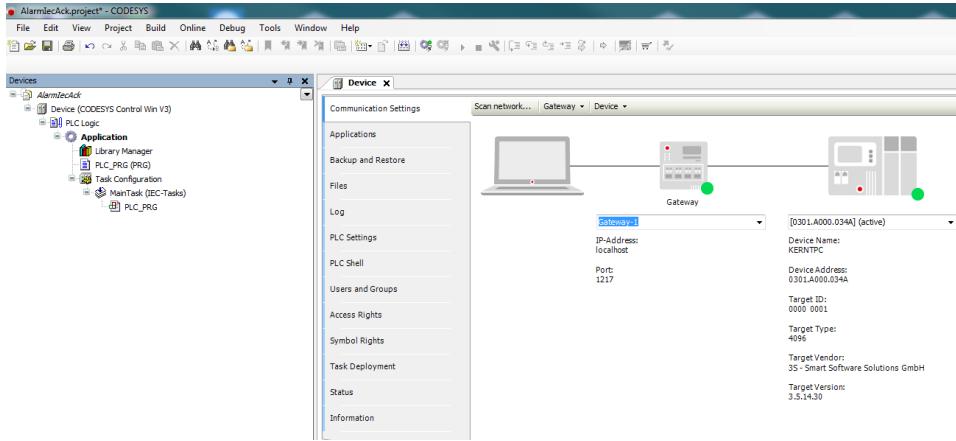


Acknowledge Alarms from the IEC Code

- Create a "Standard project" and select *CODESYS Control Win V3* as the device.
- Define the target system by means of the *Network scan*.

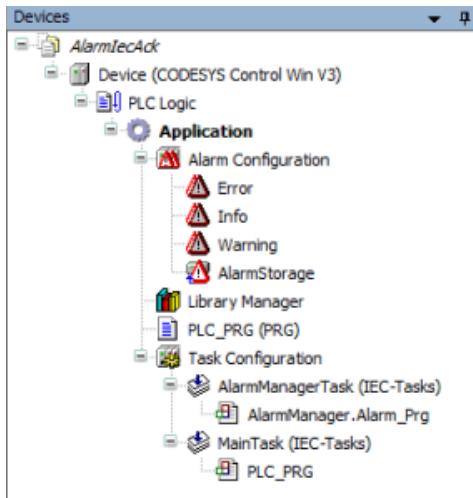


- Adapt the POU *PLC_PRG* as follows:

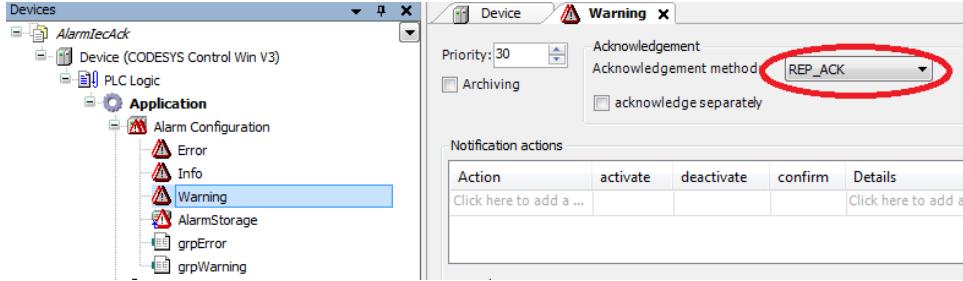
Declaration

```
VAR
    xCreateAlarm1      : BOOL;
    xCreateAlarm2      : BOOL;
    xCreateAlarm3      : BOOL;
    xCreateAlarm4      : BOOL;
    xAckAll           : BOOL;
    xAckErr            : BOOL;
END_VAR
```

- Insert an *Alarm configuration* in the device tree.
Here, the *Error*, *Info* and *Warning*, alarm classes are created automatically, as well as the *AlarmStorage* object.
In addition, an *AlarmManagerTask* is created.



From the alarm classes, set the acknowledgement type to *REP_ACK*:



Insert two new alarm groups, *grpError* and *grpWarning*, in the *Alarm configuration* and configure the alarms as follow:

ID	Observation type	Details	Deactivation	Class	Message	Min. pend. time	Latch var 1	Latch var 2
0	0 Digital	PLC_PRG.xCreateAlarm1 = TRUE		Error	Error: Message 1			
1	0 Digital	PLC_PRG.xCreateAlarm2 = TRUE		Error	Error: Message 2			

ID	Observation type	Details	Deactivation	Class	Message	Min. pend. time	Latch var 1	Latch var 2
0	0 Digital	PLC_PRG.xCreateAlarm3 = TRUE		Warning	Warning: Message 1			
1	0 Digital	PLC_PRG.xCreateAlarm4 = TRUE		Warning	Warning: Message 2			

- Adapt the POU *PLC_PRG* as follows:

Implementation

```

If xAckAll Then
    xAckAll := FALSE;
    AlarmManager.g_AlarmHandler.AcknowledgeAll();
END_IF

If xAckErr Then
    xAckErr := FALSE;
    AlarmManager.g_AlarmHandler.AcknowledgeAllOfGroup(usiAlarmGroupID := Alm_AlarmConfiguration_Alarmgroup_IDs.ID_grpError);
END_IF

```



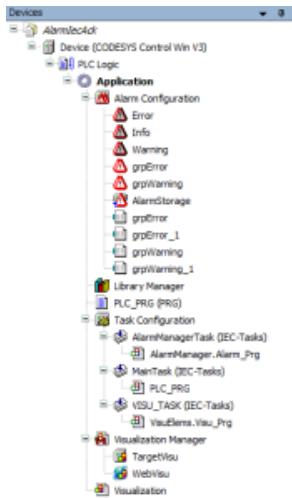
The alarm groups which you have created are provided in the SmartCoding view:

```

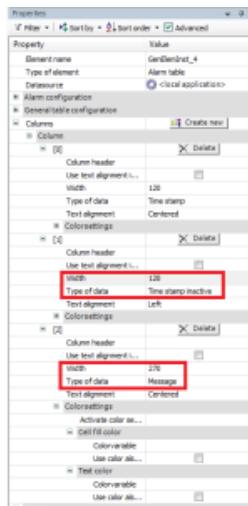
1 If xAckAll Then
2     xAckAll := FALSE;
3     AlarmManager.g_AlarmHandler.AcknowledgeAll();
4 END_IF
5
6 If xAckErr Then
7     xAckErr := FALSE;
8     AlarmManager.g_AlarmHandler.AcknowledgeAllOfGroup(usiAlarmGroupID := Alm_AlarmConfiguration_Alarmgroup_IDs.ID_grpError);
9 END_IF

```

- Insert a visualization in the device tree.
Then the *Visualisierung Manager* is inserted automatically with the *TargetVisu* and *WebVisu* visualization types.
In addition, a *VISU_TASK* is also created automatically.



In the *Visualization*, set an *Alarm Table* element and configure the element as follows:



- Start the project and test the functionality.