

Totally Integrated Automation Portal

Oshop-Demo_v2 / PLC_1 [CPU 1512SP-1 PN] / Programmbausteine

Oshop_ToolChanger [FB1]

Oshop_ToolChanger Eigenschaften

Allgemein

Name	Oshop_ToolChanger	Nummer	1	Typ	FB	Sprache	SCL
Nummerierung		Automatisch					

Information

Titel		Autor		Kommentar		Familie	
Version	0.1	Anwenderdefinierte ID					

Oshop_ToolChanger

Name	Datentyp	Defaultwert	Remanenz	Erreichbar aus HMI/OPC UA/Web API	Schreibbar aus HMI/OPC UA/ Web API	Sichtbar in HMI Engineering	Einstellwert	Überwachung	Kommentar
▼ Input									
Start	Bool	false	Nicht remanent	False	False	False	False		
UseTool	UInt	0	Nicht remanent	False	False	False	False		
▼ P_Signals_IN	"udtTool-Cha_Sig_IN"		Nicht remanent	False	False	False	False		
Tool_is_loaded	Bool	false	Nicht remanent	False	False	False	False		
ToolStation_is_Locked	Bool	false	Nicht remanent	False	False	False	False		
ToolStation_is_Released	Bool	false	Nicht remanent	False	False	False	False		
ToolStation_is_Pos1	Bool	false	Nicht remanent	False	False	False	False		
ToolStation_is_Pos2	Bool	false	Nicht remanent	False	False	False	False		
ToolChanger_is_Locked	Bool	false	Nicht remanent	False	False	False	False		
ToolChanger_is_Released	Bool	false	Nicht remanent	False	False	False	False		
Lift_is_down	Bool	false	Nicht remanent	False	False	False	False		
Lift_is_up	Bool	false	Nicht remanent	False	False	False	False		
▼ Output									
▼ P_Signals_OUT	"udtTool-Cha_Sig_OUT"		Nicht remanent	False	False	False	False		
ToolChanger	Bool	false	Nicht remanent	False	False	False	False		
ToolStation_Select	Bool	false	Nicht remanent	False	False	False	False		
ToolStation_Lock	Bool	false	Nicht remanent	False	False	False	False		
Toolstation_Releas	Bool	false	Nicht remanent	False	False	False	False		
Lift_down	Bool	false	Nicht remanent	False	False	False	False		
Lift_up	Bool	false	Nicht remanent	False	False	False	False		
InOut									
▼ Static									
Step	UInt	0	Nicht remanent	False	False	False	False		
StepMem	UInt	0	Nicht remanent	False	False	False	False		
▼ StepDelay	TON_TIME		Nicht remanent	False	False	False	False		
PT	Time	T#0ms	Nicht remanent	False	False	False	False		
ET	Time	T#0ms	Nicht remanent	False	False	False	False		
IN	Bool	false	Nicht remanent	False	False	False	False		
Q	Bool	false	Nicht remanent	False	False	False	False		
▼ MeasuringTime	TON_TIME		Nicht remanent	False	False	False	True		
PT	Time	T#0ms	Nicht remanent	False	False	False	False		
ET	Time	T#0ms	Nicht remanent	False	False	False	False		
IN	Bool	false	Nicht remanent	False	False	False	False		
Q	Bool	false	Nicht remanent	False	False	False	False		
▼ RT_Start	R_TRIG			False	False	False	False		
▼ Input									
CLK	Bool	false	Nicht remanent	False	False	False	False		Input bit
▼ Output									
Q	Bool	false	Nicht remanent	False	False	False	False		Edge detection
InOut									
▼ Static									
Stat_Bit	Bool	false	Nicht remanent	False	False	False	False		edge memory bit used to store the previous signal state
▼ Temp									
InitPos	Bool								
Constant									

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* program name: Oshop_ToolChager

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* author: ToSchi

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* owner: Hochschule für Technik und Wirtschaft Dresden

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* description:

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0008	*	
0009	*	
0010	*	
0011	*****	
0012	*)	
0013		
0014	//trigger -----	
0015	#RT_Start(CLK := #Start);	
0016		
0017		
0018	//timer -----	
0019	#MeasuringTime(IN := (#Step = 60),	
0020	PT := t#2s);	
0021		
0022	#StepDelay(IN := (#Step = #StepMem),	
0023	PT := t#2s);	
0024		
0025		
0026	//initialization -----	
0027	#InitPos := #P_Signals_IN.Lift_is_up AND #P_Signals_IN.ToolStation_is_Locked AND #P_Signals_IN.ToolChanger_is_Released;	
0028		
0029	#StepMem := #Step;	
0030		
0031	CASE #Step OF	
0032	0:	
0033	#P_Signals_OUT.Lift_down := 0;	
0034	#P_Signals_OUT.Lift_up := 0;	
0035	#P_Signals_OUT.ToolChanger := 0;	
0036	#P_Signals_OUT.ToolStation_Lock := 0;	
0037	#P_Signals_OUT.Toolstation_Releas := 0;	
0038	#P_Signals_OUT.ToolStation_Select := 0;	
0039	#Step := 1;	
0040		
0041		
0042	1:	
0043	#P_Signals_OUT.ToolStation_Lock := 1;	
0044	#P_Signals_OUT.Toolstation_Releas := 0;	
0045	IF #P_Signals_IN.ToolStation_is_Locked AND NOT #P_Signals_IN.ToolStation_is_Released AND #StepDelay.Q THEN	
0046	#Step := 2;	
0047	END_IF;	
0048		
0049		
0050	2:	
0051	#P_Signals_OUT.ToolChanger := 1;	
0052	IF #P_Signals_IN.ToolChanger_is_Locked AND NOT #P_Signals_IN.ToolChanger_is_Released AND #StepDelay.Q THEN	
0053	#Step := 3;	
0054	END_IF;	
0055		
0056		
0057	3:	
0058	#P_Signals_OUT.ToolStation_Select := 0;	
0059	IF #P_Signals_IN.ToolStation_is_Pos1 AND NOT #P_Signals_IN.ToolStation_is_Pos2 AND #StepDelay.Q THEN	
0060	#Step := 4;	
0061	END_IF;	
0062		
0063		
0064	4:	
0065	IF NOT #P_Signals_IN.Tool_is_loaded THEN	
0066	#Step := 7;	
0067	ELSE	
0068	#Step := 5;	
0069	END_IF;	
0070		
0071		
0072	5:	
0073	#P_Signals_OUT.ToolStation_Select := 1;	
0074	IF NOT #P_Signals_IN.ToolStation_is_Pos1 AND #P_Signals_IN.ToolStation_is_Pos2 AND #StepDelay.Q THEN	
0075	#Step := 6;	
0076	END_IF;	
0077		
0078		
0079	6:	
0080	IF NOT #P_Signals_IN.Tool_is_loaded THEN	
0081	#Step := 7;	
0082	ELSE	
0083	#Step := 9;	
0084	END_IF;	
0085		
0086		
0087	7:	
0088	#P_Signals_OUT.ToolStation_Lock := 0;	
0089	#P_Signals_OUT.Toolstation_Releas := 1;	
0090	IF NOT #P_Signals_IN.ToolStation_is_Locked AND #P_Signals_IN.ToolStation_is_Released AND #StepDelay.Q THEN	
0091	#Step := 9;	
0092	END_IF;	
0093		
0094		
0095	9:	

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0096	#P_Signals_OUT.Lift_up := 1;	
0097	#P_Signals_OUT.Lift_down := 0;	
0098	IF #P_Signals_IN.Lift_is_up AND NOT #P_Signals_IN.Lift_is_down AND #StepDelay.Q THEN	
0099	#Step := 10;	
0100	END_IF;	
0101		
0102		
0103	10:	
0104	#P_Signals_OUT.ToolStation_Lock := 1;	
0105	#P_Signals_OUT.Toolstation_Releas := 0;	
0106	IF #P_Signals_IN.ToolStation_is_Locked AND NOT #P_Signals_IN.ToolStation_is_Released AND #StepDelay.Q THEN	
0107	#P_Signals_OUT.ToolChanger := 0;	
0108	IF NOT #P_Signals_IN.ToolChanger_is_Locked AND #P_Signals_IN.ToolChanger_is_Released AND #StepDelay.Q THEN	
0109	#Step := 15;	
0110	END_IF;	
0111	END_IF;	
0112		
0113		
0114	15:	
0115	#P_Signals_OUT.Lift_up := TRUE;	
0116	IF #InitPos AND #UseTool <> 0 AND #RT_Start.Q THEN	
0117	#Step := #UseTool + 20;	
0118	END_IF;	
0119		
0120		
0121	21:	
0122	IF NOT #P_Signals_IN.ToolStation_is_Pos1 THEN	
0123	#P_Signals_OUT.ToolStation_Select := 0;	
0124	ELSE	
0125	#Step := 25;	
0126	END_IF;	
0127		
0128		
0129	22:	
0130	IF NOT #P_Signals_IN.ToolStation_is_Pos2 THEN	
0131	#P_Signals_OUT.ToolStation_Select := 1;	
0132	ELSE	
0133	#Step := 25;	
0134	END_IF;	
0135		
0136		
0137	25:	
0138	IF #P_Signals_IN.Tool_is_loaded THEN	
0139	#Step := 30;	
0140	ELSE	
0141	//go to error step	
0142	;	
0143	END_IF;	
0144		
0145		
0146	30:	
0147	#P_Signals_OUT.ToolChanger := TRUE;	
0148		
0149	IF #P_Signals_IN.ToolChanger_is_Locked THEN	
0150	#Step := 40;	
0151	END_IF;	
0152		
0153		
0154	40:	
0155	#P_Signals_OUT.ToolStation_Lock := FALSE;	
0156	#P_Signals_OUT.Toolstation_Releas := TRUE;	
0157		
0158	IF #P_Signals_IN.ToolStation_is_Released THEN	
0159	#Step := 50;	
0160	END_IF;	
0161		
0162		
0163	50:	
0164	#P_Signals_OUT.Lift_up := FALSE;	
0165	#P_Signals_OUT.Lift_down := TRUE;	
0166		
0167	IF #P_Signals_IN.Lift_is_down THEN	
0168	#Step := 60;	
0169	END_IF;	
0170		
0171		
0172	60:	
0173	IF #MeasuringTime.Q THEN	
0174	#Step := 70;	
0175	END_IF;	
0176		
0177		
0178	70:	
0179	IF NOT #P_Signals_IN.Tool_is_loaded AND #P_Signals_IN.ToolStation_is_Released THEN	
0180	#Step := 80;	
0181	ELSE	
0182	//go to error step	
0183	;	

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0184     END_IF;
0185
0186
0187 80:
0188     #P_Signals_OUT.Lift_up := TRUE;
0189     #P_Signals_OUT.Lift_down := FALSE;
0190
0191     IF #P_Signals_IN.Lift_is_up THEN
0192         #Step := 90;
0193     END_IF;
0194
0195
0196 90:
0197     #P_Signals_OUT.ToolStation_Lock := TRUE;
0198     #P_Signals_OUT.Toolstation_Releas := FALSE;
0199
0200     IF #P_Signals_IN.ToolStation_is_Locked THEN
0201         #Step := 100;
0202     END_IF;
0203
0204
0205 100:
0206     #P_Signals_OUT.ToolChanger := FALSE;
0207
0208     IF #P_Signals_IN.ToolChanger_is_Released THEN
0209         #Step := 15;
0210     END_IF;
0211
0212 END_CASE;
0213
0214 //-----
0215 //End -----
```

Symbol	Adresse	Typ	Kommentar
#InitPos		Bool	
#MeasuringTime		IEC_Timer	
#MeasuringTime.Q		Bool	
#P_Signals_IN.Lift_is_down		Bool	
#P_Signals_IN.Lift_is_up		Bool	
#P_Signals_IN.Tool_is_loaded		Bool	
#P_Signals_IN.ToolChang- er_is_Locked		Bool	
#P_Signals_IN.ToolChanger_is_Re- leased		Bool	
#P_Signals_IN.ToolStation_is_Locked		Bool	
#P_Signals_IN.ToolStation_is_Pos1		Bool	
#P_Signals_IN.ToolStation_is_Pos2		Bool	
#P_Signals_IN.ToolStation_is_Re- leased		Bool	
#P_Signals_OUT.Lift_down		Bool	
#P_Signals_OUT.Lift_up		Bool	
#P_Signals_OUT.ToolChanger		Bool	
#P_Signals_OUT.ToolStation_Lock		Bool	
#P_Signals_OUT.ToolStation_Releas		Bool	
#P_Signals_OUT.ToolStation_Select		Bool	
#RT_Start		Multi_FB	
#RT_Start.Q		Bool	Edge detection
#Start		Bool	
#Step		UInt	
#StepDelay		IEC_Timer	
#StepDelay.Q		Bool	
#StepMem		UInt	
#UseTool		UInt	