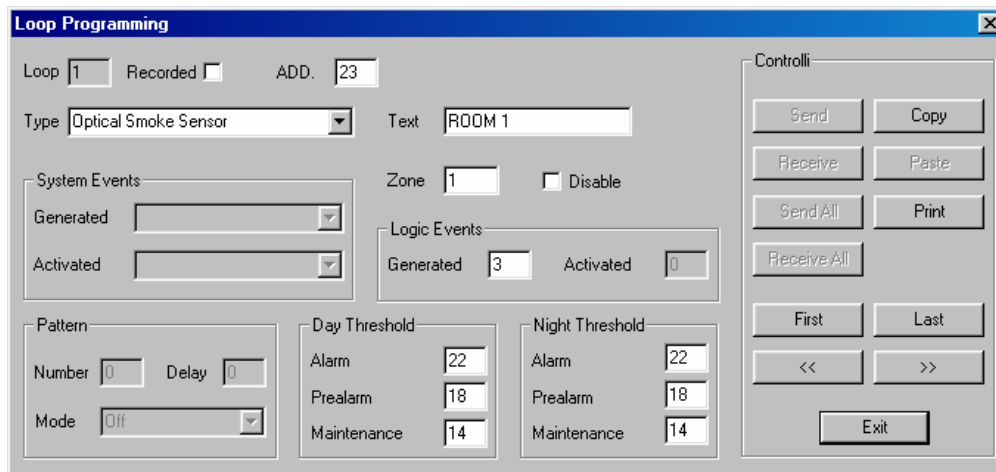
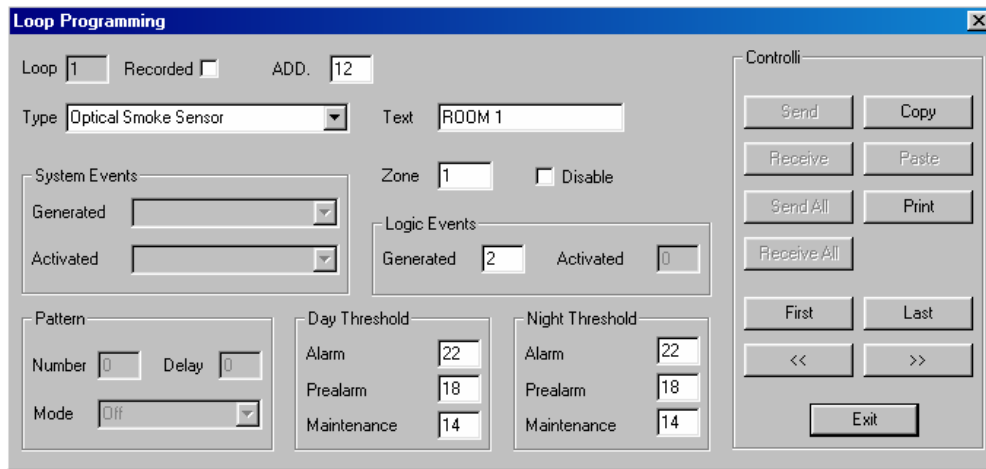
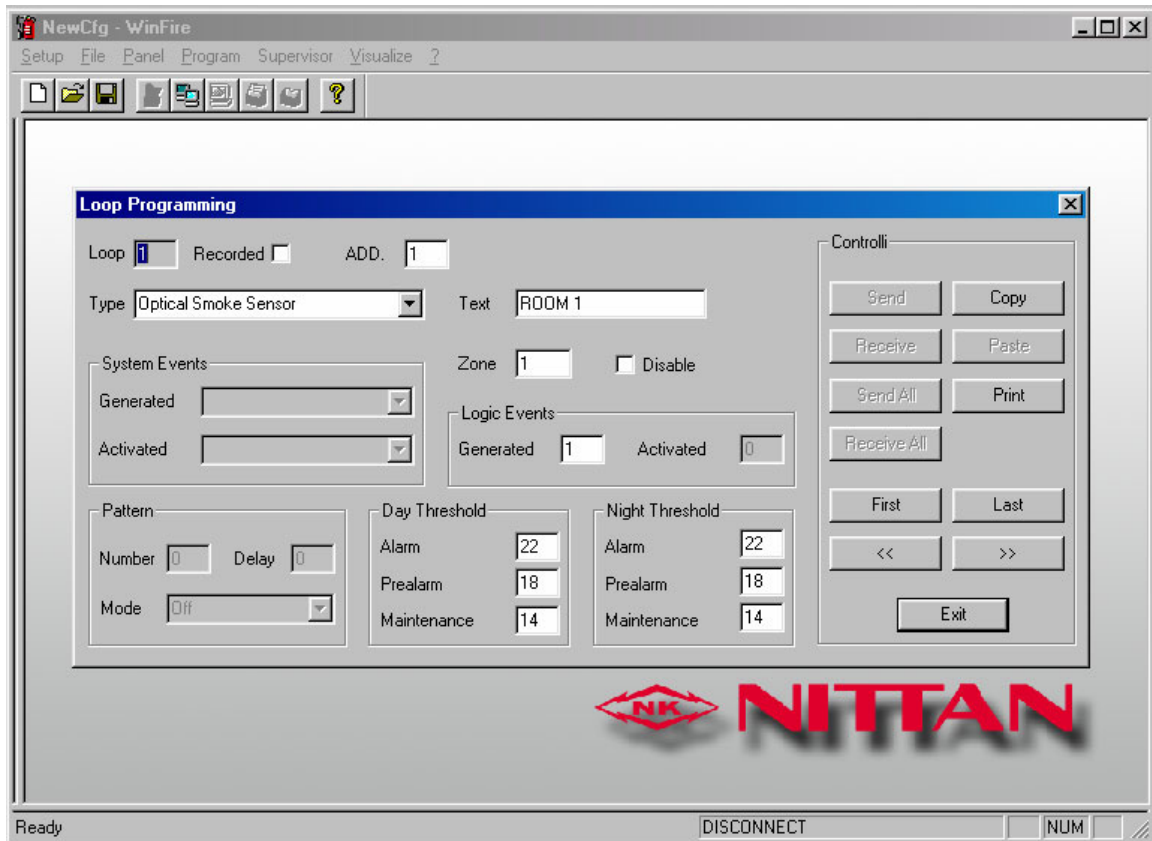
Then we must create two logical equation to move the output when one of the rooms is in alarm state:

EQUATION 1 → L.E. 1 AND L.E. 2 AND L.E. 3 → RES L.E. 7

EQUATION 2 → L.E. 4 AND L.E. 5 AND L.E. 6 → RES L.E. 7

Remember that logical equations could work in AND or in OR situation but is not possible a mix in the same equation.

N.B. In the Output Module the System Event must to be set with "NOT IN USE" event because System Events have an higher priority then Logic Events.



**Loop Programming** [X]

Loop  Recorded  ADD.

Type  Text

System Events  
 Generated   
 Activated

Zone   Disable

Logic Events  
 Generated  Activated

Pattern  
 Number  Delay   
 Mode

Day Threshold  
 Alarm   
 Prealarm   
 Maintenance

Night Threshold  
 Alarm   
 Prealarm   
 Maintenance

Controlli

**Loop Programming** [X]

Loop  Recorded  ADD.

Type  Text

System Events  
 Generated   
 Activated

Zone   Disable

Logic Events  
 Generated  Activated

Pattern  
 Number  Delay   
 Mode

Day Threshold  
 Alarm   
 Prealarm   
 Maintenance

Night Threshold  
 Alarm   
 Prealarm   
 Maintenance

Controlli

**Loop Programming** [X]

Loop  Recorded  ADD.

Type  Text

System Events  
 Generated   
 Activated

Zone   Disable

Logic Events  
 Generated  Activated

Pattern  
 Number  Delay   
 Mode

Day Threshold  
 Alarm   
 Prealarm   
 Maintenance

Night Threshold  
 Alarm   
 Prealarm   
 Maintenance

Controlli

**Loop Programming**

Loop  Recorded  ADD:

Type:  Text:

System Events: Generated:  Activated:

Zone:   Disable

Logic Events: Generated:  Activated:

Pattern: Number:  Delay:  Mode:

Day Threshold: Alarm:  Prealarm:  Maintenance:

Night Threshold: Alarm:  Prealarm:  Maintenance:

Controlli: Send Copy Receive Paste Send All Print Receive All First Last << >> Exit

**Logic Equation**

	Op.	0	1	2	3	4	5	6	7	8	9	Res.
Equation 1	AND	1	2	3	0	0	0	0	0	0	0	7
Equation 2	AND	4	5	6	0	0	0	0	0	0	0	7
Equation 3	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 4	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 5	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 6	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 7	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 8	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 9	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 10	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 11	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 12	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 13	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 14	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 15	OR	0	0	0	0	0	0	0	0	0	0	0
Equation 16	OR	0	0	0	0	0	0	0	0	0	0	0

Write Send Receive Print Exit

**Logic Equation**

	1	2	3	4	5	6	7	8	9	Res.	Delay
Equation 1	2	3	0	0	0	0	0	0	0	7	0
Equation 2	5	6	0	0	0	0	0	0	0	7	0
Equation 3	0	0	0	0	0	0	0	0	0	0	0
Equation 4	0	0	0	0	0	0	0	0	0	0	0
Equation 5	0	0	0	0	0	0	0	0	0	0	0
Equation 6	0	0	0	0	0	0	0	0	0	0	0
Equation 7	0	0	0	0	0	0	0	0	0	0	0
Equation 8	0	0	0	0	0	0	0	0	0	0	0
Equation 9	0	0	0	0	0	0	0	0	0	0	0
Equation 10	0	0	0	0	0	0	0	0	0	0	0
Equation 11	0	0	0	0	0	0	0	0	0	0	0
Equation 12	0	0	0	0	0	0	0	0	0	0	0
Equation 13	0	0	0	0	0	0	0	0	0	0	0
Equation 14	0	0	0	0	0	0	0	0	0	0	0
Equation 15	0	0	0	0	0	0	0	0	0	0	0
Equation 16	0	0	0	0	0	0	0	0	0	0	0

Write Send Receive Print Exit

Same programming page.