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.

AlarmlecAck.project* - CODESYS	-		-	
File Edit View Project Build Online Debug Tools Wind	ow Help			
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Devices 👻 🐺 🗙	Device X			
🖻 🔄 AlarmiecAck 💽	-	1		
Device (CODESYS Control Win V3)	Communication Settings	Scan network Gateway • Device •		
E II PLC Logic	Applications			
Application	Applications		•	
PIC PRG (PRG)	Backup and Restore			i
Task Configuration			No. 101 101 101	
🖮 🎲 MainTask (IEC-Tasks)	Files			•
- (B) PLC_PRG	Log		Gateway	
		Gateway-1	-	[0301.A000.034A] (active) -
	PLC Settings	IP-Address:		Device Name:
	PLC Shell	To Calhost		KERNIPC
	The shell	Port:		Device Address:
	Users and Groups	26.27		
				Target ID: 0000 0001
	Access Rights			Target Turger
	Symbol Rights			4096
				Target Vendor:
	Task Deployment			35 - Smart Software Solutions GmbH
	Status			Target Version:
				3.5.14.30
	Information			

Adapt the POU PLC_PRG as follows:

Declaration

VAR			
	xCreateAlarm1	:	BOOL;
	xCreateAlarm2	:	BOOL;
	xCreateAlarm3	:	BOOL;
	xCreateAlarm4	:	BOOL;
	xAckAll	:	BOOL;
	xAckErr	:	B001;
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.



Form the alarm classes, set the acknowledgement type to REP_ACK:

Devices 👻 🕈 🗙		🔟 Device 🛛 🧥	Warning 🔉	(
🖃 🐴 AlarmIecAdk 🛛 💌						
🖹 💮 Device (CODESYS Control Win V3)	P	riority: 30 🚔	Acknowledge	ement		
🖮 🗐 PLC Logic		Archiving	Acknowledg	ement method	REP_AC	
😑 🧔 Application			acknowl	edge separately		
Alarm Configuration						
- 🙆 Error	l c	Notification actions				
- 🖄 Info		Action	activate	deactivate	confirm	Details
Warning		Click here to add a				Click here to add a
🛛 🔯 AlarmStorage						
grpError						
grpWarning	l l					

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

extlist:	grpError_1	•	Archiving:	🔞 (none)		 Deactivation: 			
D	Observation type	Details		Deactivation	Class	Message	Min. pend. time	Latch var 1	Latch va
	95 Digital	PLC_PRG.xCreateAlarm1 =	TRUE		📖 🗥 Error	Error: Message 1			
	01 Digital	PLC_PRG.xCreateAlarm2 =	TRUE		📶 Error	Error: Message 2			
	Click here to add a new alarm	Click here to add a new ala	arm						
Der	vice 📄 PLC_PRG 🕅 g	rpError 🛛 🖄 grpWarnir	ng X						
👔 Der	vice PLC_PRG 🕅 g	rpError 🛛 🖄 grpWarnir	ng X	R (none)		Deactivation:	1		
dlist:	vice PLC_PRG A g	rpError 🖉 grpWarnir	ng X Archiving:	Reg(none)	Class	Deactivation: Message	I Min. pend. time	Latch var 1	Latch
dlist:	vice PLC_PRG A g	pError M grpWarnin Details PLC PRG.xCreateAlarm3 =	Archiving:	Reg (none)	Class	Deactivation: Message Warning: Message 1	Min. pend. time	Latch var 1	Latch
dlist:	vice B PLC_PRG S g	pError grpWarnir Details PLC_PRG.xCreateAlarm3 = PLC_PRG.xCreateAlarm4 =	Archiving:	Reg (none) Deactivation	Class	Deactivation: Message Warning: Message 1 Warning: Message 2	I Min. pend. time	Latch var 1	Latch

• Adapt the POU PLC_PRG as follows:

Implemen tation	
<pre>If xAckAll Then xAckAll := FALSE; AlarmManager.g_AlarmHandler.AcknowledgeAll(); END_IF</pre>	
<pre>If xAckErr Then xAckErr := FALSE; AlarmManager.g_AlarmHandler.AcknowledgeAllOfGroup(usiAlarmGroupID := Alm_AlarmConfiguration_Alarmgroup_IDs.ID_grpError); END_IF</pre>	



• 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:

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er • 🗹 Advanced
Value
Gentleninst_4
Alarm table
Contentions
ciii Create new
>C Delete
10
120
Time stamp
Centered
>C Delete
E
120
Time stamp inactive
Left
X Delate
10
276
Message
Centered
1
10

• Start the project and test the functionality.