

## Hydroelectric Power Plant

Totally Integrated Automation Portal		
<b>Table of contents</b>		
<b>Hydroelectric Power Plant</b>		
<b>PLC_1 [CPU 1511-1 PN]</b>		4 - 1
Program blocks		
Main [OB1]		5 - 1
SimLogic [FB1]		6 - 1
SimLogic_DB [DB1]		7 - 1
I/O LAD [FB2]		8 - 1
I/O LAD_DB [DB2]		9 - 1
I/O FBD [FB3]		10 - 1
I/O SCL [FB4]		11 - 1
I/O STL [FB5]		12 - 1
I/O FBD_DB [DB4]		13 - 1
I/O SCL_DB [DB5]		14 - 1
I/O STL_DB [DB6]		15 - 1
Scale_with_parameter [FC1]		16 - 1
HOA_LAD [FB6]		17 - 1
HOA_FBD [FB7]		18 - 1
HOA_SCL [FB8]		19 - 1
HOA_STL [FB9]		20 - 1
HOA_LAD_DB [DB7]		21 - 1
HOA_FBD_DB [DB8]		22 - 1
HOA_SCL_DB [DB9]		23 - 1
HOA_STL_DB [DB10]		24 - 1
Alarm_LAD [FB10]		25 - 1
Alarm_FBD [FB11]		26 - 1
Alarm_SCL [FB12]		27 - 1
Alarm_STL [FB13]		28 - 1
Alarm_LAD_DB [DB11]		29 - 1
Alarm_FBD_DB [DB12]		30 - 1
Alarm_SCL_DB [DB13]		31 - 1
Alarm_STL_DB [DB14]		32 - 1
Convert_time [FC2]		33 - 1
Modes_LAD [FB14]		34 - 1
Modes_FBD [FB15]		35 - 1
Modes_SCL [FB16]		36 - 1
Modes_STL [FB17]		37 - 1
Modes_LAD_DB [DB40]		38 - 1
Modes_FBD_DB [DB41]		39 - 1
Modes_SCL_DB [DB44]		40 - 1
Modes_STL_DB [DB45]		41 - 1
Sequence [FB18]		42 - 1
Sequence_DB [DB58]		43 - 1
PID [OB30]		44 - 1
Modes_LAD_DB_1 [DB61]		45 - 1
Modes_FBD_DB_1 [DB62]		46 - 1
Modes_FBD_DB_2 [DB63]		47 - 1
HOURMETER_LAD [FB19]		48 - 1
HOURMETER_FBD [FB20]		49 - 1
HOURMETER_SCL [FB21]		50 - 1
HOURMETER_STL [FB22]		51 - 1
HOURMETER_LAD_DB [DB66]		52 - 1
HOURMETER_FBD_DB [DB68]		53 - 1
HOURMETER_SCL_DB [DB69]		54 - 1
HOURMETER_STL_DB [DB70]		55 - 1
System blocks		
Program resources		
IEC_Timer_0_DB [DB17]		56 - 1
IEC_Timer_1_DB [DB43]		57 - 1
IEC_Timer_0_DB_25 [DB3]		58 - 1
PID_Compact [FB1130]		59 - 1
IEC_Timer_0_DB_1 [DB15]		60 - 1
IEC_Timer_0_DB_2 [DB16]		61 - 1
IEC_Timer_0_DB_3 [DB18]		62 - 1
IEC_Timer_0_DB_4 [DB19]		63 - 1
IEC_Timer_0_DB_5 [DB20]		64 - 1
IEC_Timer_0_DB_6 [DB21]		65 - 1

Totally Integrated Automation Portal		
IEC_Timer_0_DB_7 [DB22]	66 - 1	
IEC_Timer_0_DB_8 [DB23]	67 - 1	
IEC_Timer_0_DB_9 [DB24]	68 - 1	
IEC_Timer_0_DB_10 [DB25]	69 - 1	
IEC_Timer_0_DB_11 [DB26]	70 - 1	
IEC_Timer_0_DB_12 [DB27]	71 - 1	
IEC_Timer_0_DB_13 [DB28]	72 - 1	
IEC_Timer_0_DB_14 [DB29]	73 - 1	
IEC_Timer_0_DB_15 [DB30]	74 - 1	
IEC_Timer_0_DB_16 [DB31]	75 - 1	
IEC_Timer_0_DB_17 [DB32]	76 - 1	
IEC_Timer_0_DB_18 [DB33]	77 - 1	
IEC_Timer_0_DB_19 [DB34]	78 - 1	
IEC_Timer_0_DB_20 [DB35]	79 - 1	
IEC_Timer_0_DB_21 [DB36]	80 - 1	
IEC_Timer_0_DB_22 [DB37]	81 - 1	
IEC_Timer_0_DB_23 [DB38]	82 - 1	
IEC_Timer_0_DB_24 [DB39]	83 - 1	
IEC_Timer_0_DB_26 [DB46]	84 - 1	
IEC_Timer_0_DB_27 [DB47]	85 - 1	
IEC_Timer_0_DB_28 [DB48]	86 - 1	
IEC_Timer_0_DB_29 [DB49]	87 - 1	
IEC_Timer_0_DB_30 [DB50]	88 - 1	
IEC_Timer_0_DB_31 [DB51]	89 - 1	
IEC_Timer_0_DB_32 [DB52]	90 - 1	
IEC_Timer_0_DB_33 [DB53]	91 - 1	
IEC_Timer_0_DB_34 [DB54]	92 - 1	
IEC_Timer_0_DB_35 [DB55]	93 - 1	
IEC_Timer_0_DB_36 [DB56]	94 - 1	
IEC_Timer_0_DB_37 [DB57]	95 - 1	
G7_RT_Plus_1_V2 [FC270]	96 - 1	
G7_RT_Plus_2_V2 [FC271]	97 - 1	
G7_RT_Plus_SUB_1_V2 [FC276]	98 - 1	
G7_RT_Plus_SUB_2_V2 [FC277]	99 - 1	
G7_RT_Plus_3_V2 [FC272]	100 - 1	
G7_RT_Plus_4_V2 [FC273]	101 - 1	
G7_RT_Plus_5_V2 [FC274]	102 - 1	
Program_Alarm [FB700]	103 - 1	
G7_RT_Plus_SUB_3_V2 [FC278]	104 - 1	
G7_RT_Plus_6_V2 [FC275]	105 - 1	
IEC_Timer_0_DB_38 [DB71]	106 - 1	
IEC_Counter_0_DB [DB72]	107 - 1	
IEC_Counter_0_DB_1 [DB73]	108 - 1	
IEC_Counter_0_DB_2 [DB74]	109 - 1	
IEC_Timer_0_DB_39 [DB75]	110 - 1	
IEC_Timer_0_DB_40 [DB76]	111 - 1	
IEC_Counter_0_DB_3 [DB77]	112 - 1	
IEC_Counter_0_DB_4 [DB78]	113 - 1	
IEC_Counter_0_DB_5 [DB79]	114 - 1	
IEC_Timer_0_DB_41 [DB80]	115 - 1	
IEC_Timer_0_DB_42 [DB81]	116 - 1	
IEC_Counter_0_DB_6 [DB82]	117 - 1	
IEC_Counter_0_DB_7 [DB83]	118 - 1	
IEC_Counter_0_DB_8 [DB84]	119 - 1	
IEC_Timer_0_DB_43 [DB85]	120 - 1	
IEC_Timer_0_DB_44 [DB86]	121 - 1	
n [DB87]	122 - 1	
nt [DB88]	123 - 1	
IEC_Counter_0_DB_9 [DB89]	124 - 1	
IEC_Timer_0_DB_45 [DB90]	125 - 1	
Technology objects		
BafflePID [DB59]	126 - 1	
PID_Compact_1 [DB42]	127 - 1	
PID_Compact_2 [DB64]	128 - 1	
PID_Compact_3 [DB65]	129 - 1	
VFD_PID [DB67]	130 - 1	
VFDpid [DB60]	131 - 1	
PLC tags		

Totally Integrated Automation Portal		
<b>Default tag table [188]</b>		
PLC tags		132 - 1
User constants		133 - 1
<b>PLC data types</b>		
System data types		
PID_CompactRetain		134 - 1
PID_CompactControlParams		135 - 1
PID_CompactControl		136 - 1
PID_Compact_TIR		137 - 1
PID_Compact_SUT		138 - 1
PID_StandardDeviation		139 - 1
PID_GradientParams		140 - 1
PID_GradientEstimation		141 - 1
PID_CompactSelfTune		142 - 1
PID_CycleTime		143 - 1
PID_Scaling		144 - 1
PID_CompactConfig		145 - 1
G7_RTDataPlus_V2		146 - 1
G7_MOPPlus_V2		147 - 1
G7_SQLFlagsPlus_V2		148 - 1
G7_OffsetsPlus_V2		149 - 1
G7_TransitionPlus_V2		150 - 1
G7_StepPlus_V2		151 - 1
G7_IfParPlus_V2		152 - 1
G7_InParPlus_V2		153 - 1
G7_OutParPlus_V2		154 - 1
<b>Watch and force tables</b>		
Force table		155 - 1
Watch table_1		156 - 1
<b>Traces</b>		157 - 1
Measurements		158 - 1
Combined measurements		159 - 1
<b>Long-term traces</b>		
Measurements		160 - 1
Combined measurements		161 - 1
<b>PLC supervisions &amp; alarms</b>		
Supervisions		162 - 1
PLC alarms		163 - 1
System alarms		164 - 1
PLC alarm text lists		165 - 1
<b>Local modules</b>		
PLC_1 [CPU 1511-1 PN]		166 - 1
<b>PC station [SIMATIC PC station]</b>		167 - 1
<b>HMI_RT_1 [WinCC RT Advanced]</b>		168 - 1
Runtime settings		169 - 1
<b>Screens</b>		
Alarms		170 - 1
Config		171 - 1
OverView		172 - 1
Status		173 - 1
<b>Screen management</b>		
Templates		174 - 1
Pop-up screens		175 - 1
Slide-in screens		
Slide-in screen bottom		176 - 1
Slide-in screen left		177 - 1
Slide-in screen right		178 - 1
Slide-in screen top		179 - 1
Global screen		180 - 1
Permanent area		181 - 1
<b>HMI tags</b>		
Default tag table [84]		182 - 1
<b>Connections</b>		183 - 1
<b>HMI alarms</b>		
Discrete alarms		184 - 1
Analog alarms		185 - 1
Alarm groups		186 - 1
Alarm classes		187 - 1
Controller alarms		188 - 1

Totally Integrated Automation Portal		
System events		189 - 1
Recipes		190 - 1
Historical data		
Datalogs		191 - 1
AlarmLogs		192 - 1
Scripts		
VB scripts		193 - 1
Scheduled tasks		194 - 1
Cycles		195 - 1
Reports		196 - 1
Text and graphic lists		
Text lists		197 - 1
Graphic lists		198 - 1
User administration		
User		199 - 1
Groups		200 - 1
Authorizations		201 - 1
Local modules		
IE general_1		202 - 1
Ungrouped devices		203 - 1
Security settings		204 - 1
Cross-device functions		
Safety Activation Test		205 - 1
Project traces		
Measurements		206 - 1
Long-term project traces		
Measurements		207 - 1
Common data		
Alarm classes		
Alarm classes		208 - 1
Logs		209 - 1
Styles		210 - 1
Designs		211 - 1
Languages & resources		
Project languages		212 - 1
Project texts		
Project texts		213 - 1
Project graphics		214 - 1

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant

### Project

Name:	Hydroelectric Power Plant	Creation time:	10/25/2018 01:16:09	Last change	06/30/2025 12:25:37	Author:	sopen
Last modified by:	barat	Version:					
Comment:							

### Operating system

Name	Description
Operating system	Microsoft Windows 11 Home Single Language
Version of the operating system	10.0.26100.0
Operating system service pack	
Version of the Internet Explorer	11.1882.26100.0
Computer name	BARATH
User name	BARATH\barat
Installation path of the TIA Portal	C:\Program Files\Siemens\Automation\Portal V20

### Components

Name	Version	Release
HelpViewer_WebApp_Service - HelpViewer_WebApp_Service V2.0 (HVWebAppService)	V2.0	V02.00.00.00_93.00.00.01
S7-PLCSIM - S7-PLCSIM Setup V20.0 (PLCSIM_V20)	V20.0	V20.00.00.00_20.05.00.01
TIA Project Server - TIA Project ServerSingle SetupPackage V2.1 (Project-Server)	V2.1	V02.01.00.00_00.00.00.02
AWB Host - TIAAdminV3 SP4 V3.0 SP4 (TIAAdminV3)	V3.0 + SP4	V03.00.04.00_01.01.01.10
AWB Host - Automation License Manager Plugin V3.0 + SP4 (TIAAdminV3)	V3.0 + SP4	V03.00.04.00_01.01.01.10
AWB Host - Software Management Plugin V3.0 + SP4 (TIAAdminV3)	V3.0 + SP4	V03.00.04.00_01.01.01.10
AWB Host - TIA Addin V3.0 + SP4 (TIAAdminV3)	V3.0 + SP4	V03.00.04.00_01.01.01.10
AWB Host - Central User Management Plugin V3.0 + SP4 (TIAAdminV3)	V3.0 + SP4	V03.00.04.00_01.01.01.10
Totally Integrated Automation Portal V20 - TIA Portal Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - HelpViewer Server V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - HM All Editions Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - HM NoBasic Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - Hardware Support Base Package 0 V20.0 (TIAP20)	V20.0	V20.00.00.00_91.01.00.01
Siemens Totally Integrated Automation Portal V20 - Multiuser Client Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - Version Control Interface SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - STEP 7 Safety Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - SESSP Single Setup-Package V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - Startdrive G120 Hardware Support Base Package V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - Startdrive S120 Hardware Support Base Package V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - STARTDRIVE-COMMON V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive G110M, G120, G120C, G120D, G120P, G115D V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW44 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW45 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW46 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW47 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW4710 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW4713 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW4714 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW473 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW476 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive FW479 V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - SINAMICS Startdrive G130, G150, S120, S150, SINAMICS MV V20.0 (TIAP20)	V20.0	V20.00.00.00_25.00.00.01
Siemens Totally Integrated Automation Portal V20 - STEP 7 Single Setup-Package V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - Hardware Support Base Package 02 V20.0 (TIAP20)	V20.0	V20.00.00.00_91.01.00.01
Siemens Totally Integrated Automation Portal V20 - Hardware Support Base Package 03 V20.0 (TIAP20)	V20.0	V20.00.00.00_91.01.00.01
Siemens Totally Integrated Automation Portal V20 - Hardware Support Base Package 04 V20.0 (TIAP20)	V20.0	V20.00.00.00_91.01.00.01
Siemens Totally Integrated Automation Portal V20 - Support Base Package TO-01 V20.0 (TIAP20)	V20.0	V20.00.00.00_91.01.00.01

Totally Integrated Automation Portal		
<b>Name</b>	<b>Version</b>	<b>Release</b>
Siemens Totally Integrated Automation Portal V20 - Support Base Package TO-02 V20.0 (TIAP20)	V20.0	V20.00.00.00_91.01.00.01
Siemens Totally Integrated Automation Portal V20 - Hardware Support Base Package WCF-01 V20.0 (TIAP20)	V20.0	V20.00.00.00_91.01.00.01
Siemens Totally Integrated Automation Portal V20 - TIACOMPHECK Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - TIA Portal Security Audit Log Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - TIA Portal Shim Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - Simatic Single Setup- Package V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - WinCC Basic ES Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - WinCC CA ES Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - Openness SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - WinCC Unified ES Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - WinCC Transfer Manda- tory Single SetupPackage V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
User Management Component - UserManagementComponentx64 V2.15 (UMC64)	V2.15	V02.15.00.00_00.00.00.53
User Management Component - umtrayiconx64 V2.15 (UMC64)	V2.15	V02.15.00.00_00.00.00.53
WinCC Runtime Advanced V17.0 - SIMATIC WinCC Runtime Advanced V17.0 (HMIRTM_V11)	V17.0 UPD8	V17.00.00.08_04.01.00.01
WinCC Runtime Advanced V17.0 - HMIRTM Tagging Package 01 Single SetupPackage V17.0 UPD8 (HMIRTM_V11)	V17.0 UPD8	V17.00.00.08_04.01.00.01
SIMATIC S7-PCT - SIMATIC S7-PCT V3.5 SP3 Upd5 (S7PCT)	V3.5 + SP3 + Upd5	V03.05.03.05_01.02.00.01
SIMIT V9 - SIMIT V11.1 (SIMIT9)	V11.1 + +	V11.01.00.00_18.01.00.01
Siemens SIMIT V9 - SIMIT Simulation Platform V11.1 + + (SIMIT9)	V11.1 + +	V11.01.00.00_18.01.00.01
Siemens SIMIT V9 - SIMIT SU V11.1 + + (SIMIT9)	V11.1 + +	V11.01.00.00_00.00.00.04
Siemens SIMIT V9 - SIMIT Virtual Controller V11.1 + + (SIMIT9)	V11.1 + +	V11.01.00.00_18.01.00.01
SIMIT MCD Add-in - SIMIT MCD Add-in V11.1 (SIMITMCD)	V11.1 + +	V11.01.00.00_18.01.00.01
Siemens Totally Integrated Automation Portal V20 - Simatic Single Setup- Package 32 Bit V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
Siemens Totally Integrated Automation Portal V20 - WinCC Basic ES Single SetupPackage 32 Bit V20.0 (TIAP20)	V20.0	V20.00.00.00_95.01.00.01
AddinRolloutService	20.0.0.0	V20.00.00.00_95.01.00.01
SIMATIC HMI License Manager Panel Plugin (x64)	20.0.0.0	V20.00.00.00_95.01.00.01
Automation Access Control Component x64	05.01	K05.01.01.12_00.00.00.04
SIMATIC WinCC Runtime Advanced Driver (x64)	20.0.0.0	V20.00.00.00_95.01.00.01
ETWEventCollector	20.0.0.0	V20.00.00.00_95.01.00.01
SIMATIC NCM FWL 64	5.6.0.3	K5.6.0.3_1.1.0.2
NCM GPRS 64	01.02.01.00	V1.2.1.0_1.1.0.3
SIMATIC PLCSIM 64	20.00.00	20.00.00.00_01.08.00.01
SIMATIC Device Drivers	9.4	09.04.01.00_01.03.00.20
TelemetryConnector	2.1.0.3	V02.01.00.03_01.00.00.00
Automation Access Control Component	05.01	K05.01.01.12_00.00.00.04
SIEMENS OPC	3.9	03.09.13.00_01.07.00.01
SIMATIC HMI ProSave	20.0.0.0	V20.00.00.00_95.01.00.01
SIMATIC HMI Symbol Library	17.0.0.8	V17.00.00.08_04.01.00.01
SIMATIC HMI Touch Input	17.0.0.8	V17.00.00.08_04.01.00.01
SIMATIC Device Drivers WoW	29.4	29.04.01.00_01.03.00.20
SIMATIC Event Database	5.7	05.07.02.03_01.01.00.01
SeCon	2.11	V02.11.00.00_01.02.00.05
WinCC Runtime Advanced Simulator	17.0.0.0	V17.00.00.00_43.02.00.01
<b>Products</b>		
<b>Name</b>	<b>Version</b>	<b>Release</b>
TIA Help Viewer	V2.0	V02.00.00.00_93.00.00.01
S7-PLCSIM	V20	20.00.00.00_20.05.00.01
TIA Project Server	V2.1	V02.01.00.00_00.00.00.02
TIA Administrator	V3.0.4.0	V03.00.04.00_01.01.01.10
SINAMICS Startdrive Advanced G110M, G120, G120C, G120D, G120P, G115D	V20.0	V20.00.00.00_25.00.00.01
SINAMICS Startdrive Advanced G130, G150, S120, S150, SINAMICS MV, G220, S200, S210	V20.0	V20.00.00.00_25.00.00.01
SIMATIC STEP 7 Prof - STEP 7 Safety - WinCC Adv + Unified + Prof	V20.0	V20.00.00.00_95.01.00.01
User Management Component	V2.15 Sp0 Upd0	V02.15.00.00_00.00.00.53
UMC Status Application	V2.15 Sp0 Upd0	V02.15.00.00_00.00.00.53
SIMATIC WinCC Runtime Advanced Simulation	V17.0 Upd8	V17.00.00.08_04.01.00.01
S7-PCT	V3.5 SP3 Upd5	V03.05.03.05_01.02.00.01
SIMIT	V11.1.0.0	V11.01.00.00_18.01.00.01
SIMIT SU	V11.1.0.0	V11.01.00.00_00.00.00.04
SIMIT MCD Add-in	V11.1.0.0	V11.01.00.00_18.01.00.01
Automation License Manager	V6.2 + SP1	06.02.01.00_00.00.00.34
S7-PLCSIM	V5.4 + SP8 + Upd3	V05.04.08.03_00.16.00.01
SIMATIC ProSave	V20.0	V20.00.00.00_95.01.00.01
PUD Manager Help Viewer	V3.0 + Upd1	V03.00.00.01_00.00.00.11
S7-PCT	V3.5 SP3 Upd5	K3.5.3.5_1.2.0.1

Totally Integrated Automation Portal					
<b>Hydroelectric Power Plant</b>					
<b>PLC_1 [CPU 1511-1 PN]</b>					
PLC_1					
General\Project information					
Name	PLC_1	Author	barath	Comment	
Rack	0	Slot	1		
General\Catalog information					
Short designation	CPU 1511-1 PN	Description	CPU with display; work memory 150 KB code and 1 MB data; 60 ns bit operation time; 4-stage protection concept, integrated technology functions: Motion Control, closed-loop control, counting&measuring; integrated tracking; PROFINET IO controller, supports RT/IRT, 2 ports, MRP, transport protocol TCP/IP, S7 communication, Web server, constant bus cycle time, routing; firmware V1.8	Article number	6ES7 511-1AK00-0AB0
Firmware version	V1.8		False		
General\Identification & Maintenance					
Plant designation		Location identifier		Installation date	2018-10-25 01:16:43.500
Additional information					
Connection resources					
	Station resources - Reserved - Maximum	Station resources - Reserved - Configured	Station resources - Dynamic - Configured	Module resources - PLC_1 [CPU 1511-1 PN] - Configured	
Maximum number of resources:		10	54	64	
	Maximum	Configured	Configured	Configured	
PG communication:	4	-	-	-	
HMI communication:	4	2	0	2	
S7 communication:	0	-	0	0	
Open user communication:	0	-	0	0	
Web communication:	2	-	-	-	
Other communication:	-	-	0	0	
Total resources used:		2	0	2	
Available resources:		8	54	62	
Overview of addresses\Overview of addresses\Overview of addresses					
Inputs	True	Outputs	True	Address gaps	False
Slot	True				

Totally Integrated Automation Portal		
---	--	--

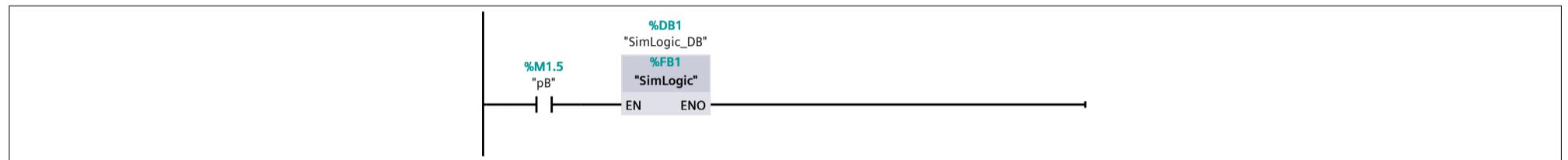
Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## Main [OB1]

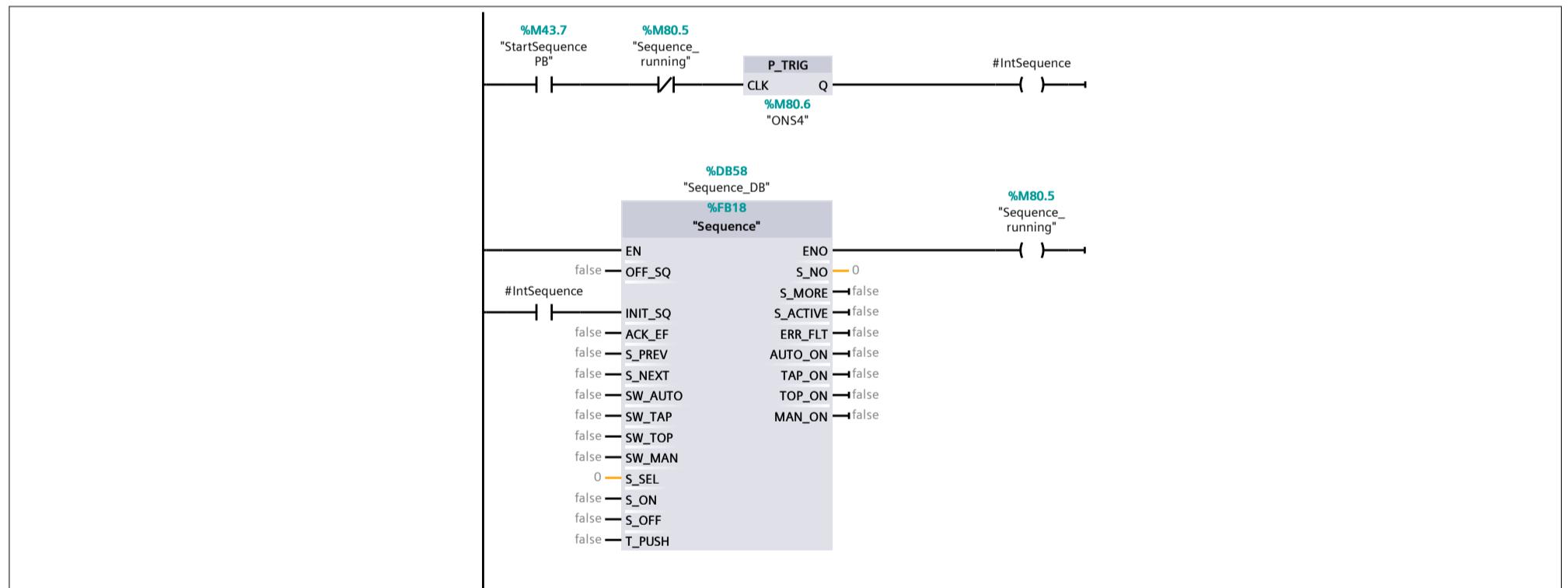
Main Properties								
General								
Name	Main	Number	1	Type	OB	Language	LAD	
Numbering	Automatic							
Information								
Title	"Main Program Sweep (Cycle)"	Author		Comment		Family		
Version	0.1	User-defined ID						

Name	Data type	Default value
▼ Input		
Initial_Call	Bool	
Remanence	Bool	
▼ Temp		
SequenceInit	Bool	
InitSequence	Bool	
IntSequence	Bool	
Constant		

## Network 1:

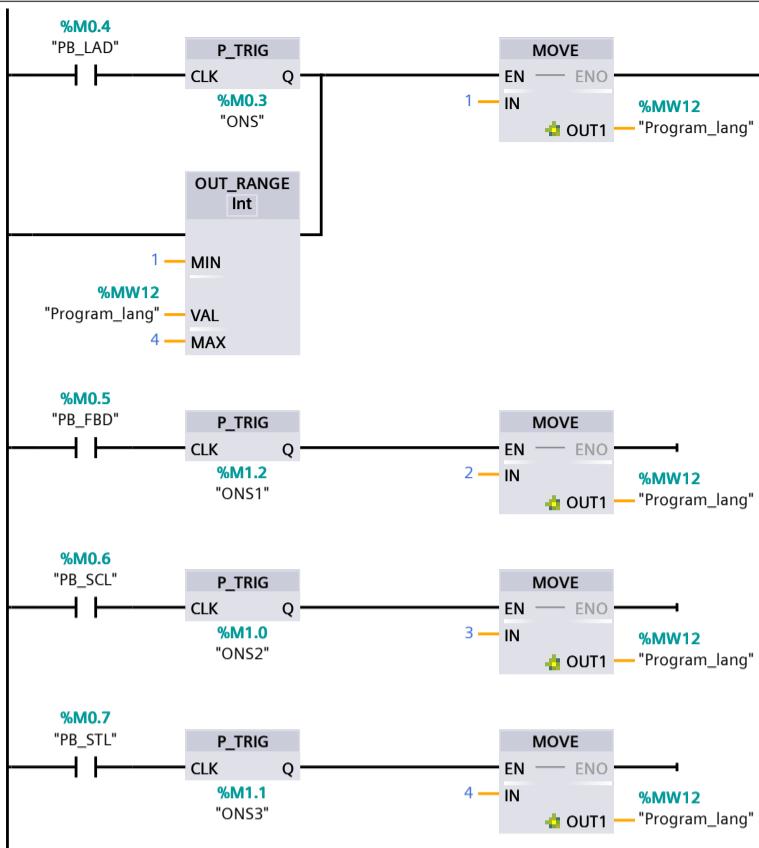


## Network 2:

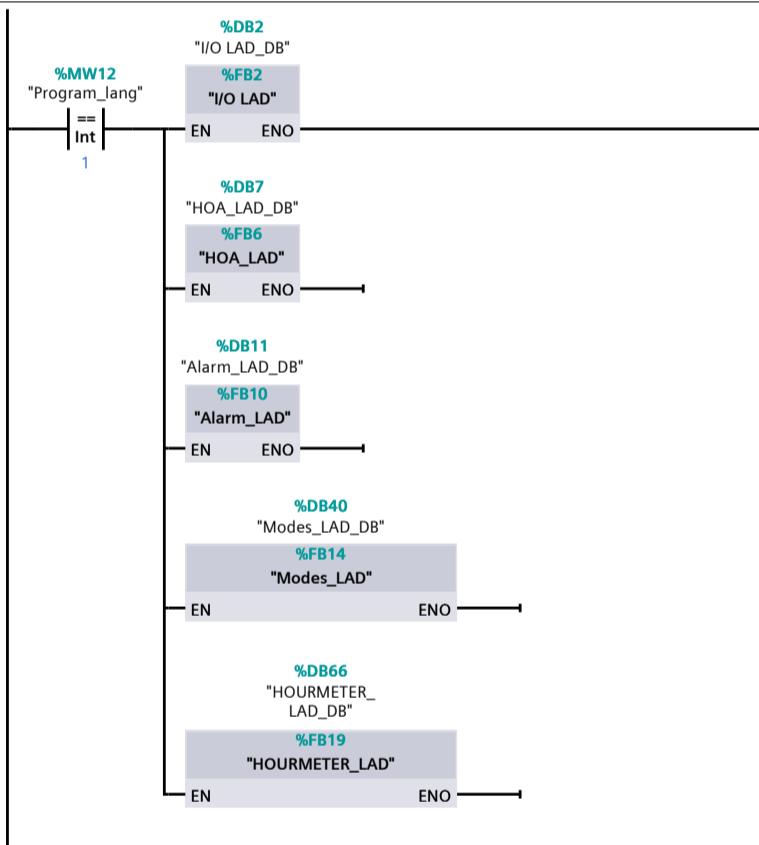


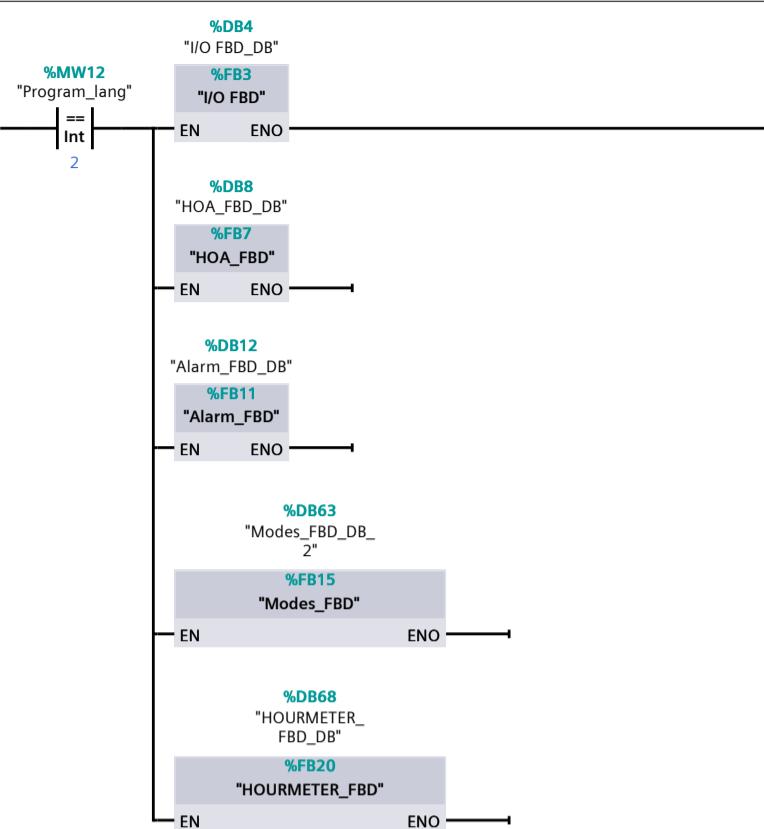
### **Network 3: LAD-1, FBD-1, SCL-1, STL-1.**

Hey, I'm going to create logic for water power plant in all language I mentioned above.

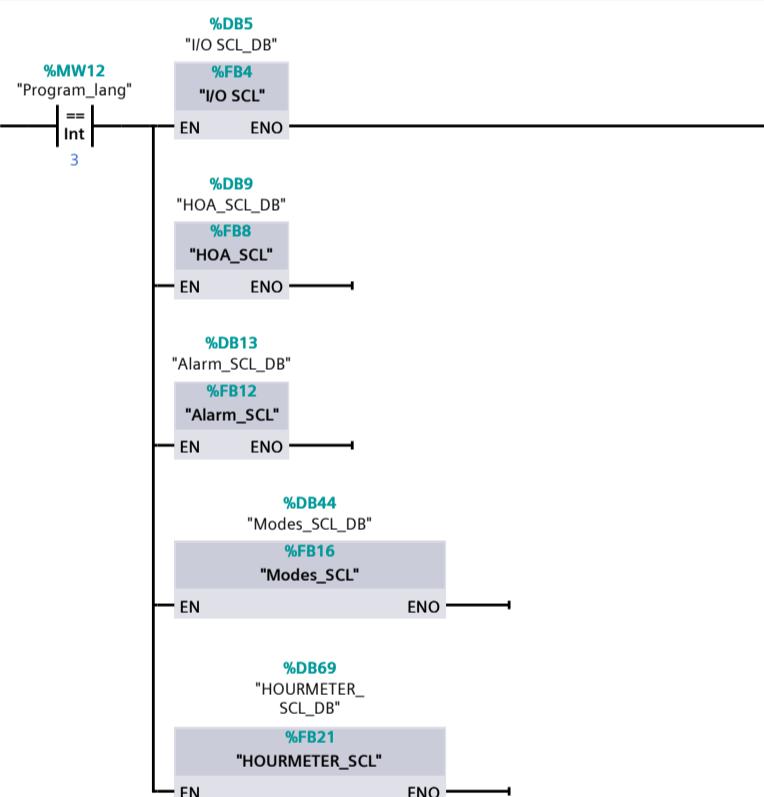


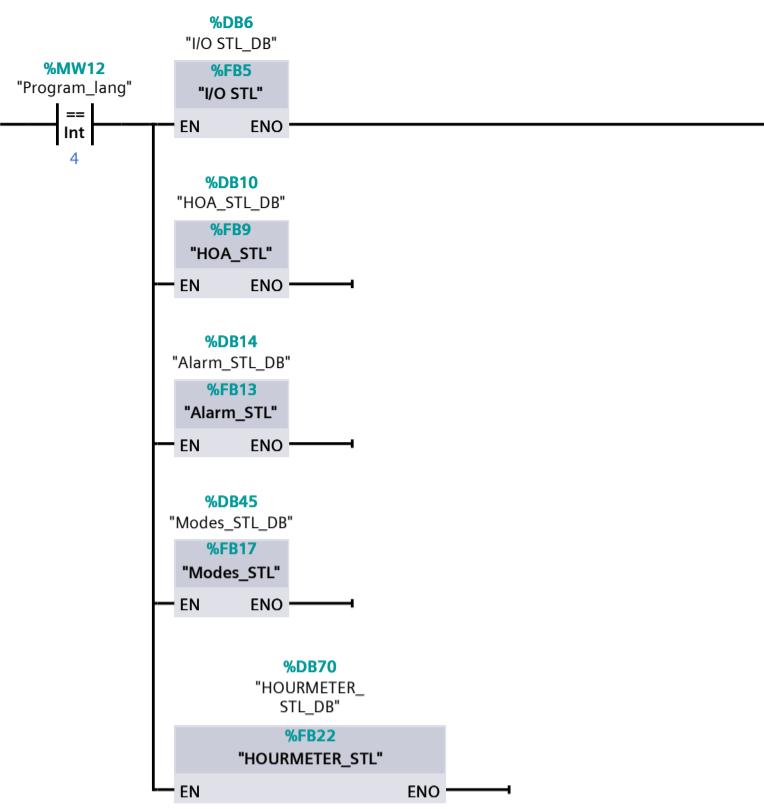
Network 4: I/O for LAD



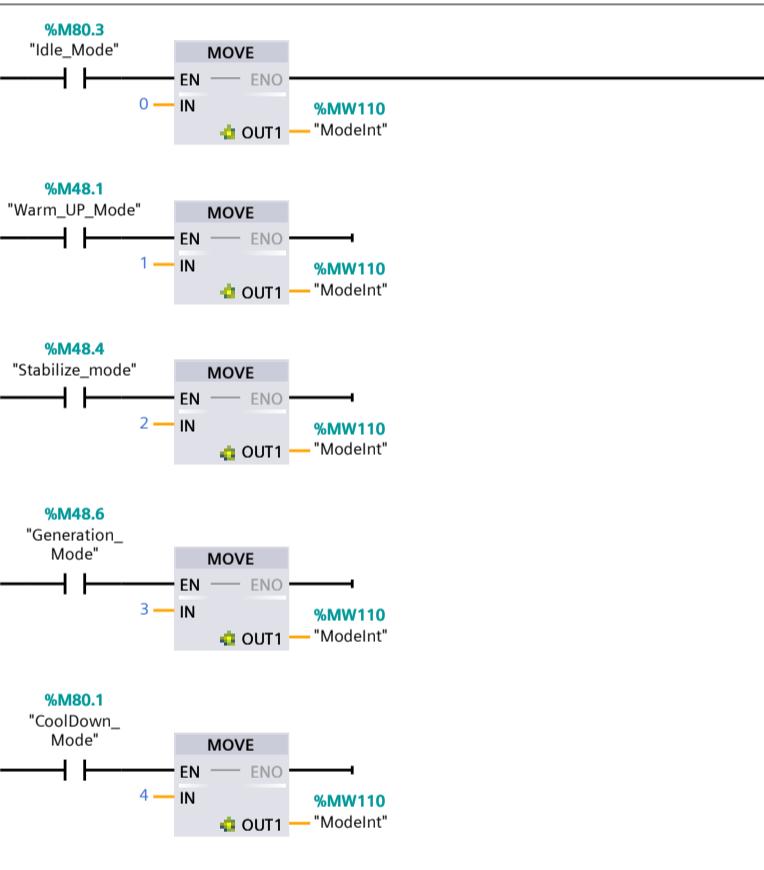


Network 6: I/O for SCL





Network 8: HMI Display Values



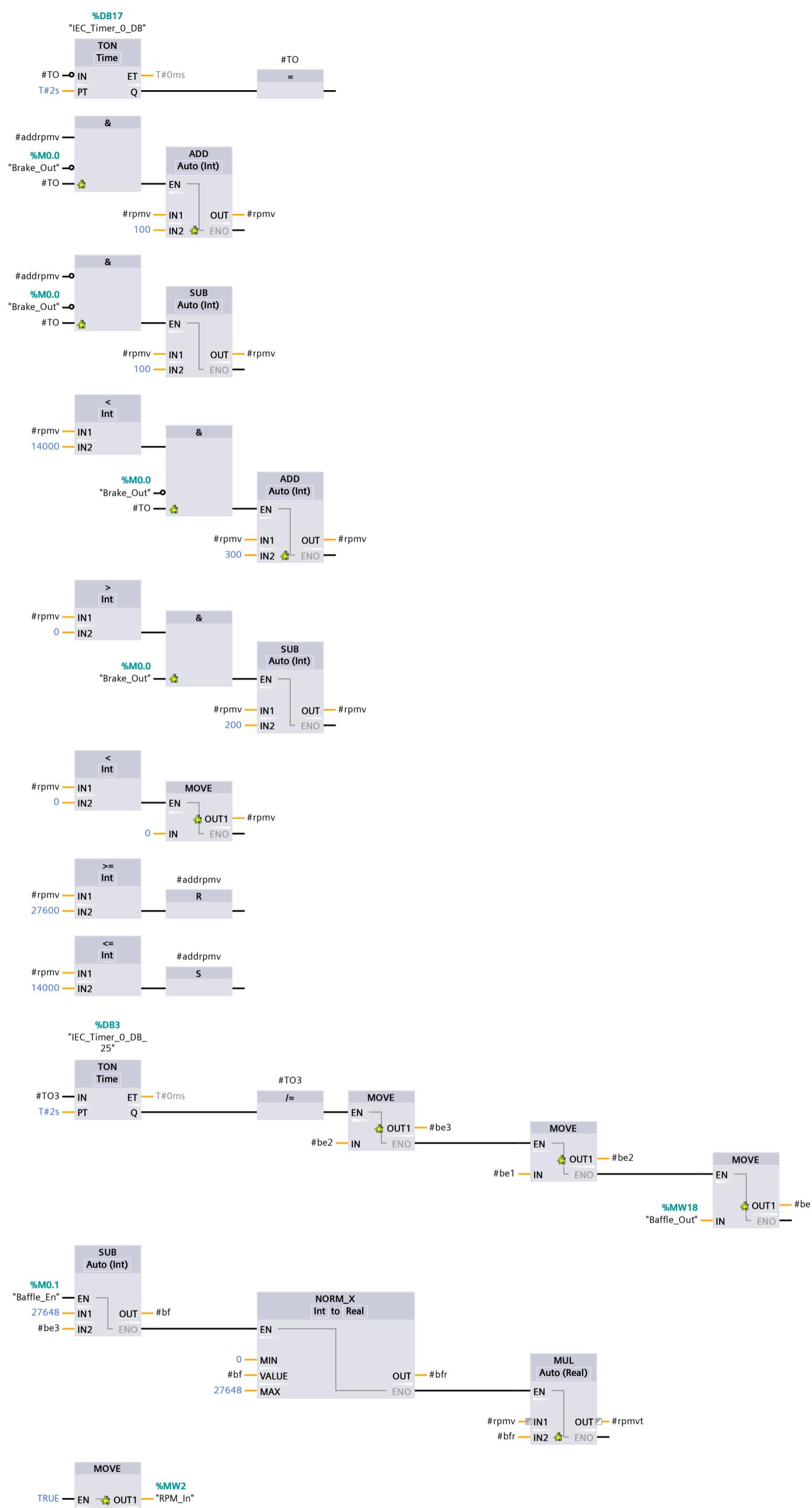
Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

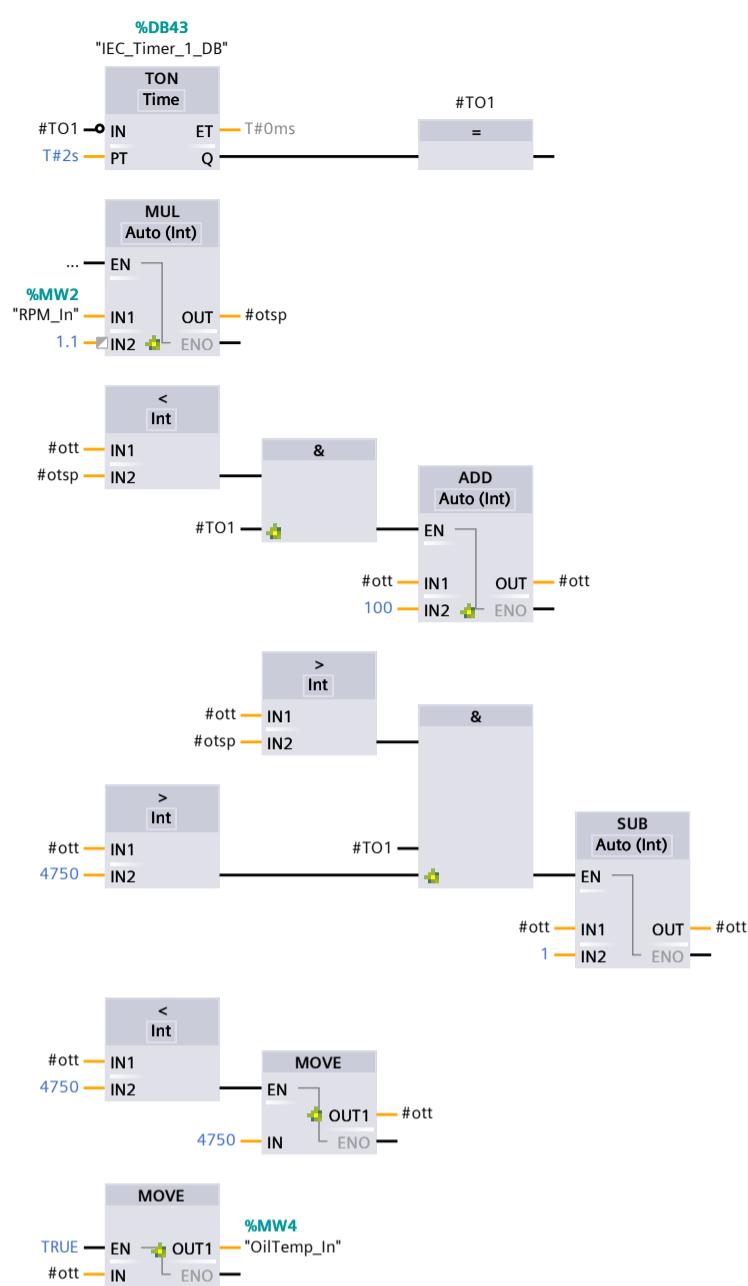
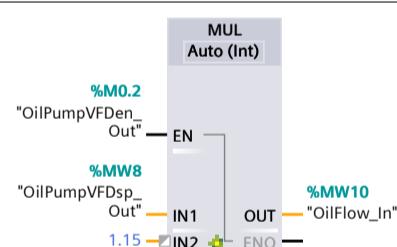
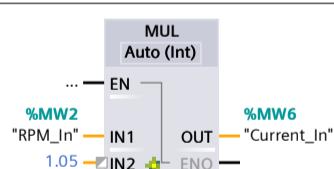
### SimLogic [FB1]

SimLogic Properties							
General							
Name	SimLogic	Number	1	Type	FB	Language	FBD
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Default value		Retain	
Input							
Output							
InOut							
▼ Static							
TO		Bool		false		Non-retain	
rpmv		Int		0		Non-retain	
addrpmv		Bool		false		Non-retain	
otsp		Int		0		Non-retain	
ott		Int		0		Non-retain	
TO1		Bool		false		Non-retain	
TO2		Bool		false		Non-retain	
be2		Int		0		Non-retain	
be3		Int		0		Non-retain	
be1		Int		0		Non-retain	
TO3		Bool		false		Non-retain	
▼ Temp							
bf		Int					
rpmvt		Int					
bfr		Real					
Constant							

Network 1:



Network 2:

**Network 3:****Network 4:**

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## SimLogic\_DB [DB1]

## SimLogic\_DB Properties

## General

Name	SimLogic_DB	Number	1	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
TO	Bool	false	False
rpmv	Int	0	False
addrpmv	Bool	false	False
otsp	Int	0	False
ott	Int	0	False
TO1	Bool	false	False
TO2	Bool	false	False
be2	Int	0	False
be3	Int	0	False
be1	Int	0	False
TO3	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## I/O LAD [FB2]

## I/O LAD Properties

## General

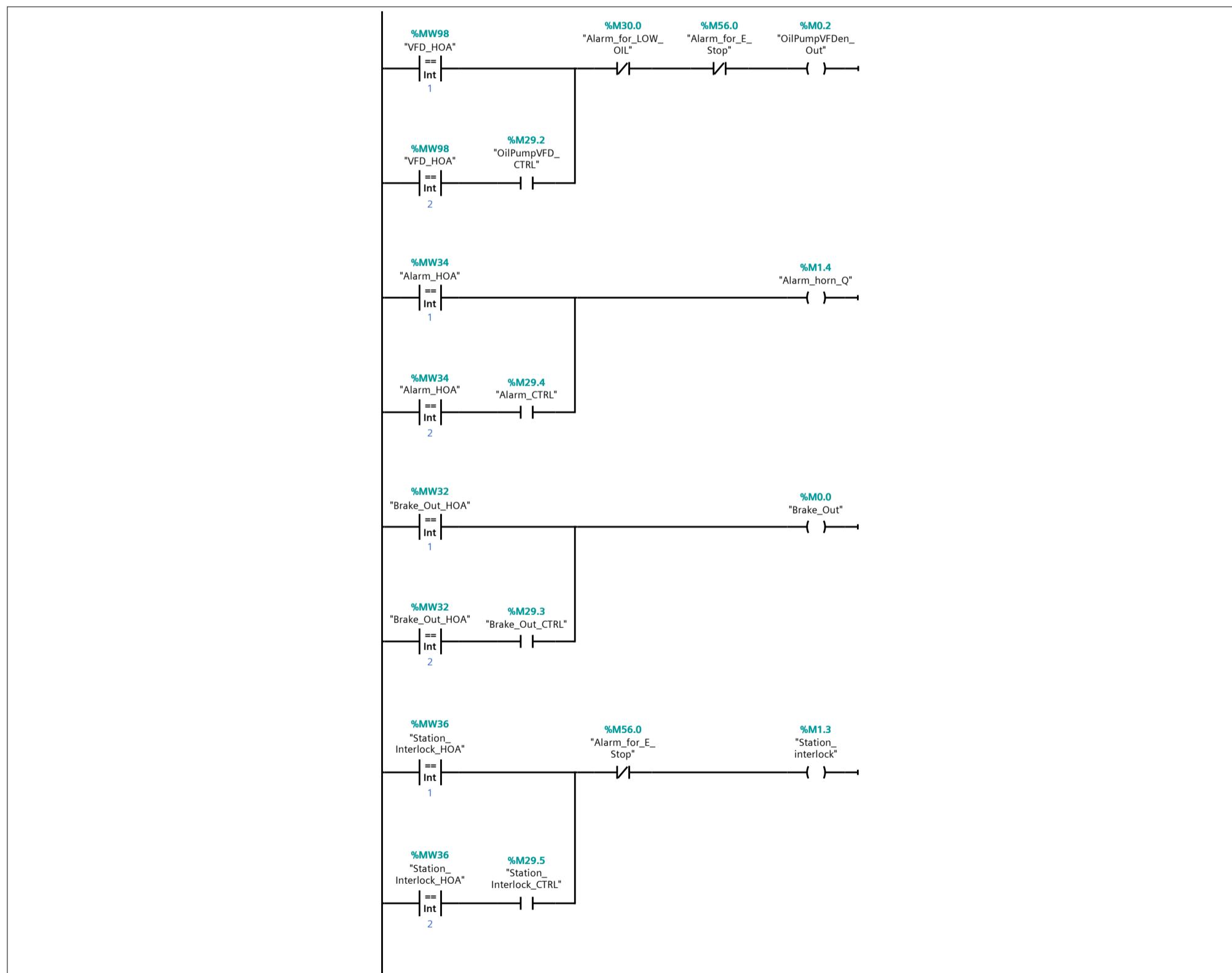
Name	I/O LAD	Number	2	Type	FB	Language	LAD
Numbering	Automatic						

## Information

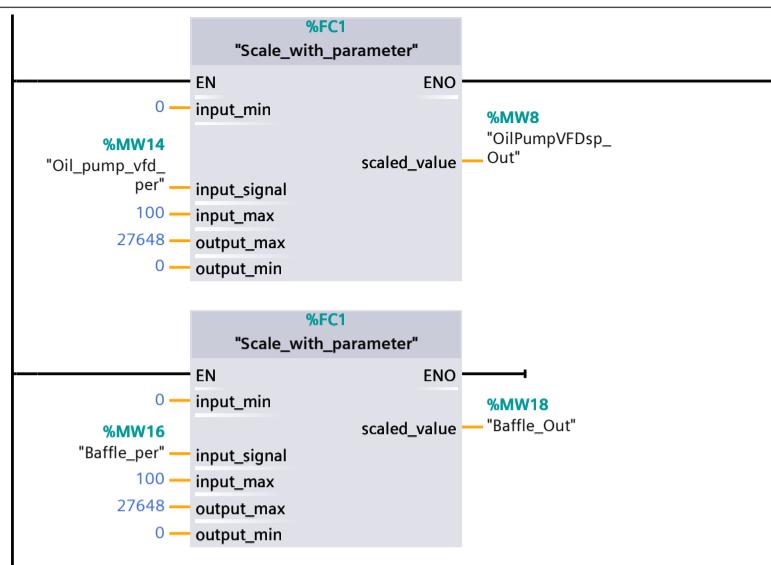
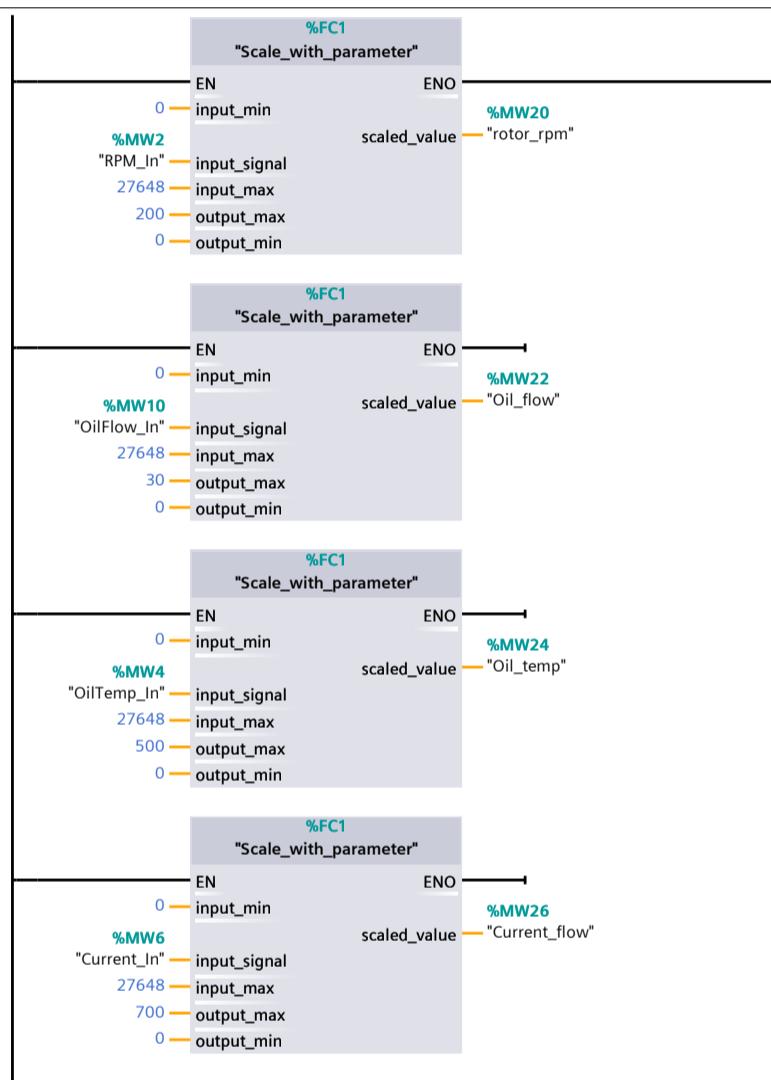
Title	Author	Comment	Gonna defined Analog and Digital I/O :p	Family	
Version	0.1	User-defined ID			

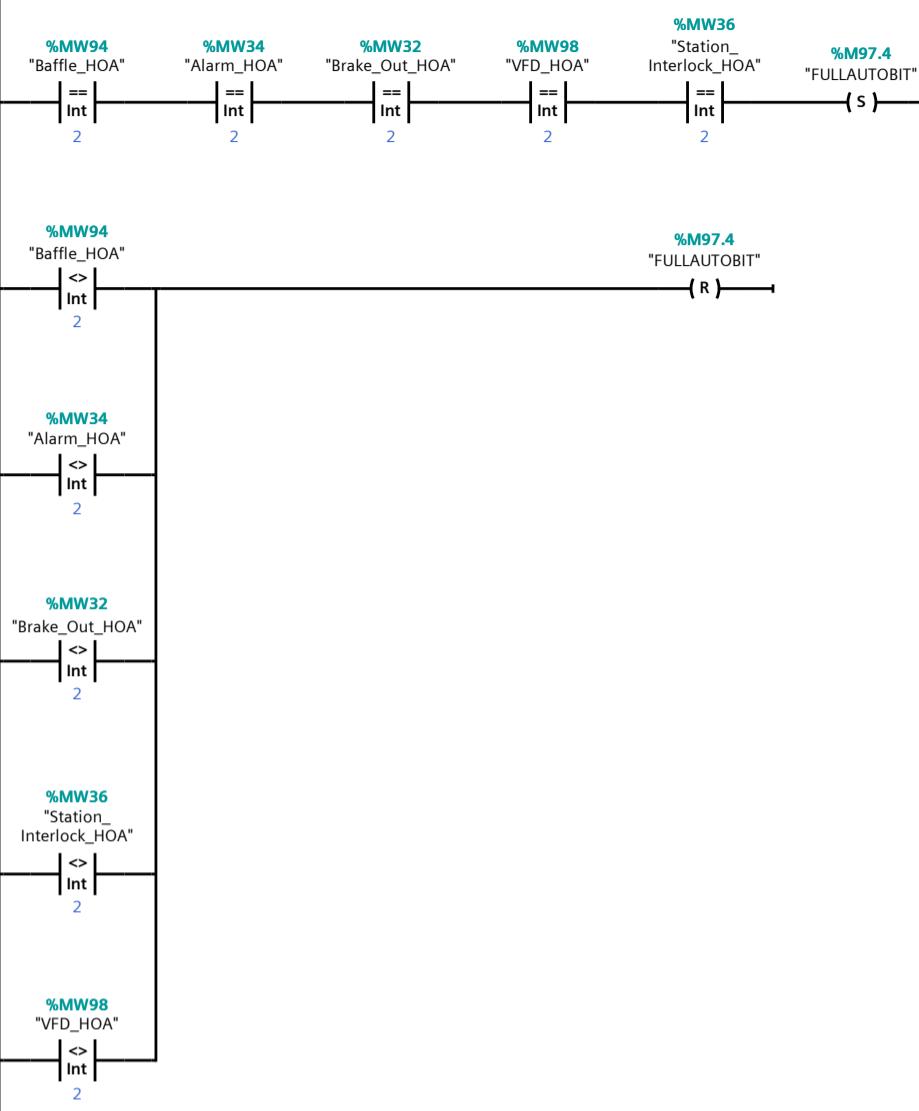
Name	Data type	Default value	Retain
Input			
Output			
InOut			
Static			
Temp			
Constant			

## Network 1: Digital Output's



## Network 2: Analog Output's

**Network 3: Analog Input's****Network 4:**



Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### I/O LAD\_DB [DB2]

I/O LAD_DB Properties							
General							
Name	I/O LAD_DB	Number	2	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
Static							

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### I/O FBD [FB3]

#### I/O FBD Properties

##### General

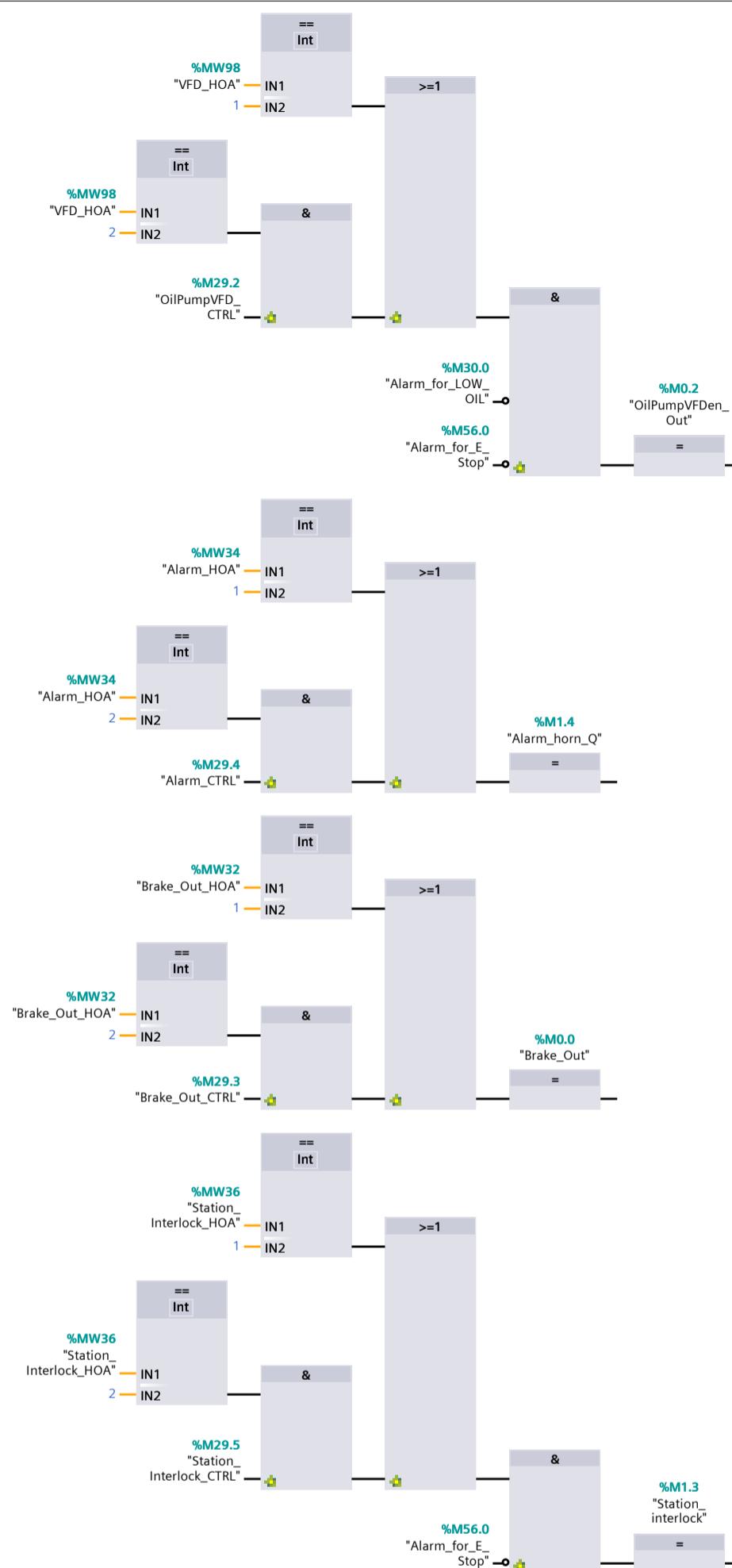
Name	I/O FBD	Number	3	Type	FB	Language	FBD
Numbering	Automatic						

##### Information

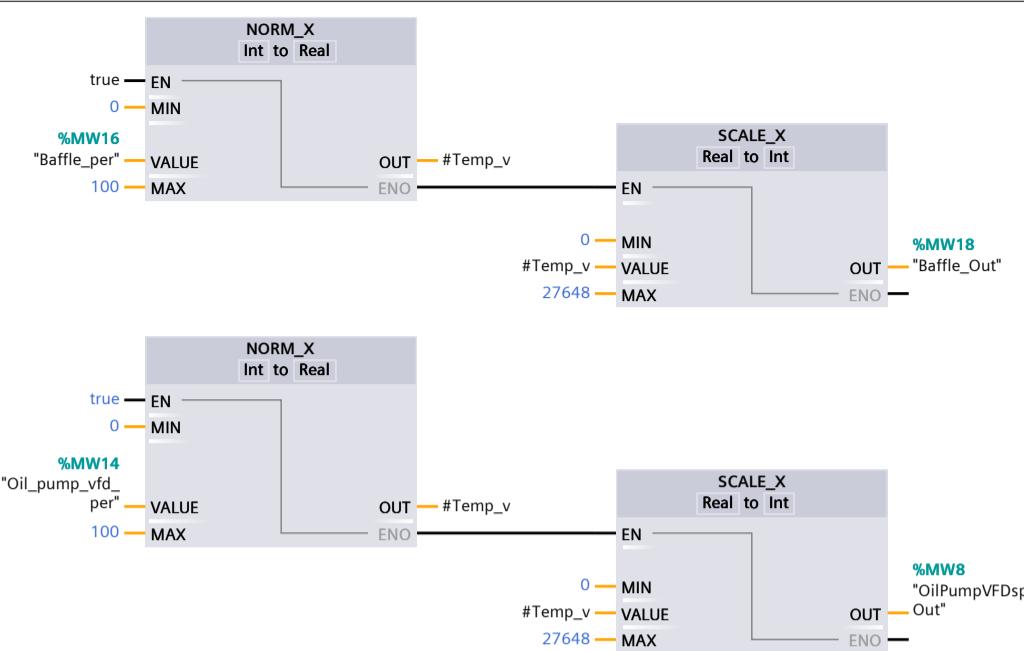
Title	FBD I/O and Scaling parameters	Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value	Retain
Input			
Output			
InOut			
Static			
▼ Temp			
Temp_v	Real		
Constant			

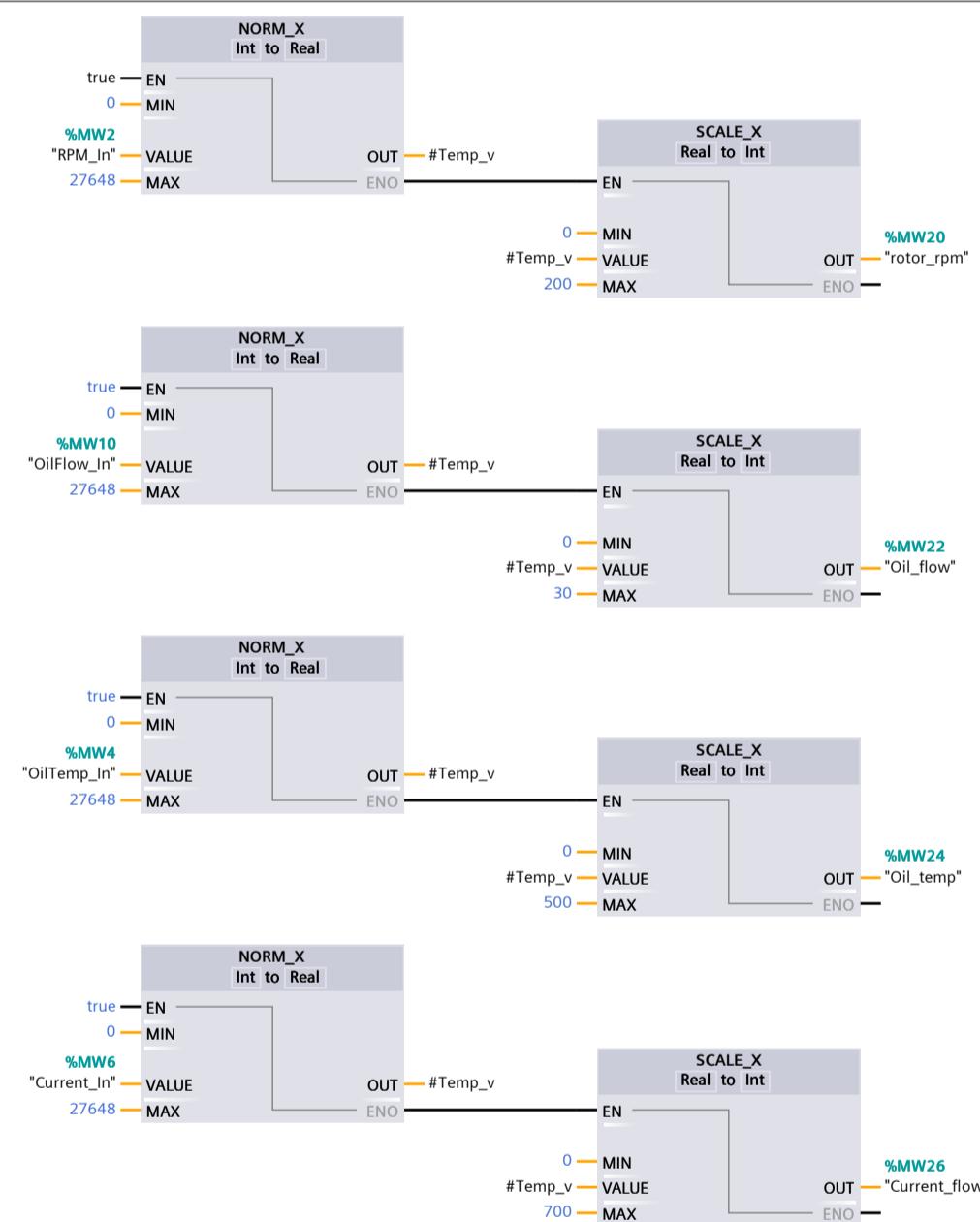
#### Network 1: Digital Output's



Network 2: Analog Output's

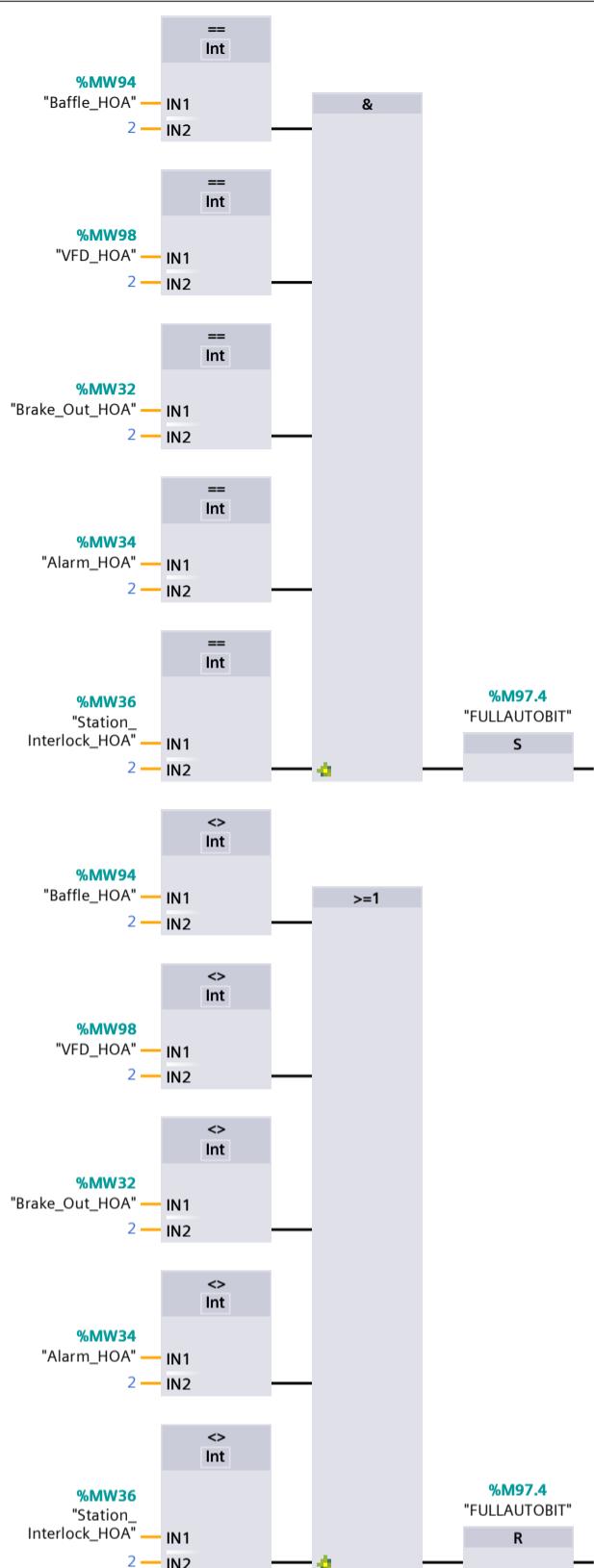


Network 3: Analog Input's



Network 4:

FULLAUTOBIT



Totally Integrated Automation Portal																																																		
<b>Hydroelectric Power Plant / PLC_1 [CPU 1511-1 PN] / Program blocks</b>																																																		
<b>I/O SCL [FB4]</b>																																																		
<b>I/O SCL Properties</b> <table border="1"> <tr> <td colspan="8"><b>General</b></td> </tr> <tr> <td>Name</td><td>I/O SCL</td><td>Number</td><td>4</td><td>Type</td><td>FB</td><td>Language</td><td>SCL</td></tr> <tr> <td>Numbering</td><td>Automatic</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td colspan="8"><b>Information</b></td> </tr> <tr> <td>Title</td><td></td><td>Author</td><td></td><td>Comment</td><td></td><td>Family</td><td></td></tr> <tr> <td>Version</td><td>0.1</td><td>User-defined ID</td><td></td><td></td><td></td><td></td><td></td></tr> </table>			<b>General</b>								Name	I/O SCL	Number	4	Type	FB	Language	SCL	Numbering	Automatic							<b>Information</b>								Title		Author		Comment		Family		Version	0.1	User-defined ID					
<b>General</b>																																																		
Name	I/O SCL	Number	4	Type	FB	Language	SCL																																											
Numbering	Automatic																																																	
<b>Information</b>																																																		
Title		Author		Comment		Family																																												
Version	0.1	User-defined ID																																																
<table border="1"> <thead> <tr> <th>Name</th><th>Data type</th><th>Default value</th><th>Retain</th></tr> </thead> <tbody> <tr><td>Input</td><td></td><td></td><td></td></tr> <tr><td>Output</td><td></td><td></td><td></td></tr> <tr><td>InOut</td><td></td><td></td><td></td></tr> <tr><td>Static</td><td></td><td></td><td></td></tr> <tr><td>Temp</td><td></td><td></td><td></td></tr> <tr><td>Constant</td><td></td><td></td><td></td></tr> </tbody> </table>			Name	Data type	Default value	Retain	Input				Output				InOut				Static				Temp				Constant																							
Name	Data type	Default value	Retain																																															
Input																																																		
Output																																																		
InOut																																																		
Static																																																		
Temp																																																		
Constant																																																		
<pre> 0001 //Digital_Output's 0002 0003 //Oil_Pump_VFD 0004 IF "Alarm_for_E_Stop" OR "Alarm_for_LOW_OIL" OR "VFD_HOA"=0 OR ("VFD_HOA"=2 AND NOT "OilPumpVFD_CTRL") THEN 0005   "OilPumpVFDDen_Out" :=0; 0006 END_IF; 0007 0008 IF "VFD_HOA"=1 OR ("VFD_HOA"=2 AND "OilPumpVFD_CTRL") AND NOT "Alarm_for_LOW_OIL" AND NOT "Alarm_for_E_Stop" THEN 0009   "OilPumpVFDDen_Out" := 1; 0010 END_IF; 0011 0012 // Brake_Out 0013 IF "Brake_Out_HOA"=0 OR ("Brake_Out_HOA"=2 AND NOT "Brake_Out_CTRL") THEN 0014   "Brake_Out" := 0; 0015 END_IF; 0016 0017 IF "Brake_Out_HOA" = 1 OR ("Brake_Out_HOA" = 2 AND "Brake_Out_CTRL") THEN 0018   "Brake_Out" := 1; 0019 END_IF; 0020 0021 // Alarm_Horn 0022 IF "Alarm_HOA" = 0 OR "Alarm_HOA" = 2 AND NOT "Alarm_CTRL" THEN 0023   "Alarm_horn_Q" := 0; 0024 END_IF; 0025 0026 IF "Alarm_HOA" = 1 OR "Alarm_HOA" = 2 AND "Alarm_CTRL" THEN 0027   "Alarm_horn_Q" := 1; 0028 END_IF; 0029 0030 // Station_Interlock 0031 IF "Station_Interlock_HOA" = 0 OR "Station_Interlock_HOA" = 2 AND NOT "Station_Interlock_CTRL" THEN 0032   "Station_interlock" := 0; 0033 END_IF; 0034 0035 IF "Station_Interlock_HOA" = 1 OR "Station_Interlock_HOA" = 2 AND "Station_Interlock_CTRL" THEN 0036   "Station_interlock" := 1; 0037 END_IF; 0038 0039 0040 0041 0042 //Analog_Output's 0043 "Scale_with_parameter"(input_min:=0, 0044   input_signal:="Oil_pump_vfd_per", 0045   input_max:=100, 0046   output_max:=27648, 0047   output_min:=0, 0048   scaled_value=&gt;"OilPumpVFDsp_Out"); 0049 0050 "Scale_with_parameter"(input_min := 0, 0051   input_signal := "Baffle_per", 0052   input_max := 100, 0053   output_max := 27648, 0054   output_min := 0, 0055   scaled_value =&gt; "Baffle_Out"); 0056 0057 //Analog_Input's 0058 "Scale_with_parameter"(input_min := 0, 0059   input_signal := "RPM_In", 0060   input_max := 27648, 0061   output_max := 200, 0062   output_min := 0, 0063   scaled_value =&gt; "rotor_rpm"); 0064 0065 "Scale_with_parameter"(input_min := 0, 0066   input_signal := "OilTemp_In", 0067   input_max := 27648,</pre>																																																		

Totally Integrated Automation Portal		
	<pre>0068          output_max := 500, 0069          output_min := 0, 0070          scaled_value =&gt; "Oil_temp"); 0071 0072 "Scale_with_parameter"(input_min := 0, 0073     input_signal := "OilFlow_In", 0074     input_max := 27648, 0075     output_max := 30, 0076     output_min := 0, 0077     scaled_value =&gt; "Oil_flow"); 0078 0079 "Scale_with_parameter"(input_min := 0, 0080     input_signal := "Current_In", 0081     input_max := 27648, 0082     output_max := 700, 0083     output_min := 0, 0084     scaled_value =&gt; "Current_flow"); 0085 0086 //FULL AUTO BIT 0087 IF "Baffle_HOA" = 2 AND "Alarm_HOA" = 0 AND "VFD_HOA"=0 AND "Brake_Out_HOA" = 0 AND "Station_Interlock_HOA" = 0 THEN 0088     "FULLAUTOBIT" := 1; 0089 ELSE 0090     "FULLAUTOBIT" := 0; 0091 END_IF; 0092 0093 0094</pre>	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### I/O STL [FB5]

I/O STL Properties							
General							
Name	I/O STL	Number	5	Type	FB	Language	STL
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Default value		Retain	
Input							
Output							
InOut							
Static							
Temp							
Constant							

#### Network 1:

```

0001 //Digital_Output's
0002
0003 OilPumpVFD : A "Alarm_for_LOW_OIL"
0004     JC ResetOilPumpVFD
0005     CLR
0006     A "Alarm_for_E_Stop"
0007     JC ResetOilPumpVFD
0008     L "VFD_HOA"
0009     L 0
0010 ==I
0011     JC ResetOilPumpVFD
0012     CLR
0013     L "VFD_HOA"
0014     L 1
0015 ==I
0016     JC SetoilPumpVFD
0017     CLR
0018     L "VFD_HOA"
0019     L 2
0020 ==I
0021     JC SetoilPumpVFD
0022 AutoOilPumpVFD : A "OilPumpVFD_CTRL"
0023     JC SetoilPumpVFD
0024     JU ResetOilPumpVFD
0025
0026 SetoilPumpVFD : AN "Alarm_for_LOW_OIL"
0027     AN "Alarm_for_E_Stop"
0028     S "OilPumpVFDen_Out"
0029     JU Brake_Out
0030 ResetOilPumpVFD : R "OilPumpVFDen_Out"
0031     JU Brake_Out
0032
0033
0034 Brake_Out : L "Brake_Out_HOA"
0035     L 0
0036 ==I
0037     JC ResetBrake_Out
0038     CLR
0039     L "Brake_Out_HOA"
0040     L 1
0041 ==I
0042     JC SetBrake_Out
0043     CLR
0044     L "Brake_Out_HOA"
0045     L 2
0046 ==I
0047     JC SetBrake_Out
0048 AutoBrake_Out : A "Brake_Out_CTRL"
0049     JC SetBrake_Out
0050     JU ResetBrake_Out
0051
0052 SetBrake_Out : S "Brake_Out"
0053     JU Alarm_horn
0054 ResetBrake_Out : R "Brake_Out"
0055     JU Alarm_horn
0056
0057
0058 Alarm_horn : L "Alarm_HOA"
0059     L 0
0060 ==I
0061     JC ResetAlarm_Horn
0062     CLR
0063     L "Alarm_HOA"

```

Totally Integrated Automation Portal		
	<pre> 0064      L     1 0065      ==I 0066      JC    SetAlarm_Horn 0067      CLR 0068      L    "Alarm_HOA" 0069      L     2 0070      ==I 0071      JC    SetAlarm_Horn 0072 AutoAlarm_Horn : A "Alarm_CTRL" 0073      JC    SetAlarm_Horn 0074      JU    ResetAlarm_Horn 0075 0076 SetAlarm_Horn : S "Alarm_horn_Q" 0077      JU    Station_Interlock 0078 ResetAlarm_Horn : R "Alarm_horn_Q" 0079      JU    Station_Interlock 0080 0081 0082 Station_Interlock : A "Alarm_for_E_Stop" 0083      JC    ResetStation_interlock 0084      L    "Station_Interlock_HOA" 0085      L     0 0086      ==I 0087      JC    ResetStation_interlock 0088      CLR 0089      L    "Station_Interlock_HOA" 0090      L     1 0091      ==I 0092      JC    SetStation_interlock 0093      CLR 0094      L    "Station_Interlock_HOA" 0095      L     2 0096      ==I 0097      JC    SetStation_interlock 0098 AutoStation_interlock : A "Station_Interlock_CTRL" 0099      JC    SetStation_interlock 0100      JU    ResetStation_interlock 0101 0102 SetStation_interlock : S "Station_interlock" 0103      AN    "Alarm_for_E_Stop" 0104      JU    Analog_Output 0105 ResetStation_interlock : R "Station_interlock" 0106      JU    Analog_Output 0107 0108 0109 0110 //Analog_Output's 0111 0112 Analog_Output : CALL "Scale_with_parameter" 0113      input_min    :=0 0114      input_signal :="Oil_pump_vfd_per" 0115      input_max     :=100 0116      output_max    :=27648 0117      output_min    :=0 0118      scaled_value  :="OilPumpVFDsp_Out" 0119 0120      CALL "Scale_with_parameter" 0121      input_min    :=0 0122      input_signal :="Baffle_per" 0123      input_max     :=100 0124      output_max    :=27648 0125      output_min    :=0 0126      scaled_value  :="Baffle_Out" 0127 0128 //Analog_Input's 0129 Analog_Input : CALL "Scale_with_parameter" 0130      input_min    :=0 0131      input_signal :="OilTemp_In" 0132      input_max     :=27648 0133      output_max    :=500 0134      output_min    :=0 0135      scaled_value  :="Oil_temp" 0136 0137      CALL "Scale_with_parameter" 0138      input_min    :=0 0139      input_signal :="OilFlow_In" 0140      input_max     :=27648 0141      output_max    :=30 0142      output_min    :=0 0143      scaled_value  :="Oil_flow" 0144 0145      CALL "Scale_with_parameter" 0146      input_min    :=0 0147      input_signal :="RPM_In" 0148      input_max     :=27648 0149      output_max    :=200 0150      output_min    :=0 0151      scaled_value  :="rotor_rpm" </pre>	

Totally Integrated Automation Portal		
	<pre> 0152 0153      CALL  "Scale_with_parameter" 0154          input_min    :=0 0155          input_signal :="Current_In" 0156          input_max     :=27648 0157          output_max   :=700 0158          output_min   :=0 0159          scaled_value :="Current_flow" 0160 0161 //FULL AUTO BIT 0162      CLR 0163      L    "Baffle_HOA" 0164      L    2 0165      ==I 0166      NOT 0167      JC   ResetFullAuto 0168      CLR 0169      L    "VFD_HOA" 0170      L    2 0171      ==I 0172      NOT 0173      JC   ResetFullAuto 0174      CLR 0175      L    "Alarm_HOA" 0176      L    2 0177      ==I 0178      NOT 0179      JC   ResetFullAuto 0180      CLR 0181      L    "Brake_Out_HOA" 0182      L    2 0183      ==I 0184      NOT 0185      JC   ResetFullAuto 0186      CLR 0187      L    "Station_Interlock_HOA" 0188      L    2 0189      ==I 0190      NOT 0191      JC   ResetFullAuto 0192      CLR 0193      SET 0194      S    "FULLAUTOBIT" 0195      JU   endofline 0196 0197 ResetFullAuto : SET 0198      NOT 0199      R    "FULLAUTOBIT" 0200      JU   endofline 0201 0202 0203 endofline : BE 0204 0205 0206 0207 0208 0209 0210 </pre>	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### I/O FBD\_DB [DB4]

I/O FBD_DB Properties							
General							
Name	I/O FBD_DB	Number	4	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
Static							

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### I/O SCL\_DB [DB5]

I/O SCL_DB Properties							
General							
Name	I/O SCL_DB	Number	5	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
Static							

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### I/O STL\_DB [DB6]

I/O STL_DB Properties							
General							
Name	I/O STL_DB	Number	6	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
Static							

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## Scale\_with\_parameter [FC1]

## Scale\_with\_parameter Properties

## General

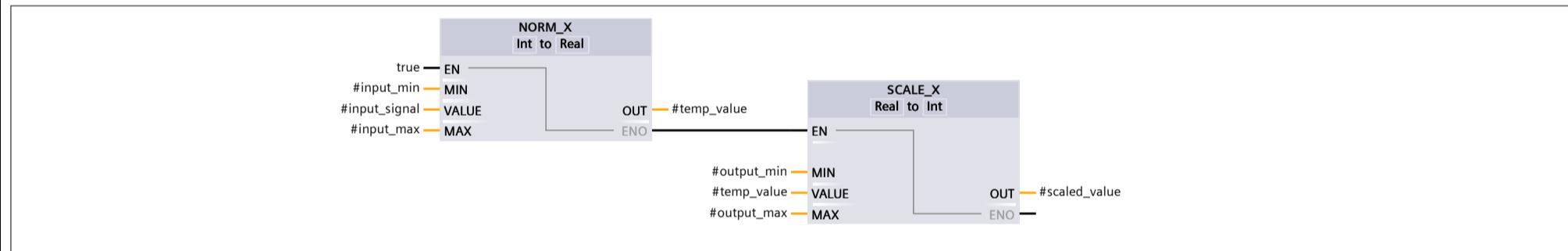
Name	Scale_with_parameter	Number	1	Type	FC	Language	FBD
Numbering	Automatic						

## Information

Title		Author	<th>Comment</th> <td><th>Family</th><td></td></td>	Comment	<th>Family</th> <td></td>	Family	
Version	0.1	User-defined ID					

Name	Data type	Default value
▼ Input		
input_min	Int	
input_signal	Int	
input_max	Int	
output_max	Int	
output_min	Int	
▼ Output		
scaled_value	Int	
InOut		
▼ Temp		
temp_value	Real	
Constant		
▼ Return		
Scale_with_parameter	Void	

## Network 1:



## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## HOA\_LAD [FB6]

## HOA\_LAD Properties

## General

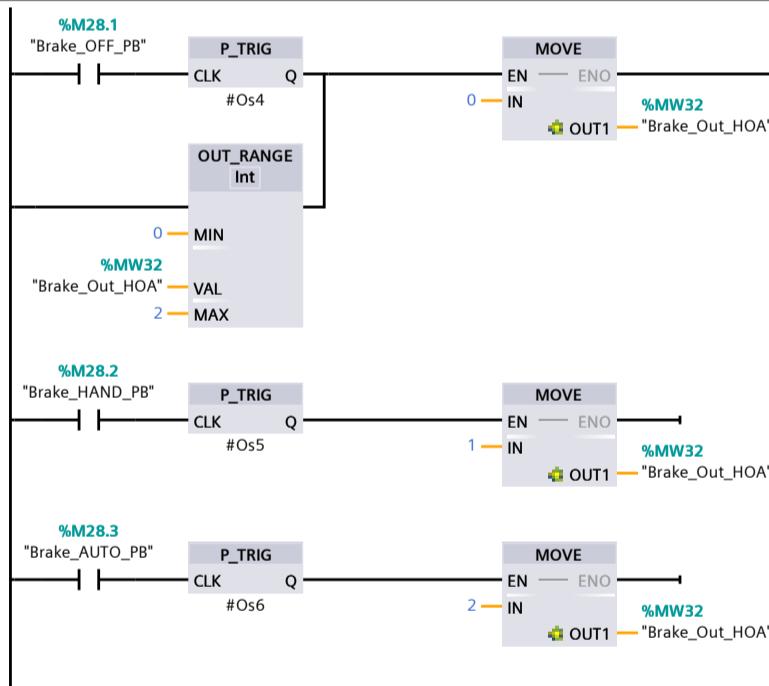
Name	HOA_LAD	Number	6	Type	FB	Language	LAD
Numbering	Automatic						

## Information

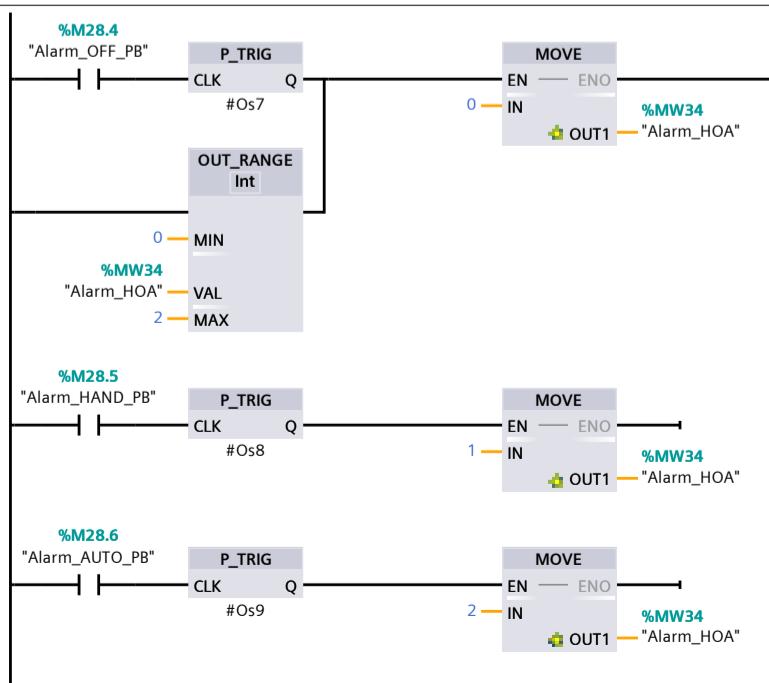
Title	Push Button for HOA (OFF, HAND, AUTO)	Author		Comment		Family	
Version	0.1	User-defined ID					

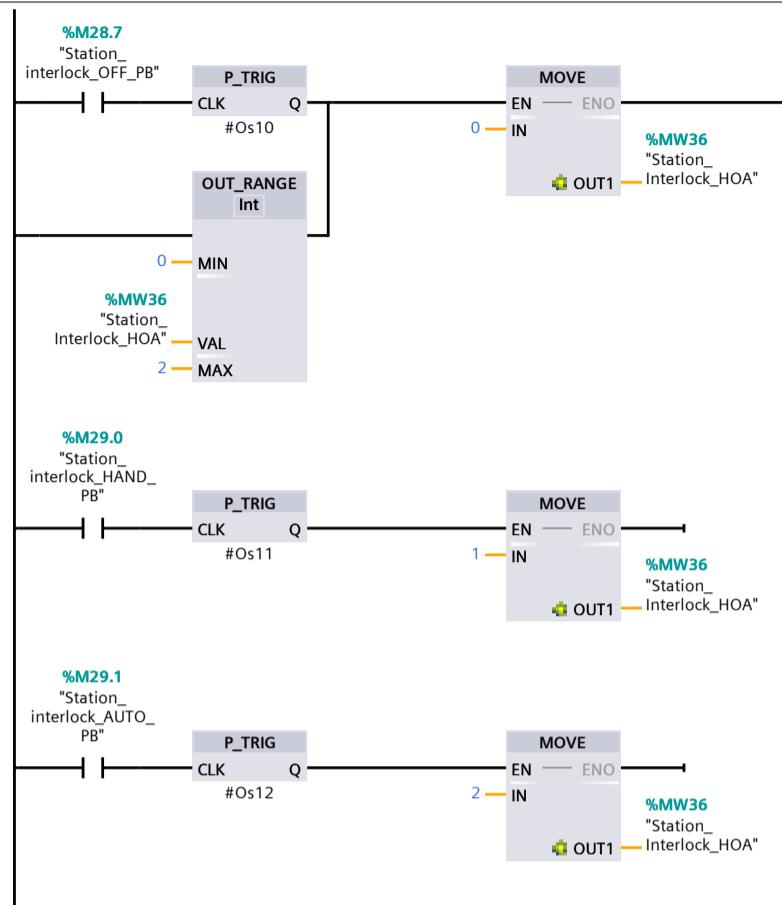
Name	Data type	Default value	Retain
Input			
Output			
InOut			
▼ Static			
Os3	Bool	false	Non-retain
Os2	Bool	false	Non-retain
Os1	Bool	false	Non-retain
Os4	Bool	false	Non-retain
Os5	Bool	false	Non-retain
Os6	Bool	false	Non-retain
Os7	Bool	false	Non-retain
Os8	Bool	false	Non-retain
Os9	Bool	false	Non-retain
Os10	Bool	false	Non-retain
Os11	Bool	false	Non-retain
Os12	Bool	false	Non-retain
Temp			
Constant			

## Network 1:



## Network 2:



**Network 3:**

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## HOA\_FBD [FB7]

## HOA\_FBD Properties

## General

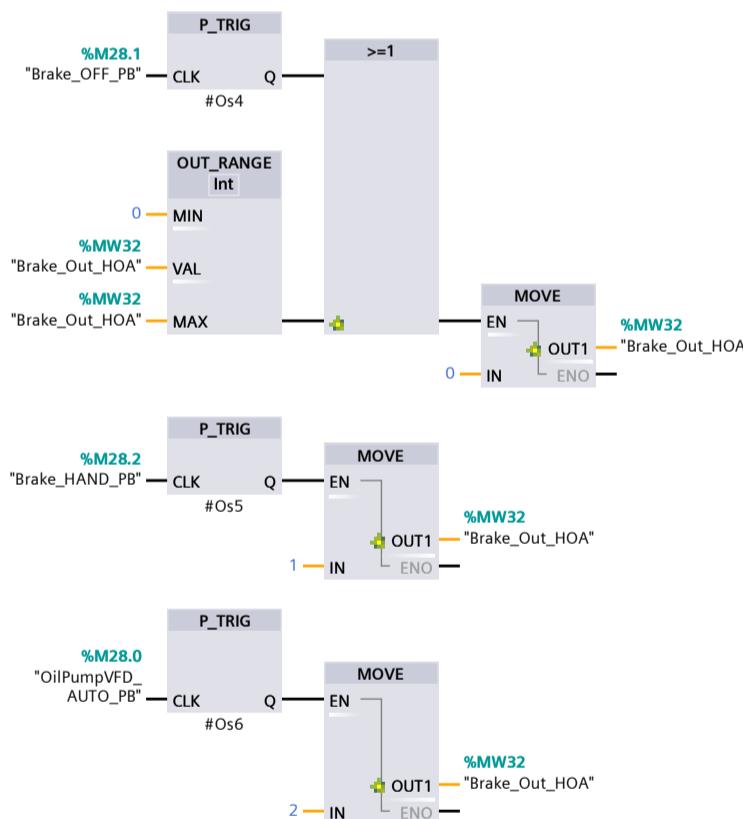
Name	HOA_FBD	Number	7	Type	FB	Language	FBD
Numbering	Automatic						

## Information

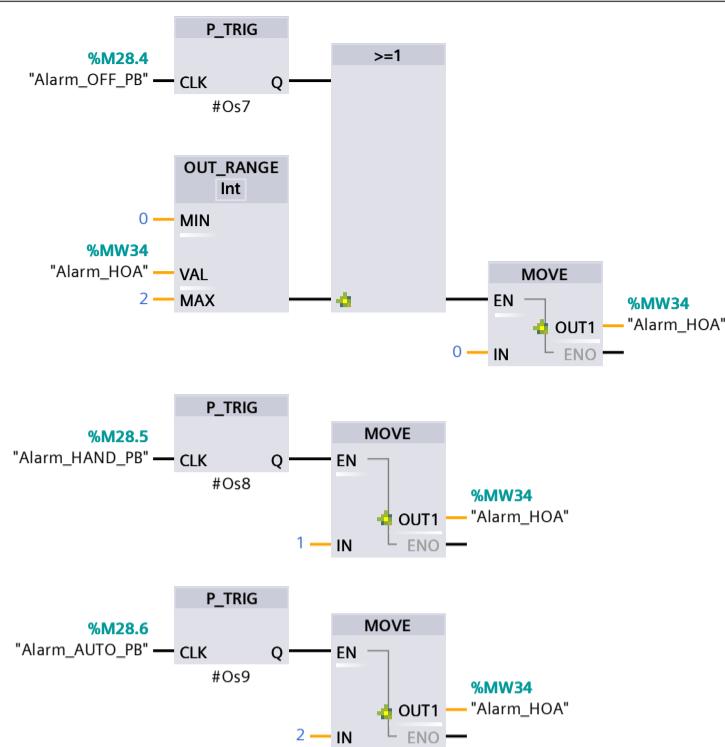
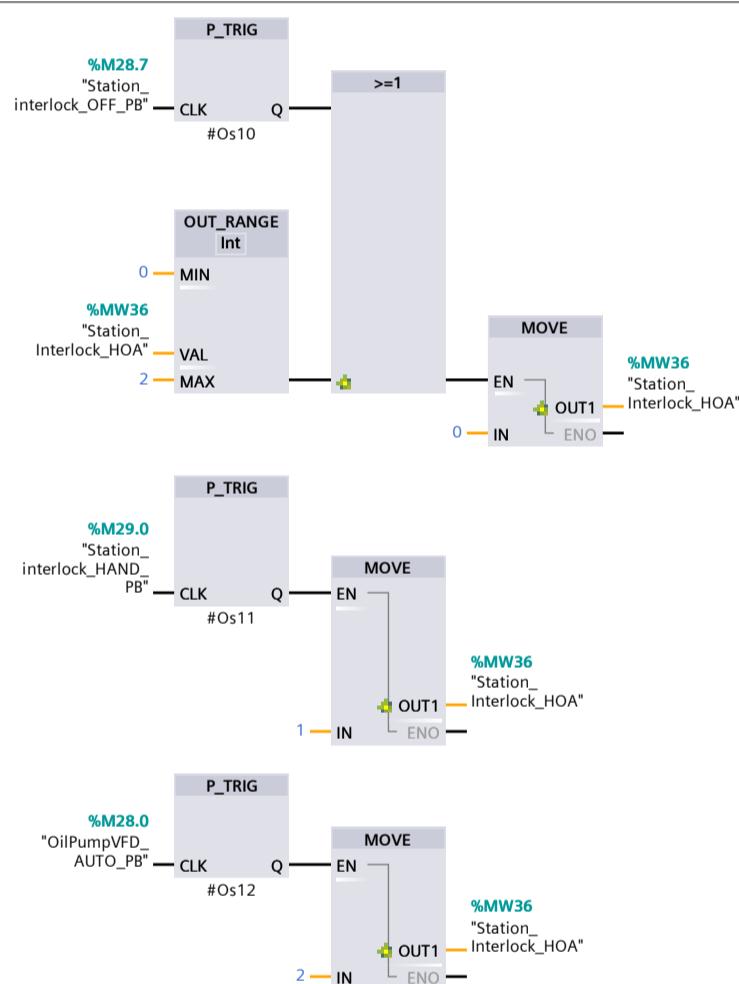
Title	Author	Comment	Family
Version	0.1	User-defined ID	

Name	Data type	Default value	Retain
Input			
Output			
InOut			
▼ Static			
Os1	Bool	false	Non-retain
Os2	Bool	false	Non-retain
Os3	Bool	false	Non-retain
Os4	Bool	false	Non-retain
Os5	Bool	false	Non-retain
Os6	Bool	false	Non-retain
Os7	Bool	false	Non-retain
Os8	Bool	false	Non-retain
Os9	Bool	false	Non-retain
Os10	Bool	false	Non-retain
Os11	Bool	false	Non-retain
Os12	Bool	false	Non-retain
Temp			
Constant			

## Network 1:



## Network 2:

**Network 3:**

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOA\_SCL [FB8]

HOA_SCL Properties							
General							
Name	HOA_SCL	Number	8	Type	FB	Language	SCL
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Default value		Retain	
Input							
Output							
InOut							
Static							
Temp							
Constant							

```

0001 //Brake ControlHOA
0002 IF "Brake_Out_HOA" < 0 OR "Brake_Out_HOA" > 2 THEN
0003   "Brake_Out_HOA" := 0;
0004 END_IF;
0005
0006 IF "Brake_OFF_PB" AND "Brake_Out_HOA" <> 0 THEN
0007   "Brake_Out_HOA" := 0;
0008 END_IF;
0009
0010 IF "Brake_HAND_PB" AND "Brake_Out_HOA" <> 1 THEN
0011   "Brake_Out_HOA" := 1;
0012 END_IF;
0013
0014 IF "Brake_AUTO_PB" AND "Brake_Out_HOA" <> 2 THEN
0015   "Brake_Out_HOA" := 2;
0016 END_IF;
0017
0018
0019 //Alarm ControlHOA
0020 IF "Alarm_HOA" < 0 OR "Alarm_HOA" > 2 THEN
0021   "Alarm_HOA" := 0;
0022 END_IF;
0023
0024 IF "Alarm_OFF_PB" AND "Alarm_HOA" <> 0 THEN
0025   "Alarm_HOA" := 0;
0026 END_IF;
0027
0028 IF "Alarm_HAND_PB" AND "Alarm_HOA" <> 1 THEN
0029   "Alarm_HOA" := 1;
0030 END_IF;
0031
0032 IF "Alarm_AUTO_PB" AND "Alarm_HOA" <> 2 THEN
0033   "Alarm_HOA" := 2;
0034 END_IF;
0035
0036 //Station InterlockHOA
0037 IF "Station_Interlock_HOA" < 0 OR "Station_Interlock_HOA" > 2 THEN
0038   "Station_Interlock_HOA" := 0;
0039 END_IF;
0040
0041 IF "Station_interlock_OFF_PB" AND "Station_Interlock_HOA" <> 0 THEN
0042   "Station_Interlock_HOA" := 0;
0043 END_IF;
0044
0045 IF "Station_interlock_HAND_PB" AND "Station_Interlock_HOA" <> 1 THEN
0046   "Station_Interlock_HOA" := 1;
0047 END_IF;
0048
0049 IF "Station_interlock_AUTO_PB" AND "Station_Interlock_HOA" <> 2 THEN
0050   "Station_Interlock_HOA" := 2;
0051 END_IF;
0052

```

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOA\_STL [FB9]

HOA_STL Properties							
General							
Name	HOA_STL	Number	9	Type	FB	Language	STL
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Default value		Retain	
Input							
Output							
InOut							
▼ Static							
OS1		Bool		false		Non-retain	
OS2		Bool		false		Non-retain	
OS3		Bool		false		Non-retain	
OS4		Bool		false		Non-retain	
OS5		Bool		false		Non-retain	
OS6		Bool		false		Non-retain	
OS7		Bool		false		Non-retain	
OS8		Bool		false		Non-retain	
OS9		Bool		false		Non-retain	
OS10		Bool		false		Non-retain	
OS11		Bool		false		Non-retain	
OS12		Bool		false		Non-retain	
Temp							
Constant							

#### Network 1:

```

0001      L      "Brake_Out_HOA"
0002      L      0
0003      <I
0004      JC    SetBrakeoutHOAZero
0005      CLR
0006      L      "Brake_Out_HOA"
0007      L      2
0008      >I
0009      JC    SetBrakeoutHOAZero
0010      CLR
0011      A      "Brake_OFF_PB"
0012      FP    #OS4
0013      JC    SetBrakeoutHOAZero
0014      CLR
0015      A      "Brake_HAND_PB"
0016      FP    #OS5
0017      JC    SetBrakeoutHOAOne
0018      CLR
0019      A      "Brake_AUTO_PB"
0020      FP    #OS6
0021      JC    SetBrakeoutHOATwo
0022      JU    Alarm_Horn
0023
0024  SetBrakeoutHOAZero : L 0
0025      T      "Brake_Out_HOA"
0026      JU    Alarm_Horn
0027  SetBrakeoutHOAOne : L 1
0028      T      "Brake_Out_HOA"
0029      JU    Alarm_Horn
0030  SetBrakeoutHOATwo : L 2
0031      T      "Brake_Out_HOA"
0032      JU    Alarm_Horn
0033
0034
0035  Alarm_Horn : L "Alarm_HOA"
0036      L      0
0037      <I
0038      JC    SetAlarmHOAZero
0039      CLR
0040      L      "Alarm_HOA"
0041      L      2
0042      >I
0043      JC    SetAlarmHOAZero
0044      CLR
0045      A      "Alarm_OFF_PB"
0046      FP    #OS7
0047      JC    SetAlarmHOAZero
0048      CLR
0049      A      "Alarm_HAND_PB"

```

Totally Integrated Automation Portal		
	<pre> 0050      FP    #OS8 0051      JC    SetAlarmHOAOne 0052      CLR 0053      A     "Alarm_AUTO_PB" 0054      FP    #OS9 0055      JC    SetAlarmHOATwo 0056      JU    Station_Interlock 0057 0058  SetAlarmHOAZero : L 0 0059      T     "Alarm_HOA" 0060      JU    Station_Interlock 0061  SetAlarmHOAOne : L 1 0062      T     "Alarm_HOA" 0063      JU    Station_Interlock 0064  SetAlarmHOATwo : L 2 0065      T     "Alarm_HOA" 0066      JU    Station_Interlock 0067 0068 0069  Station_Interlock : L "Station_Interlock_HOA" 0070      L     0 0071      &lt;I 0072      JC    SetStationInterlockHOAZero 0073      CLR 0074      L     "Station_Interlock_HOA" 0075      L     2 0076      &gt;I 0077      JC    SetStationInterlockHOAZero 0078      CLR 0079      A     "Station_interlock_OFF_PB" 0080      FP    #OS10 0081      JC    SetStationInterlockHOAZero 0082      CLR 0083      A     "Station_interlock_HAND_PB" 0084      FP    #OS11 0085      JC    SetStationInterlockHOAOne 0086      CLR 0087      A     "Station_interlock_AUTO_PB" 0088      FP    #OS12 0089      JC    SetStationInterlockHOATwo 0090      JU    Endofline 0091 0092  SetStationInterlockHOAZero : L 0 0093      T     "Station_Interlock_HOA" 0094      BE 0095  SetStationInterlockHOAOne : L 1 0096      T     "Station_Interlock_HOA" 0097      BE 0098  SetStationInterlockHOATwo : L 2 0099      T     "Station_Interlock_HOA" 0100      BE 0101 Endofline : BE 0102 0103 0104 </pre>	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## HOA\_LAD\_DB [DB7]

## HOA\_LAD\_DB Properties

## General

Name	HOA_LAD_DB	Number	7	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
Os3	Bool	false	False
Os2	Bool	false	False
Os1	Bool	false	False
Os4	Bool	false	False
Os5	Bool	false	False
Os6	Bool	false	False
Os7	Bool	false	False
Os8	Bool	false	False
Os9	Bool	false	False
Os10	Bool	false	False
Os11	Bool	false	False
Os12	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## HOA\_FBD\_DB [DB8]

## HOA\_FBD\_DB Properties

## General

Name	HOA_FBD_DB	Number	8	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
Os1	Bool	false	False
Os2	Bool	false	False
Os3	Bool	false	False
Os4	Bool	false	False
Os5	Bool	false	False
Os6	Bool	false	False
Os7	Bool	false	False
Os8	Bool	false	False
Os9	Bool	false	False
Os10	Bool	false	False
Os11	Bool	false	False
Os12	Bool	false	False

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOA\_SCL\_DB [DB9]

HOA_SCL_DB Properties							
General							
Name	HOA_SCL_DB	Number	9	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
Static							

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOA\_STL\_DB [DB10]

#### HOA\_STL\_DB Properties

##### General

Name	HOA_STL_DB	Number	10	Type	DB	Language	DB
Numbering	Automatic						

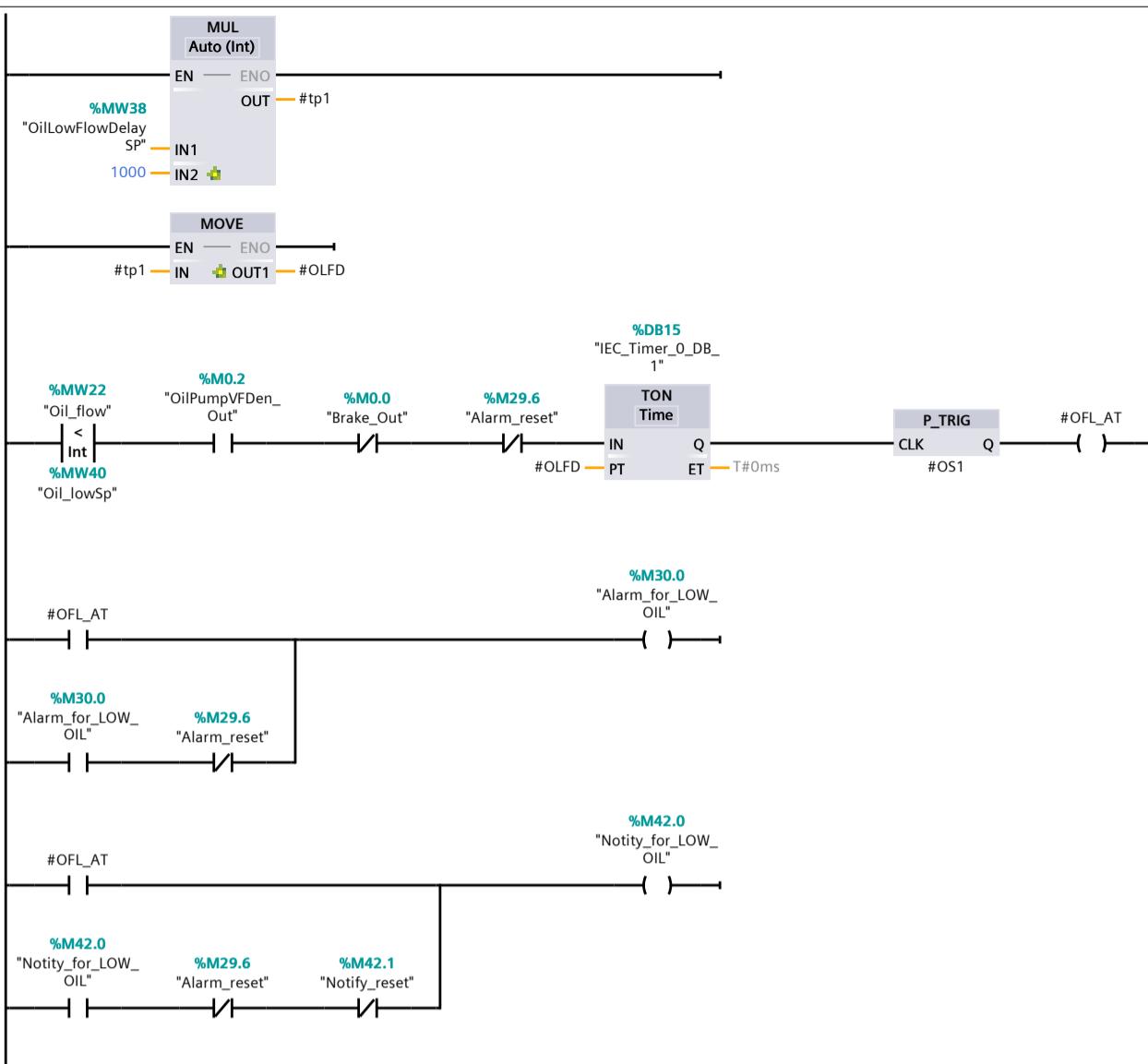
##### Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

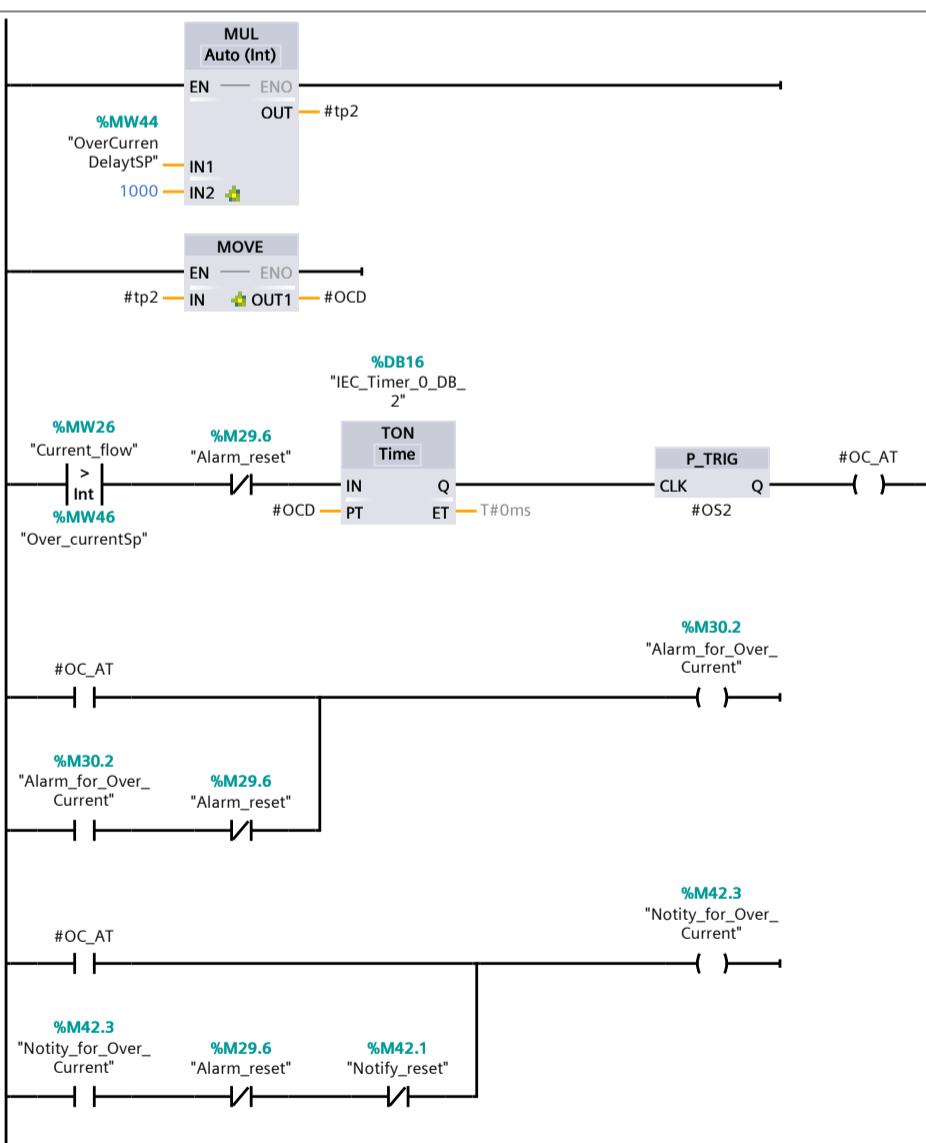
Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
OS1	Bool	false	False
OS2	Bool	false	False
OS3	Bool	false	False
OS4	Bool	false	False
OS5	Bool	false	False
OS6	Bool	false	False
OS7	Bool	false	False
OS8	Bool	false	False
OS9	Bool	false	False
OS10	Bool	false	False
OS11	Bool	false	False
OS12	Bool	false	False

Totally Integrated Automation Portal							
<b>Hydroelectric Power Plant / PLC_1 [CPU 1511-1 PN] / Program blocks</b>							
<b>Alarm_LAD [FB10]</b>							
<b>Alarm_LAD Properties</b>							
<b>General</b>							
Name	Alarm_LAD	Number	10	Type	FB	Language	LAD
Numbering	Automatic						
<b>Information</b>							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
<b>Variables</b>							
Name	Data type	Default value	Retain				
Input							
Output							
InOut							
▼ Static							
OS1	Bool	false	Non-retain				
OS2	Bool	false	Non-retain				
OS3	Bool	false	Non-retain				
OS4	Bool	false	Non-retain				
OS5	Bool	false	Non-retain				
OS6	Bool	false	Non-retain				
OS7	Bool	false	Non-retain				
os8	Bool	false	Non-retain				
▼ Temp							
tp1	Int						
OLFD	Time						
OFL_AT	Bool						
tp2	Int						
OCD	Time						
OC_AT	Bool						
tp3	Int						
HOT	Time						
HOT_AT	Bool						
tp4	Int						
ROS	Time						
ROS_AT	Bool						
tp5	Int						
OHF	Time						
OHF_AT	Bool						
tp6	Int						
BF	Time						
BF_AT	Bool						
ES_AT	Bool						
AlarmTrigger	Bool						
Constant							

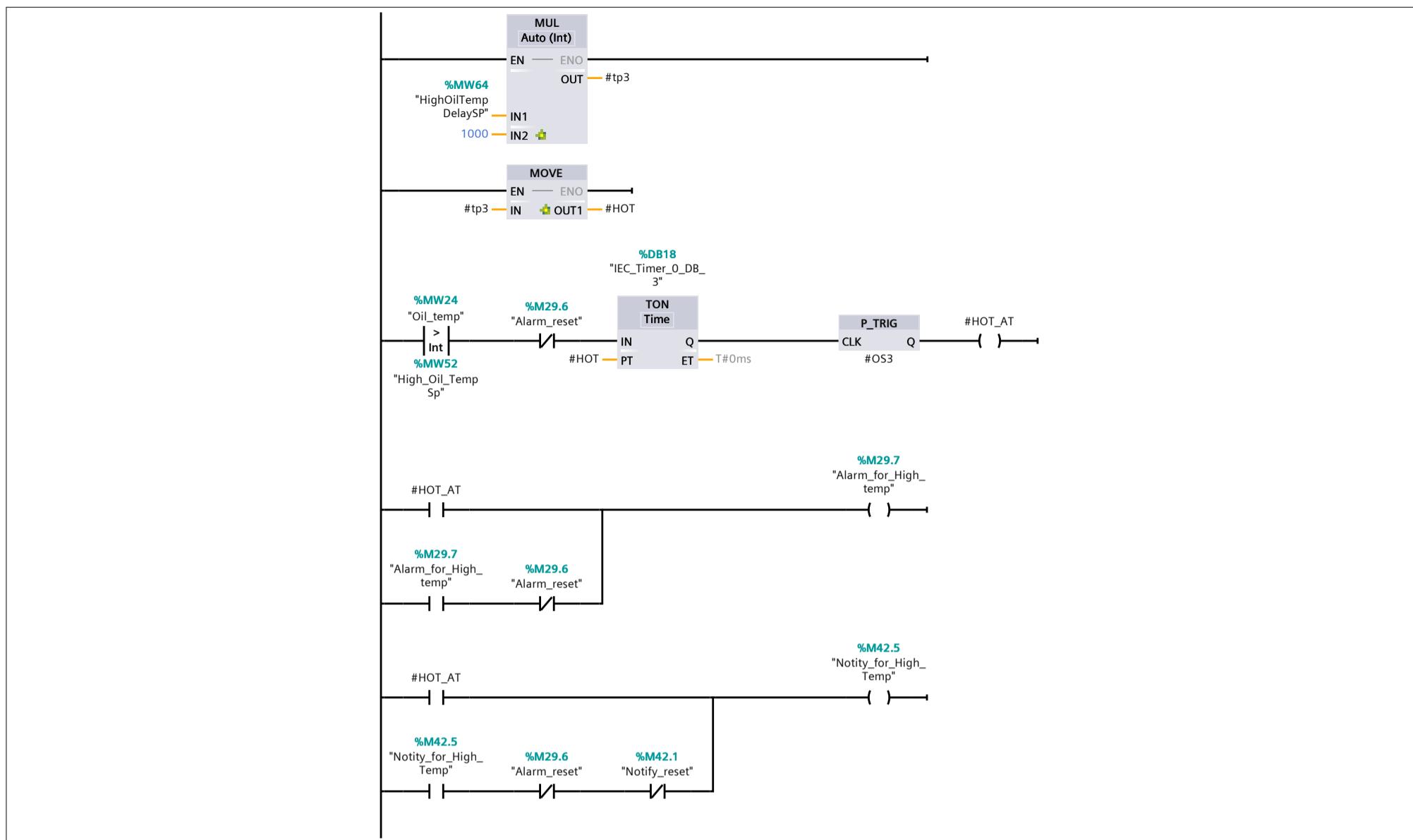
#### Network 1: Alarm for OIL LOW FLOW



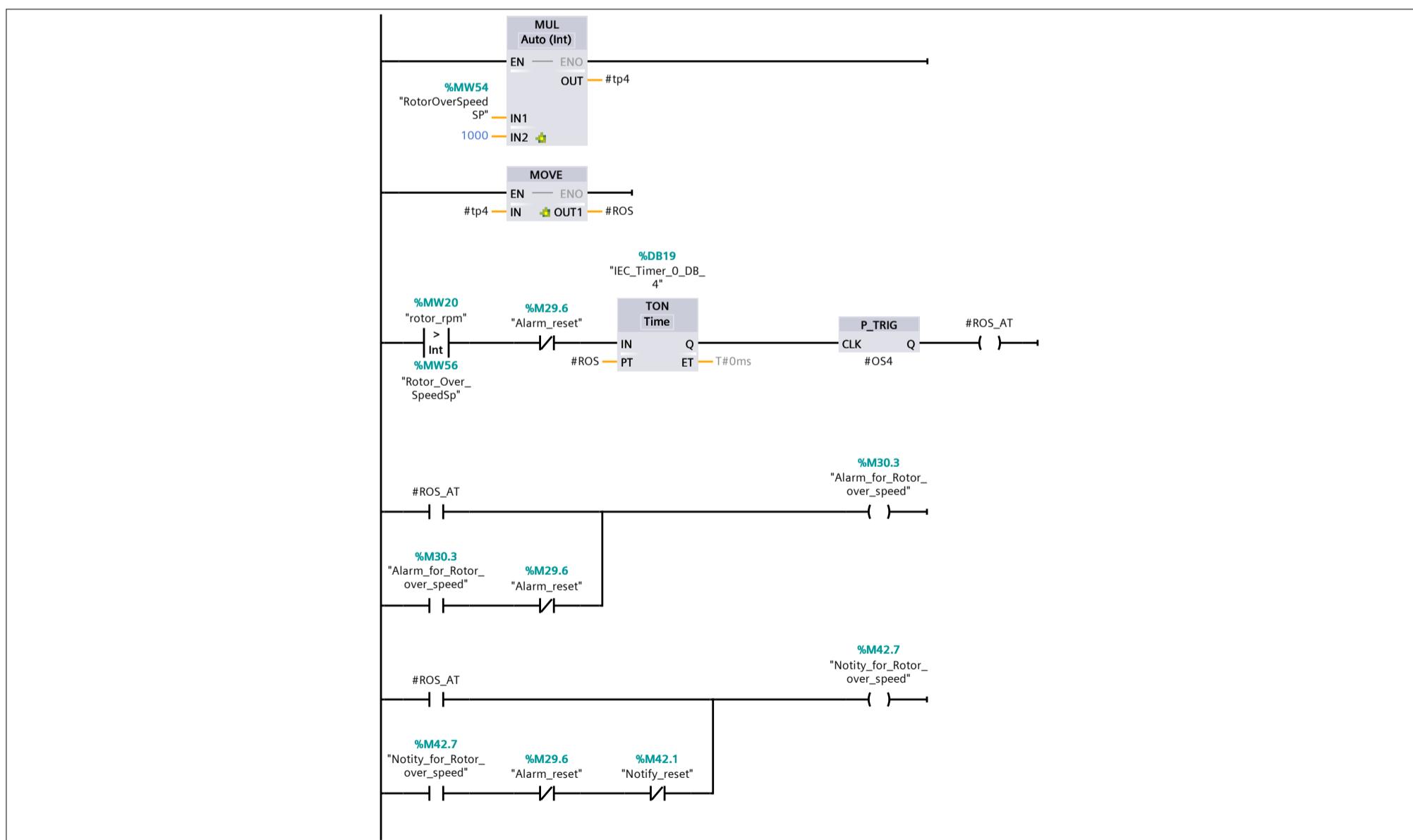
Network 2: Alarm for OVER CURRENT



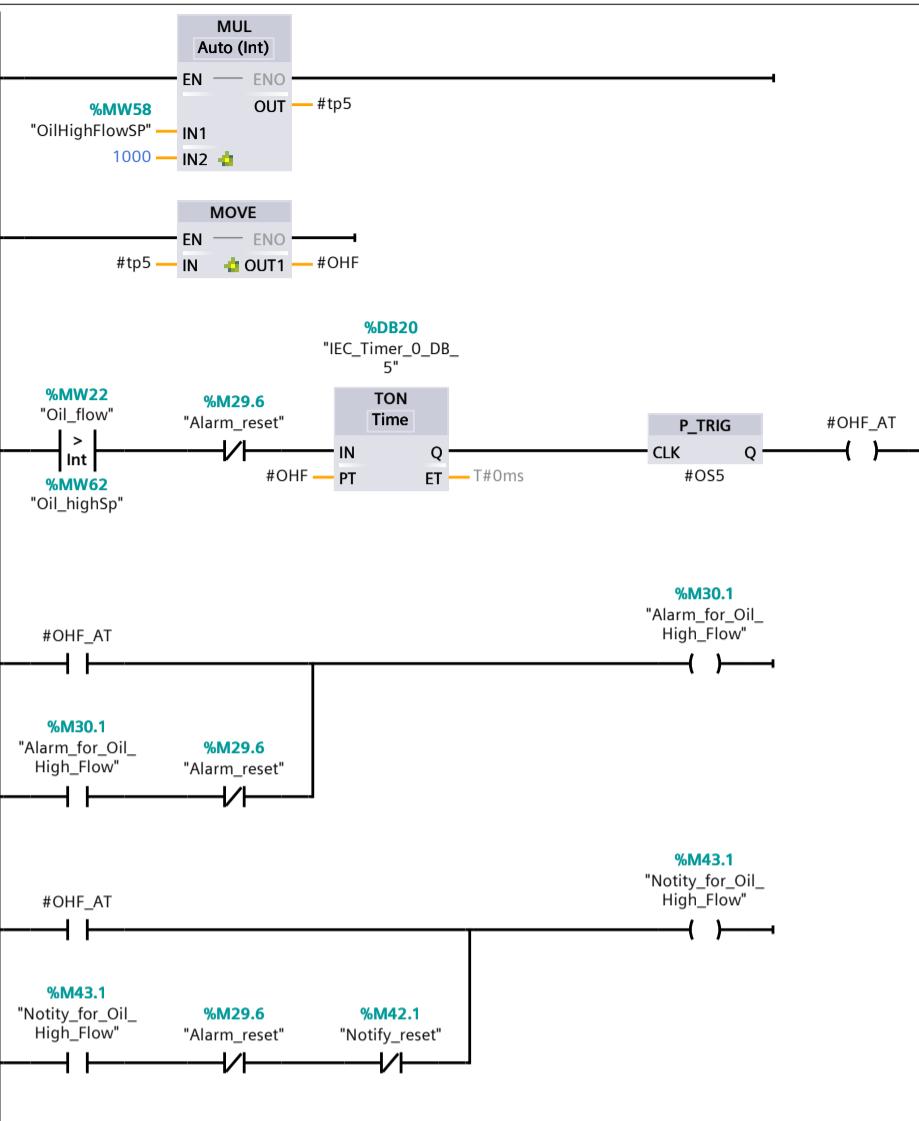
Network 3: Alarm for High Oil Temp



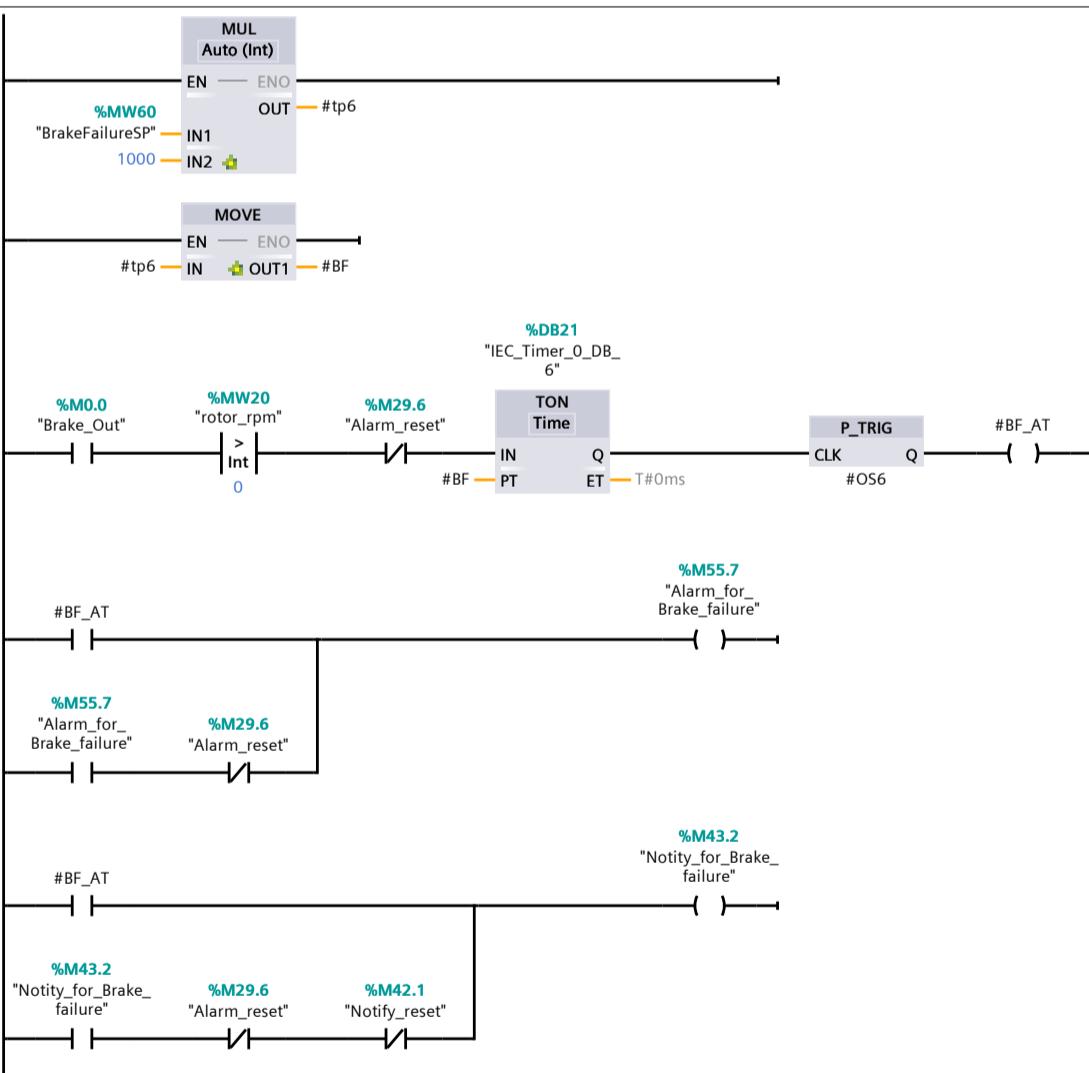
Network 4: Alarm for Rotor Over Speed



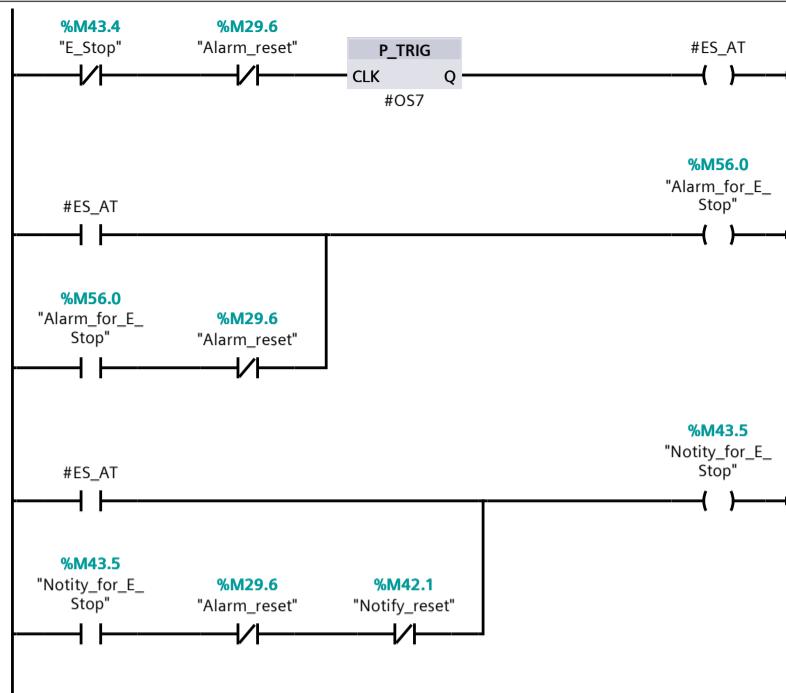
Network 5: Alarm for Oil High Flow



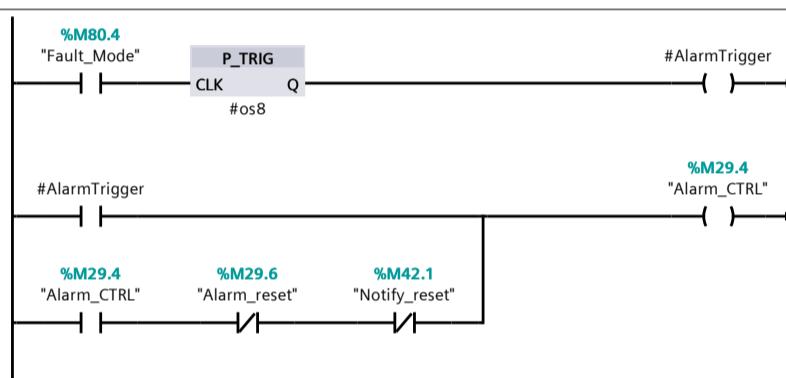
Network 6: Alarm for Brake Failure



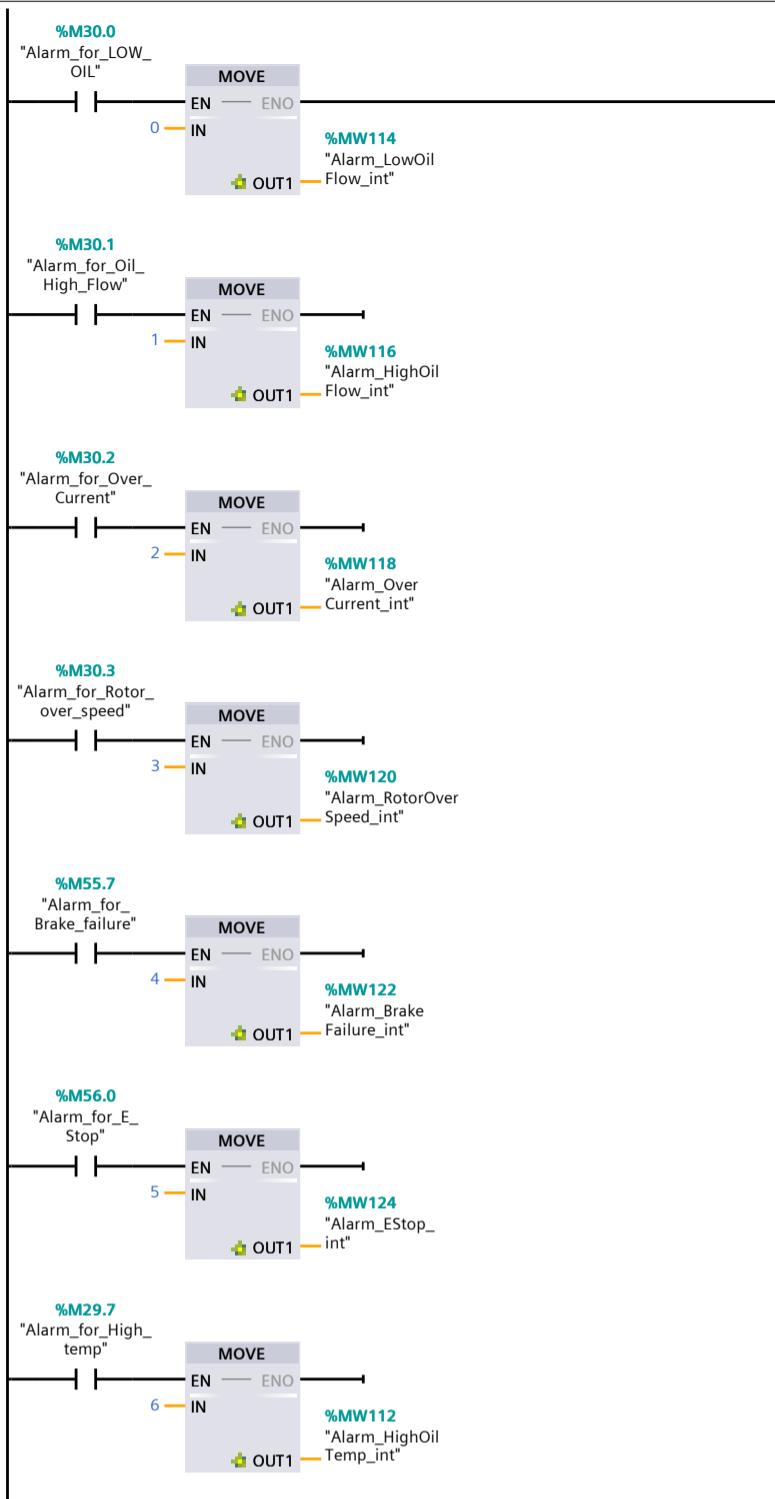
Network 7: Alarm for E\_STOP



Network 8: Alarm Control



Network 9:



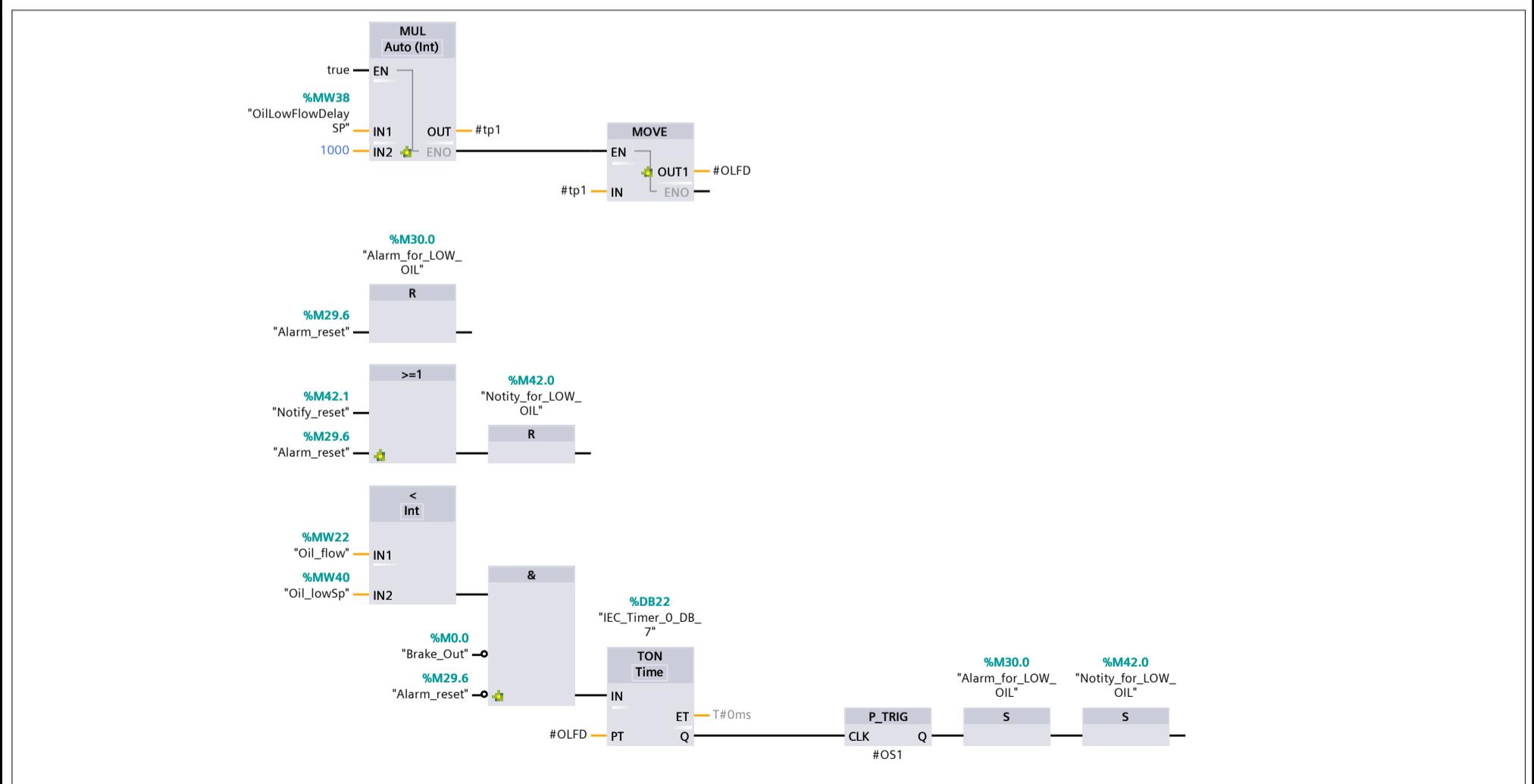
Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

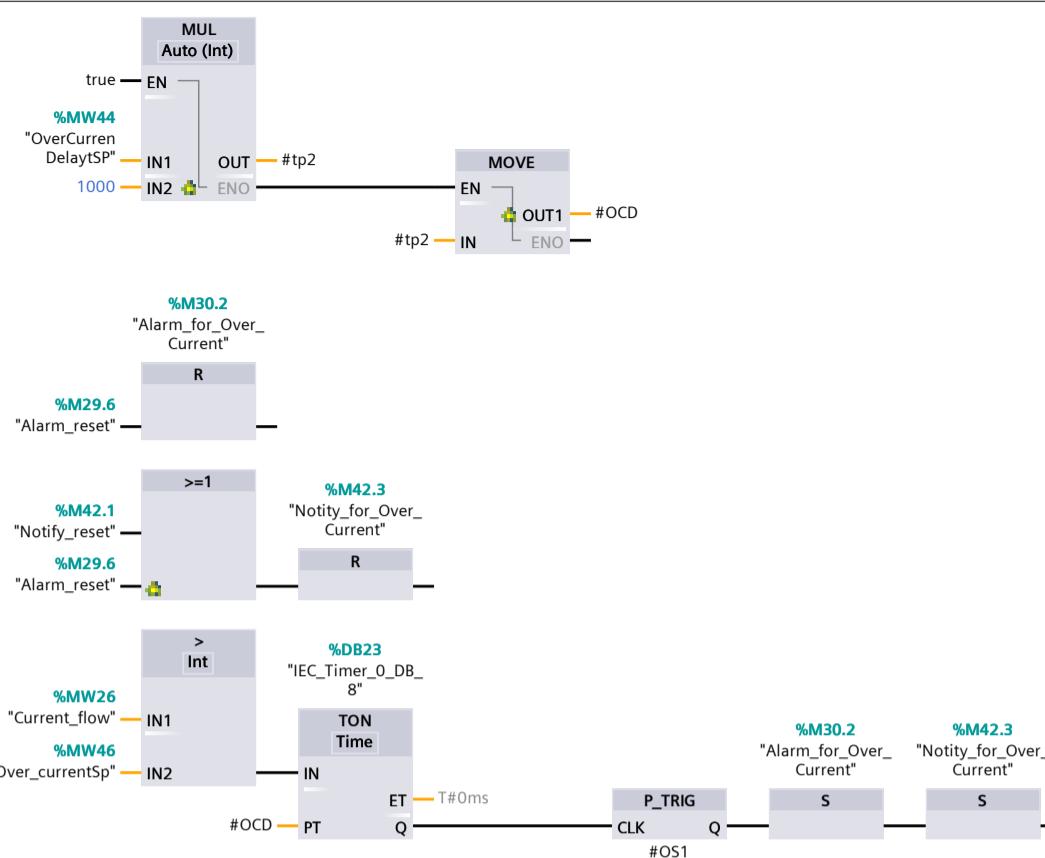
### Alarm\_FBD [FB11]

Alarm_FBD Properties					
General					
Name	Alarm_FBD	Number	11	Type	FB
Numbering	Automatic			Language	FBD
Information					
Title		Author		Comment	
Version	0.1	User-defined ID		Family	
Name	Data type	Default value	Retain		
Input					
Output					
InOut					
▼ Static					
OS1	Bool	false	Non-retain		
OS2	Bool	false	Non-retain		
OS3	Bool	false	Non-retain		
OS4	Bool	false	Non-retain		
OS5	Bool	false	Non-retain		
OS6	Bool	false	Non-retain		
OS7	Bool	false	Non-retain		
on8	Bool	false	Non-retain		
▼ Temp					
tp1	Int				
OLFD	Time				
tp2	Int				
OCD	Time				
tp3	Int				
tp4	Int				
tp5	Int				
tp6	Int				
tp7	Int				
HOT	Time				
OHF	Time				
ROS	Time				
BF	Time				
AlarmTrigger	Bool				
Constant					

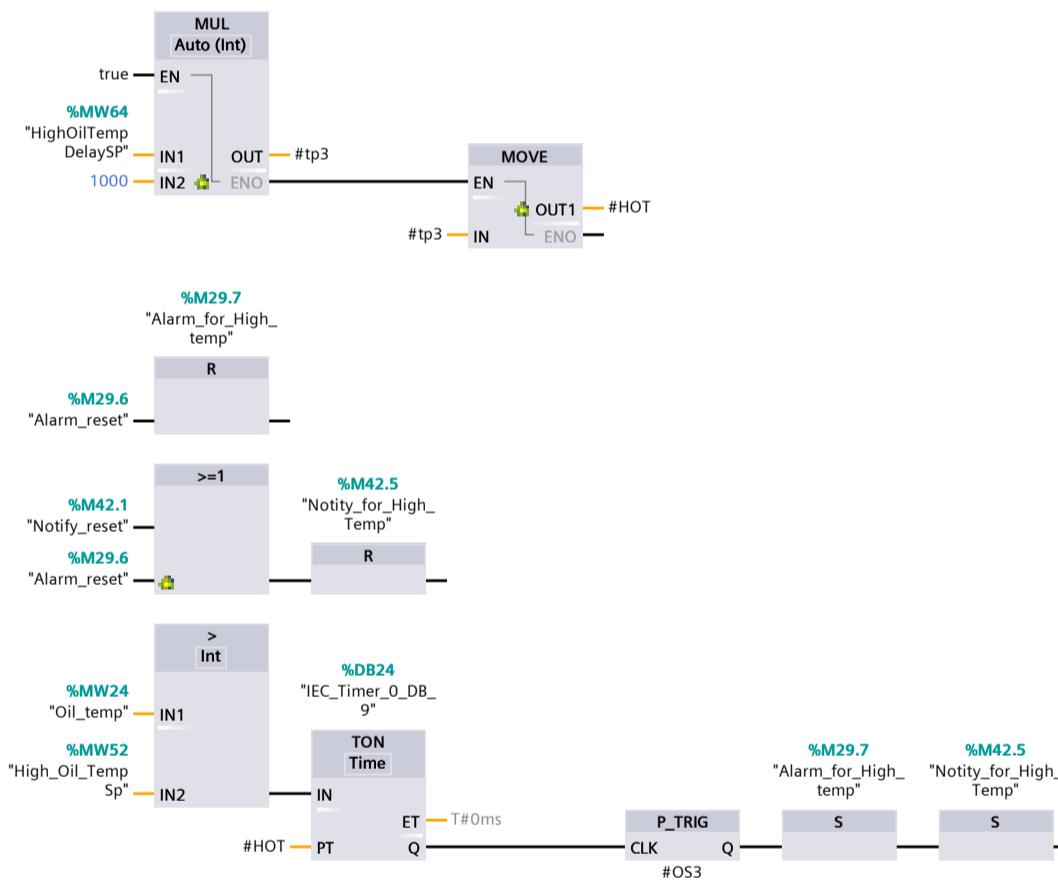
### Network 1: Oil\_Low\_Flow\_Alarm



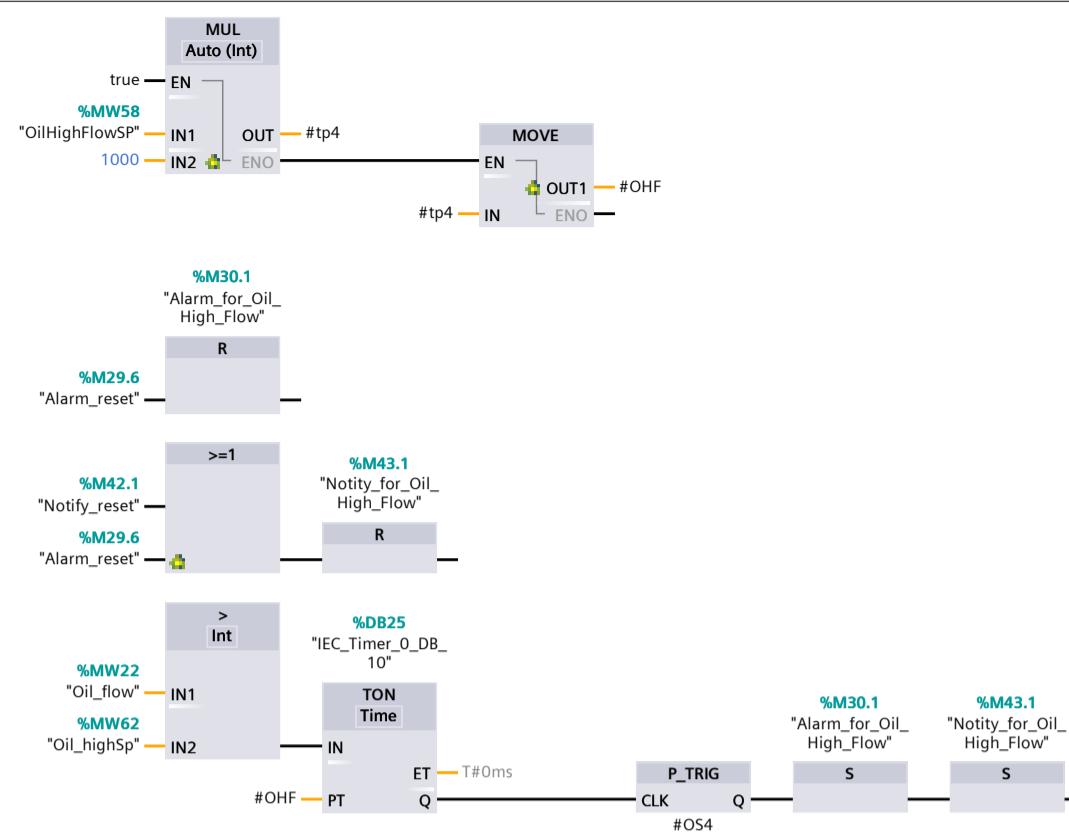
### Network 2: Over\_Current\_Alarm



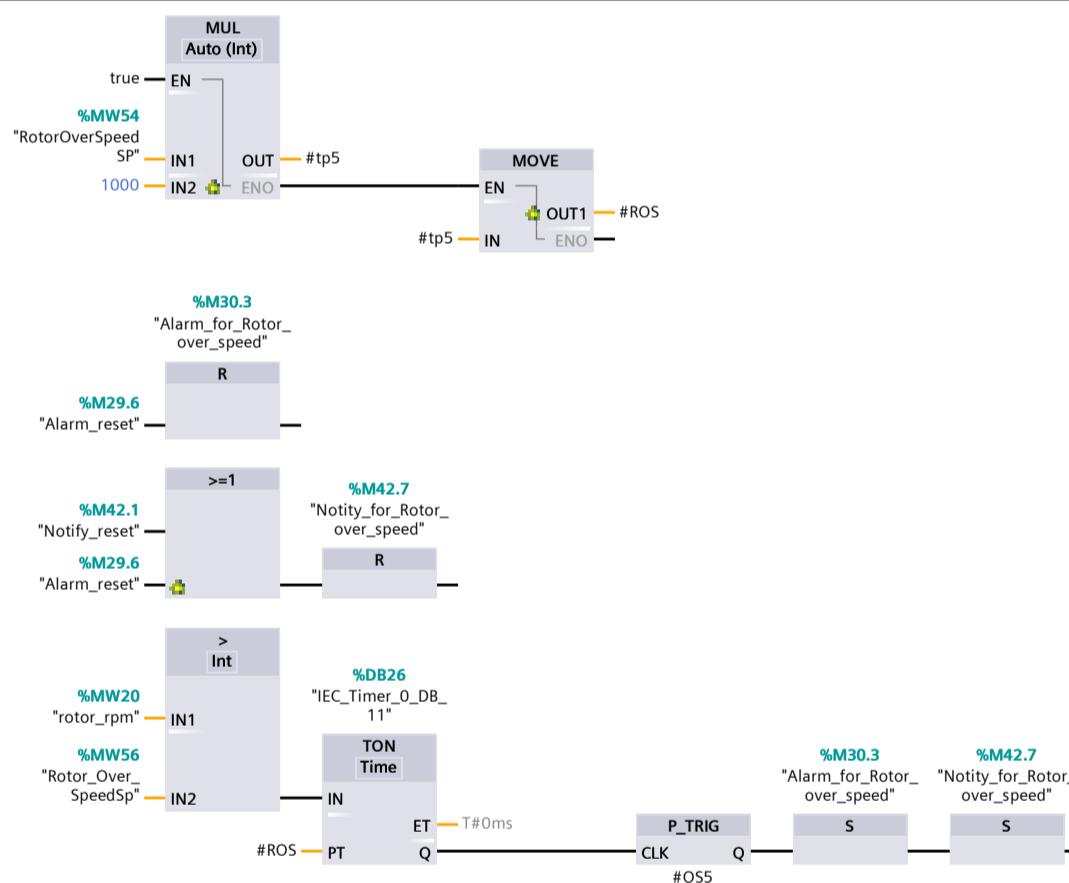
Network 3: High\_Oil\_Temp\_Alarm



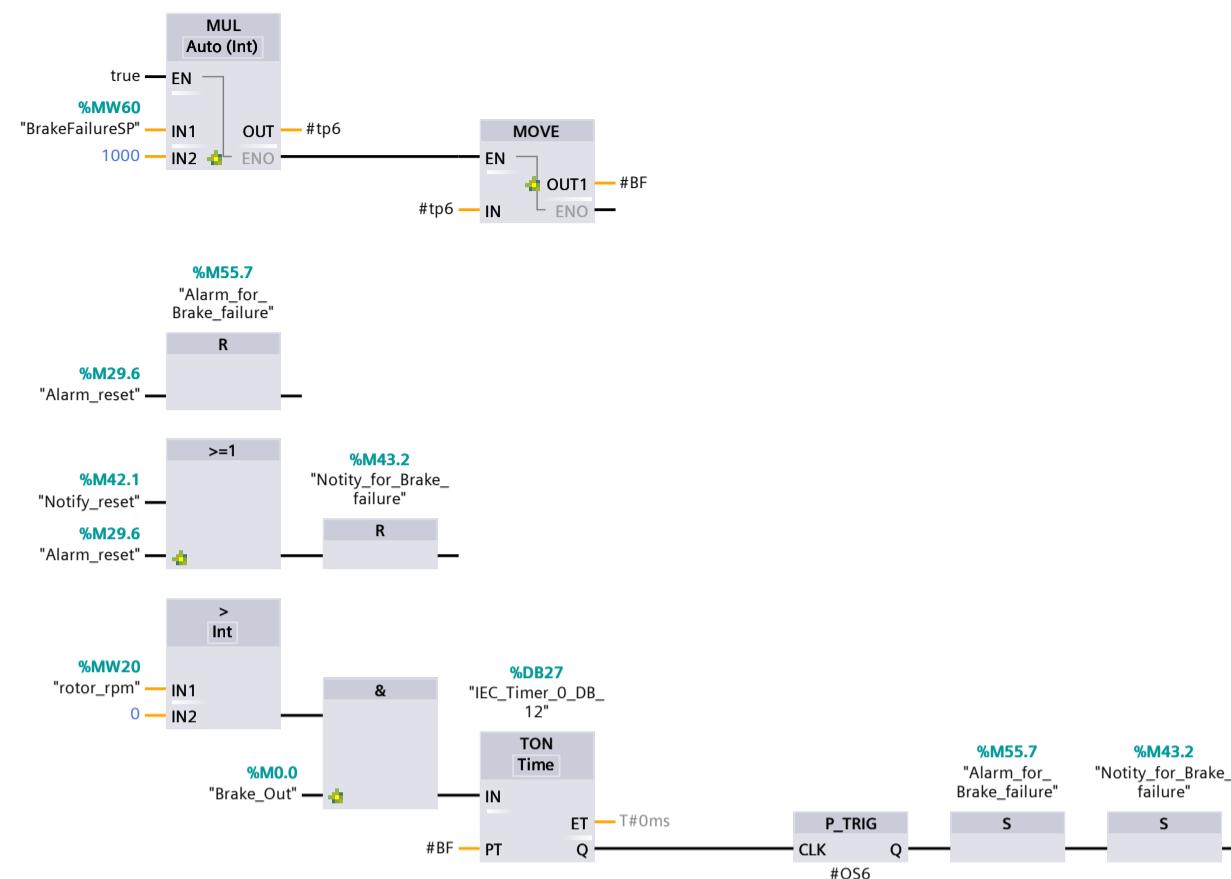
Network 4: Oil\_High\_Flow



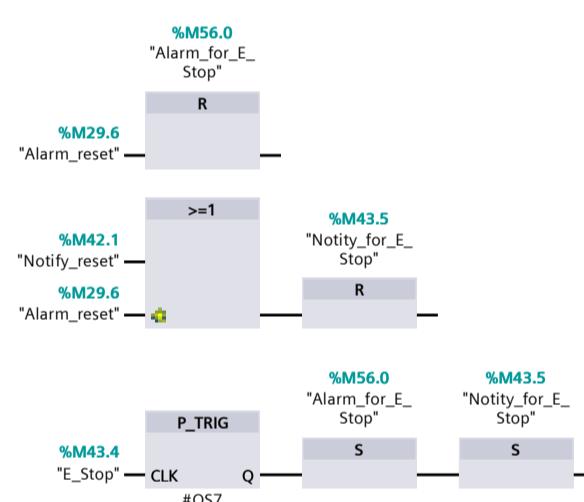
Network 5: Rotor\_Speed\_Alarm



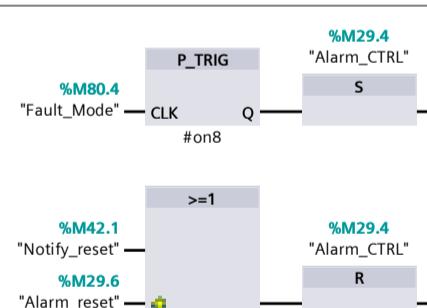
Network 6: Brake\_Failure\_Alarm



Network 7: E\_STOP\_Alarm



Network 8: Alarm horn Control



Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Alarm\_SCL [FB12]

Alarm_SCL Properties					
General					
Name	Alarm_SCL	Number	12	Type	FB
Numbering	Automatic			Language	SCL
Information					
Title		Author		Comment	
Version	0.1	User-defined ID			Family
Name	Data type	Default value	Retain		
Input					
Output					
InOut					
Static					
▼ Temp					
OLFD	Time				
OLFD_AT	Bool				
OCD	Time				
OCD_AT	Bool				
HOF	Time				
HOF_AT	Bool				
OHT	Time				
OHT_AT	Bool				
ROS_AT	Bool				
ROS	Time				
BF	Time				
BF_AT	Bool				
ti1	Time				
ti2	Time				
ti3	Time				
ti4	Time				
ti5	Time				
ti6	Time				
ti7	Time				
ti8	Time				
Constant					

```

0001 // OIL LOW FLOW ALARM
0002 IF "OilPumpVFDen_Out" AND "Oil_flow" < "Oil_lowSp" AND NOT "Brake_Out" AND NOT "Alarm_for_LOW_OIL" AND NOT "Alarm_reset" THEN
0003   "Convert_time"(iv1 := "OilLowFlowDelaySP",
0004     timel => #OLFD);
0005   "IEC_Timer_0_DB_13".TON(IN := TRUE,
0006     PT := #OLFD,
0007     Q => #OLFD_AT,
0008     ET=>#ti1);
0009 ELSE
0010   RESET_TIMER("IEC_Timer_0_DB_13");
0011 END_IF;
0012
0013 IF #OLFD_AT THEN
0014   "Alarm_for_LOW_OIL" := 1;
0015   "Notity_for_LOW_OIL" := 1;
0016 END_IF;
0017 IF "Alarm_for_LOW_OIL" AND "Alarm_reset" THEN
0018   "Alarm_for_LOW_OIL" := 0;
0019   "Notity_for_LOW_OIL" := 0;
0020 END_IF;
0021 IF "Notity_for_LOW_OIL" AND "Notify_reset" THEN
0022   "Notity_for_LOW_OIL" := 0;
0023 END_IF;
0024
0025 // OVER CURRENT ALARM
0026 IF "Current_flow" > "Over_currentSp" AND NOT "Alarm_for_Over_Current" AND NOT "Alarm_reset" THEN
0027   "Convert_time"(iv1 := "OverCurrenDelaytSP",
0028     timel => #OCD);
0029   "IEC_Timer_0_DB_14".TON(IN:=TRUE,
0030     PT:=#OCD,
0031     Q=>#OCD_AT,
0032     ET=>#ti2);
0033 ELSE
0034   RESET_TIMER("IEC_Timer_0_DB_14");
0035 END_IF;
0036 IF #OCD_AT THEN
0037   "Alarm_for_Over_Current" := 1;
0038   "Notity_for_Over_Current" := 1;
0039 END_IF;
0040 IF "Alarm_for_Over_Current" AND "Alarm_reset" THEN
0041   "Alarm_for_Over_Current" := 0;
0042   "Notity_for_Over_Current" := 0;
0043 END_IF;

```

Totally Integrated Automation Portal		
	<pre> 0044 IF "Notify_for_Over_Current" AND "Notify_reset" THEN 0045   "Notify_for_Over_Current" := 0; 0046 END_IF; 0047 0048 //HIGH OIL FLOW ALARM 0049 IF "Oil_flow" &gt; "Oil_highSp" AND NOT "Alarm_for_Oil_High_Flow" AND NOT "Alarm_reset" THEN 0050   "Convert_time"(iv1:="OilHighFlowSP", 0051     time1=&gt;#HOF); 0052   "IEC_Timer_0_DB_15".TON(IN:=TRUE, 0053     PT:=#HOF, 0054     Q=&gt;#HOF_AT, 0055     ET=&gt;#ti3); 0056 ELSE 0057   RESET_TIMER("IEC_Timer_0_DB_15"); 0058 END_IF; 0059 IF #HOF_AT THEN 0060   "Alarm_for_Oil_High_Flow" := 1; 0061   "Notify_for_Oil_High_Flow" := 1; 0062 END_IF; 0063 IF "Alarm_for_Oil_High_Flow" AND "Alarm_reset" THEN 0064   "Alarm_for_Oil_High_Flow" := 0; 0065   "Notify_for_Oil_High_Flow" := 0; 0066 END_IF; 0067 IF "Notify_for_Oil_High_Flow" AND "Notify_reset" THEN 0068   "Notify_for_Oil_High_Flow" := 0; 0069 END_IF; 0070 0071 //OIL HIGH TEMP ALARM 0072 IF "Oil_temp" &gt; "High_Oil_TempSp" AND NOT "Alarm_for_High_temp" AND NOT "Alarm_reset" THEN 0073   "Convert_time"(iv1 := "HighOilTempDelaySP", 0074     time1 =&gt; #OHT); 0075   "IEC_Timer_0_DB_16".TON(IN:=TRUE, 0076     PT:=#OHT, 0077     Q=&gt;#OHT_AT, 0078     ET=&gt;#ti4); 0079 ELSE 0080   RESET_TIMER("IEC_Timer_0_DB_16"); 0081 END_IF; 0082 IF #OHT_AT THEN 0083   "Alarm_for_High_temp" := 1; 0084   "Notify_for_High_Temp" := 1; 0085 END_IF; 0086 IF "Alarm_for_High_temp" AND "Alarm_reset" THEN 0087   "Alarm_for_High_temp" := 0; 0088   "Notify_for_High_Temp" := 0; 0089 END_IF; 0090 IF "Notify_for_High_Temp" AND "Notify_reset" THEN 0091   "Notify_for_High_Temp" := 0; 0092 END_IF; 0093 0094 //ROTOR SPEED ALARM 0095 IF "rotor_rpm" &gt; "Rotor_Over_SpeedSp" AND NOT "Alarm_for_Rotor_over_speed" AND NOT "Alarm_reset" THEN 0096   "Convert_time"(iv1 := "RotorOverSpeedSP", 0097     time1 =&gt; #ROS); 0098   "IEC_Timer_0_DB_17".TON(IN := TRUE, 0099     PT := #ROS, 0100     Q =&gt; #ROS_AT, 0101     ET=&gt;#ti5); 0102 ELSE 0103   RESET_TIMER("IEC_Timer_0_DB_17"); 0104 END_IF; 0105 IF #ROS_AT THEN 0106   "Alarm_for_Rotor_over_speed" := 1; 0107   "Notify_for_Rotor_over_speed" := 1; 0108 END_IF; 0109 IF "Alarm_for_Rotor_over_speed" AND "Alarm_reset" THEN 0110   "Alarm_for_Rotor_over_speed" := 0; 0111   "Notify_for_Rotor_over_speed" := 0; 0112 END_IF; 0113 IF "Notify_for_Rotor_over_speed" AND "Notify_reset" THEN 0114   "Notify_for_Rotor_over_speed" := 0; 0115 END_IF; 0116 0117 //BRAKE FAILURE ALARM 0118 IF "Brake_Out" AND "rotor_rpm" &gt; 1 AND NOT "Alarm_for_Brake_failure" AND NOT "Alarm_reset" THEN 0119   "Convert_time"(iv1 := "BrakeFailureSP", 0120     time1 =&gt; #BF); 0121   "IEC_Timer_0_DB_18".TON(IN := TRUE, 0122     PT := #BF, 0123     Q =&gt; #BF_AT, 0124     ET=&gt;#ti6); 0125 ELSE 0126   RESET_TIMER("IEC_Timer_0_DB_18"); 0127 END_IF; 0128 IF #BF_AT THEN 0129   "Alarm_for_Brake_failure" := 1; 0130   "Notify_for_Brake_failure" := 1; 0131 END_IF; </pre>	

```
0132 IF "Alarm_for_Brake_failure" AND "Alarm_reset" THEN
0133   "Alarm_for_Brake_failure" := 0;
0134   "Notify_for_Brake_failure" := 0;
0135 END_IF;
0136 IF "Notify_for_Brake_failure" AND "Notify_reset" THEN
0137   "Notify_for_Brake_failure" := 0;
0138 END_IF;
0139
0140 //ESTOP ALARM
0141 IF NOT "E_Stop" AND NOT "Alarm_for_E_Stop" THEN
0142   "Alarm_for_E_Stop" := 1;
0143   "Notify_for_E_Stop" := 1;
0144 END_IF;
0145 IF "Alarm_for_E_Stop" AND "Alarm_reset" THEN
0146   "Alarm_for_E_Stop" := 0;
0147   "Notify_for_E_Stop" := 0;
0148 END_IF;
0149 IF "Notify_for_E_Stop" AND "Notify_reset" THEN
0150   "Notify_for_E_Stop" := 0;
0151 END_IF;
0152
0153 //Alram Horn Ctrl
0154 IF "Fault_Mode" AND NOT "Alarm_CTRL" THEN
0155   "Alarm_CTRL" := 1;
0156 END_IF;
0157 IF "Alarm_CTRL" AND ("Alarm_reset" OR "Notify_reset") THEN
0158   "Alarm_CTRL" := 0;
0159 END_IF;
0160
0161
```

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Alarm\_STL [FB13]

Alarm_STL Properties						
General						
Name	Alarm_STL	Number	13	Type	FB	Language STL
Numbering	Automatic					
Information						
Title		Author		Comment		Family
Version	0.1	User-defined ID				
Name		Data type		Default value		Retain
Input						
Output						
InOut						
▼ Static						
os1		Bool		false		Non-retain
os2		Bool		false		Non-retain
os3		Bool		false		Non-retain
os4		Bool		false		Non-retain
os5		Bool		false		Non-retain
os6		Bool		false		Non-retain
os7		Bool		false		Non-retain
os8		Bool		false		Non-retain
os9		Bool		false		Non-retain
os10		Bool		false		Non-retain
os11		Bool		false		Non-retain
os12		Bool		false		Non-retain
os13		Bool		false		Non-retain
os14		Bool		false		Non-retain
os15		Bool		false		Non-retain
os16		Bool		false		Non-retain
os17		Bool		false		Non-retain
▼ Temp						
TI_1		Time				
TI_2		Time				
TI_3		Time				
TI_4		Time				
TI_5		Time				
TI_6		Time				
T1		Time				
T2		Time				
T3		Time				
T4		Time				
T5		Time				
T6		Time				
OLFD_AT		Bool				
OCD_AT		Bool				
OFH_AT		Bool				
HOT_AT		Bool				
ROS_AT		Bool				
BF_AT		Bool				
Constant						

#### Network 1:

```

0001 //OIL LOW FLOW ALARM
0002 Oil_Low_Flow : A "Alarm_reset"
0003     FP    #os1
0004     JC    ResetOfAlaram
0005     CLR
0006     A    "Notify_reset"
0007     FP    #os2
0008     JC    ResetOfNotify
0009     CLR
0010     L    "Oil_flow"
0011     L    "Oil_lowSp"
0012     <I
0013     A    "OilPumpVFDen_Out"
0014     AN    "Brake_Out"
0015     JC    TIMERFOROLF
0016     JU    Over_current
0017
0018 TIMERFOROLF : CALL "Convert_time"
0019         iv1    :=OilLowFlowDelaySP"
0020         timel :=#TI_1
0021     CALL TON , "IEC_Timer_0_DB_19"
0022     Time
0023     IN :=true
0024     PT :=#TI_1

```

Totally Integrated Automation Portal		
	<pre> 0025      Q  :=#OLFD_AT 0026      ET  :=#T1 0027      A   #OLFD_AT 0028      JC  SetOfAlarm 0029      JU  Over_current 0030 0031 SetOfAlarm : SET 0032      S   "Alarm_for_LOW_OIL" 0033      S   "Notity_for_LOW_OIL" 0034      JU  Over_current 0035 0036 ResetOfAlaram : R "Alarm_for_LOW_OIL" 0037      R   "Notity_for_LOW_OIL" 0038      CALL RESET_TIMER 0039      IEC_TIMER 0040      TIMER :="IEC_Timer_0_DB_19" 0041      JU  Over_current 0042 0043 ResetOfNotify : R "Notity_for_LOW_OIL" 0044      JU  Over_current 0045 0046 0047 //OVER CURRENT ALARM 0048 Over_current : A "Alarm_reset" 0049      FP  #os3 0050      JC  ResetOfAlaramOC 0051      CLR 0052      A   "Notify_reset" 0053      FP  #os4 0054      JC  ResetOfNotifyOC 0055      CLR 0056      L   "Current_flow" 0057      L   "Over_currentSp" 0058      &gt;I 0059      JC  TIMERFOROC 0060      JU  Oil_Flow_high 0061 0062 TIMERFOROC : CALL "Convert_time" 0063      iv1  :="OverCurrenDelaytSP" 0064      time1 :=#TI_2 0065      CALL TON , "IEC_Timer_0_DB_20" 0066      Time 0067      IN :=true 0068      PT  :=#TI_2 0069      Q   :=#OCD_AT 0070      ET  :=#T2 0071      A   #OCD_AT 0072      JC  SetOfAlarmOC 0073      JU  Oil_Flow_high 0074 0075 SetOfAlarmOC : SET 0076      S   "Alarm_for_Over_Current" 0077      S   "Notity_for_Over_Current" 0078      JU  Oil_Flow_high 0079 0080 ResetOfAlaramOC : R "Alarm_for_Over_Current" 0081      R   "Notity_for_Over_Current" 0082      CALL RESET_TIMER 0083      IEC_TIMER 0084      TIMER :="IEC_Timer_0_DB_20" 0085      JU  Oil_Flow_high 0086 0087 ResetOfNotifyOC : R "Notity_for_Over_Current" 0088      JU  Oil_Flow_high 0089 0090 0091 //OIL FLOW HIGH ALARM 0092 Oil_Flow_high : A "Alarm_reset" 0093      FP  #os5 0094      JC  ResetOfAlaramOFH 0095      CLR 0096      A   "Notify_reset" 0097      FP  #os6 0098      JC  ResetOfNotifyOFH 0099      CLR 0100     L   "Oil_flow" 0101     L   "Oil_highSp" 0102     &gt;I 0103     JC  TIMERFOROFH 0104     JU  High_Oil_Temp 0105 0106 0107 TIMERFOROFH : CALL "Convert_time" 0108      iv1  :="OilHighFlowSP" 0109      time1 :=#TI_3 0110      CALL TON , "IEC_Timer_0_DB_21" 0111      Time 0112      IN :=true </pre>	

Totally Integrated Automation Portal		
	<pre> 0113      PT :=#TI_3 0114      Q :=#OFH_AT 0115      ET :=#T3 0116      A    #OFH_AT 0117      JC   SetOfAlarmOFH 0118      JU   High_Oil_Temp 0119 0120 SetOfAlarmOFH : SET 0121      S    "Alarm_for_Oil_High_Flow" 0122      S    "Notity_for_Oil_High_Flow" 0123      JU   High_Oil_Temp 0124 0125 ResetOfAlaramOFH : R "Alarm_for_Oil_High_Flow" 0126      R    "Notity_for_Oil_High_Flow" 0127      CALL RESET_TIMER 0128      IEC_TIMER 0129      TIMER :="IEC_Timer_0_DB_21" 0130      JU   High_Oil_Temp 0131 0132 ResetOfNotifyOFH : R "Notity_for_Oil_High_Flow" 0133      JU   High_Oil_Temp 0134 0135 0136 //HIGH OIL TEMP ALARM 0137 High_Oil_Temp : A "Alarm_reset" 0138      FP   #os7 0139      JC   ResetOfAlaramHOT 0140      CLR 0141      A    "Notify_reset" 0142      FP   #os8 0143      JC   ResetOfNotifyHOT 0144      CLR 0145      L    "Oil_temp" 0146      L    "High_Oil_TempSp" 0147      &gt;I 0148      JC   TIMERFORHOT 0149      JU   Rotor_Over_Speed 0150 0151 TIMERFORHOT : CALL "Convert_time" 0152      iv1  :="HighOilTempDelaySP" 0153      timel :=#TI_4 0154      CALL TON , "IEC_Timer_0_DB_22" 0155      Time 0156      IN :=true 0157      PT :=#TI_4 0158      Q   :=#HOT_AT 0159      ET :=#T4 0160      A    #HOT_AT 0161      JC   SetOfAlarmHOT 0162      JU   Rotor_Over_Speed 0163 0164 SetOfAlarmHOT : SET 0165      S    "Alarm_for_High_temp" 0166      S    "Notity_for_High_Temp" 0167      JU   Rotor_Over_Speed 0168 0169 ResetOfAlaramHOT : R "Alarm_for_High_temp" 0170      R    "Notity_for_High_Temp" 0171      CALL RESET_TIMER 0172      IEC_TIMER 0173      TIMER :="IEC_Timer_0_DB_22" 0174      JU   Rotor_Over_Speed 0175 0176 ResetOfNotifyHOT : R "Notity_for_High_Temp" 0177      JU   Rotor_Over_Speed 0178 0179 0180 //ROTOR OVER SPEED ALARM 0181 Rotor_Over_Speed : A "Alarm_reset" 0182      FP   #os9 0183      JC   ResetOfAlaramROS 0184      CLR 0185      A    "Notify_reset" 0186      FP   #os10 0187      JC   ResetOfNotifyROS 0188      CLR 0189      L    "rotor_rpm" 0190      L    "Rotor_Over_SpeedSp" 0191      &gt;I 0192      JC   TIMERFORROS 0193      JU   Brake_Failure 0194 0195 TIMERFORROS : CALL "Convert_time" 0196      iv1  :="RotorOverSpeedSP" 0197      timel :=#TI_5 0198      CALL TON , "IEC_Timer_0_DB_23" 0199      Time 0200      IN :=true </pre>	

Totally Integrated Automation Portal		
	<pre> 0201      PT :=#TI_5 0202      Q :=#ROS_AT 0203      ET :=#T5 0204      A    #ROS_AT 0205      JC   SetOfAlarmROS 0206      JU   Brake_Failure 0207 0208 SetOfAlarmROS : SET 0209      S    "Alarm_for_Rotor_over_speed" 0210      S    "Notify_for_Rotor_over_speed" 0211      JU   Brake_Failure 0212 0213 ResetOfAlarmROS : R "Alarm_for_Rotor_over_speed" 0214      R    "Notify_for_Rotor_over_speed" 0215      CALL RESET_TIMER 0216      IEC_TIMER 0217      TIMER :="IEC_Timer_0_DB_23" 0218      JU   Brake_Failure 0219 0220 ResetOfNotifyROS : R "Notify_for_Rotor_over_speed" 0221      JU   Brake_Failure 0222 0223 0224 //BRAKE FAILURE ALARM 0225 Brake_Failure : A "Alarm_reset" 0226      FP   #os11 0227      JC   ResetOfAlarmBF 0228      CLR 0229      A    "Notify_reset" 0230      FP   #os12 0231      JC   ResetOfNotifyBF 0232      CLR 0233      L    "rotor_rpm" 0234      L    0 0235      &gt;I 0236      L    "Brake_Out_HOA" 0237      JC   TIMERFORBF 0238      JU   E_STOP 0239 TIMERFORBF : CALL "Convert_time" 0240      iv1  :="BrakeFailureSP" 0241      timel :=#TI_6 0242      CALL TON , "IEC_Timer_0_DB_24" 0243      Time 0244      IN :=true 0245      PT :=#TI_6 0246      Q   :=#BF_AT 0247      ET :=#T6 0248      A    #BF_AT 0249      JC   SetOfAlarmBF 0250      JU   E_STOP 0251 0252 SetOfAlarmBF : SET 0253      S    "Alarm_for_Brake_failure" 0254      S    "Notify_for_Brake_failure" 0255      JU   E_STOP 0256 ResetOfAlarmBF : R "Alarm_for_Brake_failure" 0257      R    "Notify_for_Brake_failure" 0258      CALL RESET_TIMER 0259      IEC_TIMER 0260      TIMER :="IEC_Timer_0_DB_24" 0261      JU   E_STOP 0262 ResetOfNotifyBF : R "Notify_for_Brake_failure" 0263      JU   E_STOP 0264 0265 0266 // E_STOP ALARM 0267 E_STOP : A "Alarm_reset" 0268      FP   #os14 0269      JC   ResetOfAlarmES 0270      CLR 0271      A    "Notify_reset" 0272      FP   #os15 0273      JC   ResetOfNotifyES 0274      CLR 0275      A    "E_Stop" 0276      JC   SetOfAlarmES 0277      JU   AlarmCtrl 0278 0279 SetOfAlarmES : SET 0280      S    "Alarm_for_E_Stop" 0281      S    "Notify_for_E_Stop" 0282      JU   AlarmCtrl 0283 0284 ResetOfAlarmES : R "Alarm_for_E_Stop" 0285      R    "Notify_for_E_Stop" 0286      JU   AlarmCtrl 0287 ResetOfNotifyES : R "Notify_for_E_Stop" 0288      JU   AlarmCtrl </pre>	

```
0289 // Alarm_Horn Ctrl
0290 AlarmCtrl : A "Fault_Mode"
0291     FP #os16
0292     JC AlarmCtrl_SET
0293     CLR
0294     A "Alarm_reset"
0295     O "Notify_reset"
0296     FP #os17
0297     JC ResetAlarmCtrl
0298     JU End_of_line
0300
0301 AlarmCtrl_SET : SET
0302     S "Alarm_CTRL"
0303     JU End_of_line
0304
0305 ResetAlarmCtrl : R "Alarm_CTRL"
0306     JU End_of_line
0307
0308 End_of_line : BE
0309
0310
0311
0312
0313
0314
0315
0316
0317
0318
0319
```

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## Alarm\_LAD\_DB [DB11]

## Alarm\_LAD\_DB Properties

## General

Name	Alarm_LAD_DB	Number	11	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
OS1	Bool	false	False
OS2	Bool	false	False
OS3	Bool	false	False
OS4	Bool	false	False
OS5	Bool	false	False
OS6	Bool	false	False
OS7	Bool	false	False
os8	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## Alarm\_FBD\_DB [DB12]

## Alarm\_FBD\_DB Properties

## General

Name	Alarm_FBD_DB	Number	12	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
OS1	Bool	false	False
OS2	Bool	false	False
OS3	Bool	false	False
OS4	Bool	false	False
OS5	Bool	false	False
OS6	Bool	false	False
OS7	Bool	false	False
on8	Bool	false	False

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Alarm\_SCL\_DB [DB13]

Alarm_SCL_DB Properties							
General							
Name	Alarm_SCL_DB	Number	13	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
Static							

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Alarm\_STL\_DB [DB14]

Alarm_STL_DB Properties							
General							
Name	Alarm_STL_DB	Number	14	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
▼ Static							
os1		Bool		false		False	
os2		Bool		false		False	
os3		Bool		false		False	
os4		Bool		false		False	
os5		Bool		false		False	
os6		Bool		false		False	
os7		Bool		false		False	
os8		Bool		false		False	
os9		Bool		false		False	
os10		Bool		false		False	
os11		Bool		false		False	
os12		Bool		false		False	
os13		Bool		false		False	
os14		Bool		false		False	
os15		Bool		false		False	
os16		Bool		false		False	
os17		Bool		false		False	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## Convert\_time [FC2]

## Convert\_time Properties

## General

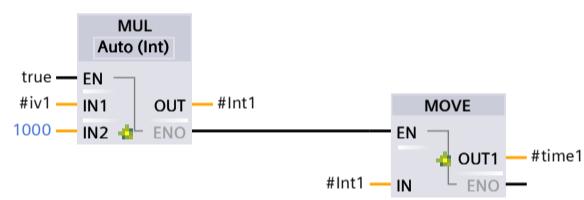
Name	Convert_time	Number	2	Type	FC	Language	FBD
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value
▼ Input		
iv1	Int	
▼ Output		
time1	Time	
InOut		
▼ Temp		
Int1	Int	
Constant		
▼ Return		
Convert_time	Void	

## Network 1:



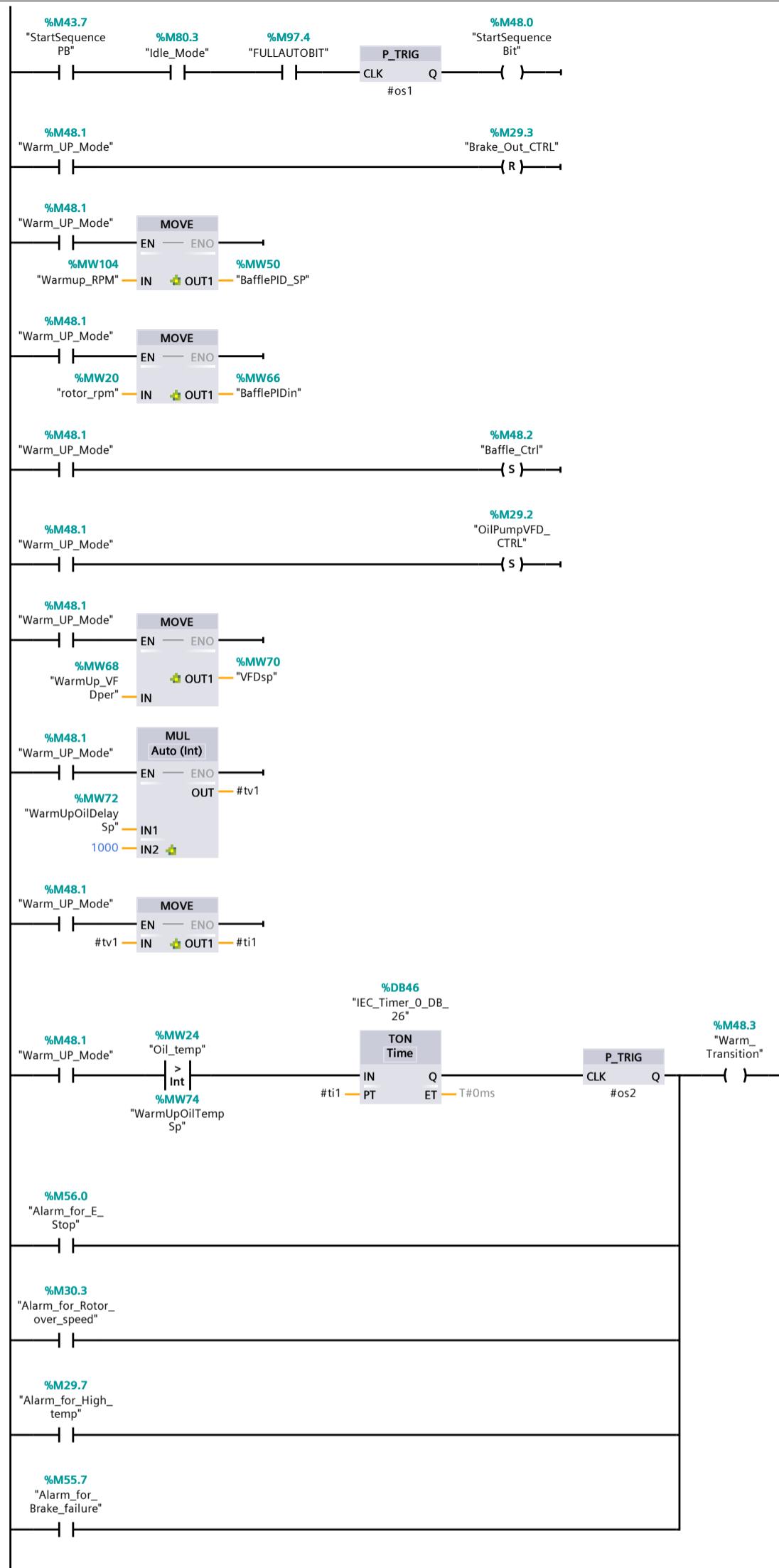
Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_LAD [FB14]

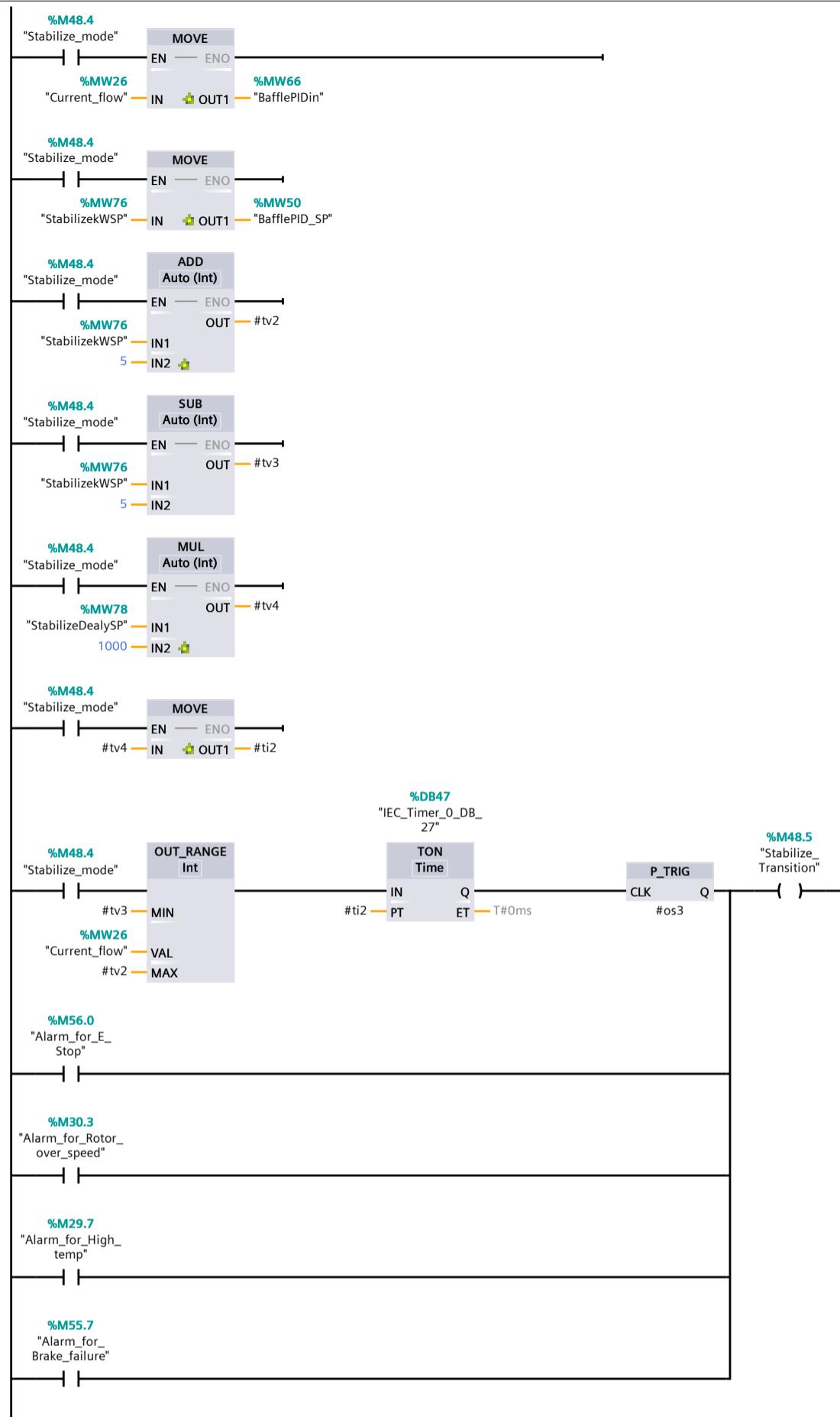
Modes_LAD Properties							
General							
Name	Modes_LAD	Number	14	Type	FB	Language	LAD
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Default value		Retain	
Input							
Output							
InOut							
▼ Static							
os1		Bool		false		Non-retain	
os2		Bool		false		Non-retain	
os3		Bool		false		Non-retain	
os4		Bool		false		Non-retain	
os5		Bool		false		Non-retain	
▼ Temp							
tv1		Int					
ti1		Time					
tv3		Int					
tv2		Int					
tv4		Int					
ti2		Time					
tv5		Int					
ti3		Time					
Constant							

### Network 1: WarmUp\_Mode

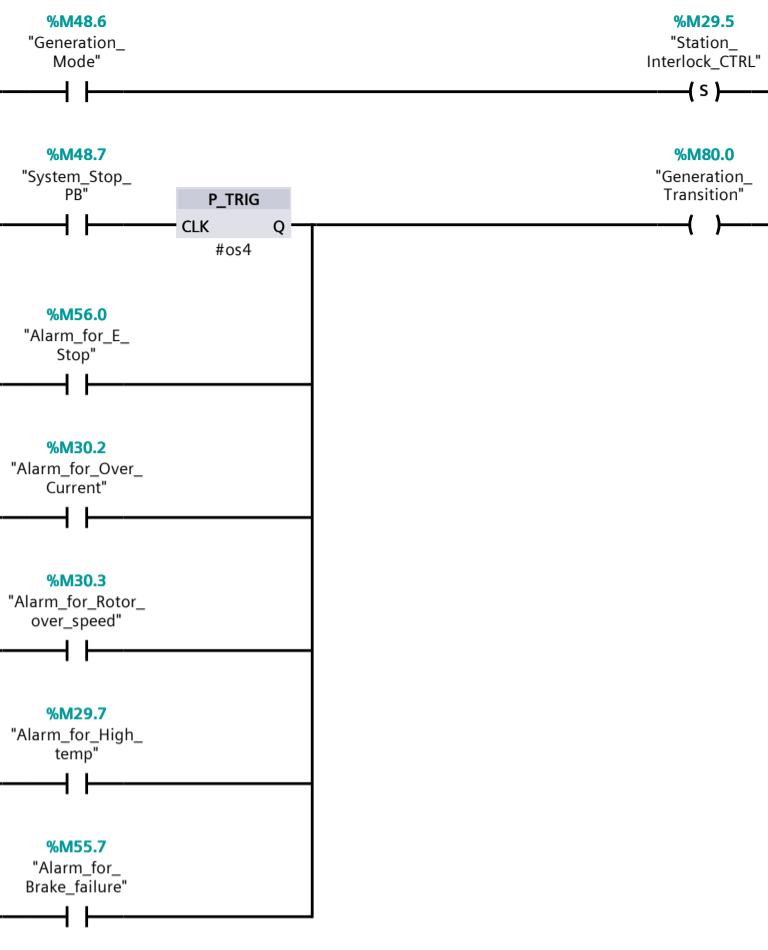


### Network 2: Stabilize Mode

Generator should speed up until desired kW output is attained. Once we're stable within 5kW (+/-) of the setpoint for at least 10 seconds, we should transition into the next mode.

**Network 3: Generation\_Mode**

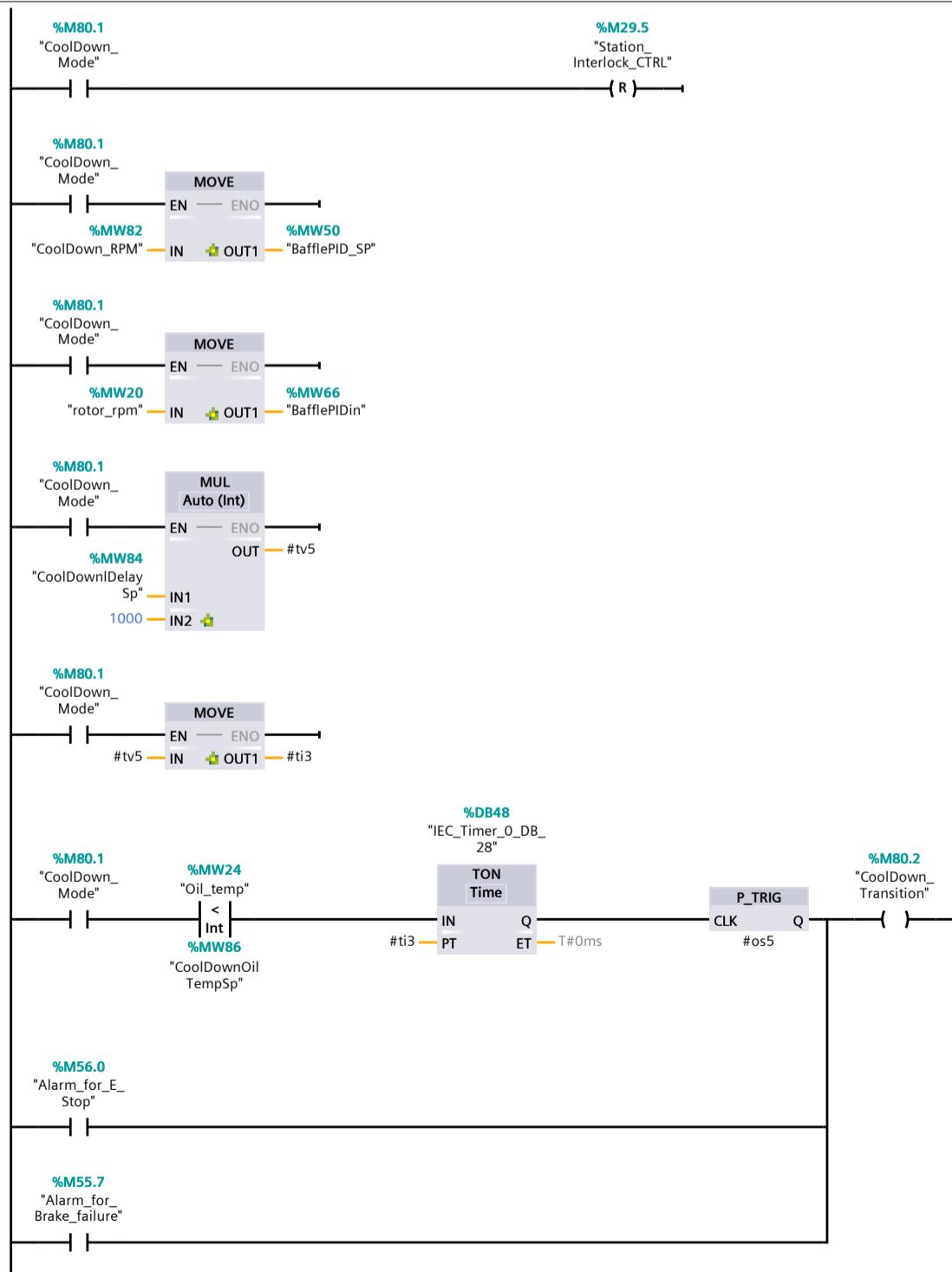
Keep everything running and close the interlock.



#### Network 4: CoolDown

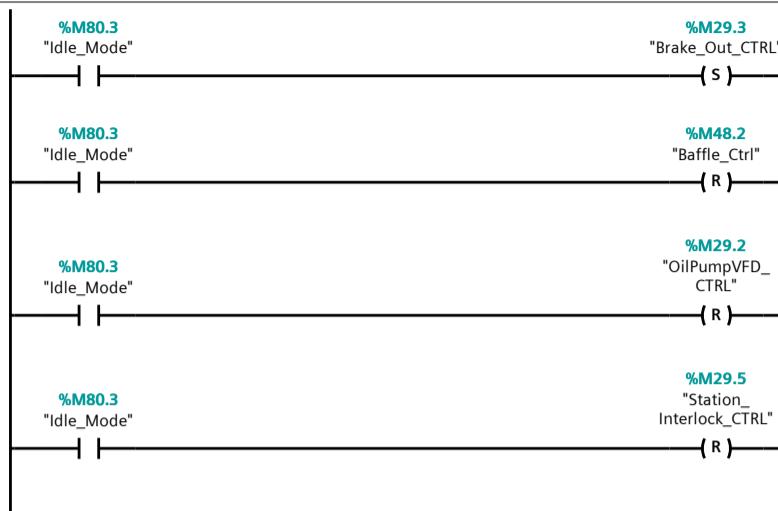
Once the Stop button has been pushed, open the interlock, slow the rotor to between 20 and 50 RPMs and maintain a high oil flow until the oil temp is below 150 degrees. Once we're below for ten seconds, we transition into Idle mode.

Idle – Interlock and baffle are deenergized and brake is engaged.

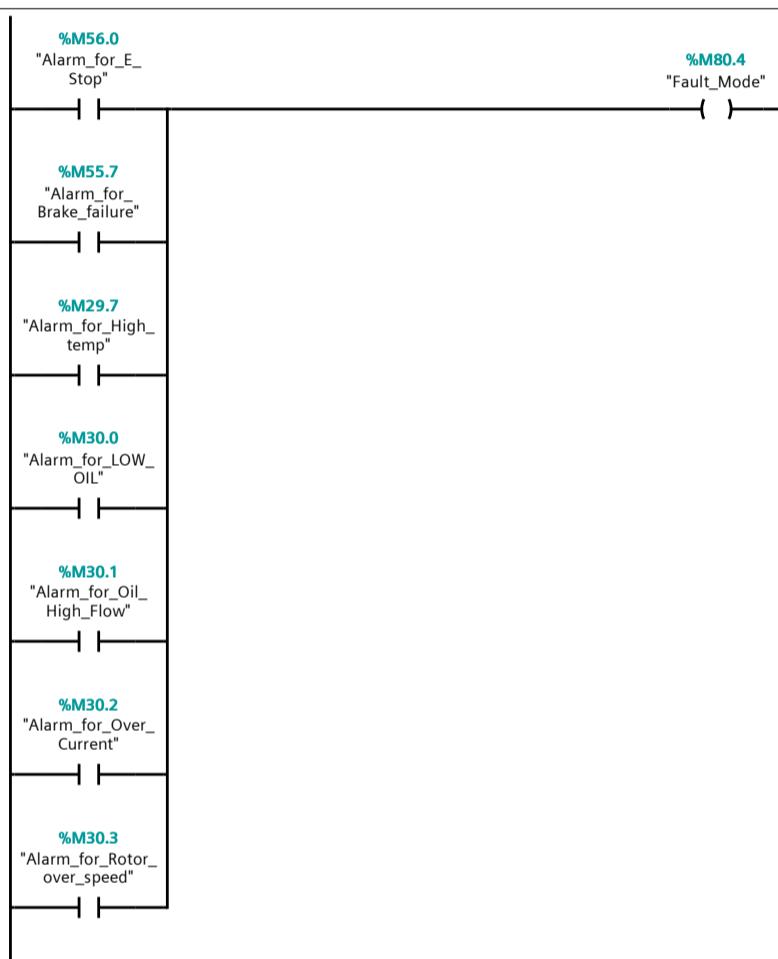


**Network 5: Idle Mode**

Idle – Interlock and baffle are deenergized and brake is engaged.

**Network 6: Fault\_Mode**

When we hit an alarm, the sequence should be aborted according to the alarm details (above in the Alarms section), and we should go into Fault mode (which is not part of our sequence).



## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_FBD [FB15]

#### Modes\_FBD Properties

##### General

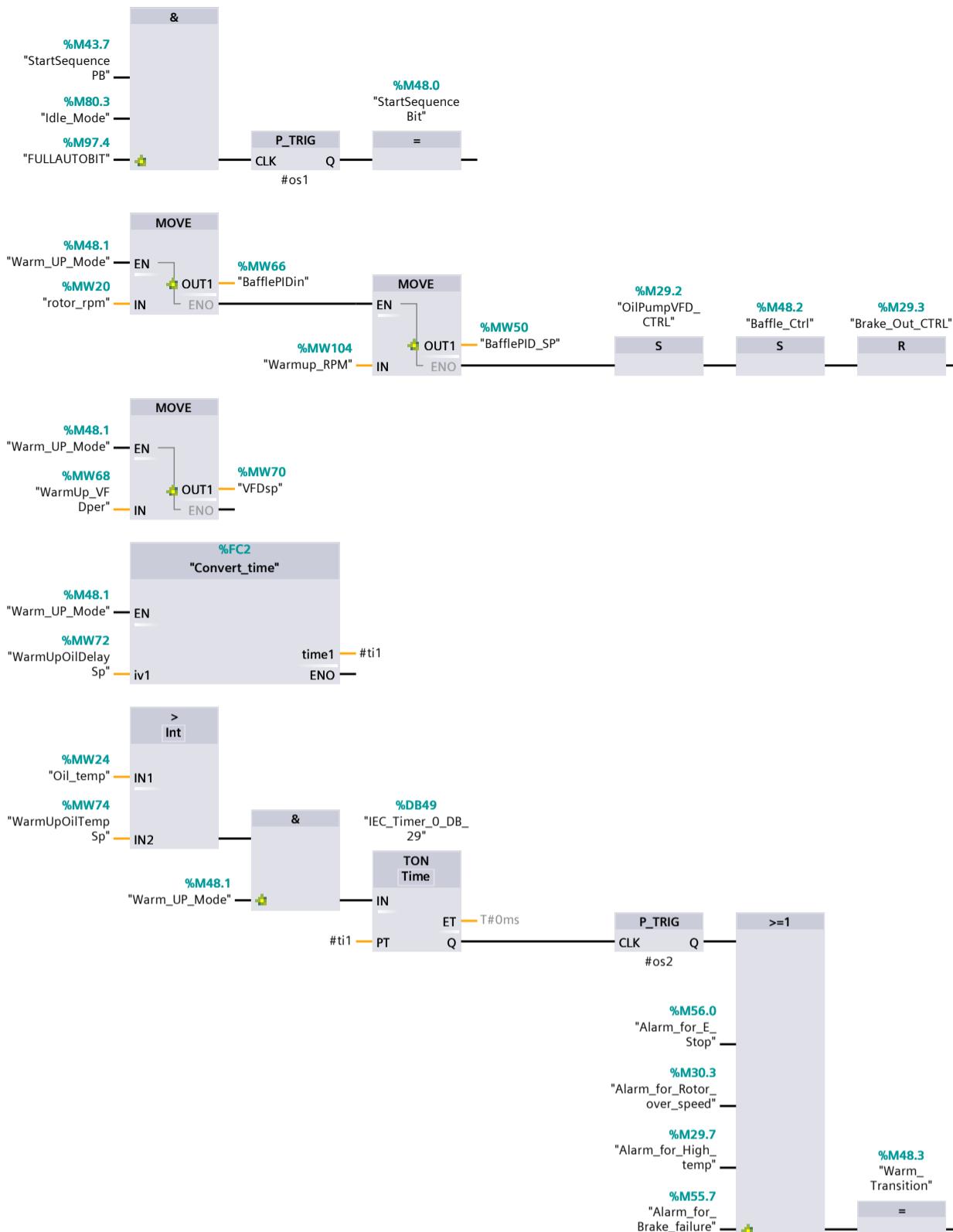
Name	Modes_FBD	Number	15	Type	FB	Language	FBD
Numbering	Automatic						

##### Information

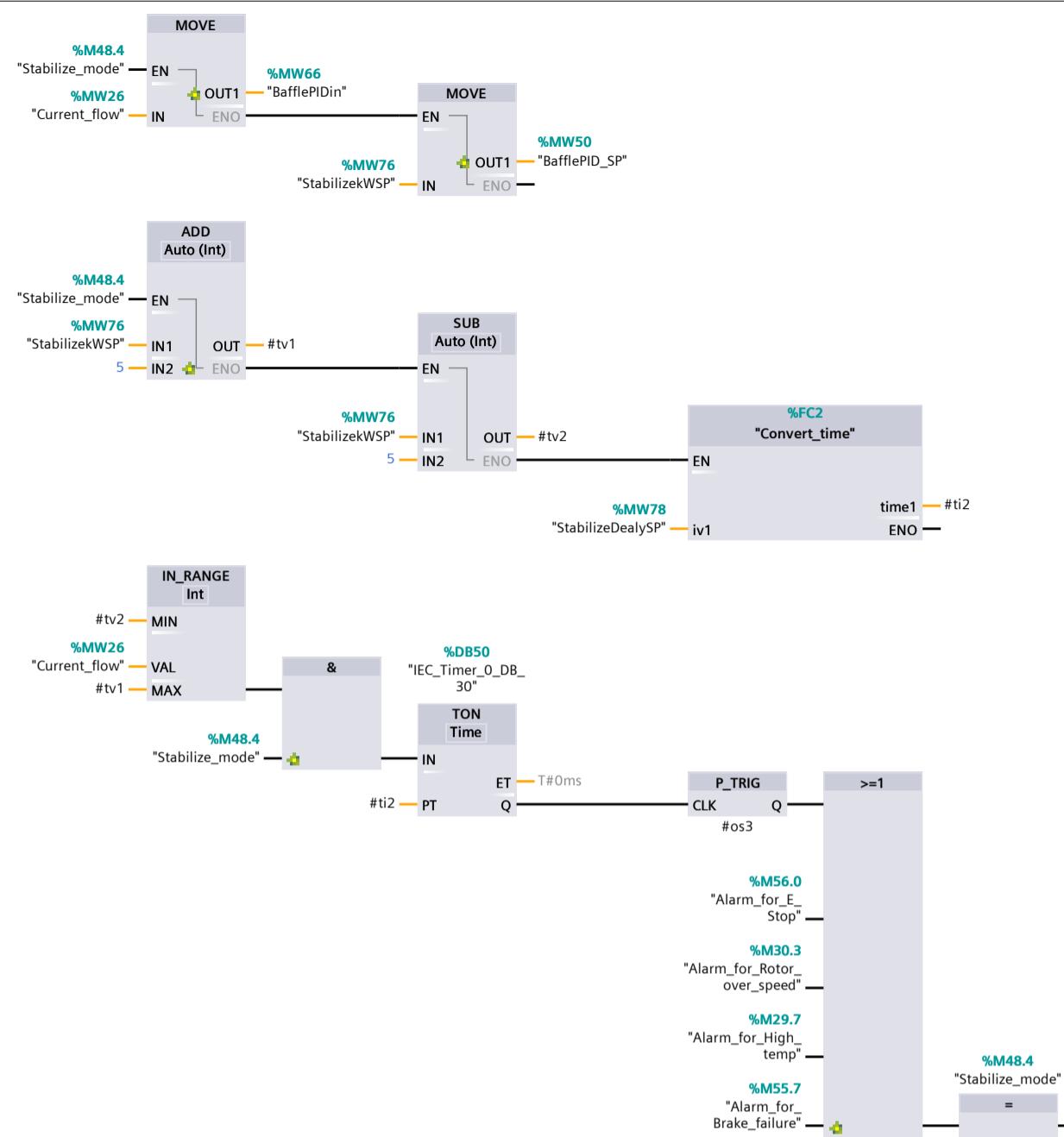
Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value	Retain
Input			
Output			
InOut			
▼ Static			
os1	Bool	false	Non-retain
os2	Bool	false	Non-retain
os3	Bool	false	Non-retain
os4	Bool	false	Non-retain
os5	Bool	false	Non-retain
os6	Bool	false	Non-retain
▼ Temp			
ti1	Time		
tv2	Int		
tv1	Int		
ti2	Time		
ti3	Time		
Constant			

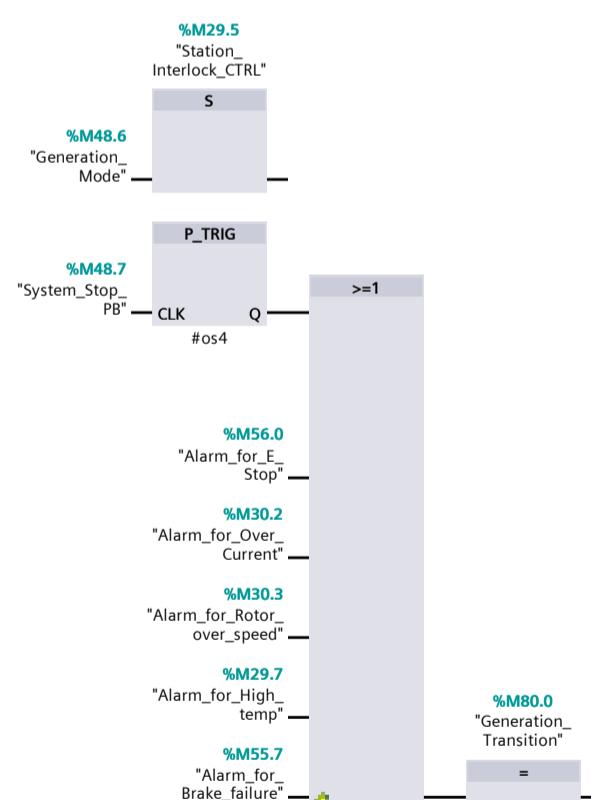
#### Network 1: WarmUp\_Mode



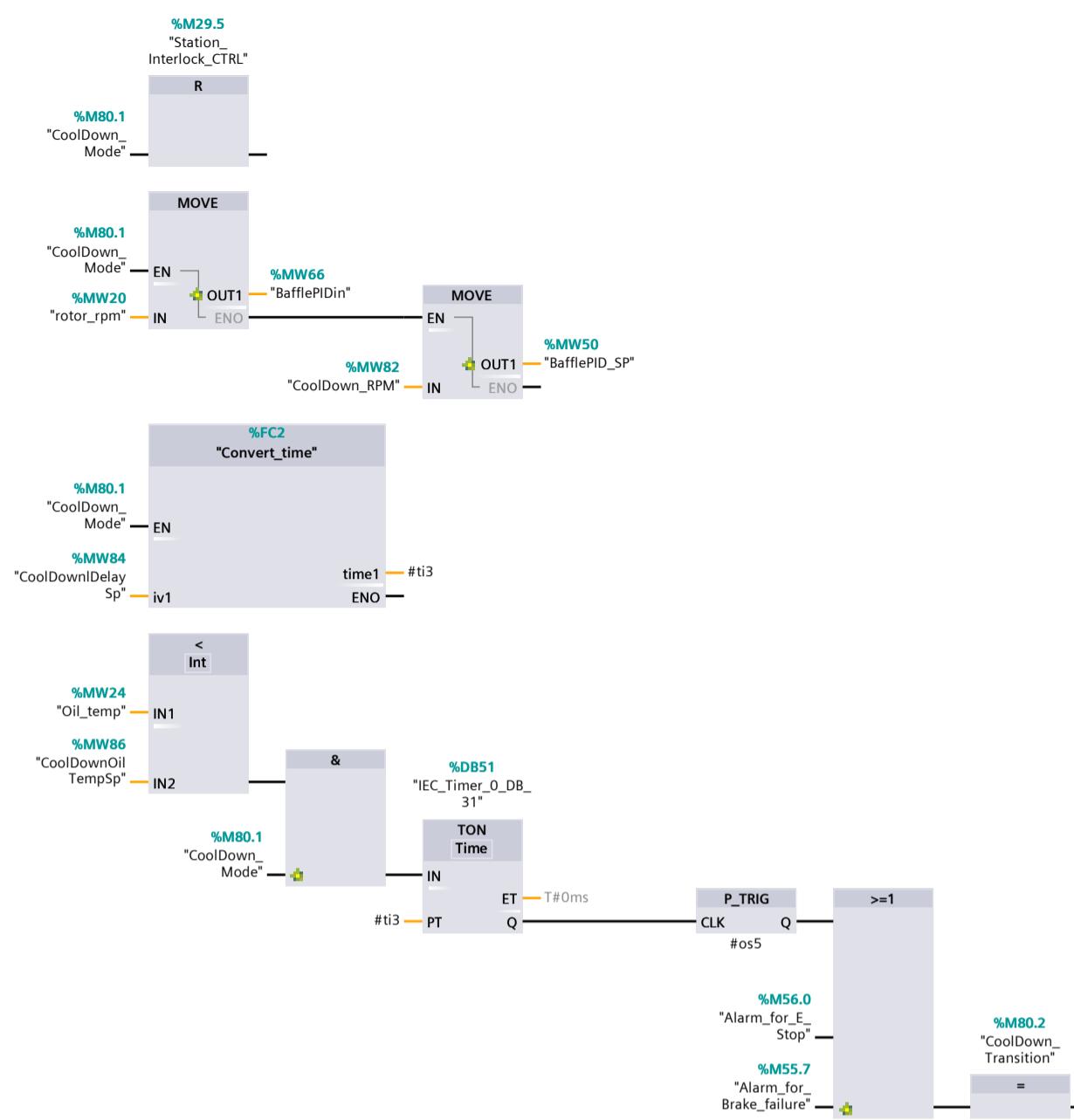
Network 2: Stabilize\_Mode



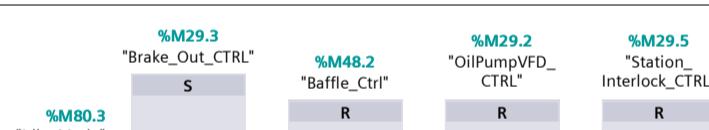
Network 3: Gereration\_Mode



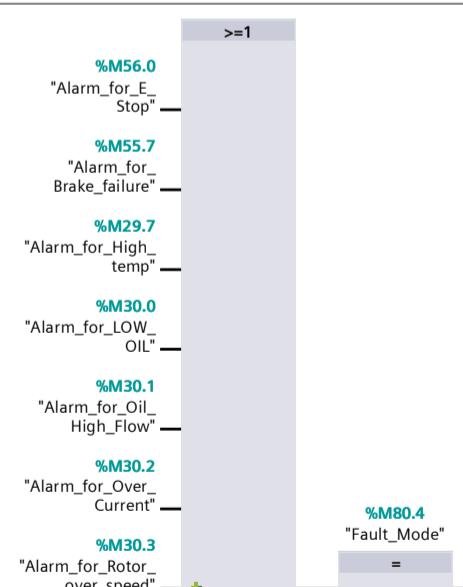
Network 4: CoolDown\_Mode



Network 5: Idle\_mode



Network 6: Fault\_Mode



Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_SCL [FB16]

Modes_SCL Properties							
General							
Name	Modes_SCL	Number	16	Type	FB	Language	SCL
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Default value		Retain	
Input							
Output							
InOut							
Static							
▼ Temp							
ti1		Time					
Warmup_Trigger		Bool					
t1		Time					
tv1		Int					
tv2		Int					
ti3		Time					
Stabilize_trigger		Bool					
t2		Time					
ti4		Time					
CoolDown_trigger		Bool					
t3		Time					
Constant							

```

0001 // ESTOP HANDLING
0002 IF "Alarm_for_E_Stop" OR "Alarm_for_Brake_failure" THEN
0003     "Warm_Transition" := 1;
0004     "Stabilize_Transition" := 1;
0005     "Generation_Transition" := 1;
0006     "CoolDown_Transition" := 1;
0007 ELSE
0008     "Warm_Transition" := 0;
0009     "Stabilize_Transition" := 0;
0010     "Generation_Transition" := 0;
0011     "CoolDown_Transition" := 0;
0012
0013 //WARM UP MODE
0014 IF "StartSequencePB" AND "Idle_Mode" AND "FULLAUTOBIT" THEN
0015     "StartSequenceBit" := 1;
0016 ELSE
0017     "StartSequenceBit" := 0;
0018 END_IF;
0019 IF "Warm_UP_Mode" THEN
0020     "Brake_Out_CTRL" := 0;
0021     "BafflePIDin" := "rotor_rpm";
0022     "BafflePID_SP" := "Warmup_RPM";
0023     "VFDsp" := "WarmUp_VFDper";
0024     IF "Oil_temp" > "WarmUpOilTempSp" THEN
0025         "Convert_time"(iv1 := "WarmUpOilDelaySp",
0026                         time1 => #til);
0027         "IEC_Timer_0_DB_32".TON(IN := TRUE,
0028                         PT := #til,
0029                         Q => #Warmup_Trigger,
0030                         ET => #t1);
0031     ELSE
0032         RESET_TIMER("IEC_Timer_0_DB_32");
0033     END_IF;
0034     IF #Warmup_Trigger THEN
0035         RESET_TIMER("IEC_Timer_0_DB_32");
0036         "Warm_Transition" := 1;
0037     END_IF;
0038 ELSE
0039     "Warm_Transition" := 0;
0040 END_IF;
0041 IF "Alarm_for_Rotor_over_speed" OR "Alarm_for_High_temp" THEN
0042     "Warm_Transition" := 1;
0043 END_IF;
0044
0045 //STABILIZE_MODE
0046 IF "Stabilize_mode" THEN
0047     "BafflePIDin" := "Current_flow";
0048     "BafflePID_SP" := "StabilizekWSP";
0049     #tv1 := "StabilizekWSP" - 5;
0050     #tv2 := "StabilizekWSP" + 5;
0051     IF "Current_flow" < #tv2 AND "Current_flow" > #tv1 THEN
0052         "Convert_time"(iv1 := "StabilizeDealySP",
0053                         time1 => #ti3);
0054         "IEC_Timer_0_DB_33".TON(IN := true,

```

Totally Integrated Automation Portal		
	<pre> 0055             PT := #ti3, 0056             Q =&gt; #Stabilize_trigger, 0057             ET =&gt; #t2); 0058     ELSE 0059         RESET_TIMER("IEC_Timer_0_DB_33"); 0060     END_IF; 0061     IF #Stabilize_trigger THEN 0062         RESET_TIMER("IEC_Timer_0_DB_33"); 0063         "Stabilize_Transition" := 1; 0064     END_IF; 0065     ELSE 0066         "Stabilize_Transition" := 0; 0067     END_IF; 0068     IF "Alarm_for_Rotor_over_speed" OR "Alarm_for_High_temp" THEN 0069         "Stabilize_Transition" := 1; 0070     END_IF; 0071 0072 // GENERATION MODE 0073 IF "Generation_Mode" THEN 0074     "Station_Interlock_CTRL" := 1; 0075     IF "System_Stop_PB" THEN 0076         "Generation_Transition" := 1; 0077     END_IF; 0078     ELSE 0079         "Generation_Transition" := 0; 0080     END_IF; 0081 0082 IF "Alarm_for_Over_Current" OR "Alarm_for_Rotor_over_speed" OR "Alarm_for_High_temp" THEN 0083     "Generation_Transition" := 1; 0084 END_IF; 0085 END_IF; 0086 0087 //COOLDOWN MODE 0088 IF "CoolDown_Mode" THEN 0089     "Station_Interlock_CTRL" := 0; 0090     "BafflePIDin" := "rotor_rpm"; 0091     "BafflePID_SP" := "CoolDown_RPM"; 0092     IF "Oil_temp" &lt; "CoolDownOilTempSp" THEN 0093         "Convert_time"(iv1 := "CoolDown1DelaySp", 0094                         time1 =&gt; #ti4); 0095         "IEC_Timer_0_DB_34".TON(IN := true, 0096                                 PT := #ti4, 0097                                 Q =&gt; #CoolDown_trigger, 0098                                 ET =&gt; #t3); 0099     ELSE 0100         RESET_TIMER("IEC_Timer_0_DB_34"); 0101     END_IF; 0102     IF #CoolDown_trigger THEN 0103         RESET_TIMER("IEC_Timer_0_DB_34"); 0104         "CoolDown_Transition" := 1; 0105     END_IF; 0106     ELSE 0107         "CoolDown_Transition" := 0; 0108     END_IF; 0109 0110 0111 // FAULT MODE 0112 IF "Alarm_for_Brake_failure" OR "Alarm_for_E_Stop" OR "Alarm_for_High_temp" OR "Alarm_for_LOW_OIL" OR 0113 "Alarm_for_Oil_High_Flow" OR "Alarm_for_Over_Current" OR "Alarm_for_Rotor_over_speed" THEN 0114     "Fault_Mode" := 1; 0115 ELSE 0116     "Fault_Mode" := 0; 0117 END_IF; 0118 0119 //IDLE MODE 0120 IF "Idle_Mode" THEN 0121     "Brake_Out_CTRL" := 1; 0122     "Baffle_Ctrl" := 0; 0123     "OilPumpVFD_CTRL" := 0; 0124     "Station_Interlock_CTRL" := 0; 0125 END_IF; 0126 0127 0128 </pre>	

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_STL [FB17]

Modes_STL Properties						
General						
Name	Modes_STL	Number	17	Type	FB	Language
Numbering	Automatic					STL
Information						
Title		Author		Comment		Family
Version	0.1	User-defined ID				
Name		Data type		Default value		Retain
Input						
Output						
InOut						
▼ Static						
os1		Bool		false		Non-retain
os2		Bool		false		Non-retain
▼ Temp						
ti1		Time				
WarmUpTrigger		Bool				
tm1		Time				
tv1		Int				
tv2		Int				
tb1		Bool				
ti2		Time				
Stabilizetrigger		Bool				
tm2		Time				
ti3		Time				
CooldownTrigger		Bool				
tm3		Time				
Constant						

#### Network 1:

```

0001 // ESTOP HANDLING
0002   A      "Alarm_for_E_Stop"
0003   O      "Alarm_for_Brake_failure"
0004   JC     EstopAlarm
0005   JU     Reset_EStopAlarm
0006
0007 EstopAlarm : SET
0008   S      "Warm_Transition"
0009   S      "Stabilize_Transition"
0010   S      "Generation_Transition"
0011   S      "CoolDown_Transition"
0012
0013 Reset_EStopAlarm : CLR
0014   R      "Warm_Transition"
0015   R      "Stabilize_Transition"
0016   R      "Generation_Transition"
0017   R      "CoolDown_Transition"
0018
0019 JumpToMode : A "Warm_UP_Mode"
0020   JC    Start_WarmUp
0021   CLR
0022   A      "Stabilize_mode"
0023   JC    StabilizeMode
0024   CLR
0025   A      "Generation_Mode"
0026   JC    GenerationMode
0027   CLR
0028   A      "CoolDown_Mode"
0029   JC    CooldownMode
0030   CLR
0031   A      "Idle_Mode"
0032   JC    IdleMode
0033   JU    EndOfLine
0034
0035
0036 // WARM UP MODE
0037 Start_WarmUp : SET
0038   R      "Warm_Transition"
0039   R      "Stabilize_Transition"
0040   R      "Generation_Transition"
0041   R      "CoolDown_Transition"
0042   R      "StartSequenceBit"
0043   CLR
0044   A      "Warm_UP_Mode"
0045   JC    WarmUpMode
0046   CLR
0047   A      "Stabilize_mode"

```

Totally Integrated Automation Portal		
	<pre> 0048      JC    StabilizeMode 0049      CLR 0050      A    "Generation_Mode" 0051      JC    GenerationMode 0052      CLR 0053      A    "CoolDown_Mode" 0054      JC    CooldownMode 0055      CLR 0056      A    "Idle_Mode" 0057      JC    IdleMode 0058      JU    EndOfLine 0059 0060  WarmUpMode : SET 0061      NOT 0062      R    "Brake_Out_CTRL" 0063      L    "Warmup_RPM" 0064      T    "BafflePID_SP" 0065      L    "rotor_rpm" 0066      T    "BafflePIDin" 0067 0068  SET 0069      S    "OilPumpVFD_CTRL" 0070      S    "Baffle_Ctrl" 0071      L    "WarmUp_VFDper" 0072      T    "VFDsp" 0073 0074      L    "Oil_temp" 0075      L    "WarmUpOilTempSp" 0076  &gt;I 0077  JC    WarmUpMode 0078  CALL  RESET_TIMER 0079      IEC_TIMER 0080      TIMER :="IEC_Timer_0_DB_35" 0081  JU    StabilizeMode 0082 0083  WarmUpTime : CALL "Convert_time" 0084      iv1   :="WarmUpOilDelaySp" 0085      time1 :=#t1 0086  CALL  TON , "IEC_Timer_0_DB_35" 0087      Time 0088      IN :=true 0089      PT :=#t1 0090      Q  :=#WarmUpTrigger 0091      ET :=#tm1 0092      A    #WarmUpTrigger 0093  JC    WarmUpExit 0094  CLR 0095      A    "Alarm_for_Rotor_over_speed" 0096      O    "Alarm_for_High_temp" 0097  JC    WarmUpExit 0098  JU    StabilizeMode 0099 0100 WarmUpExit : S "Warm_Transition" 0101  CALL  RESET_TIMER 0102      IEC_TIMER 0103      TIMER :="IEC_Timer_0_DB_35" 0104  JU    StabilizeMode 0105 0106 0107 //STABILIZE MODE 0108  StabilizeMode : SET 0109      NOT 0110      R    "Warm_Transition" 0111      L    "StabilizekWSP" 0112      T    "BafflePID_SP" 0113      L    "Current_flow" 0114      T    "BafflePIDin" 0115      L    "StabilizekWSP" 0116      L    5 0117  +I 0118      T    #tv1 0119      T    "StabilizekWSP" 0120      L    5 0121  -I 0122      L    #tv2 0123      L    "Current_flow" 0124      L    #tv1 0125  &lt;I 0126      S    #tb1 0127      L    "Current_flow" 0128      L    #tv2 0129  &gt;I 0130      A    #tb1 0131  JC    StabilizeMode 0132  CALL  RESET_TIMER 0133      IEC_TIMER 0134      TIMER :="IEC_Timer_0_DB_36" 0135  JU    GenerationMode </pre>	

Totally Integrated Automation Portal		
	<pre> 0136 StabilizeTime : CALL "Convert_time" 0137         iv1  :=&gt;StabilizeDealySP" 0138         time1 :=#ti2 0139     CALL TON , "IEC_Timer_0_DB_36" 0140         Time 0141         IN :=true 0142         PT :=#ti2 0143         Q :=#Stabilizetrigger 0144         ET :=#tm2 0145         A #Stabilizetrigger 0146     JC StabilizeExit 0147     CLR 0148         A "Alarm_for_Rotor_over_speed" 0149         O "Alarm_for_High_temp" 0150     JC StabilizeExit 0151     JU GenerationMode 0152 0153 StabilizeExit : S "Stabilize_Transition" 0154     CALL RESET_TIMER 0155         IEC_TIMER 0156         TIMER :=&gt;IEC_Timer_0_DB_36" 0157     JU GenerationMode 0158 0159 0160 //GENERATION MODE 0161 GenerationMode : SET 0162     NOT 0163     R "Stabilize_Transition" 0164     SET 0165     S "Station_Interlock_CTRL" 0166     A "System_Stop_PB" 0167     JC GenerationExit 0168     CLR 0169     A "Alarm_for_Over_Current" 0170     JC GenerationExit 0171     CLR 0172     A "Alarm_for_Rotor_over_speed" 0173     O "Alarm_for_High_temp" 0174     JC GenerationExit 0175     JU CooldownMode 0176 0177 GenerationExit : S "Generation_Transition" 0178     JU CooldownMode 0179 0180 0181 //COOLDOWN MODE 0182 CooldownMode : SET 0183     NOT 0184     R "Generation_Transition" 0185     R "Station_Interlock_CTRL" 0186     L "CoolDown_RPM" 0187     T "BafflePID_SP" 0188     L "rotor_rpm" 0189     T "BafflePIDin" 0190     L "Oil_temp" 0191     L "CoolDownOilTempSp" 0192     &lt;I 0193     JC Cooldowntime 0194     CALL RESET_TIMER 0195         IEC_TIMER 0196         TIMER :=&gt;IEC_Timer_0_DB_37" 0197     JU IdleMode 0198 0199 Cooldowntime : CALL "Convert_time" 0200         iv1  :=&gt;CoolDown1DelaySp" 0201         time1 :=#ti3 0202     CALL TON , "IEC_Timer_0_DB_37" 0203         Time 0204         IN :=true 0205         PT :=#ti3 0206         Q :=#CooldownTrigger 0207         ET :=#tm3 0208         A #CooldownTrigger 0209     JC CooldownExit 0210     JU IdleMode 0211 0212 CooldownExit : S "CoolDown_Transition" 0213     CALL RESET_TIMER 0214         IEC_TIMER 0215         TIMER :=&gt;IEC_Timer_0_DB_37" 0216     JU IdleMode 0217 0218 0219 //IDLE MODE 0220 IdleMode : SET 0221     NOT 0222     R "CoolDown_Transition" 0223     R "Station_Interlock_CTRL" </pre>	

Totally Integrated Automation Portal		
	<pre>0224      S      "Brake_Out_CTRL" 0225      R      "Baffle_Ctrl" 0226      R      "OilPumpVFD_CTRL" 0227      CLR 0228      A      "StartSequencePB" 0229      A      "Idle_Mode" 0230      A      "FULLAUTOBIT" 0231      FP     #os2 0232      S      "StartSequenceBit" 0233      JU     EndOfLine 0234 0235 //FAULT MODE 0236 EndOfLine : A "E_Stop" 0237      O      "Alarm_for_Brake_failure" 0238      O      "Alarm_for_High_temp" 0239      O      "Alarm_for_LOW_OIL" 0240      O      "Alarm_for_Oil_High_Flow" 0241      O      "Alarm_for_Over_Current" 0242      O      "Alarm_for_Rotor_over_speed" 0243      =      "Fault_Mode" 0244</pre>	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_LAD\_DB [DB40]

#### Modes\_LAD\_DB Properties

##### General

Name	Modes_LAD_DB	Number	40	Type	DB	Language	DB
Numbering	Automatic						

##### Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
os1	Bool	false	False
os2	Bool	false	False
os3	Bool	false	False
os4	Bool	false	False
os5	Bool	false	False

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_FBD\_DB [DB41]

Modes_FBD_DB Properties							
General							
Name	Modes_FBD_DB	Number	41	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
▼ Static							
os1		Bool		false		False	
os2		Bool		false		False	
os3		Bool		false		False	
os4		Bool		false		False	
os5		Bool		false		False	
os6		Bool		false		False	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_SCL\_DB [DB44]

Modes_SCL_DB Properties							
General							
Name	Modes_SCL_DB	Number	44	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
Static							

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_STL\_DB [DB45]

#### Modes\_STL\_DB Properties

##### General

Name	Modes_STL_DB	Number	45	Type	DB	Language	DB
Numbering	Automatic						

##### Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
os1	Bool	false	False
os2	Bool	false	False

Totally Integrated Automation Portal		
---	--	--

Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## Sequence [FB18]

## Sequence Properties

## General

Name	Sequence	Number	18	Type	FB	Language	GRAPH
Numbering	Automatic	Network lan-guage	LAD	Block version	V2.0		

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value	Retain
▼ Input			
OFF_SQ	Bool	false	Non-retain
INIT_SQ	Bool	false	Non-retain
ACK_EF	Bool	false	Non-retain
S_PREV	Bool	false	Non-retain
S_NEXT	Bool	false	Non-retain
SW_AUTO	Bool	false	Non-retain
SW_TAP	Bool	false	Non-retain
SW_TOP	Bool	false	Non-retain
SW_MAN	Bool	false	Non-retain
S_SEL	Int	0	Non-retain
S_ON	Bool	false	Non-retain
S_OFF	Bool	false	Non-retain
T_PUSH	Bool	false	Non-retain
▼ Output			
S_NO	Int	0	Non-retain
S_MORE	Bool	false	Non-retain
S_ACTIVE	Bool	false	Non-retain
ERR_FLT	Bool	false	Non-retain
AUTO_ON	Bool	false	Non-retain
TAP_ON	Bool	false	Non-retain
TOP_ON	Bool	false	Non-retain
MAN_ON	Bool	false	Non-retain
InOut			
▼ Static			
RT_DATA	G7_RTDataPlus_V2		Non-retain
Trans1	G7_TransitionPlus_V2		Non-retain
Trans2	G7_TransitionPlus_V2		Non-retain
Trans3	G7_TransitionPlus_V2		Non-retain
Trans4	G7_TransitionPlus_V2		Non-retain
Trans5	G7_TransitionPlus_V2		Non-retain
Idle	G7_StepPlus_V2		Non-retain
Warm Up	G7_StepPlus_V2		Non-retain
Stabilize	G7_StepPlus_V2		Non-retain
Generation	G7_StepPlus_V2		Non-retain
Cool Down	G7_StepPlus_V2		Non-retain
Temp			
Constant			

## Alarms

Enable alarms	True
---------------	------

Category	Category enabler	Display class
Error		0
Warning		0
Info		0
Category 4		0
Category 5		0
Category 6		0
Category 7		0
Category 8		0

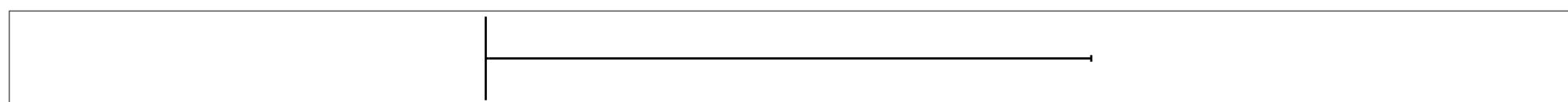
Category for inter-locks	Error	Subcategory 1 for interlocks		Subcategory 2 for interlocks	
--------------------------	-------	------------------------------	--	------------------------------	--

Category for supervi- sions	Error	Subcategory 1 for su- pervisions	Subcategory 2 for su- pervisions
--------------------------------	-------	-------------------------------------	-------------------------------------

<b>Category for GRAPH warnings</b>	Warning	<b>Subcategory 1 for GRAPH warnings</b>		<b>Subcategory 2 for GRAPH warnings</b>	
------------------------------------	---------	---	--	---	--

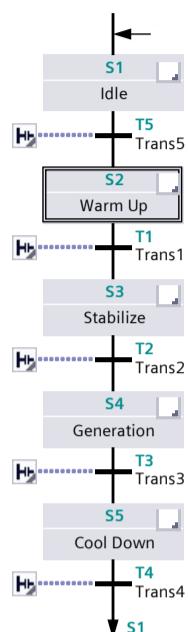
## Permanent pre-instructions

1:



**Sequences (1)**

1:

**S2 - [Initial step]:Warm Up****Interlock -(c)-:****Interlock alarm**

Alarm text

Interlock

(c)

**Supervision -(v)-:****Supervision alarm**

Alarm text

Supervision

(v)

**Actions:****Actions:**

Interlock

Event

Qualifier

Action

"Warm\_UP\_Mode"

**T1:Trans1**%M48.3  
"Warm\_Transition"**S3:Stabilize****Interlock -(c)-:****Interlock alarm**

Alarm text

Interlock

(c)

**Supervision -(v)-:****Supervision alarm**

Alarm text

Supervision

(v)

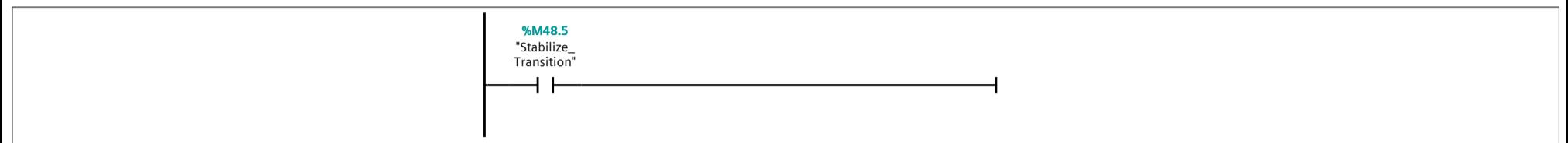
Totally Integrated Automation Portal		
---	--	--

#### Actions:

##### Actions:

Interlock	Event	Qualifier	Action
		N	"Stabilize_mode"

T2:Trans2

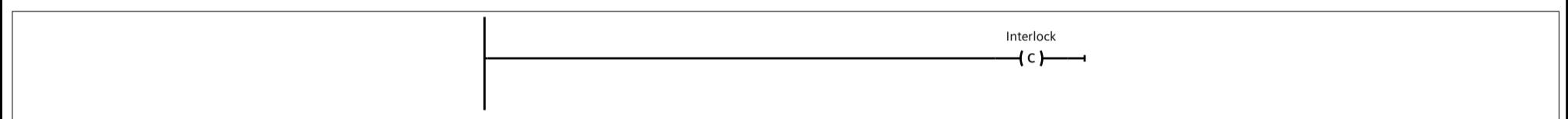


S4:Generation

Interlock -(c)-:

##### Interlock alarm

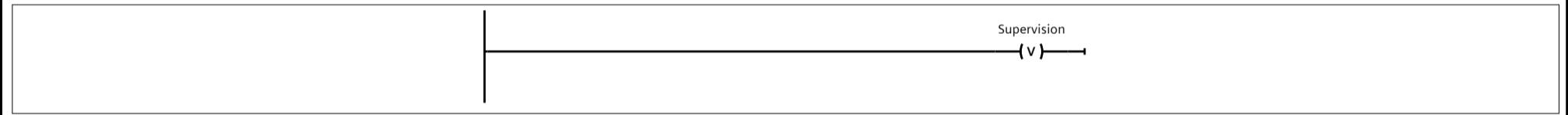
Alarm text



Supervision -(v)-:

##### Supervision alarm

Alarm text

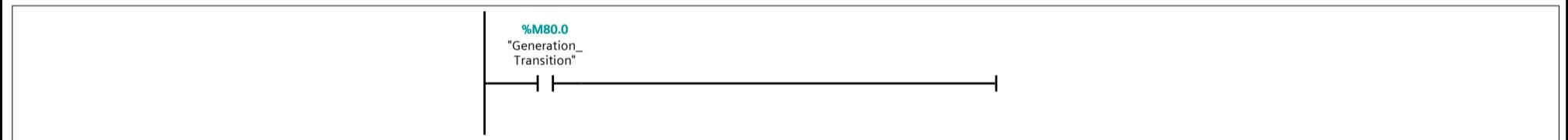


Actions:

##### Actions:

Interlock	Event	Qualifier	Action
		N	"Generation_Mode"

T3:Trans3

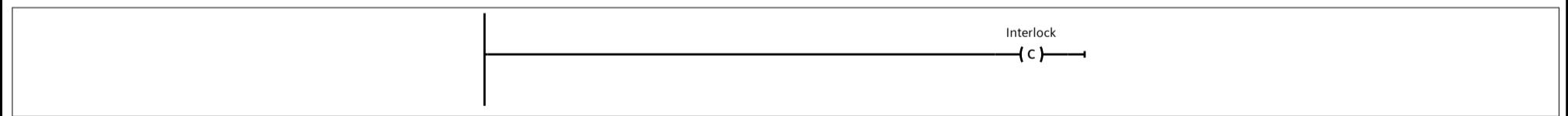


S5:Cool Down

Interlock -(c)-:

##### Interlock alarm

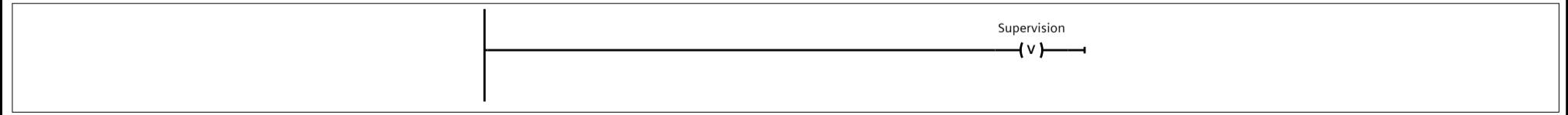
Alarm text



Supervision -(v)-:

##### Supervision alarm

Alarm text



Actions:

##### Actions:

Interlock	Event	Qualifier	Action
		N	"CoolDown_Mode"

**T4:Trans4**

%M80.2  
"CoolDown  
Transition"

**S1:Idle****Interlock -(c)-:**

Interlock alarm  
Alarm text

Interlock  
(c)

**Supervision -(v)-:**

Supervision alarm  
Alarm text

Supervision  
(v)

**Actions:****Actions:**

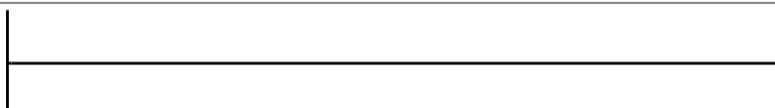
Interlock	Event	Qualifier	Action
		N	"Idle_Mode"

**T5:Trans5**

%M48.0  
"StartSequence  
Bit"

**Permanent post-instructions**

1:



Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Sequence\_DB [DB58]

Sequence_DB Properties					
General					
Name	Sequence_DB	Number	58	Type	DB
Numbering	Automatic			Language	DB
Information					
Title		Author		Comment	
Version	0.1	User-defined ID			Family
Name		Data type		Start value	Retain
▼ Input					
OFF_SQ		Bool		false	False
INIT_SQ		Bool		false	False
ACK_EF		Bool		false	False
S_PREV		Bool		false	False
S_NEXT		Bool		false	False
SW_AUTO		Bool		false	False
SW_TAP		Bool		false	False
SW_TOP		Bool		false	False
SW_MAN		Bool		false	False
S_SEL		Int		0	False
S_ON		Bool		false	False
S_OFF		Bool		false	False
T_PUSH		Bool		false	False
▼ Output					
S_NO		Int		0	False
S_MORE		Bool		false	False
S_ACTIVE		Bool		false	False
ERR_FLT		Bool		false	False
AUTO_ON		Bool		false	False
TAP_ON		Bool		false	False
TOP_ON		Bool		false	False
MAN_ON		Bool		false	False
InOut					
▼ Static					
RT_DATA		G7_RTDataPlus_V2			False
Trans1		G7_TransitionPlus_V2			False
Trans2		G7_TransitionPlus_V2			False
Trans3		G7_TransitionPlus_V2			False
Trans4		G7_TransitionPlus_V2			False
Trans5		G7_TransitionPlus_V2			False
Idle		G7_StepPlus_V2			False
Warm Up		G7_StepPlus_V2			False
Stabilize		G7_StepPlus_V2			False
Generation		G7_StepPlus_V2			False
Cool Down		G7_StepPlus_V2			False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## PID [OB30]

## PID Properties

## General

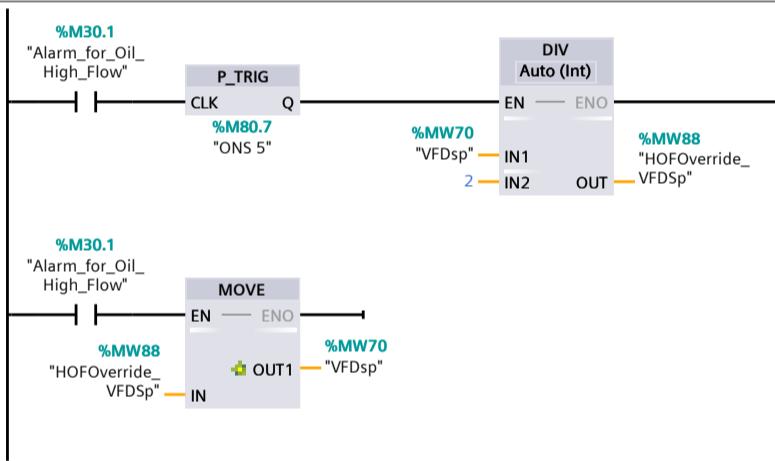
Name	PID	Number	30	Type	OB	Language	LAD
Numbering	Automatic						

## Information

Title		Author	<th>Comment</th> <td><th>Family</th><td></td></td>	Comment	<th>Family</th> <td></td>	Family	
Version	0.1	User-defined ID					

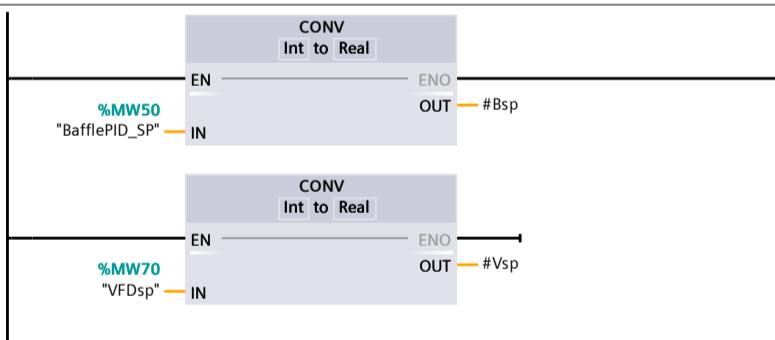
Name	Data type	Default value
▼ Input		
Initial_Call	Bool	
Event_Count	Int	
▼ Temp		
Bsp	Real	
Vsp	Real	
bafflehand_trigger	Bool	
baffleoff_trigger	Bool	
baffleauto_trigger	Bool	
vfdhand_trigger	Bool	
vfdoft_trigger	Bool	
vfdauto_trigger	Bool	
Constant		

## Network 1: high oil flow alarm handling



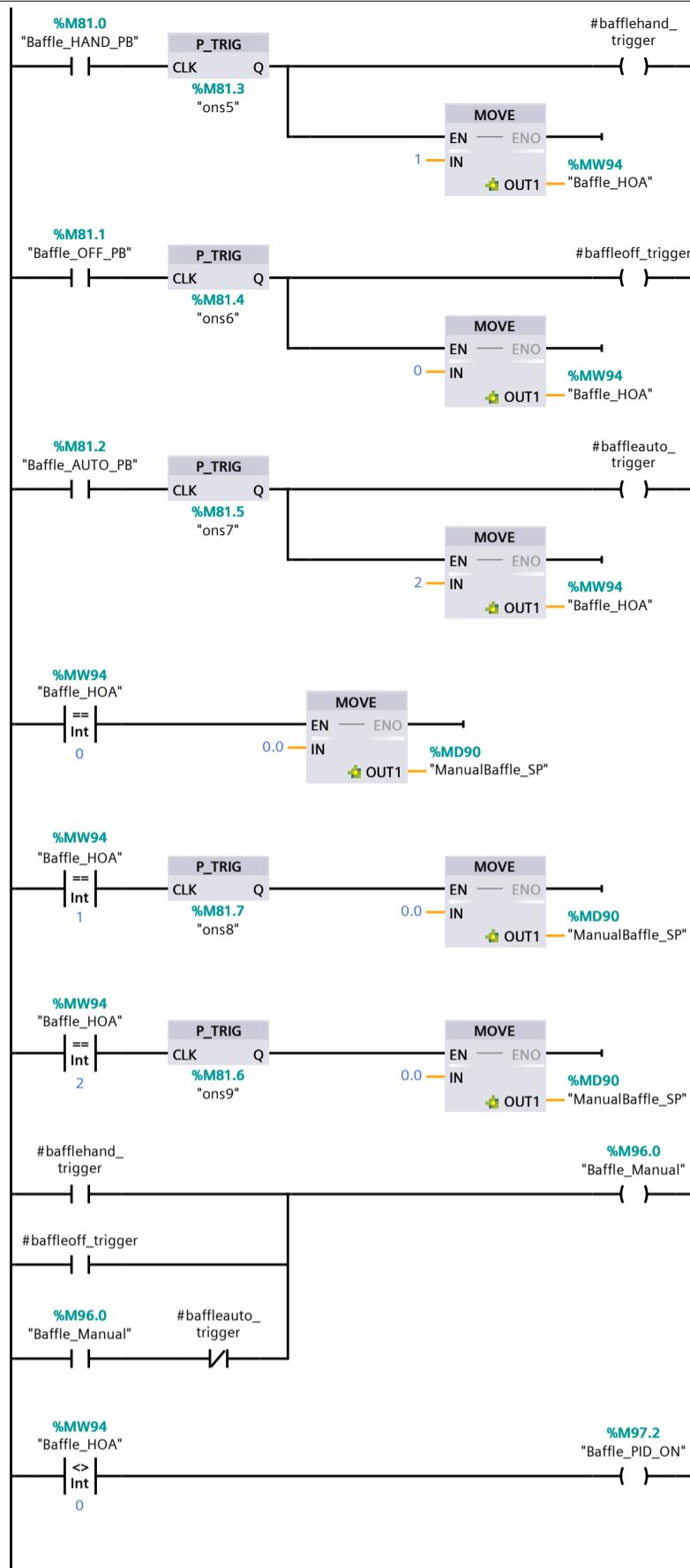
## Network 2:

## Setpoint Conversion

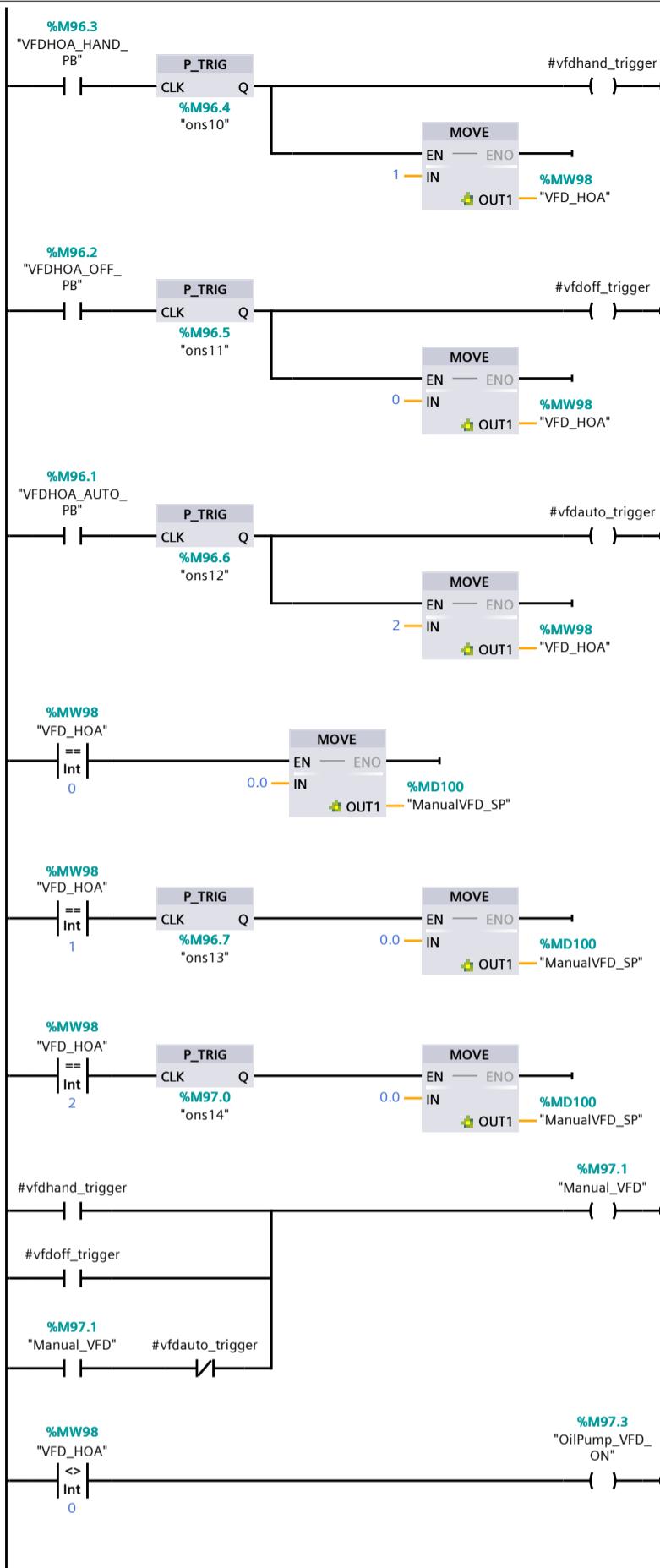


## Network 3:

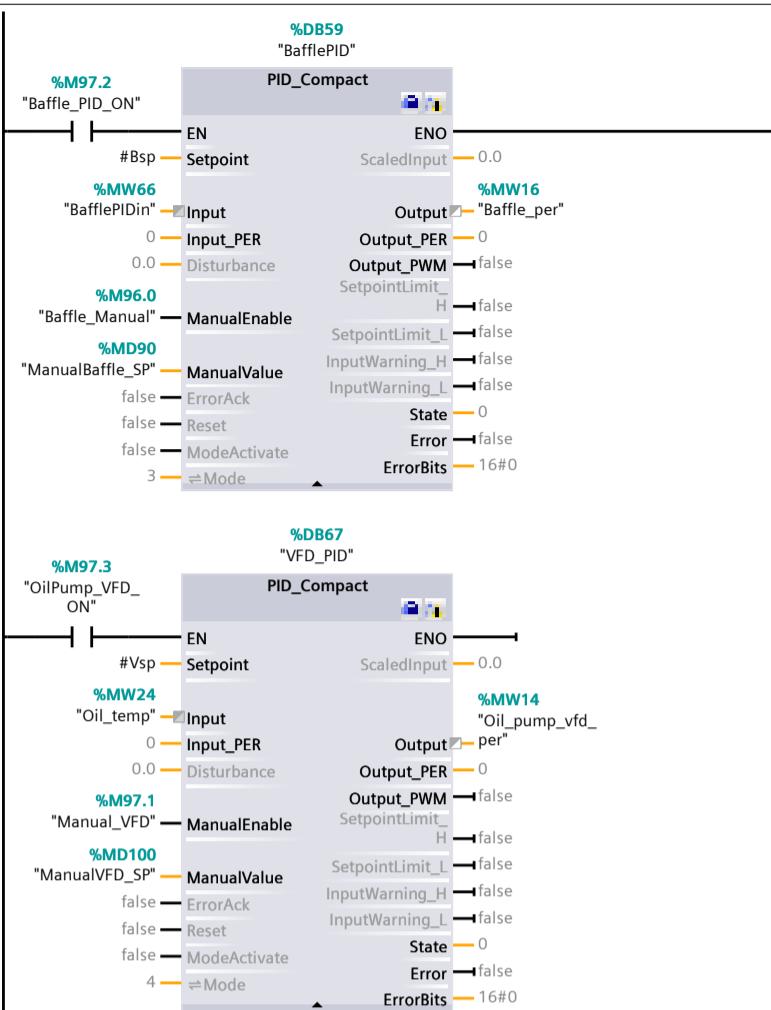
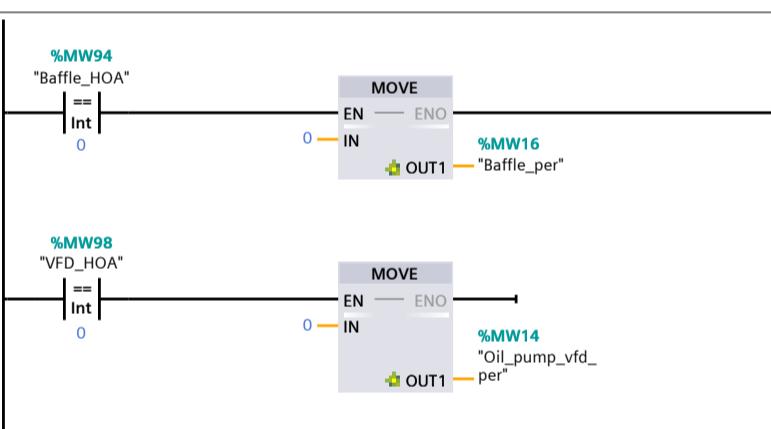
## Baffle HOA

**Network 4:**

VFD HOA

**Network 5:**

PID

**Network 6:**

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_LAD\_DB\_1 [DB61]

#### Modes\_LAD\_DB\_1 Properties

##### General

Name	Modes_LAD_DB_1	Number	61	Type	DB	Language	DB
Numbering	Automatic						

##### Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
os1	Bool	false	False
os2	Bool	false	False
os3	Bool	false	False
os4	Bool	false	False
os5	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_FBD\_DB\_1 [DB62]

#### Modes\_FBD\_DB\_1 Properties

##### General

Name	Modes_FBD_DB_1	Number	62	Type	DB	Language	DB
Numbering	Automatic						

##### Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
os1	Bool	false	False
os2	Bool	false	False
os3	Bool	false	False
os4	Bool	false	False
os5	Bool	false	False
os6	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### Modes\_FBD\_DB\_2 [DB63]

#### Modes\_FBD\_DB\_2 Properties

##### General

Name	Modes_FBD_DB_2	Number	63	Type	DB	Language	DB
Numbering	Automatic						

##### Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
os1	Bool	false	False
os2	Bool	false	False
os3	Bool	false	False
os4	Bool	false	False
os5	Bool	false	False
os6	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## HOURMETER\_LAD [FB19]

## HOURMETER\_LAD Properties

## General

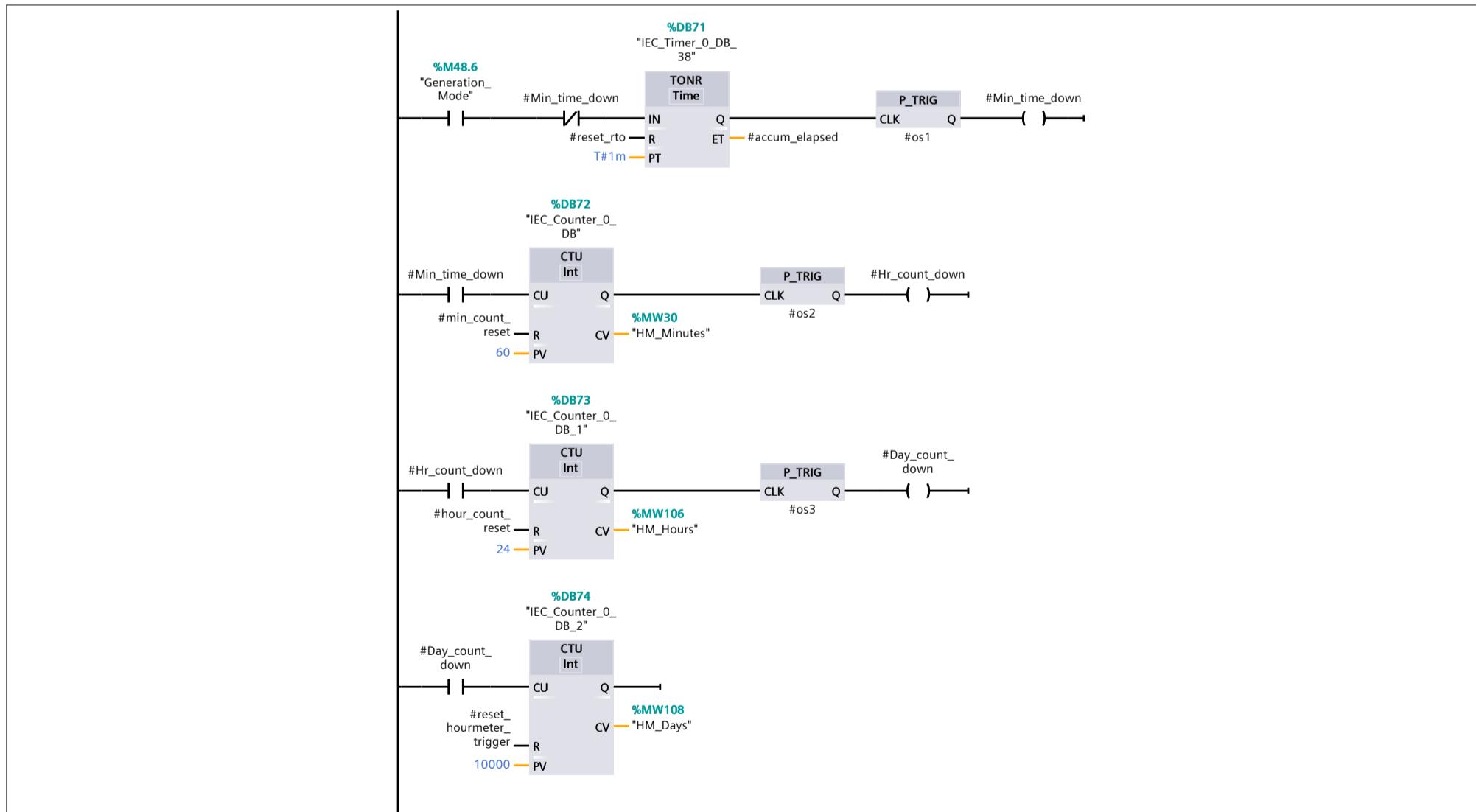
Name	HOURMETER_LAD	Number	19	Type	FB	Language	LAD
Numbering	Automatic						

## Information

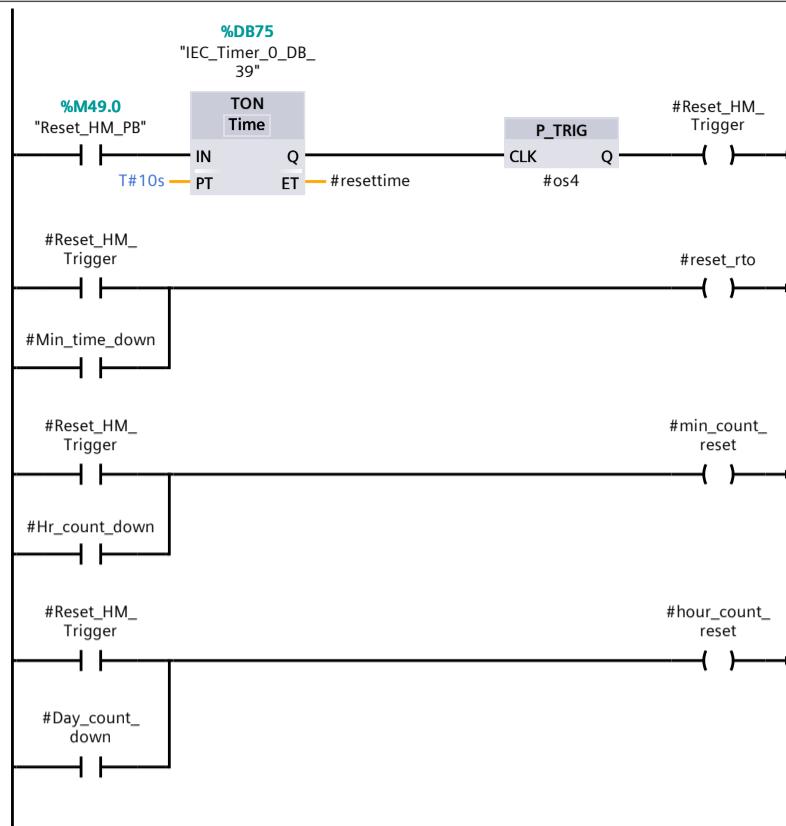
Title	Author	Comment	Family
Version	0.1	User-defined ID	

Name	Data type	Default value	Retain
Input			
Output			
InOut			
▼ Static			
Min_time_down	Bool	false	Non-retain
Min_countdown	Bool	false	Non-retain
Hour_countdown	Bool	false	Non-retain
Day_countdown	Bool	false	Non-retain
Day_count_down	Bool	false	Non-retain
Hr_count_down	Bool	false	Non-retain
reset_rto	Bool	false	Non-retain
min_count_reset	Bool	false	Non-retain
hour_count_reset	Bool	false	Non-retain
reset_hourmeter_trigger	Bool	false	Non-retain
os3	Bool	false	Non-retain
os2	Bool	false	Non-retain
os1	Bool	false	Non-retain
os4	Bool	false	Non-retain
Reset_HM_Trigger	Bool	false	Non-retain
accum_elapsed	Time	T#0ms	Non-retain
▼ Temp			
resettetime	Time		
Constant			

## Network 1:



## Network 2:



## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

## HOURMETER\_FBD [FB20]

## HOURMETER\_FBD Properties

## General

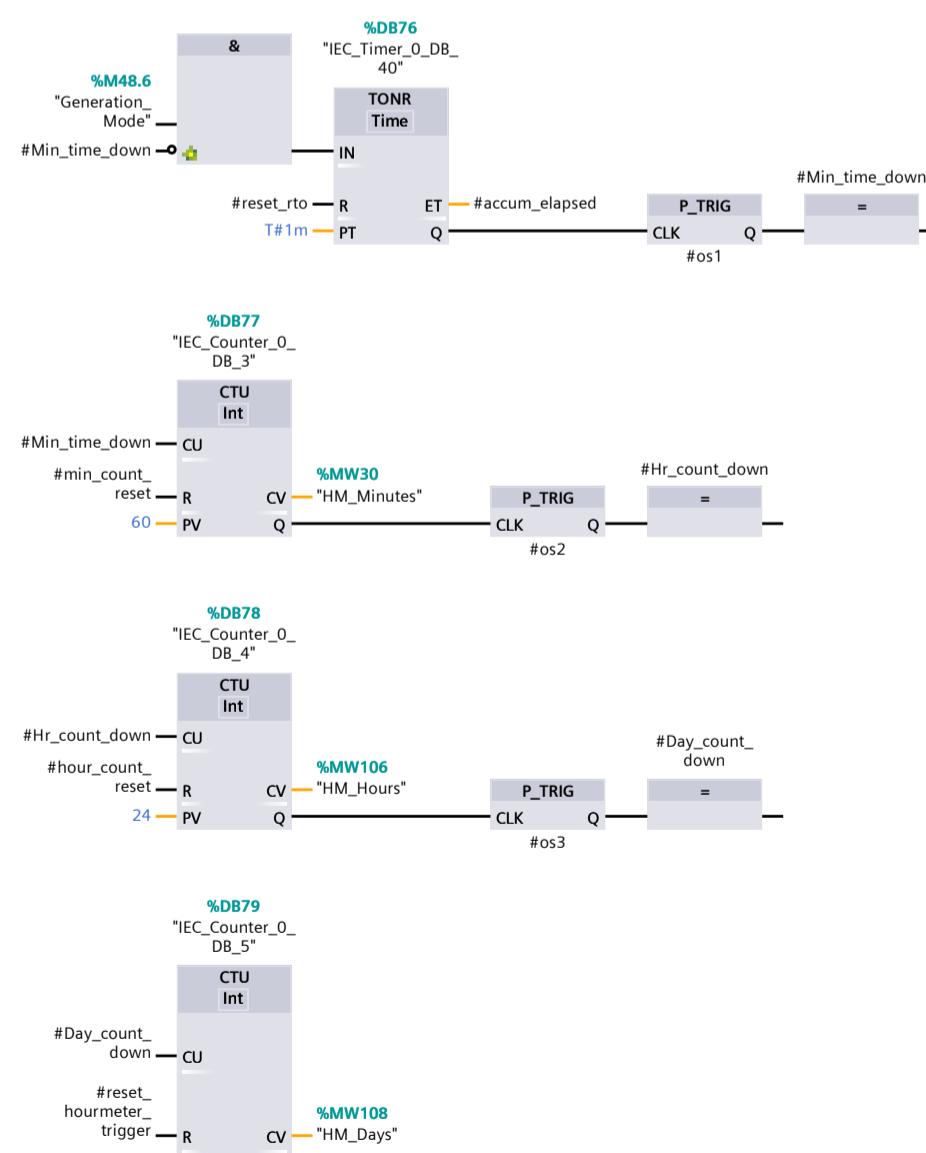
Name	HOURMETER_FBD	Number	20	Type	FB	Language	FBD
Numbering	Automatic						

## Information

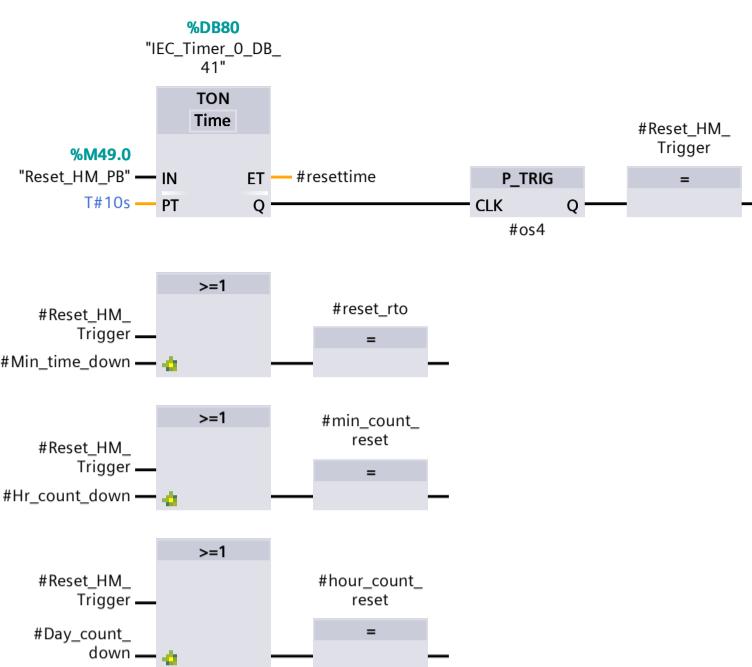
Title	Author	Comment	Family
Version	0.1	User-defined ID	

Name	Data type	Default value	Retain
Input			
Output			
InOut			
▼ Static			
Min_time_down	Bool	false	Non-retain
Min_countdown	Bool	false	Non-retain
Hour_countdown	Bool	false	Non-retain
Day_countdown	Bool	false	Non-retain
Day_count_down	Bool	false	Non-retain
Hr_count_down	Bool	false	Non-retain
reset_rto	Bool	false	Non-retain
min_count_reset	Bool	false	Non-retain
hour_count_reset	Bool	false	Non-retain
reset_hourmeter_trigger	Bool	false	Non-retain
os3	Bool	false	Non-retain
os2	Bool	false	Non-retain
os1	Bool	false	Non-retain
os4	Bool	false	Non-retain
Reset_HM_Trigger	Bool	false	Non-retain
accum_elapsed	Time	T#0ms	Non-retain
▼ Temp			
resettetime	Time		
Constant			

## Network 1:



## Network 2:



Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOURMETER\_SCL [FB21]

HOURMETER_SCL Properties					
General					
Name	HOURMETER_SCL	Number	21	Type	FB
Numbering	Automatic			Language	SCL
Information					
Title		Author		Comment	
Version	0.1	User-defined ID			Family
Name	Data type	Default value	Retain		
Input					
Output					
InOut					
▼ Static					
Min_time_down	Bool	false	Non-retain		
Min_countdown	Bool	false	Non-retain		
Hour_countdown	Bool	false	Non-retain		
Day_countdown	Bool	false	Non-retain		
Day_count_down	Bool	false	Non-retain		
Hr_count_down	Bool	false	Non-retain		
reset_rto	Bool	false	Non-retain		
min_count_reset	Bool	false	Non-retain		
hour_count_reset	Bool	false	Non-retain		
reset_hourmeter_trigger	Bool	false	Non-retain		
os3	Bool	false	Non-retain		
os2	Bool	false	Non-retain		
os1	Bool	false	Non-retain		
os4	Bool	false	Non-retain		
Reset_HM_Trigger	Bool	false	Non-retain		
accum_elapsed	Time	T#0ms	Non-retain		
▼ Temp					
resettime	Time				
Constant					

```

0001 IF "Generation_Mode" AND NOT #Min_time_down THEN
0002   "IEC_Timer_0_DB_42".TONR(IN := TRUE,
0003     R := #reset_rto,
0004     PT := T#60s,
0005     Q => #Min_time_down,
0006     ET => #accum_elapsed);
0007   END_IF;
0008
0009 IF #Min_time_down THEN
0010   RESET_TIMER("IEC_Timer_0_DB_42");
0011 END_IF;
0012
0013 IF #Min_time_down THEN
0014   "IEC_Counter_0_DB_6".CTU(CU := #Min_time_down,
0015     R := #min_count_reset,
0016     PV := 60,
0017     Q => #Hr_count_down,
0018     CV => "HM_Minutes");
0019 END_IF;
0020
0021 IF #Hr_count_down THEN
0022   "IEC_Counter_0_DB_7".CTU(CU := #Hr_count_down,
0023     R := #hour_count_reset,
0024     PV := 24,
0025     Q => #Day_count_down,
0026     CV => "HM_Hours");
0027 END_IF;
0028
0029 IF #Day_count_down THEN
0030
0031   "IEC_Counter_0_DB_8".CTU(CU := #Day_count_down,
0032     R := #reset_hourmeter_trigger,
0033     PV := 1000,
0034     CV => "HM_Days");
0035 END_IF;
0036
0037 IF "Reset_HM_PB" THEN
0038   "IEC_Timer_0_DB_43".TON(IN := TRUE,
0039     PT := T#10s,
0040     Q => #Reset_HM_Trigger,
0041     ET => #resettime);
0042 ELSE
0043   RESET_TIMER("IEC_Timer_0_DB_43");
0044 END_IF;
0045
0046 IF #Reset_HM_Trigger OR #Min_time_down THEN
0047   #reset_rto := 1;

```

```
0048 ELSE
0049     #reset_rto := 0;
0050 END_IF;
0051
0052 IF #Reset_HM_Trigger OR #Hr_count_down THEN
0053     #min_count_reset := 1;
0054 ELSE
0055     #min_count_reset := 0;
0056 END_IF;
0057
0058 IF #Reset_HM_Trigger OR #Day_count_down THEN
0059     #hour_count_reset := 1;
0060 ELSE
0061     #hour_count_reset := 0;
0062 END_IF;
0063
0064
0065
0066
0067
```

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOURMETER\_STL [FB22]

#### HOURMETER\_STL Properties

##### General

Name	HOURMETER_STL	Number	22	Type	FB	Language	STL
Numbering	Automatic						

##### Information

Title	Author	Comment	Family
Version	0.1	User-defined ID	

Name	Data type	Default value	Retain
Input			
Output			
InOut			
▼ Static			
Min_time_down	Bool	false	Non-retain
Min_countdown	Bool	false	Non-retain
Hour_countdown	Bool	false	Non-retain
Day_countdown	Bool	false	Non-retain
Day_count_down	Bool	false	Non-retain
Hr_count_down	Bool	false	Non-retain
reset_rto	Bool	false	Non-retain
min_count_reset	Bool	false	Non-retain
hour_count_reset	Bool	false	Non-retain
reset_hourmeter_trigger	Bool	false	Non-retain
os3	Bool	false	Non-retain
os2	Bool	false	Non-retain
os1	Bool	false	Non-retain
os4	Bool	false	Non-retain
Reset_HM_Trigger	Bool	false	Non-retain
accum_elapsed	Time	T#0ms	Non-retain
▼ Temp			
resettetime	Time		
toooomanydays	Bool		
Constant			

#### Network 1:

```

0001      A      "Generation_Mode"
0002      JC     RTOTimer
0003      CLR
0004      A      "Reset_HM_PB"
0005      JC     RestHourmeter
0006      JU     EndOfLine
0007
0008  RTOTimer : CALL TONR , "IEC_Timer_0_DB_44"
0009      Time
0010      IN :=true
0011      R  :=#reset_rto
0012      PT :=t#1m
0013      Q  :=#Min_time_down
0014      ET :=#accum_elapsed
0015
0016      CALL  CTU , "n"
0017      Int
0018      CU :=#Min_countdown
0019      R   :=#min_count_reset
0020      PV :=60
0021      Q   :=#Hr_count_down
0022      CV :=HM_Minutes"
0023
0024      CALL  CTU , "IEC_Counter_0_DB_9"
0025      Int
0026      CU :=#Hour_countdown
0027      R   :=#hour_count_reset
0028      PV :=24
0029      Q   :=#Day_count_down
0030      CV :=HM_Hours"
0031
0032      CALL  CTU , "nt"
0033      Int
0034      CU :=#Day_countdown
0035      R   :=#reset_hourmeter_trigger
0036      PV :=10000
0037      Q   :=#toooomanydays
0038      CV :=HM_Days"
0039
0040      JU     EndOfLine
0041
0042  RestHourmeter : CALL TON , "IEC_Timer_0_DB_45"

```

```
0043      Time
0044      IN := "Reset_HM_PB"
0045      PT := T#10s
0046      Q  := #Reset_HM_Trigger
0047      ET := #resettme
0048
0049 EndOfLine : CLR
0050      A    #Reset_HM_Trigger
0051      O    #Min_countdown
0052      =    #reset_rto
0053      CLR
0054      A    #Reset_HM_Trigger
0055      O    #Hour_countdown
0056      =    #min_count_reset
0057      CLR
0058      A    #Reset_HM_Trigger
0059      O    #Day_countdown
0060      =    #hour_count_reset
0061      CLR
0062
0063
0064
0065
0066
```

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOURMETER\_LAD\_DB [DB66]

HOURMETER_LAD_DB Properties							
General							
Name	HOURMETER_LAD_DB	Number	66	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
▼ Static							
Min_time_down		Bool		false		False	
Min_countdown		Bool		false		False	
Hour_countdown		Bool		false		False	
Day_countdown		Bool		false		False	
Day_count_down		Bool		false		False	
Hr_count_down		Bool		false		False	
reset_rto		Bool		false		False	
min_count_reset		Bool		false		False	
hour_count_reset		Bool		false		False	
reset_hourmeter_trigger		Bool		false		False	
os3		Bool		false		False	
os2		Bool		false		False	
os1		Bool		false		False	
os4		Bool		false		False	
Reset_HM_Trigger		Bool		false		False	
accum_elapsed		Time		T#0ms		False	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOURMETER\_FBD\_DB [DB68]

#### HOURMETER\_FBD\_DB Properties

##### General

Name	HOURMETER_FBD_DB	Number	68	Type	DB	Language	DB
Numbering	Automatic						

##### Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Start value	Retain
Input			
Output			
InOut			
▼ Static			
Min_time_down	Bool	false	False
Min_countdown	Bool	false	False
Hour_countdown	Bool	false	False
Day_countdown	Bool	false	False
Day_count_down	Bool	false	False
Hr_count_down	Bool	false	False
reset_rto	Bool	false	False
min_count_reset	Bool	false	False
hour_count_reset	Bool	false	False
reset_hourmeter_trigger	Bool	false	False
os3	Bool	false	False
os2	Bool	false	False
os1	Bool	false	False
os4	Bool	false	False
Reset_HM_Trigger	Bool	false	False
accum_elapsed	Time	T#0ms	False

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOURMETER\_SCL\_DB [DB69]

HOURMETER_SCL_DB Properties							
General							
Name	HOURMETER_SCL_DB	Number	69	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
▼ Static							
Min_time_down		Bool		false		False	
Min_countdown		Bool		false		False	
Hour_countdown		Bool		false		False	
Day_countdown		Bool		false		False	
Day_count_down		Bool		false		False	
Hr_count_down		Bool		false		False	
reset_rto		Bool		false		False	
min_count_reset		Bool		false		False	
hour_count_reset		Bool		false		False	
reset_hourmeter_trigger		Bool		false		False	
os3		Bool		false		False	
os2		Bool		false		False	
os1		Bool		false		False	
os4		Bool		false		False	
Reset_HM_Trigger		Bool		false		False	
accum_elapsed		Time		T#0ms		False	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks

### HOURMETER\_STL\_DB [DB70]

HOURMETER_STL_DB Properties							
General							
Name	HOURMETER_STL_DB	Number	70	Type	DB	Language	DB
Numbering	Automatic						
Information							
Title		Author		Comment		Family	
Version	0.1	User-defined ID					
Name		Data type		Start value		Retain	
Input							
Output							
InOut							
▼ Static							
Min_time_down		Bool		false		False	
Min_countdown		Bool		false		False	
Hour_countdown		Bool		false		False	
Day_countdown		Bool		false		False	
Day_count_down		Bool		false		False	
Hr_count_down		Bool		false		False	
reset_rto		Bool		false		False	
min_count_reset		Bool		false		False	
hour_count_reset		Bool		false		False	
reset_hourmeter_trigger		Bool		false		False	
os3		Bool		false		False	
os2		Bool		false		False	
os1		Bool		false		False	
os4		Bool		false		False	
Reset_HM_Trigger		Bool		false		False	
accum_elapsed		Time		T#0ms		False	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB [DB17]

## IEC\_Timer\_0\_DB Properties

## General

Name	IEC_Timer_0_DB	Number	17	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_1\_DB [DB43]

## IEC\_Timer\_1\_DB Properties

## General

Name	IEC_Timer_1_DB	Number	43	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_25 [DB3]

## IEC\_Timer\_0\_DB\_25 Properties

## General

Name	IEC_Timer_0_DB_25	Number	3	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

### PID\_Compact [FB1130]

#### PID\_Compact Properties

##### General

Name	PID_Compact	Number	1130	Type	FB	Language	SCL
------	-------------	--------	------	------	----	----------	-----

Numbering Automatic

##### Information

Title	Compact PID_Controller with self-tuning	Author	SIMATIC	Comment		Family	COMPPID
-------	---	--------	---------	---------	--	--------	---------

Version 2.2 User-defined ID PID\_Cmpt

Name	Data type	Default value	Retain
<b>▼ Input</b>			
Setpoint	Real	0.0	Non-retain
Input	Real	0.0	Non-retain
Input_PER	Int	0	Non-retain
Disturbance	Real	0.0	Non-retain
ManualEnable	Bool	false	Non-retain
ManualValue	Real	0.0	Non-retain
ErrorAck	Bool	false	Non-retain
Reset	Bool	false	Non-retain
ModeActivate	Bool	false	Non-retain
<b>▼ Output</b>			
ScaledInput	Real	0.0	Non-retain
Output	Real	0.0	Non-retain
Output_PER	Int	0	Non-retain
Output_PWM	Bool	false	Non-retain
SetpointLimit_H	Bool	false	Non-retain
SetpointLimit_L	Bool	false	Non-retain
InputWarning_H	Bool	false	Non-retain
InputWarning_L	Bool	false	Non-retain
State	Int	0	Non-retain
Error	Bool	false	Non-retain
ErrorBits	DWord	16#0	Retain
<b>▼ InOut</b>			
Mode	Int	4	Retain
<b>▼ Static</b>			
InternalDiagnostic	DWord	0	Non-retain
InternalVersion	DWord	DW#16#02020001	Non-retain
InternalRTVersion	DWord	0	Non-retain
IntegralResetMode	Int	1	Non-retain
OverwriteInitialOutputValue	Real	0.0	Non-retain
RunModeByStartup	Bool	true	Non-retain
LoadBackUp	Bool	false	Non-retain
SetSubstituteOutput	Bool	true	Non-retain
PhysicalUnit	Int	0	Non-retain
PhysicalQuantity	Int	0	Non-retain
ActivateRecoverMode	Bool	true	Non-retain
Warning	DWord	16#0	Retain
WarningInternal	DWord	16#0	Retain
Progress	Real	0.0	Non-retain
CurrentSetpoint	Real	0.0	Non-retain
CancelTuningLevel	Real	10.0	Non-retain
SubstituteOutput	Real	0.0	Non-retain
Config	PID_CompactConfig		Non-retain
CycleTime	PID_CycleTime		Non-retain
CtrlParamsBackUp	PID_CompactControlParams		Non-retain
PIDSelfTune	PID_CompactSelfTune		Non-retain
PIDCtrl	PID_CompactControl		Non-retain
Retain	PID_CompactRetain		Retain

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_1 [DB15]

## IEC\_Timer\_0\_DB\_1 Properties

## General

Name	IEC_Timer_0_DB_1	Number	15	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_2 [DB16]

## IEC\_Timer\_0\_DB\_2 Properties

## General

Name	IEC_Timer_0_DB_2	Number	16	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_3 [DB18]

## IEC\_Timer\_0\_DB\_3 Properties

## General

Name	IEC_Timer_0_DB_3	Number	18	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_4 [DB19]

## IEC\_Timer\_0\_DB\_4 Properties

## General

Name	IEC_Timer_0_DB_4	Number	19	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_5 [DB20]

## IEC\_Timer\_0\_DB\_5 Properties

## General

Name	IEC_Timer_0_DB_5	Number	20	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_6 [DB21]

## IEC\_Timer\_0\_DB\_6 Properties

## General

Name	IEC_Timer_0_DB_6	Number	21	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_7 [DB22]

## IEC\_Timer\_0\_DB\_7 Properties

## General

Name	IEC_Timer_0_DB_7	Number	22	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_8 [DB23]

## IEC\_Timer\_0\_DB\_8 Properties

## General

Name	IEC_Timer_0_DB_8	Number	23	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_9 [DB24]

## IEC\_Timer\_0\_DB\_9 Properties

## General

Name	IEC_Timer_0_DB_9	Number	24	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_10 [DB25]

## IEC\_Timer\_0\_DB\_10 Properties

## General

Name	IEC_Timer_0_DB_10	Number	25	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_11 [DB26]

## IEC\_Timer\_0\_DB\_11 Properties

## General

Name	IEC_Timer_0_DB_11	Number	26	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_12 [DB27]

## IEC\_Timer\_0\_DB\_12 Properties

## General

Name	IEC_Timer_0_DB_12	Number	27	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_13 [DB28]

## IEC\_Timer\_0\_DB\_13 Properties

## General

Name	IEC_Timer_0_DB_13	Number	28	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_14 [DB29]

## IEC\_Timer\_0\_DB\_14 Properties

## General

Name	IEC_Timer_0_DB_14	Number	29	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_15 [DB30]

## IEC\_Timer\_0\_DB\_15 Properties

## General

Name	IEC_Timer_0_DB_15	Number	30	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_16 [DB31]

## IEC\_Timer\_0\_DB\_16 Properties

## General

Name	IEC_Timer_0_DB_16	Number	31	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_17 [DB32]

## IEC\_Timer\_0\_DB\_17 Properties

## General

Name	IEC_Timer_0_DB_17	Number	32	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_18 [DB33]

## IEC\_Timer\_0\_DB\_18 Properties

## General

Name	IEC_Timer_0_DB_18	Number	33	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_19 [DB34]

## IEC\_Timer\_0\_DB\_19 Properties

## General

Name	IEC_Timer_0_DB_19	Number	34	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_20 [DB35]

## IEC\_Timer\_0\_DB\_20 Properties

## General

Name	IEC_Timer_0_DB_20	Number	35	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_21 [DB36]

## IEC\_Timer\_0\_DB\_21 Properties

## General

Name	IEC_Timer_0_DB_21	Number	36	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_22 [DB37]

## IEC\_Timer\_0\_DB\_22 Properties

## General

Name	IEC_Timer_0_DB_22	Number	37	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_23 [DB38]

## IEC\_Timer\_0\_DB\_23 Properties

## General

Name	IEC_Timer_0_DB_23	Number	38	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_24 [DB39]

## IEC\_Timer\_0\_DB\_24 Properties

## General

Name	IEC_Timer_0_DB_24	Number	39	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_26 [DB46]

## IEC\_Timer\_0\_DB\_26 Properties

## General

Name	IEC_Timer_0_DB_26	Number	46	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_27 [DB47]

## IEC\_Timer\_0\_DB\_27 Properties

## General

Name	IEC_Timer_0_DB_27	Number	47	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_28 [DB48]

## IEC\_Timer\_0\_DB\_28 Properties

## General

Name	IEC_Timer_0_DB_28	Number	48	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_29 [DB49]

## IEC\_Timer\_0\_DB\_29 Properties

## General

Name	IEC_Timer_0_DB_29	Number	49	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_30 [DB50]

## IEC\_Timer\_0\_DB\_30 Properties

## General

Name	IEC_Timer_0_DB_30	Number	50	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_31 [DB51]

## IEC\_Timer\_0\_DB\_31 Properties

## General

Name	IEC_Timer_0_DB_31	Number	51	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_32 [DB52]

## IEC\_Timer\_0\_DB\_32 Properties

## General

Name	IEC_Timer_0_DB_32	Number	52	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_33 [DB53]

## IEC\_Timer\_0\_DB\_33 Properties

## General

Name	IEC_Timer_0_DB_33	Number	53	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_34 [DB54]

## IEC\_Timer\_0\_DB\_34 Properties

## General

Name	IEC_Timer_0_DB_34	Number	54	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_35 [DB55]

## IEC\_Timer\_0\_DB\_35 Properties

## General

Name	IEC_Timer_0_DB_35	Number	55	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_36 [DB56]

## IEC\_Timer\_0\_DB\_36 Properties

## General

Name	IEC_Timer_0_DB_36	Number	56	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_37 [DB57]

## IEC\_Timer\_0\_DB\_37 Properties

## General

Name	IEC_Timer_0_DB_37	Number	57	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## G7\_RT\_Plus\_1\_V2 [FC270]

## G7\_RT\_Plus\_1\_V2 Properties

## General

Name	G7_RT_Plus_1_V2	Number	270	Type	FC	Language	SCL
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value
▼ Input		
i_IF_PAR	G7_IfParPlus_V2	
i_RT_DATA	G7_RTDataPlus_V2	
i_G7T	Array[0..249] of G7_Transition-Plus_V2	
i_G7S	Array[0..249] of G7_StepPlus_V2	
Output		
▼ InOut		
io_G7Arrays	Array[0..13400] of USInt	
io_IEC_TIMER_INST	TON_TIME	
▼ Return		
Ret_Val	Void	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

### G7\_RT\_Plus\_2\_V2 [FC271]

#### G7\_RT\_Plus\_2\_V2 Properties

##### General

Name	G7_RT_Plus_2_V2	Number	271	Type	FC	Language	SCL
Numbering	Automatic						

##### Information

Title	Author	Comment	Family
Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Input		
i_RT_DATA	G7_RTDataPlus_V2	
i_G7T	Array[0..249] of G7_Transition- Plus_V2	
i_G7S	Array[0..249] of G7_StepPlus_V2	
i_StepSkipping	Bool	
▼ Output		
io_G7Arrays	Array[0..13400] of USInt	
InOut		
▼ Return		
Ret_Val	Void	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## G7\_RT\_Plus\_SUB\_1\_V2 [FC276]

## G7\_RT\_Plus\_SUB\_1\_V2 Properties

## General

Name	G7_RT_Plus_Sub_1_V2	Number	276	Type	FC	Language	SCL
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value
▼ Input		
i_G7S	Array[0..249] of G7_StepPlus_V2	
i_indexArrayOffset	DInt	
i_ReorgArt	USInt	
Output		
▼ InOut		
io_G7Arrays	Array[0..13400] of USInt	
▼ Return		
Ret_Val	Void	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

### G7\_RT\_Plus\_SUB\_2\_V2 [FC277]

#### G7\_RT\_Plus\_Sub\_2\_V2 Properties

##### General

Name	G7_RT_Plus_Sub_2_V2	Number	277	Type	FC	Language	SCL
Numbering	Automatic						

##### Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value
▼ Input		
i_RT_DATA	G7_RTDataPlus_V2	
i_G7S	Array[0..249] of G7_StepPlus_V2	
i_StepNumber	Int	
Output		
InOut		
▼ Return		
Ret_Val	USInt	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## G7\_RT\_Plus\_3\_V2 [FC272]

## G7\_RT\_Plus\_3\_V2 Properties

## General

Name	G7_RT_Plus_3_V2	Number	272	Type	FC	Language	SCL
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value
▼ Input		
i_IF_PAR	G7_IfParPlus_V2	
i_RT_DATA	G7_RTDataPlus_V2	
i_G7T	Array[0..249] of G7_Transition-Plus_V2	
i_G7S	Array[0..249] of G7_StepPlus_V2	
Output		
▼ InOut		
io_G7Arrays	Array[0..13400] of USInt	
▼ Return		
Ret_Val	Void	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

### G7\_RT\_Plus\_4\_V2 [FC273]

#### G7\_RT\_Plus\_4\_V2 Properties

##### General

Name	G7_RT_Plus_4_V2	Number	273	Type	FC	Language	SCL
Numbering	Automatic						

##### Information

Title	Author	Comment	Family
Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Input		
i_RT_DATA	G7_RTDataPlus_V2	
i_G7T	Array[0..249] of G7_Transition- Plus_V2	
i_G7S	Array[0..249] of G7_StepPlus_V2	
Output		
▼ InOut		
io_G7Arrays	Array[0..13400] of USInt	
▼ Return		
Ret_Val	Void	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

### G7\_RT\_Plus\_5\_V2 [FC274]

#### G7\_RT\_Plus\_5\_V2 Properties

##### General

Name	G7_RT_Plus_5_V2	Number	274	Type	FC	Language	SCL
Numbering	Automatic						

##### Information

Title	Author	Comment	Family
Version	0.1	User-defined ID	

Name	Data type	Default value
▼ Input		
i_RT_DATA	G7_RTDataPlus_V2	
i_G7T	Array[0..249] of G7_Transition- Plus_V2	
i_G7S	Array[0..249] of G7_StepPlus_V2	
Output		
▼ InOut		
io_G7Arrays	Array[0..13400] of USInt	
io_IL_ALARM_INST	Program_Alarm	
io_SUP_ALARM_INST	Program_Alarm	
io_STEP_TIME_ALARM_INST	Program_Alarm	
▼ Return		
Ret_Val	Void	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

### Program\_Alarm [FB700]

#### Program\_Alarm Properties

##### General

Name	Program_Alarm	Number	700	Type	FB	Language	STL
Numbering	Automatic						

##### Information

Title	Author	Comment	Family
Version	0.1	User-defined ID	

Name	Data type	Default value	Retain
<b>▼ Input</b>			
SIG	Bool	false	Non-retain
TIMESTAMP	LDT	LDT#1970-01-01-00:00:00	Non-retain
SD_1	Variant		
SD_2	Variant		
SD_3	Variant		
SD_4	Variant		
SD_5	Variant		
SD_6	Variant		
SD_7	Variant		
SD_8	Variant		
SD_9	Variant		
SD_10	Variant		
<b>▼ Output</b>			
Error	Bool	false	Non-retain
Status	Word	16#0	Non-retain
InOut			
<b>▼ Static</b>			
SD_0	AssocValue_0		Non-retain
SIG_Edge_History	Bool	false	Retain
INIT_FB_State	DWord	dw#16#00000001	Non-retain

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## G7\_RT\_Plus\_SUB\_3\_V2 [FC278]

## G7\_RT\_Plus\_SUB\_3\_V2 Properties

## General

Name	G7_RT_Plus_Sub_3_V2	Number	278	Type	FC	Language	SCL
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value
▼ Input		
i_G7S	Array[0..249] of G7_StepPlus_V2	
i_indexArrayOffset	DInt	
i_SERRXOffset	DInt	
Output		
▼ InOut		
io_G7Arrays	Array[0..13400] of USInt	
io_IL_ALARM_INST	Program_Alarm	
io_SUP_ALARM_INST	Program_Alarm	
io_STEP_TIME_ALARM_INST	Program_Alarm	
io_Messaging	Byte	
▼ Return		
Ret_Val	Void	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## G7\_RT\_Plus\_6\_V2 [FC275]

## G7\_RT\_Plus\_6\_V2 Properties

## General

Name	G7_RT_Plus_6_V2	Number	275	Type	FC	Language	SCL
Numbering	Automatic						

## Information

Title		Author		Comment		Family	
Version	0.1	User-defined ID					

Name	Data type	Default value
▼ Input		
i_IF_PAR	G7_IfParPlus_V2	
i_RT_DATA	G7_RTDataPlus_V2	
i_G7T	Array[0..249] of G7_Transition-Plus_V2	
i_G7S	Array[0..249] of G7_StepPlus_V2	
Output		
▼ InOut		
io_G7Arrays	Array[0..13400] of USInt	
io_HMIInfo	Array[0..257] of UInt	
▼ Return		
Ret_Val	Void	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_38 [DB71]

## IEC\_Timer\_0\_DB\_38 Properties

## General

Name	IEC_Timer_0_DB_38	Number	71	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB [DB72]

## IEC\_Counter\_0\_DB Properties

## General

Name	IEC_Counter_0_DB	Number	72	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB\_1 [DB73]

## IEC\_Counter\_0\_DB\_1 Properties

## General

Name	IEC_Counter_0_DB_1	Number	73	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB\_2 [DB74]

## IEC\_Counter\_0\_DB\_2 Properties

## General

Name	IEC_Counter_0_DB_2	Number	74	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_39 [DB75]

## IEC\_Timer\_0\_DB\_39 Properties

## General

Name	IEC_Timer_0_DB_39	Number	75	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_40 [DB76]

## IEC\_Timer\_0\_DB\_40 Properties

## General

Name	IEC_Timer_0_DB_40	Number	76	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB\_3 [DB77]

## IEC\_Counter\_0\_DB\_3 Properties

## General

Name	IEC_Counter_0_DB_3	Number	77	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB\_4 [DB78]

## IEC\_Counter\_0\_DB\_4 Properties

## General

Name	IEC_Counter_0_DB_4	Number	78	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB\_5 [DB79]

## IEC\_Counter\_0\_DB\_5 Properties

## General

Name	IEC_Counter_0_DB_5	Number	79	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_41 [DB80]

## IEC\_Timer\_0\_DB\_41 Properties

## General

Name	IEC_Timer_0_DB_41	Number	80	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_42 [DB81]

## IEC\_Timer\_0\_DB\_42 Properties

## General

Name	IEC_Timer_0_DB_42	Number	81	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB\_6 [DB82]

## IEC\_Counter\_0\_DB\_6 Properties

## General

Name	IEC_Counter_0_DB_6	Number	82	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB\_7 [DB83]

## IEC\_Counter\_0\_DB\_7 Properties

## General

Name	IEC_Counter_0_DB_7	Number	83	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB\_8 [DB84]

## IEC\_Counter\_0\_DB\_8 Properties

## General

Name	IEC_Counter_0_DB_8	Number	84	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_43 [DB85]

## IEC\_Timer\_0\_DB\_43 Properties

## General

Name	IEC_Timer_0_DB_43	Number	85	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
▼ Static			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_44 [DB86]

## IEC\_Timer\_0\_DB\_44 Properties

## General

Name	IEC_Timer_0_DB_44	Number	86	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

### n [DB87]

#### n Properties

##### General

Name	n	Number	87	Type	DB	Language	DB
Numbering	Automatic						

##### Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

### nt [DB88]

#### nt Properties

##### General

Name	nt	Number	88	Type	DB	Language	DB
Numbering	Automatic						

##### Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Counter\_0\_DB\_9 [DB89]

## IEC\_Counter\_0\_DB\_9 Properties

## General

Name	IEC_Counter_0_DB_9	Number	89	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	CNTR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
CU	Bool	false	True
CD	Bool	false	True
R	Bool	false	True
LD	Bool	false	True
QU	Bool	false	True
QD	Bool	false	True
PV	Int	0	True
CV	Int	0	True

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Program blocks / System blocks / Program resources

## IEC\_Timer\_0\_DB\_45 [DB90]

## IEC\_Timer\_0\_DB\_45 Properties

## General

Name	IEC_Timer_0_DB_45	Number	90	Type	DB	Language	DB
Numbering	Automatic						

## Information

Title		Author	Simatic	Comment		Family	IEC
Version	1.0	User-defined ID	IEC_TMR				

Name	Data type	Start value	Retain
<b>▼ Static</b>			
PT	Time	T#0ms	False
ET	Time	T#0ms	False
IN	Bool	false	False
Q	Bool	false	False

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Technology objects

### BafflePID [DB59]

BafflePID Properties					
General					
Name	BafflePID	Number	59	Type	DB
Numbering	Automatic			Language	DB
Information					
Title		Author	SIMATIC	Comment	
Version	2.2	User-defined ID	PID_Cmpt		Family
COMPPID					
Name	Data type	Start value			Retain
▼ Input					
Setpoint	Real	0.0			False
Input	Real	0.0			False
Input_PER	Int	0			False
Disturbance	Real	0.0			False
ManualEnable	Bool	false			False
ManualValue	Real	0.0			False
ErrorAck	Bool	false			False
Reset	Bool	false			False
ModeActivate	Bool	false			False
▼ Output					
ScaledInput	Real	0.0			False
Output	Real	0.0			False
Output_PER	Int	0			False
Output_PWM	Bool	false			False
SetpointLimit_H	Bool	false			False
SetpointLimit_L	Bool	false			False
InputWarning_H	Bool	false			False
InputWarning_L	Bool	false			False
State	Int	0			False
Error	Bool	false			False
ErrorBits	DWord	16#0			True
▼ InOut					
Mode	Int	3			True
▼ Static					
InternalDiagnostic	DWord	0			False
InternalVersion	DWord	DW#16#02020001			False
InternalRTVersion	DWord	0			False
IntegralResetMode	Int	1			False
OverwriteInitialOutputValue	Real	0.0			False
RunModeByStartup	Bool	true			False
LoadBackUp	Bool	false			False
SetSubstituteOutput	Bool	true			False
PhysicalUnit	Int	0			False
PhysicalQuantity	Int	0			False
ActivateRecoverMode	Bool	true			False
Warning	DWord	16#0			True
WarningInternal	DWord	16#0			True
Progress	Real	0.0			False
CurrentSetpoint	Real	0.0			False
CancelTuningLevel	Real	10.0			False
SubstituteOutput	Real	0.0			False
Config	PID_CompactConfig				False
CycleTime	PID_CycleTime				False
CtrlParamsBackUp	PID_CompactControlParams				False
PIDSelfTune	PID_CompactSelfTune				False
PIDCtrl	PID_CompactControl				False
Retain	PID_CompactRetain				True

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Technology objects

### PID\_Compact\_1 [DB42]

PID_Compact_1 Properties						
General						
Name	PID_Compact_1	Number	42	Type	DB	Language
Numbering	Automatic					DB
Information						
Title		Author	SIMATIC	Comment		Family
Version	2.2	User-defined ID	PID_Cmpt			COMPPID
Name		Data type		Start value		Retain
▼ Input						
Setpoint		Real		0.0		False
Input		Real		0.0		False
Input_PER		Int		0		False
Disturbance		Real		0.0		False
ManualEnable		Bool		false		False
ManualValue		Real		0.0		False
ErrorAck		Bool		false		False
Reset		Bool		false		False
ModeActivate		Bool		false		False
▼ Output						
ScaledInput		Real		0.0		False
Output		Real		0.0		False
Output_PER		Int		0		False
Output_PWM		Bool		false		False
SetpointLimit_H		Bool		false		False
SetpointLimit_L		Bool		false		False
InputWarning_H		Bool		false		False
InputWarning_L		Bool		false		False
State		Int		0		False
Error		Bool		false		False
ErrorBits		DWord		16#0		True
▼ InOut						
Mode		Int		1		True
▼ Static						
InternalDiagnostic		DWord		0		False
InternalVersion		DWord		DW#16#02020001		False
InternalRTVersion		DWord		0		False
IntegralResetMode		Int		1		False
OverwriteInitialOutputValue		Real		0.0		False
RunModeByStartup		Bool		true		False
LoadBackUp		Bool		false		False
SetSubstituteOutput		Bool		true		False
PhysicalUnit		Int		0		False
PhysicalQuantity		Int		0		False
ActivateRecoverMode		Bool		true		False
Warning		DWord		16#0		True
WarningInternal		DWord		16#0		True
Progress		Real		0.0		False
CurrentSetpoint		Real		0.0		False
CancelTuningLevel		Real		10.0		False
SubstituteOutput		Real		0.0		False
Config		PID_CompactConfig				False
CycleTime		PID_CycleTime				False
CtrlParamsBackUp		PID_CompactControlParams				False
PIDSelfTune		PID_CompactSelfTune				False
PIDCtrl		PID_CompactControl				False
Retain		PID_CompactRetain				True

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Technology objects

### PID\_Compact\_2 [DB64]

PID_Compact_2 Properties						
General						
Name	PID_Compact_2	Number	64	Type	DB	Language
Numbering	Automatic					DB
Information						
Title		Author	SIMATIC	Comment		Family
Version	2.2	User-defined ID	PID_Cmpt			COMPPID
Name		Data type		Start value		Retain
▼ Input						
Setpoint		Real		0.0		False
Input		Real		0.0		False
Input_PER		Int		0		False
Disturbance		Real		0.0		False
ManualEnable		Bool		false		False
ManualValue		Real		0.0		False
ErrorAck		Bool		false		False
Reset		Bool		false		False
ModeActivate		Bool		false		False
▼ Output						
ScaledInput		Real		0.0		False
Output		Real		0.0		False
Output_PER		Int		0		False
Output_PWM		Bool		false		False
SetpointLimit_H		Bool		false		False
SetpointLimit_L		Bool		false		False
InputWarning_H		Bool		false		False
InputWarning_L		Bool		false		False
State		Int		0		False
Error		Bool		false		False
ErrorBits		DWord		16#0		True
▼ InOut						
Mode		Int		4		True
▼ Static						
InternalDiagnostic		DWord		0		False
InternalVersion		DWord		DW#16#02020001		False
InternalRTVersion		DWord		0		False
IntegralResetMode		Int		1		False
OverwriteInitialOutputValue		Real		0.0		False
RunModeByStartup		Bool		true		False
LoadBackUp		Bool		false		False
SetSubstituteOutput		Bool		true		False
PhysicalUnit		Int		0		False
PhysicalQuantity		Int		0		False
ActivateRecoverMode		Bool		true		False
Warning		DWord		16#0		True
WarningInternal		DWord		16#0		True
Progress		Real		0.0		False
CurrentSetpoint		Real		0.0		False
CancelTuningLevel		Real		10.0		False
SubstituteOutput		Real		0.0		False
Config		PID_CompactConfig				False
CycleTime		PID_CycleTime				False
CtrlParamsBackUp		PID_CompactControlParams				False
PIDSelfTune		PID_CompactSelfTune				False
PIDCtrl		PID_CompactControl				False
Retain		PID_CompactRetain				True

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Technology objects

### PID\_Compact\_3 [DB65]

PID_Compact_3 Properties						
General						
Name	PID_Compact_3	Number	65	Type	DB	Language
Numbering	Automatic					DB
Information						
Title		Author	SIMATIC	Comment		Family
Version	2.2	User-defined ID	PID_Cmpt			COMPPID
Name		Data type		Start value		Retain
▼ Input						
Setpoint		Real		0.0		False
Input		Real		0.0		False
Input_PER		Int		0		False
Disturbance		Real		0.0		False
ManualEnable		Bool		false		False
ManualValue		Real		0.0		False
ErrorAck		Bool		false		False
Reset		Bool		false		False
ModeActivate		Bool		false		False
▼ Output						
ScaledInput		Real		0.0		False
Output		Real		0.0		False
Output_PER		Int		0		False
Output_PWM		Bool		false		False
SetpointLimit_H		Bool		false		False
SetpointLimit_L		Bool		false		False
InputWarning_H		Bool		false		False
InputWarning_L		Bool		false		False
State		Int		0		False
Error		Bool		false		False
ErrorBits		DWord		16#0		True
▼ InOut						
Mode		Int		4		True
▼ Static						
InternalDiagnostic		DWord		0		False
InternalVersion		DWord		DW#16#02020001		False
InternalRTVersion		DWord		0		False
IntegralResetMode		Int		1		False
OverwriteInitialOutputValue		Real		0.0		False
RunModeByStartup		Bool		true		False
LoadBackUp		Bool		false		False
SetSubstituteOutput		Bool		true		False
PhysicalUnit		Int		0		False
PhysicalQuantity		Int		0		False
ActivateRecoverMode		Bool		true		False
Warning		DWord		16#0		True
WarningInternal		DWord		16#0		True
Progress		Real		0.0		False
CurrentSetpoint		Real		0.0		False
CancelTuningLevel		Real		10.0		False
SubstituteOutput		Real		0.0		False
Config		PID_CompactConfig				False
CycleTime		PID_CycleTime				False
CtrlParamsBackUp		PID_CompactControlParams				False
PIDSelfTune		PID_CompactSelfTune				False
PIDCtrl		PID_CompactControl				False
Retain		PID_CompactRetain				True

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Technology objects

### VFD\_PID [DB67]

VFD_PID Properties						
General						
Name	VFD_PID	Number	67	Type	DB	Language
Numbering	Automatic					DB
Information						
Title		Author	SIMATIC	Comment		Family
Version	2.2	User-defined ID	PID_Cmpt			COMPPID
Name		Data type		Start value		Retain
▼ Input						
Setpoint		Real		0.0		False
Input		Real		0.0		False
Input_PER		Int		0		False
Disturbance		Real		0.0		False
ManualEnable		Bool		false		False
ManualValue		Real		0.0		False
ErrorAck		Bool		false		False
Reset		Bool		false		False
ModeActivate		Bool		false		False
▼ Output						
ScaledInput		Real		0.0		False
Output		Real		0.0		False
Output_PER		Int		0		False
Output_PWM		Bool		false		False
SetpointLimit_H		Bool		false		False
SetpointLimit_L		Bool		false		False
InputWarning_H		Bool		false		False
InputWarning_L		Bool		false		False
State		Int		0		False
Error		Bool		false		False
ErrorBits		DWord		16#0		True
▼ InOut						
Mode		Int		4		True
▼ Static						
InternalDiagnostic		DWord		0		False
InternalVersion		DWord		DW#16#02020001		False
InternalRTVersion		DWord		0		False
IntegralResetMode		Int		1		False
OverwriteInitialOutputValue		Real		0.0		False
RunModeByStartup		Bool		true		False
LoadBackUp		Bool		false		False
SetSubstituteOutput		Bool		true		False
PhysicalUnit		Int		0		False
PhysicalQuantity		Int		0		False
ActivateRecoverMode		Bool		true		False
Warning		DWord		16#0		True
WarningInternal		DWord		16#0		True
Progress		Real		0.0		False
CurrentSetpoint		Real		0.0		False
CancelTuningLevel		Real		10.0		False
SubstituteOutput		Real		0.0		False
Config		PID_CompactConfig				False
CycleTime		PID_CycleTime				False
CtrlParamsBackUp		PID_CompactControlParams				False
PIDSelfTune		PID_CompactSelfTune				False
PIDCtrl		PID_CompactControl				False
Retain		PID_CompactRetain				True

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Technology objects

### VFDpid [DB60]

VFDpid Properties						
General						
Name	VFDpid	Number	60	Type	DB	Language
Numbering	Automatic					DB
Information						
Title		Author	SIMATIC	Comment		Family
Version	2.2	User-defined ID	PID_Cmpt			COMPPID
Name	Data type	Start value				Retain
▼ Input						
Setpoint	Real	0.0				False
Input	Real	0.0				False
Input_PER	Int	0				False
Disturbance	Real	0.0				False
ManualEnable	Bool	false				False
ManualValue	Real	0.0				False
ErrorAck	Bool	false				False
Reset	Bool	false				False
ModeActivate	Bool	false				False
▼ Output						
ScaledInput	Real	0.0				False
Output	Real	0.0				False
Output_PER	Int	0				False
Output_PWM	Bool	false				False
SetpointLimit_H	Bool	false				False
SetpointLimit_L	Bool	false				False
InputWarning_H	Bool	false				False
InputWarning_L	Bool	false				False
State	Int	0				False
Error	Bool	false				False
ErrorBits	DWord	16#0				True
▼ InOut						
Mode	Int	4				True
▼ Static						
InternalDiagnostic	DWord	0				False
InternalVersion	DWord	DW#16#02020001				False
InternalRTVersion	DWord	0				False
IntegralResetMode	Int	1				False
OverwriteInitialOutputValue	Real	0.0				False
RunModeByStartup	Bool	true				False
LoadBackUp	Bool	false				False
SetSubstituteOutput	Bool	true				False
PhysicalUnit	Int	0				False
PhysicalQuantity	Int	0				False
ActivateRecoverMode	Bool	true				False
Warning	DWord	16#0				True
WarningInternal	DWord	16#0				True
Progress	Real	0.0				False
CurrentSetpoint	Real	0.0				False
CancelTuningLevel	Real	10.0				False
SubstituteOutput	Real	0.0				False
Config	PID_CompactConfig					False
CycleTime	PID_CycleTime					False
CtrlParamsBackUp	PID_CompactControlParams					False
PIDSelfTune	PID_CompactSelfTune					False
PIDCtrl	PID_CompactControl					False
Retain	PID_CompactRetain					True

Totally Integrated Automation Portal				
<b>Hydroelectric Power Plant / PLC_1 [CPU 1511-1 PN] / PLC tags / Default tag table [188]</b>				
<b>PLC tags</b>				
PLC tags	Name	Data type	Address	Retain
	Brake_Out	Bool	%MO.0	False
	Baffle_Out	Int	%MW18	False
	RPM_In	Int	%MW2	False
	OilTemp_In	Int	%MW4	False
	Baffle_En	Bool	%MO.1	False
	Current_In	Int	%MW6	False
	OilPumpVFDsp_Out	Int	%MW8	False
	OilPumpVFDDen_Out	Bool	%MO.2	False
	OilFlow_In	Int	%MW10	False
	Program_lang	Int	%MW12	False
	ONS	Bool	%MO.3	False
	PB_LAD	Bool	%MO.4	False
	PB_FBD	Bool	%MO.5	False
	PB_SCL	Bool	%MO.6	False
	PB_STL	Bool	%MO.7	False
	ONS1	Bool	%M1.2	False
	ONS2	Bool	%M1.0	False
	ONS3	Bool	%M1.1	False
	Station_interlock	Bool	%M1.3	False
	Alarm_horn_Q	Bool	%M1.4	False
	Oil_pump_vfd_per	Int	%MW14	False
	Baffle_per	Int	%MW16	False
	rotor_rpm	Int	%MW20	False
	Oil_flow	Int	%MW22	False
	Oil_temp	Int	%MW24	False
	Current_flow	Int	%MW26	False
	pB	Bool	%M1.5	False
	OilPumpVFD_OFF_PB	Bool	%M1.6	False
	OilPumpVFD_HAND_PB	Bool	%M1.7	False
	OilPumpVFD_AUTO_PB	Bool	%M28.0	False
	Brake_OFF_PB	Bool	%M28.1	False
	Brake_HAND_PB	Bool	%M28.2	False
	Brake_AUTO_PB	Bool	%M28.3	False
	Brake_Out_HOA	Int	%MW32	False
	Alarm_OFF_PB	Bool	%M28.4	False
	Alarm_HAND_PB	Bool	%M28.5	False
	Alarm_AUTO_PB	Bool	%M28.6	False
	Alarm_HOA	Int	%MW34	False
	Station_interlock_OFF_PB	Bool	%M28.7	False
	Station_interlock_HAND_PB	Bool	%M29.0	False
	Station_interlock_AUTO_PB	Bool	%M29.1	False
	Station_Interlock_HOA	Int	%MW36	False
	OilPumpVFD_CTRL	Bool	%M29.2	False
	Brake_Out_CTRL	Bool	%M29.3	False
	Alarm_CTRL	Bool	%M29.4	False
	Station_Interlock_CTRL	Bool	%M29.5	False
	OilLowFlowDelaySP	Int	%MW38	False
	Oil_lowSp	Int	%MW40	False
	Alarm_reset	Bool	%M29.6	False
	Alarm_for_LOW_OIL	Bool	%M30.0	False
	Notify_for_LOW_OIL	Bool	%M42.0	False
	Notify_reset	Bool	%M42.1	False
	OverCurrenDelaySP	Int	%MW44	False
	Over_currentSp	Int	%MW46	False
	Alarm_for_Over_Current	Bool	%M30.2	False
	Notify_for_Over_Current	Bool	%M42.3	False

Totally Integrated Automation Portal			
Name	Data type	Address	Retain
HighOilTempDelaySP	Int	%MW64	False
High_Oil_TempSp	Int	%MW52	False
Alarm_for_High_temp	Bool	%M29.7	False
Notity_for_High_Temp	Bool	%M42.5	False
RotorOverSpeedSP	Int	%MW54	False
Rotor_Over_SpeedSp	Int	%MW56	False
Alarm_for_Rotor_over_speed	Bool	%M30.3	False
Notity_for_Rotor_over_speed	Bool	%M42.7	False
OilHighFlowSP	Int	%MW58	False
Alarm_for_Oil_High_Flow	Bool	%M30.1	False
Notity_for_Oil_High_Flow	Bool	%M43.1	False
BrakeFailureSP	Int	%MW60	False
Notity_for_Brake_failure	Bool	%M43.2	False
Alarm_for_Brake_failure	Bool	%M55.7	False
E_Stop	Bool	%M43.4	False
Notity_for_E_Stop	Bool	%M43.5	False
Alarm_for_E_Stop	Bool	%M56.0	False
Oil_highSp	Int	%MW62	False
StartSequencePB	Bool	%M43.7	False
StartSequenceBit	Bool	%M48.0	False
Warm_UP_Mode	Bool	%M48.1	False
Warmup_RPM	Int	%MW104	False
BafflePID_SP	Int	%MW50	False
BafflePIDin	Int	%MW66	False
Baffle_Ctrl	Bool	%M48.2	False
WarmUp_VFDper	Int	%MW68	False
VFDsp	Int	%MW70	False
WarmUpOilDelaySp	Int	%MW72	False
WarmUpOilTempSp	Int	%MW74	False
Warm_Transition	Bool	%M48.3	False
Stabilize_mode	Bool	%M48.4	False
StabilizekWSP	Int	%MW76	False
StabilizeDealySP	Int	%MW78	False
Stabilize_Transition	Bool	%M48.5	False
Generation_Mode	Bool	%M48.6	False
System_Stop_PB	Bool	%M48.7	False
Generation_Transition	Bool	%M80.0	False
CoolDown_Mode	Bool	%M80.1	False
CoolDown_RPM	Int	%MW82	False
CoolDownIDelaySp	Int	%MW84	False
CoolDown_Transition	Bool	%M80.2	False
CoolDownOilTempSp	Int	%MW86	False
Idle_Mode	Bool	%M80.3	False
Fault_Mode	Bool	%M80.4	False
Tag_1	Timer	%T1	False
Sequence_running	Bool	%M80.5	False
ONS4	Bool	%M80.6	False
HOFOVERRIDE_VFDSp	Int	%MW88	False
ONS 5	Bool	%M80.7	False
Baffle_HAND_PB	Bool	%M81.0	False
Baffle_OFF_PB	Bool	%M81.1	False
Baffle_AUTO_PB	Bool	%M81.2	False
ons5	Bool	%M81.3	False
ons6	Bool	%M81.4	False
ons7	Bool	%M81.5	False
Baffle_HOA	Int	%MW94	False
ManualBaffle_SP	Real	%MD90	False
ons9	Bool	%M81.6	False
ons8	Bool	%M81.7	False
Baffle_Manual	Bool	%M96.0	False

Totally Integrated Automation Portal			
Name	Data type	Address	Retain
VFD_HOA	Int	%MW98	False
VFDHOA_AUTO_PB	Bool	%M96.1	False
VFDHOA_OFF_PB	Bool	%M96.2	False
VFDHOA_HAND_PB	Bool	%M96.3	False
ons10	Bool	%M96.4	False
ons11	Bool	%M96.5	False
ons12	Bool	%M96.6	False
ManualVFD_SP	Real	%MD100	False
ons13	Bool	%M96.7	False
ons14	Bool	%M97.0	False
Manual_VFD	Bool	%M97.1	False
Baffle_PID_ON	Bool	%M97.2	False
OilPump_VFD_ON	Bool	%M97.3	False
FULLAUTOBIT	Bool	%M97.4	False
HM_Minutes	Int	%MW30	False
HM_Hours	Int	%MW106	False
HM_Days	Int	%MW108	False
Reset_HM_PB	Bool	%M49.0	False
ModelInt	Int	%MW110	False
Alarm_HighOilTemp_int	Int	%MW112	False
Alarm_LowOilFlow_int	Int	%MW114	False
Alarm_HighOilFlow_int	Int	%MW116	False
Alarm_OverCurrent_int	Int	%MW118	False
Alarm_RotorOverSpeed_int	Int	%MW120	False
Alarm_BrakeFailure_int	Int	%MW122	False
Alarm_EStop_int	Int	%MW124	False

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC tags / Default tag table [188]

### User constants

User constants		
Name	Data type	Value

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_CompactRetain

#### PID\_CompactRetain Properties

##### General

Name	PID_CompactRetain	Number	1145	Type	UDT	Language	
------	-------------------	--------	------	------	-----	----------	--

##### Numbering

##### Information

Title	retain data	Author		Comment		Family	
-------	-------------	--------	--	---------	--	--------	--

Version	User-defined ID						
---------	-----------------	--	--	--	--	--	--

Name	Data type	Default value
CtrlParams	PID_CompactControlParams	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_CompactControlParams

#### PID\_CompactControlParams Properties

##### General

Name	PID_CompactControlParams	Number	1138	Type	UDT	Language	
Numbering							

##### Information

Title	controlling parameter set	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
Gain	Real	1.0
Ti	Real	20.0
Td	Real	0.0
TdFiltRatio	Real	0.2
PWeighting	Real	1.0
DWeighting	Real	1.0
Cycle	Real	1.0

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_CompactControl

#### PID\_CompactControl Properties

##### General

Name	PID_CompactControl	Number	1144	Type	UDT	Language	
Numbering							

##### Information

Title	data for controling part	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
IntegralSum	Real	0.0

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_Compact\_TIR

#### PID\_Compact\_TIR Properties

##### General

Name	PID_Compact_TIR	Number	1143	Type	UDT	Language	
Numbering							

##### Information

Title	data set for tuning in run	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
RunIn	Bool	false
CalculateParams	Bool	false
TuneRule	Int	0
State	Int	0

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_Compact\_SUT

#### PID\_Compact\_SUT Properties

##### General

Name	PID_Compact_SUT	Number	1142	Type	UDT	Language	
Numbering							

##### Information

Title	data set for start up tuning	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
CalculateParams	Bool	false
TuneRule	Int	0
State	Int	0

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_StandardDeviation

#### PID\_StandardDeviation Properties

##### General

Name	PID_StandardDeviation	Number	1509	Type	UDT	Language	
Numbering							

##### Information

Title	data for estimation of devi- ance	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_GradientParams

#### PID\_GradientParams Properties

##### General

Name	PID_GradientParams	Number	1511	Type	UDT	Language	
Numbering							

##### Information

Title	dataset of parameters for gradient estimation	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_GradientEstimation

#### PID\_GradientEstimation Properties

##### General

Name	PID_GradientEstimation	Number	1508	Type	UDT	Language	
Numbering							

##### Information

Title	structure for gradient estimation	Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_CompactSelfTune

#### PID\_CompactSelfTune Properties

##### General

Name	PID_CompactSelfTune	Number	1139	Type	UDT	Language	
------	---------------------	--------	------	------	-----	----------	--

##### Numbering

##### Information

Title	data set for self tuning	Author		Comment		Family	
-------	--------------------------	--------	--	---------	--	--------	--

Version	User-defined ID						
---------	-----------------	--	--	--	--	--	--

Name	Data type	Default value
SUT	PID_Compact_SUT	
TIR	PID_Compact_TIR	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_CycleTime

#### PID\_CycleTime Properties

##### General

Name	PID_CycleTime	Number	1137	Type	UDT	Language	
------	---------------	--------	------	------	-----	----------	--

##### Numbering

##### Information

Title	data set for cycle time estimation	Author		Comment		Family	
-------	------------------------------------	--------	--	---------	--	--------	--

Version	User-defined ID						
---------	-----------------	--	--	--	--	--	--

Name	Data type	Default value
StartEstimation	Bool	true
EnEstimation	Bool	true
EnMonitoring	Bool	true
Value	Real	0.1

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_Scaling

#### PID\_Scaling Properties

##### General

Name

PID\_Scaling

Number

1135

Type

UDT

Language

##### Numbering

##### Information

Title

data for scaling

Author

Comment

Family

Version

User-defined ID

Name	Data type	Default value
UpperPointIn	Real	27648.0
LowerPointIn	Real	0.0
UpperPointOut	Real	100.0
LowerPointOut	Real	0.0

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### PID\_CompactConfig

#### PID\_CompactConfig Properties

##### General

Name	PID_CompactConfig	Number	1134	Type	UDT	Language	
------	-------------------	--------	------	------	-----	----------	--

##### Numbering

##### Information

Title	configuration data set	Author		Comment		Family	
-------	------------------------	--------	--	---------	--	--------	--

Version	User-defined ID						
---------	-----------------	--	--	--	--	--	--

Name	Data type	Default value
InputPerOn	Bool	true
InvertControl	Bool	false
InputUpperLimit	Real	120.0
InputLowerLimit	Real	0.0
InputUpperWarning	Real	3.402822e+38
InputLowerWarning	Real	-3.402822e+38
OutputUpperLimit	Real	100.0
OutputLowerLimit	Real	0.0
SetpointUpperLimit	Real	3.402822e+38
SetpointLowerLimit	Real	-3.402822e+38
MinimumOnTime	Real	0.0
MinimumOffTime	Real	0.0
InputScaling	PID_Scaling	

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### G7\_RTDataPlus\_V2

#### G7\_RTDataPlus\_V2 Properties

##### General

Name	G7_RTDataPlus_V2	Number	75	Type	UDT	Language	
------	------------------	--------	----	------	-----	----------	--

##### Numbering

##### Information

Title		Author		Comment		Family	
-------	--	--------	--	---------	--	--------	--

Version		User-defined ID					
---------	--	-----------------	--	--	--	--	--

Name	Data type	Default value
S_DISPLAY	Int	0
S_SEL_OLD	Int	0
S_DISPIDX	USInt	0
T_DISPIDX	USInt	0
MOP_EDGE	G7_MOPPlus_V2	
MOP	G7_MOPPlus_V2	
TIME_DELTA	Time	T#0ms
SQ_FLAGS	G7_SQFlagsPlus_V2	
PRE_CNT	USInt	0
POST_CNT	USInt	0
SQ_CNT	USInt	0
S_CNT	USInt	0
LOCK_CNT	USInt	0
SUP_CNT	USInt	0
T_CNT	USInt	0
SQ_PART_CNT	USInt	0
MAX_TVAL	USInt	0
MAX_SACT	USInt	0
AS_MSG	Byte	16#0
EXEC_BITS	Array[0..249] of Bool	
OFFSETS	G7_OffsetsPlus_V2	
THRESHOLD_SUP	USInt	0
THRESHOLD_WARN	USInt	0

Totally Integrated Automation Portal							
<b>Hydroelectric Power Plant / PLC_1 [CPU 1511-1 PN] / PLC data types / System data types</b>							
<b>G7_MOPPlus_V2</b>							
<b>G7_MOPPlus_V2 Properties</b>							
<b>General</b>							
Name	G7_MOPPlus_V2	Number	77	Type	UDT	Language	
Numbering							
<b>Information</b>							
Title		Author		Comment		Family	
Version		User-defined ID					
<b>System data types</b>							
Name	Data type	Default value					
AUTO	Bool	false					
MAN	Bool	false					
TAP	Bool	false					
TOP	Bool	false					
ACK_S	Bool	false					
REG_S	Bool	false					
T_PREV	Bool	false					
T_NEXT	Bool	false					
LOCK	Bool	false					
SUP	Bool	false					
ACKREQ	Bool	false					
SSKIP	Bool	false					
OFF	Bool	false					
INIT	Bool	false					
HALT	Bool	false					
TMS_HALT	Bool	false					
OPS_ZERO	Bool	false					
SACT_DISP	Bool	false					
SEF_DISP	Bool	false					
SALL_DISP	Bool	false					
S_PREV	Bool	false					
S_NEXT	Bool	false					
S_SELOK	Bool	false					
S_ON	Bool	false					
S_OFF	Bool	false					
T_PUSH	Bool	false					
REG	Bool	false					
ACK	Bool	false					
IL_PERM	Bool	false					
T_PERM	Bool	false					
ILP_MAN	Bool	false					
LMODE	Bool	false					

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### G7\_SQFlagsPlus\_V2

#### G7\_SQFlagsPlus\_V2 Properties

##### General

Name	G7_SQFlagsPlus_V2	Number	76	Type	UDT	Language	
Numbering							

##### Information

Title		Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
ERR_FLT	Bool	false
ERROR	Bool	false
FAULT	Bool	false
RT_FAIL	Bool	false
NO_SNO	Bool	false
NF_OFL	Bool	false
SA_OFL	Bool	false
TV_OFL	Bool	false
MSG_OFL	Bool	false
NO_SWI	Bool	false
CYC_OP	Bool	false
AS_MSG	Bool	false
AS_SEND	Bool	false
SQ_BUSY	Bool	false
SA_BUSY	Bool	false
AS_SIG	Bool	false

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### G7\_OffsetsPlus\_V2

#### G7\_OffsetsPlus\_V2 Properties

##### General

Name	G7_OffsetsPlus_V2	Number	79	Type	UDT	Language	
Numbering							

##### Information

Title		Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
SINI_OFFSET	UInt	0
LSTT_OFFSET	UInt	0
ATAJ_OFFSET	UInt	0
ATAB_OFFSET	UInt	0
PSTT_OFFSET	UInt	0
NSTT_OFFSET	UInt	0
ASSJ_OFFSET	UInt	0
ASSB_OFFSET	UInt	0
PTTS_OFFSET	UInt	0
NTTS_OFFSET	UInt	0
SW_SQTS_OFFSET	UInt	0
SWITCH_OFFSET	UInt	0
TVX_OFFSET	UInt	0
TTX_OFFSET	UInt	0
TSX_OFFSET	UInt	0
SOOX_OFFSET	UInt	0
SOFFX_OFFSET	UInt	0
SONX_OFFSET	UInt	0
SAX_OFFSET	UInt	0
SERRX_OFFSET	UInt	0
SMX_OFFSET	UInt	0
SOX_OFFSET	UInt	0
S1X_OFFSET	UInt	0

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### G7\_TransitionPlus\_V2

#### G7\_TransitionPlus\_V2 Properties

##### General

Name	G7_TransitionPlus_V2	Number	71	Type	UDT	Language	
Numbering							

##### Information

Title		Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
TV	Bool	false
TT	Bool	false
TS	Bool	false
TNO	Int	0

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### G7\_StepPlus\_V2

#### G7\_StepPlus\_V2 Properties

##### General

Name	G7_StepPlus_V2	Number	70	Type	UDT	Language	
Numbering							

##### Information

Title		Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
S1	Bool	false
L1	Bool	false
V1	Bool	false
R1	Bool	false
A1	Bool	false
S0	Bool	false
L0	Bool	false
V0	Bool	false
X	Bool	false
LA	Bool	false
VA	Bool	false
RA	Bool	false
AA	Bool	false
SS	Bool	false
LS	Bool	false
VS	Bool	false
SNO	Int	0
T	Time	T#0ms
U	Time	T#0ms
T_MAX	Time	T#0ms
T_WARN	Time	T#0ms
SM	Bool	false
H_IL_ERR	Byte	16#0
H_SV_FLT	Byte	16#0

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### G7\_IfParPlus\_V2

#### G7\_IfParPlus\_V2 Properties

##### General

Name	G7_IfParPlus_V2	Number	74	Type	UDT	Language	
Numbering							

##### Information

Title		Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
IN_PAR	G7_InParPlus_V2	
PRS_INPAR	Array[0..29] of Bool	
OUT_PAR	G7_OutParPlus_V2	
PRS_OUTPAR	Array[0..26] of Bool	

Totally Integrated Automation Portal							
<b>Hydroelectric Power Plant / PLC_1 [CPU 1511-1 PN] / PLC data types / System data types</b>							
<b>G7_InParPlus_V2</b>							
<b>G7_InParPlus_V2 Properties</b>							
<b>General</b>							
Name	G7_InParPlus_V2	Number	72	Type	UDT	Language	
Numbering							
<b>Information</b>							
Title		Author		Comment		Family	
Version		User-defined ID					
<b>System data types</b>							
Name	Data type	Default value					
OFF_SQ	Bool	false					
INIT_SQ	Bool	false					
ACK_EF	Bool	false					
REG_EF	Bool	false					
ACK_S	Bool	false					
REG_S	Bool	false					
HALT_SQ	Bool	false					
HALT_TM	Bool	false					
ZERO_OP	Bool	false					
EN_IL	Bool	false					
EN_SV	Bool	false					
EN_ACKREQ	Bool	false					
EN_SKIP	Bool	false					
DISP_SACT	Bool	false					
DISP_SEF	Bool	false					
DISP_SALL	Bool	false					
S_PREV	Bool	false					
S_NEXT	Bool	false					
SW_AUTO	Bool	false					
SW_TOP	Bool	false					
SW_TAP	Bool	false					
SW_MAN	Bool	false					
S_SEL	Int	0					
S_SELOK	Bool	false					
S_ON	Bool	false					
S_OFF	Bool	false					
T_PREV	Bool	false					
T_NEXT	Bool	false					
T_PUSH	Bool	false					
EN_LMODE	Bool	false					

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC data types / System data types

### G7\_OutParPlus\_V2

#### G7\_OutParPlus\_V2 Properties

##### General

Name	G7_OutParPlus_V2	Number	73	Type	UDT	Language	
Numbering							

##### Information

Title		Author		Comment		Family	
Version		User-defined ID					

Name	Data type	Default value
S_NO	Int	0
S_MORE	Bool	false
S_ACTIVE	Bool	false
S_TIME	Time	T#0ms
S_TIMEOK	Time	T#0ms
S_STATE	Word	16#0
T_NO	Int	0
T_MORE	Bool	false
ERROR	Bool	false
FAULT	Bool	false
ERR_FLT	Bool	false
SQ_ISOFF	Bool	false
SQ_HALTED	Bool	false
TM_HALTED	Bool	false
OP_ZEROED	Bool	false
IL_ENABLED	Bool	false
SV_ENABLED	Bool	false
ACKREQ_ENABLED	Bool	false
SSKIP_ENABLED	Bool	false
SACT_DISP	Bool	false
SEF_DISP	Bool	false
SALL_DISP	Bool	false
AUTO_ON	Bool	false
TOP_ON	Bool	false
TAP_ON	Bool	false
MAN_ON	Bool	false
LMODE_ENABLED	Bool	false

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Watch and force tables

### Force table

Name	Address	Display format	Force value

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Watch and force tables

### Watch table\_1

Name	Address	Display format	Modify value
"Alarm_for_Brake_failure"	%M55.7	Bool	
"Alarm_for_E_Stop"	%M56.0	Bool	
"Alarm_for_High_temp"	%M29.7	Bool	
"Alarm_reset"	%M29.6	Bool	FALSE
"Notify_reset"	%M42.1	Bool	
"E_Stop"	%M43.4	Bool	TRUE
"Oil_temp"	%MW24	DEC+/-	
"WarmUpOilTempSp"	%MW74	DEC+/-	
"WarmUpOilDelaySp"	%MW72	DEC+/-	
"OilTemp_In"	%MW4	DEC+/-	
"Over_currentSp"	%MW46	DEC+/-	
"Current_flow"	%MW26	DEC+/-	
"Current_In"	%MW6	DEC+/-	
"High_Oil_TempSp"	%MW52	DEC+/-	200
"HighOilTempDelaySP"	%MW64	DEC+/-	
"OverCurrenDelaySP"	%MW44	DEC+/-	

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN]

### Traces

Name

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Traces

### Measurements

This folder is empty.

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Traces

### Combined measurements

Name

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Traces / Long-term traces

### Measurements

This folder is empty.

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / Traces / Long-term traces

### Combined measurements

This folder is empty.

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC supervisions & alarms

### Supervisions

This folder is empty.

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN] / PLC supervisions & alarms

### PLC alarms

PLC alarms					
Name	Type	ID	Alarm text	Info text	Information only
IL_ALARM_IN ST	PLC alarm		Category : Supervision type : PLC name : FB name : Step name : Step number : Step specific field		False
IL_ALARM_IN ST	PLC alarm	53	Error : GRAPH-Interlock : \$\$CpuName\$\$ : Sequence : @1%t#SYSTEM_StepNames638859434186043789_1@ : S@1%03d@ : @1%t#SYSTEM_InterlockAlarm-Texts638859434186781586_1@		False
STEP_TIME_A LARM_INST	PLC alarm		Category : Supervision type : PLC name : FB name : Step name : Step number : Step specific field		True
STEP_TIME_A LARM_INST	PLC alarm	55	Warning : GRAPH-Warning : \$\$CpuName\$\$ : Sequence : @1%t#SYSTEM_StepNames638859434186043789_1@ : S@1%03d@ : @1%t#SYSTEM_SupervisionAlarm-Texts638859434186731605_1@		True
SUP_ALARM_INST	PLC alarm		Category : Supervision type : PLC name : FB name : Step name : Step number : Step specific field		False
SUP_ALARM_INST	PLC alarm	54	Error : GRAPH-Supervision : \$\$CpuName\$\$ : Sequence : @1%t#SYSTEM_StepNames638859434186043789_1@ : S@1%03d@ : @1%t#SYSTEM_SupervisionAlarm-Texts638859434186731605_1@		False

Totally Integrated Automation Portal					
<b>Hydroelectric Power Plant / PLC_1 [CPU 1511-1 PN] / PLC supervisions &amp; alarms</b>					
<b>System alarms</b>					
<b>System alarms</b>					
Name	Type	ID	Alarm text	Info text	Information only
SDIAG_ALCAT_SUB-MODUL_MSG_0002	PLC alarm	1	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_MOD-UL_MSG_0003	PLC alarm	2	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_RACK_MSG_0004	PLC alarm	3	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_ALCAT_DEVICE_MSG_0005	PLC alarm	4	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_ALCAT_IO-SYSTEM_MSG_0006	PLC alarm	5	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#276K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_CPU_OST_MSG_000D	PLC alarm	6	CPU status message: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_CPU_IN-FO_MSG_000F	PLC alarm	7	CPU info: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_CPU_ERR_MSG_0010	PLC alarm	8	CPU error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_CPU_MD_MSG_0011	PLC alarm	9	CPU maintenance demanded: @1W%t#7W@ @6W%t#257K@ / @5W%t#7W@ @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_CPU_MR_MSG_1_0012	PLC alarm	10	CPU maintenance required: @1W%t#7W@ @6W%t#257K@ / @5W%t#7W@ @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_CPU_TMPERR_MSG_0013	PLC alarm	11	Temporary CPU error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_CH_ERR_MSG_0015	PLC alarm	12	Error: @1W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_ECH_ERR_MSG_0016	PLC alarm	13	Error: @1W%t#7W@ - @5W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_CH_MD_MSG_0018	PLC alarm	14	Maintenance demanded: @1W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_ECH_MD_MSG_0019	PLC alarm	15	Maintenance demanded: @1W%t#7W@ - @5W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_CH_MR_MSG_001B	PLC alarm	16	Maintenance required: @1W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_ECH_MR_MSG_001C	PLC alarm	17	Maintenance required: @1W%t#7W@ - @5W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_SUB_ERR_MSG_001E	PLC alarm	18	Error: @1W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_ESUB_ERR_MS_G_001F	PLC alarm	19	Error: @1W%t#7W@ - @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_SUB_MD_MSG_0021	PLC alarm	20	Maintenance demanded: @1W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_ESUB_MD_MS_G_0022	PLC alarm	21	Maintenance demanded: @1W%t#7W@ - @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_SUB_MR_MSG_0024	PLC alarm	22	Maintenance required: @1W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_AL-CAT_ESUB_MR_MS_G_0025	PLC alarm	23	Maintenance required: @1W%t#7W@ - @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_ALCAT_CON FIG_INFO_0028	PLC alarm	24	Info: @1W%t#7W@ - @5W%t#7W@ @6W%t#257K@ @6W%t#262K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_ALCAT_CON FIG_REPORT_0029	PLC alarm	25	Info: @1W%t#7W@ - @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_ALCAT_SE-CU_EV_MSG_005E	PLC alarm	26	Security event: @1W%t#7W@ @5W%t#7W@ @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_ALCAT_SE-CU_EV_INFO_005F	PLC alarm	27	Security information: @1W%t#7W@ @5W%t#7W@ @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True
SDIAG_ALCAT_SE-CU_USER_MSG_0080	PLC alarm	28	User message: @1W%t#2W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@	True

Totally Integrated Automation Portal				
Name	Type	ID	Alarm text	Info text
SDIAG_AL-CAT_PLAIN_MSG_00FF	PLC alarm	29	PLC notification: @1W%t#7W@ @5W%t#7W@ @6W%t#256K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_ALCAT_SUB-MODUL_MSG_0102	PLC alarm	30	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_MOD-UL_MSG_0103	PLC alarm	31	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_RACK_MSG_0104	PLC alarm	32	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_ALCAT_DE-VICE_MSG_0105	PLC alarm	33	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_ALCAT_IO-SYSTEM_MSG_0106	PLC alarm	34	Error: @1W%t#7W@ @5W%t#7W@ @6W%t#276K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_CPU_OST_MSG_010D	PLC alarm	35	CPU status message: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_CPU_ERR_MSG_0110	PLC alarm	36	CPU error: @1W%t#7W@ @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_CPU_MD_MSG_0111	PLC alarm	37	CPU maintenance demanded: @1W%t#7W@ @6W%t#257K@ / @5W%t#7W@ @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_CPU_MR_MSG_0112	PLC alarm	38	CPU maintenance required: @1W%t#7W@ @6W%t#257K@ / @5W%t#7W@ @6W%t#258K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_CH_ERR_MSG_0115	PLC alarm	39	Error: @1W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_ECH_ERR_MSG_0116	PLC alarm	40	Error: @1W%t#7W@ - @5W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_CH_MD_MSG_0118	PLC alarm	41	Maintenance demanded: @1W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_ECH_MD_MSG_0119	PLC alarm	42	Maintenance demanded: @1W%t#7W@ - @5W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_CH_MR_MSG_011B	PLC alarm	43	Maintenance required: @1W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_ECH_MR_MSG_011C	PLC alarm	44	Maintenance required: @1W%t#7W@ - @5W%t#7W@ on @8W%t#280K@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_SUB_ERR_MSG_011E	PLC alarm	45	Error: @1W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_ESUB_ERR_MS_G_011F	PLC alarm	46	Error: @1W%t#7W@ - @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_SUB_MD_MSG_0121	PLC alarm	47	Maintenance demanded: @1W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_ESUB_MD_MS_G_0122	PLC alarm	48	Maintenance demanded: @1W%t#7W@ - @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_SUB_MR_MSG_0124	PLC alarm	49	Maintenance required: @1W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_ESUB_MR_MS_G_0125	PLC alarm	50	Maintenance required: @1W%t#7W@ - @5W%t#7W@ @6W%t#257K@ / @6W%t#258K@. @6W%t#259K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_ALCAT_CON FIG_INFO_0128	PLC alarm	51	Info: @1W%t#7W@ - @5W%t#7W@ @6W%t#257K@ @6W%t#262K@ @6W%t#263K@ @8W%t#7W@	Short name: @6W%t#260K@ Order number: @6W%t#265K@
SDIAG_AL-CAT_PLAIN_MSG_01F F	PLC alarm	52	PLC notification: @1W%t#7W@ @5W%t#7W@ @6W%t#256K@ @6W%t#262K@ @6W%t#263K@	Short name: @6W%t#260K@ Order number: @6W%t#265K@

## Hydroelectric Power Plant / PLC\_1 [CPU 1511-1 PN]

### PLC alarm text lists

#### SYSTEM\_StepNames638859434186043789\_1

Selection	Decimal	ID	4095
Comment			

#### Text list entries of SYSTEM\_StepNames638859434186043789\_1

Range from	Range to	Entry
1	1	Idle
2	2	Warm Up
3	3	Stabilize
4	4	Generation
5	5	Cool Down

#### SYSTEM\_SupervisionAlarmTexts638859434186731605\_1

Selection	Decimal	ID	4094
Comment			

#### Text list entries of SYSTEM\_SupervisionAlarmTexts638859434186731605\_1

Range from	Range to	Entry
1	1	
3	3	
4	4	
5	5	
2	2	

#### SYSTEM\_InterlockAlarmTexts638859434186781586\_1

Selection	Decimal	ID	4093
Comment			

#### Text list entries of SYSTEM\_InterlockAlarmTexts638859434186781586\_1

Range from	Range to	Entry
1	1	
3	3	
4	4	
5	5	
2	2	

Totally Integrated Automation Portal					
<b>Hydroelectric Power Plant / PLC_1 [CPU 1511-1 PN] / Local modules</b>					
<b>PLC_1 [CPU 1511-1 PN]</b>					
PLC_1					
General\Project information					
Name	PLC_1	Author	barath	Comment	
Rack	0	Slot	1		
General\Catalog information					
Short designation	CPU 1511-1 PN	Description	CPU with display; work memory 150 KB code and 1 MB data; 60 ns bit operation time; 4-stage protection concept, integrated technology functions: Motion Control, closed-loop control, counting&measuring; integrated tracking; PROFINET IO controller, supports RT/IRT, 2 ports, MRP, transport protocol TCP/IP, S7 communication, Web server, constant bus cycle time, routing; firmware V1.8	Article number	6ES7 511-1AK00-0AB0
Firmware version	V1.8		False		
General\Identification & Maintenance					
Plant designation		Location identifier		Installation date	2018-10-25 01:16:43.500
Additional information					
Connection resources					
	Station resources - Reserved - Maximum	Station resources - Reserved - Configured	Station resources - Dynamic - Configured	Module resources - PLC_1 [CPU 1511-1 PN] - Configured	
Maximum number of resources:		10	54	64	
	Maximum	Configured	Configured	Configured	
PG communication:	4	-	-	-	
HMI communication:	4	2	0	2	
S7 communication:	0	-	0	0	
Open user communication:	0	-	0	0	
Web communication:	2	-	-	-	
Other communication:	-	-	0	0	
Total resources used:		2	0	2	
Available resources:		8	54	62	
Overview of addresses\Overview of addresses\Overview of addresses					
Inputs	True	Outputs	True	Address gaps	False
Slot	True				

## Hydroelectric Power Plant

### PC station [SIMATIC PC station]

This folder is empty.

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PC station [SIMATIC PC station]

### HMI\_RT\_1 [WinCC RT Advanced]

HMI_RT_1					
General					
Name	HMI_RT_1	Device/application type	SIMATIC PC station - WinCC RT Advanced	Author	barath
Comment					
General\Catalog information					
Short designation	WinCC RT Advanced	Description	Runtime software for PC-based visualization (requires WinCC Runtime Advanced)	Article number	6AV2 104-0xxxx-xxxx
Version	17.0.0.0				
Information					
Number of used PowerTags	63	Memory requirements in runtime	1658452	Compilation build number	8
Date of last compilation	6/30/2025 3:43 PM	Date of last download			

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced]

### Runtime settings

#### General

Start screen	Status	Load name information	Enabled	Default template	
Default style of the project	Enabled	Style of the HMI device	WinCC Dark V 1.0.1	Adapt font size to style	Enabled
Screen resolution	1024, 768	Full-screen mode	Enabled	Lock task switching	Disabled
Project ID	0	Logging language	Startup language		

#### Services

Sm@rtAccess or service: start Sm@rtServer	Disabled	Operate as OPC server	Disabled	OPC server type	OPC Unified Architecture Server
Sm@rtAccess: SIMATIC HMI HTTP server	Disabled	Sm@rtAccess: Web service (SOAP)	Disabled	Sm@rtService: HTML pages	Disabled
Name of SMTP server		Port	25	Name of the SMTP sender	
SMTP authentication		SMTP login		Secure connection for SMTP	Disabled

#### Screens

Bit selection for appearance analysis	Off	Bit selection for text and graphic lists	Off	Display limit values as a tooltip	Enabled
Show script comments	Enabled	Scrolling mode	Scroll bar		

#### Keyboard

Use screen keyboard	Disabled	Release button on exit	Disabled	Disable dialog window function keys	Disabled
---------------------	----------	------------------------	----------	-------------------------------------	----------

#### Good Manufacturing Practice

Configuration conforms to GMP	Disabled
-------------------------------	----------

#### Alarms

##### Controller alarms

Buffer overflow	10 %	Acknowledgment group text	QGR	Reporting	Enabled
Use alarm class color	Disabled	Use help texts for system diagnostics	Enabled	System event duration	2 Seconds
S7 diagnostic alarms with numbers only	Disabled	S7 diagnostic alarms with numbers and texts	Disabled	SIMOTION diagnostic alarms	Disabled
Connection	1500	Display classes	0-16		

#### User administration

Change initial password	Disabled	Change logoff time	Enabled	Enable limit for logon attempts	Enabled
Invalid logon attempts	3	Logon with password	Disabled	Group-specific rights	Disabled
Password aging	Disabled	Validity period	90	Warning period	7
Password generations	3	At least one special character	Disabled	At least one number	Disabled
Minimum password length	3	SIMATIC Logon	Disabled	Apply user administration from	WinDomain
Server name		Port number	16389	Windows domain	
Encrypted SIMATIC Logon	Enabled				

#### Language & font

Preset runtime language	English (United States)
-------------------------	-------------------------

English (United States)
-------------------------

Runtime language	Enabled	Default font	Tahoma, 13 Pixel
------------------	---------	--------------	------------------

#### OPC settings

OPC UA server port number	4870	OPC UA server URL	opc.tcp://[HostName]:4870	No OPC UA server security	Enabled
No OPC UA server security	Enabled	OPC UA server with 128-bit RSA cryptographic system	Enabled	OPC UA server with 128-bit RSA cryptographic system without signature	Disabled
OPC UA server with 128-bit RSA cryptographic system for signatures	Disabled	OPC UA server with 128-bit cryptographic system for signatures and encryption	Enabled		

Totally Integrated Automation Portal					
<b>Tag settings</b>					
Replace the separators on each sub-level of the path of the PLC tag:	Enabled	Compatibility mode: Set '_' between the PLC tags and the first-level element.	Disabled	Replace the '.' character if the name of the HMI tag is created from the PLC tag name	Enabled
Use '_' as the replacement character	Enabled	Use ';' as the replacement character	Disabled	Replace the characters '[' and ']' if the name of the HMI tag is created from the PLC tag name	Enabled
Use '{' and '}' as replacement characters	Enabled	Use '(' and ')' as replacement characters	Disabled		
<b>Settings for the prefix 'PLC' in the HMI tag name</b>					
Connection	1500	PLC name as prefix in the HMI tag name	Disabled		

Totally Integrated Automation Portal		
---	--	--

# Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Screens

## Alarms

### Hardcopy of Alarms

## Alarm Management

<<NO ALARMS>>



1 Main 2 Overview 3 Alarm 4 Config



Name	Alarms	Background color	255, 85, 85	Grid color	0, 0, 0
Number	2	Template		Tooltip	

Text field 3

Type	Text field	Name	Text field_3	X position	12
Y position	5	Width	368	Height	61
Layer	0 - Layer_0	Font	Arial Narrow, 48px, style=Bold	Text	Alarm Management

## Button 1

Type	Button	Name	Button_1	X position	42
Y position	676	Width	170	Height	70
Mode	Text	Text OFF	Main	Text ON	Text

## Dynamizations\Event

Event name	Click
------------	-------

## Function list\ActivateScreen

Screen name	Status	Object number	0
-------------	--------	---------------	---

## Button 2

Type	Button	Name	Button_2	X position	224
Y position	676	Width	170	Height	70
Mode	Text	Text OFF	Overview	Text ON	Text

## Dynamizations\Event

Event name	Click
------------	-------

## Function list\ActivateScreen

Screen name	OverView	Object number	0
-------------	----------	---------------	---

Totally Integrated Automation Portal			
<b>Button_3</b>			
<b>Dynamizations\Event</b>			
Type	Button	Name	Button_3
Y position	676	Width	170
Mode	Text	Text OFF	Alarm
X position	404	Height	70
		Text ON	Text
<b>Function list\ActivateScreen</b>			
Screen name	Alarms	Object number	0
<b>Button_4</b>			
Type	Button	Name	Button_4
Y position	676	Width	170
Mode	Text	Text OFF	Config
X position	586	Height	70
		Text ON	Text
<b>Dynamizations\Event</b>			
Event name	Click		
<b>Function list\ActivateScreen</b>			
Screen name	Config	Object number	0
<b>Alarm view_1</b>			
Type	Alarm view	Name	Alarm view_1
Y position	88	Width	956
Layer	0 - Layer_0	Source of alarms	Alarms
X position	25	Height	194
		Table font	Tahoma, 13px
<b>Group_2</b>			
Type	Group	Name	Group_2
Y position	482	Width	503
Layer	0 - Layer_0		
X position	212	Height	175
<b>Group_2\Rectangle_1</b>			
Type	Rectangle	Name	Rectangle_1
Y position	482	Width	503
Layer	0 - Layer_0	Background color	217, 217, 217
X position	212	Height	175
		Border color	24, 28, 49
<b>Group_2\Button_5</b>			
Type	Button	Name	Button_5
Y position	566	Width	216
Mode	Text	Text OFF	Silence
X position	233	Height	75
		Text ON	Text
<b>Dynamizations\Event</b>			
Event name	Press		
<b>Function list\SetBit</b>			
Tag	Notify_reset		
<b>Dynamizations\Event</b>			
Event name	Release		
<b>Function list\ResetBit</b>			
Tag	Notify_reset		
<b>Group_2\Button_6</b>			
Type	Button	Name	Button_6
Y position	565	Width	216
Mode	Text	Text OFF	Alarm Reset
X position	476	Height	75
		Text ON	Text
<b>Dynamizations\Event</b>			
Event name	Press		
<b>Function list\SetBit</b>			
Tag	Alarm_reset		
<b>Dynamizations\Event</b>			
Event name	Release		
<b>Function list\ResetBit</b>			
Tag	Alarm_reset		
<b>Group_2\Text field_6</b>			
Type	Text field	Name	Text field_6
Y position	488	Width	215
Layer	0 - Layer_0	Font	Arial Narrow, 36px, style=Bold
X position	360	Height	46
		Text	Alarm Controls
<b>Group_2\Group_7</b>			
Type	Group	Name	Group_7
Y position	319	Width	126
X position	885	Height	126

Totally Integrated Automation Portal			
Layer	0 - Layer_0		
<b>Group_2\Group_7\Circle_2</b>			
Type	Circle	Name	Circle_2
Y position	319	Width	126
Radius	63	Background color	238, 0, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_LOW_OIL -	Data type	Single bit
Visibility	Visible		Specifies the bit to monitor.
<b>Group_2\Group_7\Text field_5</b>			
Type	Text field	Name	Text field_5
Y position	365	Width	101
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_LOW_OIL -	Data type	Single bit
Visibility	Visible		Specifies the bit to monitor.
<b>Group_2\Group_7\Group_8</b>			
Type	Group	Name	Group_8
Y position	318	Width	126
Layer	0 - Layer_0		
<b>Group_2\Group_7\Group_8\Circle_1</b>			
Type	Circle	Name	Circle_1
Y position	318	Width	126
Radius	63	Background color	238, 0, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_Oil_High_Flow -	Data type	Single bit
Visibility	Visible		Specifies the bit to monitor.
<b>Group_2\Group_7\Group_8\Text field_4</b>			
Type	Text field	Name	Text field_4
Y position	364	Width	108
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_Oil_High_Flow -	Data type	Single bit
Visibility	Visible		Specifies the bit to monitor.
<b>Group_2\Group_7\Group_8\Group_9</b>			
Type	Group	Name	Group_9
Y position	317	Width	126
Layer	0 - Layer_0		
<b>Group_2\Group_7\Group_8\Group_9\Circle_3</b>			
Type	Circle	Name	Circle_3
Y position	317	Width	126
Radius	63	Background color	238, 0, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_High_temp -	Data type	Single bit
Visibility	Visible		Specifies the bit to monitor.
<b>Group_2\Group_7\Group_8\Group_9\Group_3</b>			
Type	Group	Name	Group_3
Y position	347	Width	69
Layer	0 - Layer_0		
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Text field_7</b>			
Type	Text field	Name	Text field_7
Y position	347	Width	59
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_High_temp -	Data type	Single bit
Visibility	Visible		Specifies the bit to monitor.
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Text field_14</b>			
Type	Text field	Name	Text field_14
Y position	375	Width	69
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_High_temp -	Data type	Single bit
Visibility	Visible		Specifies the bit to monitor.

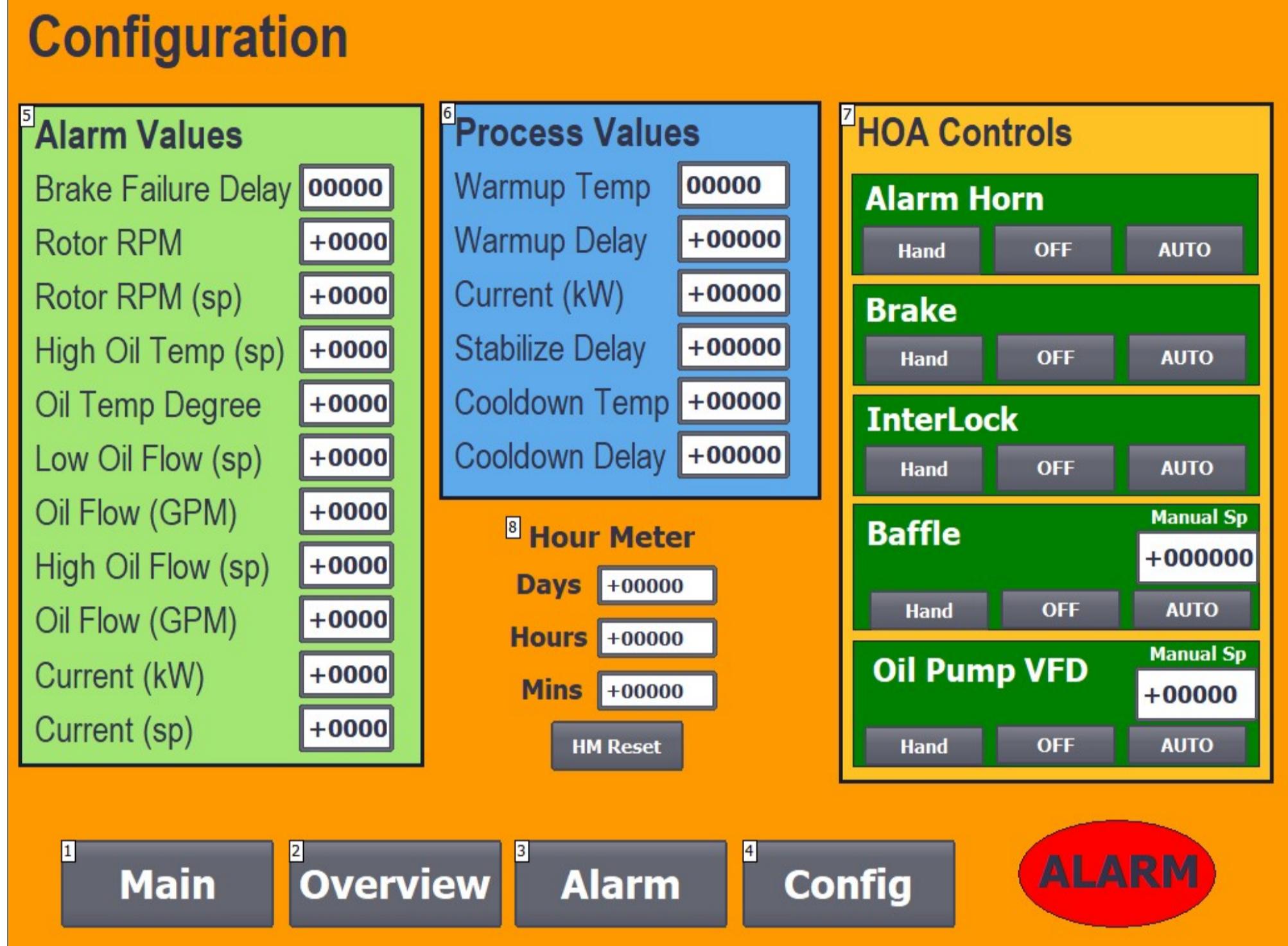
Totally Integrated Automation Portal					
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10</b>					
Type	Group	Name	Group_10	X position	441
Y position	316	Width	126	Height	126
Layer	0 - Layer_0				
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10\Circle_4</b>					
Type	Circle	Name	Circle_4	X position	441
Y position	316	Width	126	Height	126
Radius	63	Background color	238, 0, 0	Border color	24, 28, 49
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Alarm_for_Brake_failure -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Visible				
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10\Group_4</b>					
Type	Group	Name	Group_4	X position	461
Y position	349	Width	85	Height	61
Layer	0 - Layer_0				
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10\Group_4\Text field_8</b>					
Type	Text field	Name	Text field_8	X position	461
Y position	349	Width	73	Height	32
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold	Text	Brake
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Alarm_for_Brake_failure -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Visible				
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10\Group_4\Text field_12</b>					
Type	Text field	Name	Text field_12	X position	461
Y position	378	Width	85	Height	32
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold	Text	Failure
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Alarm_for_Brake_failure -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Visible				
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10\Group_4\Group_11</b>					
Type	Group	Name	Group_11	X position	293
Y position	315	Width	126	Height	126
Layer	0 - Layer_0				
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10\Group_4\Group_11\Circle_5</b>					
Type	Circle	Name	Circle_5	X position	293
Y position	315	Width	126	Height	126
Radius	63	Background color	238, 0, 0	Border color	24, 28, 49
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Alarm_for_Over_Current -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Visible				
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10\Group_4\Group_11\Group_5</b>					
Type	Group	Name	Group_5	X position	310
Y position	348	Width	94	Height	59
Layer	0 - Layer_0				
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10\Group_4\Group_11\Group_5\Text field_9</b>					
Type	Text field	Name	Text field_9	X position	312
Y position	348	Width	60	Height	32
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold	Text	Over
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Alarm_for_Over_Current -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Visible				
<b>Group_2\Group_7\Group_8\Group_9\Group_3\Group_10\Group_4\Group_11\Group_5\Text field_13</b>					
Type	Text field	Name	Text field_13	X position	310
Y position	375	Width	94	Height	32
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold	Text	Current
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Alarm_for_Over_Current -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Visible				
<b>Text field_20</b>					
Type	Text field	Name	Text field_20	X position	604
Y position	159	Width	59	Height	32
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold	Text	High

Totally Integrated Automation Portal			
<b>Group_14</b>			
Type	Group	Name	Group_14
Y position	304	Width	1022
Layer	0 - Layer_0	X position	0
<b>Group_14\Rectangle_2</b>			
Type	Rectangle	Name	Rectangle_2
Y position	304	Width	1022
Layer	0 - Layer_0	Background color	51, 153, 102
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Fault_Mode -	Data type	Single bit
Visibility	Invisible	Specifies the bit to monitor.	0
<b>Group_14\Text field_17</b>			
Type	Text field	Name	Text field_17
Y position	332	Width	673
Layer	0 - Layer_0	Font	Tahoma, 72px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Fault_Mode -	Data type	Single bit
Visibility	Invisible	Specifies the bit to monitor.	0
<b>Group_14\Group_12</b>			
Type	Group	Name	Group_12
Y position	314	Width	126
Layer	0 - Layer_0	X position	145
<b>Group_14\Group_12\Circle_6</b>			
Type	Circle	Name	Circle_6
Y position	314	Width	126
Radius	63	Background color	238, 0, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_Rotor_over_speed -	Data type	Single bit
Visibility	Visible	Specifies the bit to monitor.	0
<b>Group_14\Group_12\Group_6</b>			
Type	Group	Name	Group_6
Y position	337	Width	78
Layer	0 - Layer_0	X position	167
<b>Group_14\Group_12\Group_6\Text field_10</b>			
Type	Text field	Name	Text field_10
Y position	337	Width	70
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_Rotor_over_speed -	Data type	Single bit
Visibility	Visible	Specifies the bit to monitor.	0
<b>Group_14\Group_12\Group_6\Text field_16</b>			
Type	Text field	Name	Text field_16
Y position	386	Width	76
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_Rotor_over_speed -	Data type	Single bit
Visibility	Visible	Specifies the bit to monitor.	0
<b>Group_14\Group_12\Group_6\Text field_15</b>			
Type	Text field	Name	Text field_15
Y position	361	Width	60
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_Rotor_over_speed -	Data type	Single bit
Visibility	Visible	Specifies the bit to monitor.	0
<b>Group_14\Group_12\Group_6\Group_13</b>			
Type	Group	Name	Group_13
Y position	317	Width	126
Layer	0 - Layer_0	X position	10
<b>Group_14\Group_12\Group_6\Group_13\Circle_7</b>			
Type	Circle	Name	Circle_7
Y position	317	Width	126
Radius	63	Background color	238, 0, 0

Totally Integrated Automation Portal			
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_E_Stop -	Data type	Single bit Specifies the bit to monitor. 0
Visibility	Visible		
<b>Group_14\Group_12\Group_6\Group_13\Text field_11</b>			
Type	Text field	Name	Text field_11
Y position	363	Width	72
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_for_E_Stop -	Data type	Single bit Specifies the bit to monitor. 0
Visibility	Visible		
<b>Group_14\Group_12\Group_6\Group_13\Group_1</b>			
Type	Group	Name	Group_1
Y position	660	Width	156
Layer	0 - Layer_0		
<b>Group_14\Group_12\Group_6\Group_13\Group_1\Ellipse_2</b>			
Type	Ellipse	Name	Ellipse_2
Y position	660	Width	156
Layer	0 - Layer_0	Background color	51, 153, 102
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Fault_Mode -	Data type	Single bit Specifies the bit to monitor. 0
Visibility	Invisible		
<b>Group_14\Group_12\Group_6\Group_13\Group_1\Text field_2</b>			
Type	Text field	Name	Text field_2
Y position	676	Width	70
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Fault_Mode -	Data type	Single bit Specifies the bit to monitor. 0
Visibility	Invisible		
<b>Group_14\Group_12\Group_6\Group_13\Group_1\Group</b>			
Type	Group	Name	Group
Y position	660	Width	158
Layer	0 - Layer_0		
<b>Group_14\Group_12\Group_6\Group_13\Group_1\Group\Ellipse_1</b>			
Type	Ellipse	Name	Ellipse_1
Y position	660	Width	158
Layer	0 - Layer_0	Background color	255, 0, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Fault_Mode -	Data type	Single bit Specifies the bit to monitor. 0
Visibility	Visible		
<b>Group_14\Group_12\Group_6\Group_13\Group_1\Group\Text field_1</b>			
Type	Text field	Name	Text field_1
Y position	676	Width	134
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Fault_Mode -	Data type	Single bit Specifies the bit to monitor. 0
Visibility	Visible		

Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Screens  
Config

Hardcopy of Config



Name	Config	Background color	255, 153, 0	Grid color	0, 0, 0
Number	4	Template		Tooltip	
<b>Text field_3</b>					
Type	Text field	Name	Text field_3	X position	12
Y position	5	Width	262	Height	61
Layer	0 - Layer_0	Font	Arial Narrow, 48px, style=Bold	Text	Configuration
<b>Button_1</b>					
Type	Button	Name	Button_1	X position	42
Y position	676	Width	170	Height	70
Mode	Text	Text OFF	Main	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Click			
<b>Function list\ActivateScreen</b>					
Screen name	Status	Object number	0		
<b>Button_2</b>					
Type	Button	Name	Button_2	X position	224
Y position	676	Width	170	Height	70
Mode	Text	Text OFF	Overview	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Click			
<b>Function list\ActivateScreen</b>					
Screen name	OverView	Object number	0		

Totally Integrated Automation Portal			
<b>Button_3</b>			
Type	Button	Name	Button_3
Y position	676	Width	170
Mode	Text	Text OFF	Alarm
<b>Dynamizations\Event</b>			
Event name	Click		
<b>Function list\ActivateScreen</b>			
Screen name	Alarms	Object number	0
<b>Button_4</b>			
Type	Button	Name	Button_4
Y position	676	Width	170
Mode	Text	Text OFF	Config
<b>Dynamizations\Event</b>			
Event name	Click		
<b>Function list\ActivateScreen</b>			
Screen name	Config	Object number	0
<b>Group_9</b>			
Type	Group	Name	Group_9
Y position	418	Width	169
Layer	0 - Layer_0		
<b>Group_9\I/O field_17</b>			
Type	I/O field	Name	I/O field_17
Y position	457	Width	96
Layer	0 - Layer_0	Mode	Input/output
<b>Dynamizations\Tag connection</b>			
Property name	Process value	Tag	HM_Days
<b>Group_9\Text field_29</b>			
Type	Text field	Name	Text field_29
Y position	418	Width	138
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Group_9\Text field_30</b>			
Type	Text field	Name	Text field_30
Y position	457	Width	57
Layer	0 - Layer_0	Font	Tahoma, 21px, style=Bold
<b>Group_9\I/O field_18</b>			
Type	I/O field	Name	I/O field_18
Y position	499	Width	96
Layer	0 - Layer_0	Mode	Input/output
<b>Dynamizations\Tag connection</b>			
Property name	Process value	Tag	HM_Hours
<b>Group_9\Text field_31</b>			
Type	Text field	Name	Text field_31
Y position	499	Width	67
Layer	0 - Layer_0	Font	Tahoma, 21px, style=Bold
<b>Group_9\I/O field_19</b>			
Type	I/O field	Name	I/O field_19
Y position	541	Width	96
Layer	0 - Layer_0	Mode	Input/output
<b>Dynamizations\Tag connection</b>			
Property name	Process value	Tag	HM_Minutes
<b>Group_9\Text field_32</b>			
Type	Text field	Name	Text field_32
Y position	541	Width	54
Layer	0 - Layer_0	Font	Tahoma, 21px, style=Bold
<b>Group_9\Button_20</b>			
Type	Button	Name	Button_20
Y position	581	Width	106
Mode	Text	Text OFF	HM Reset
<b>Dynamizations\Event</b>			
Event name	Press		
<b>Function list\SetBit</b>			
Tag	HM reset		

Totally Integrated Automation Portal					
<b>Dynamizations\Event</b>					
Event name		Release			
<b>Function list\ResetBit</b>					
Tag		HM reset			
<b>Group_9\Group_1</b>					
Type	Group	Name	Group_1	X position	807
Y position	660	Width	156	Height	86
Layer	0 - Layer_0				
<b>Group_9\Group_1\Ellipse_2</b>					
Type	Ellipse	Name	Ellipse_2	X position	807
Y position	660	Width	156	Height	86
Layer	0 - Layer_0	Background color	51, 153, 102	Border color	24, 28, 49
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Invisible				
<b>Group_9\Group_1\Text field_2</b>					
Type	Text field	Name	Text field_2	X position	851
Y position	676	Width	70	Height	47
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold	Text	OK!
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Invisible				
<b>Group_9\Group_1\Group</b>					
Type	Group	Name	Group	X position	806
Y position	660	Width	158	Height	86
Layer	0 - Layer_0				
<b>Group_9\Group_1\Group\Ellipse_1</b>					
Type	Ellipse	Name	Ellipse_1	X position	806
Y position	660	Width	158	Height	86
Layer	0 - Layer_0	Background color	255, 0, 0	Border color	24, 28, 49
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Visible				
<b>Group_9\Group_1\Group\Text field_1</b>					
Type	Text field	Name	Text field_1	X position	819
Y position	676	Width	134	Height	47
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold	Text	ALARM
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Visible				
<b>Group_9\Group_1\Group\Group_2</b>					
Type	Group	Name	Group_2	X position	9
Y position	90	Width	321	Height	526
Layer	0 - Layer_0				
<b>Group_9\Group_1\Group\Group_2\Rectangle_1</b>					
Type	Rectangle	Name	Rectangle_1	X position	9
Y position	90	Width	321	Height	526
Layer	0 - Layer_0	Background color	163, 230, 116	Border color	24, 28, 49
<b>Group_9\Group_1\Group\Group_2\Text field_4</b>					
Type	Text field	Name	Text field_4	X position	18
Y position	93	Width	172	Height	41
Layer	0 - Layer_0	Font	Arial Narrow, 32px, style=Bold	Text	Alarm Values
<b>Group_9\Group_1\Group\Group_2\Text field_5</b>					
Type	Text field	Name	Text field_5	X position	18
Y position	138	Width	210	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Brake Failure Delay
<b>Group_9\Group_1\Group\Group_2\I/O field_9</b>					
Type	I/O field	Name	I/O field_9	X position	232
Y position	137	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	BrakeFailuredelay		

Totally Integrated Automation Portal					
<b>Group_9\Group_1\Group\Group_2\Text field_6</b>					
Type	Text field	Name	Text field_6	X position	18
Y position	181	Width	123	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Rotor RPM
<b>Group_9\Group_1\Group\Group_2\I/O field_1</b>					
Type	I/O field	Name	I/O field_1	X position	232
Y position	180	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	RPM		
<b>Group_9\Group_1\Group\Group_2\Text field_7</b>					
Type	Text field	Name	Text field_7	X position	18
Y position	224	Width	171	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Rotor RPM (sp)
<b>Group_9\Group_1\Group\Group_2\I/O field_2</b>					
Type	I/O field	Name	I/O field_2	X position	232
Y position	223	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	Rpm sp		
<b>Group_9\Group_1\Group\Group_2\Text field_8</b>					
Type	Text field	Name	Text field_8	X position	18
Y position	267	Width	205	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	High Oil Temp (sp)
<b>Group_9\Group_1\Group\Group_2\I/O field_3</b>					
Type	I/O field	Name	I/O field_3	X position	232
Y position	266	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	high oil temp sp		
<b>Group_9\Group_1\Group\Group_2\Text field_9</b>					
Type	Text field	Name	Text field_9	X position	18
Y position	310	Width	186	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Oil Temp Degree
<b>Group_9\Group_1\Group\Group_2\I/O field_4</b>					
Type	I/O field	Name	I/O field_4	X position	232
Y position	309	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	Oil temp		
<b>Group_9\Group_1\Group\Group_2\Text field_10</b>					
Type	Text field	Name	Text field_10	X position	18
Y position	353	Width	187	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Low Oil Flow (sp)
<b>Group_9\Group_1\Group\Group_2\I/O field_5</b>					
Type	I/O field	Name	I/O field_5	X position	232
Y position	352	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	low oil flow sp		
<b>Group_9\Group_1\Group\Group_2\Text field_11</b>					
Type	Text field	Name	Text field_11	X position	18
Y position	396	Width	167	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Oil Flow (GPM)
<b>Group_9\Group_1\Group\Group_2\I/O field_6</b>					
Type	I/O field	Name	I/O field_6	X position	232
Y position	395	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	Oil Flow		
<b>Group_9\Group_1\Group\Group_2\Text field_12</b>					
Type	Text field	Name	Text field_12	X position	18
Y position	439	Width	193	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	High Oil Flow (sp)

Totally Integrated Automation Portal					
<b>Group_9\Group_1\Group\Group_2\I/O field_7</b>					
Type	I/O field	Name	I/O field_7	X position	232
Y position	438	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	high oil flow sp		
<b>Group_9\Group_1\Group\Group_2\Text field_13</b>					
Type	Text field	Name	Text field_13	X position	18
Y position	482	Width	167	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Oil Flow (GPM)
<b>Group_9\Group_1\Group\Group_2\I/O field_8</b>					
Type	I/O field	Name	I/O field_8	X position	232
Y position	481	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	Oil Flow		
<b>Group_9\Group_1\Group\Group_2\Text field_33</b>					
Type	Text field	Name	Text field_33	X position	18
Y position	526	Width	141	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Current (kW)
<b>Group_9\Group_1\Group\Group_2\I/O field_20</b>					
Type	I/O field	Name	I/O field_20	X position	232
Y position	525	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	Current		
<b>Group_9\Group_1\Group\Group_2\Text field_34</b>					
Type	Text field	Name	Text field_34	X position	18
Y position	569	Width	132	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Current (sp)
<b>Group_9\Group_1\Group\Group_2\I/O field_21</b>					
Type	I/O field	Name	I/O field_21	X position	232
Y position	568	Width	76	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	current sp		
<b>Group_9\Group_1\Group\Group_2\Group_3</b>					
Type	Group	Name	Group_3	X position	345
Y position	88	Width	302	Height	315
Layer	0 - Layer_0				
<b>Group_9\Group_1\Group\Group_2\Group_3\Rectangle_2</b>					
Type	Rectangle	Name	Rectangle_2	X position	345
Y position	88	Width	302	Height	315
Layer	0 - Layer_0	Background color	95, 170, 234	Border color	24, 28, 49
<b>Group_9\Group_1\Group\Group_2\Group_3\Text field_14</b>					
Type	Text field	Name	Text field_14	X position	353
Y position	91	Width	202	Height	41
Layer	0 - Layer_0	Font	Arial Narrow, 32px, style=Bold	Text	Process Values
<b>Group_9\Group_1\Group\Group_2\Group_3\Text field_15</b>					
Type	Text field	Name	Text field_15	X position	353
Y position	136	Width	162	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Warmup Temp
<b>Group_9\Group_1\Group\Group_2\Group_3\I/O field_10</b>					
Type	I/O field	Name	I/O field_10	X position	534
Y position	135	Width	90	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	WarmUpOilTemp		
<b>Group_9\Group_1\Group\Group_2\Group_3\Text field_16</b>					
Type	Text field	Name	Text field_16	X position	353
Y position	179	Width	159	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Warmup Delay
<b>Group_9\Group_1\Group\Group_2\Group_3\I/O field_11</b>					
Type	I/O field	Name	I/O field_11	X position	534
Y position	178	Width	90	Height	38

Totally Integrated Automation Portal					
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
Dynamizations\Tag connection					
Property name	Process value	Tag	Warmup delay		
<b>Group_9\Group_1\Group\Group_2\Group_3\Text field_17</b>					
Type	Text field	Name	Text field_17	X position	353
Y position	222	Width	141	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Current (kW)
<b>Group_9\Group_1\Group\Group_2\Group_3\I/O field_12</b>					
Type	I/O field	Name	I/O field_12	X position	534
Y position	221	Width	90	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
Dynamizations\Tag connection					
Property name	Process value	Tag	Current		
<b>Group_9\Group_1\Group\Group_2\Group_3\Text field_18</b>					
Type	Text field	Name	Text field_18	X position	353
Y position	265	Width	158	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Stabilize Delay
<b>Group_9\Group_1\Group\Group_2\Group_3\I/O field_13</b>					
Type	I/O field	Name	I/O field_13	X position	534
Y position	264	Width	90	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
Dynamizations\Tag connection					
Property name	Process value	Tag	StabilizeDealySP		
<b>Group_9\Group_1\Group\Group_2\Group_3\Text field_19</b>					
Type	Text field	Name	Text field_19	X position	353
Y position	308	Width	177	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Cooldown Temp
<b>Group_9\Group_1\Group\Group_2\Group_3\I/O field_14</b>					
Type	I/O field	Name	I/O field_14	X position	534
Y position	307	Width	90	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
Dynamizations\Tag connection					
Property name	Process value	Tag	CoolDownOilTemp		
<b>Group_9\Group_1\Group\Group_2\Group_3\Text field_20</b>					
Type	Text field	Name	Text field_20	X position	353
Y position	351	Width	174	Height	37
Layer	0 - Layer_0	Font	Arial Narrow, 29px	Text	Cooldown Delay
<b>Group_9\Group_1\Group\Group_2\Group_3\I/O field_15</b>					
Type	I/O field	Name	I/O field_15	X position	534
Y position	350	Width	90	Height	38
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
Dynamizations\Tag connection					
Property name	Process value	Tag	CoolDownDelaySp		
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4</b>					
Type	Group	Name	Group_4	X position	664
Y position	89	Width	344	Height	540
Layer	0 - Layer_0				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_3</b>					
Type	Rectangle	Name	Rectangle_3	X position	664
Y position	89	Width	344	Height	540
Layer	0 - Layer_0	Background color	255, 194, 36	Border color	24, 28, 49
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_7</b>					
Type	Rectangle	Name	Rectangle_7	X position	674
Y position	233	Width	324	Height	80
Layer	0 - Layer_0	Background color	255, 51, 51	Border color	24, 28, 49
Dynamizations\Visibility					
Tag - Cycle	Brake_Out_HOA -	Data type	Range	Start range	0
End range	0	Visibility	Visible		
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_8</b>					
Type	Rectangle	Name	Rectangle_8	X position	674
Y position	233	Width	324	Height	80
Layer	0 - Layer_0	Background color	254, 255, 0	Border color	24, 28, 49
Dynamizations\Visibility					
Tag - Cycle	Brake_Out_HOA -	Data type	Range	Start range	1
End range	1	Visibility	Visible		

Totally Integrated Automation Portal			
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_9</b>			
Type	Rectangle	Name	Rectangle_9
Y position	233	Width	324
Layer	0 - Layer_0	Background color	0, 128, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Brake_Out_HOA -	Data type	Range
End range	2	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_4</b>			
Type	Rectangle	Name	Rectangle_4
Y position	145	Width	324
Layer	0 - Layer_0	Background color	255, 51, 51
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_HOA -	Data type	Range
End range	0	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_5</b>			
Type	Rectangle	Name	Rectangle_5
Y position	145	Width	324
Layer	0 - Layer_0	Background color	254, 255, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_HOA -	Data type	Range
End range	1	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_6</b>			
Type	Rectangle	Name	Rectangle_6
Y position	145	Width	324
Layer	0 - Layer_0	Background color	0, 128, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Alarm_HOA -	Data type	Range
End range	2	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Text field_21</b>			
Type	Text field	Name	Text field_21
Y position	91	Width	178
Layer	0 - Layer_0	Font	Arial Narrow, 32px, style=Bold
X position	674	Height	41
Text	HOA Controls		
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_10</b>			
Type	Rectangle	Name	Rectangle_10
Y position	517	Width	324
Layer	0 - Layer_0	Background color	255, 51, 51
<b>Dynamizations\Visibility</b>			
Tag - Cycle	VFD_HOA -	Data type	Range
End range	0	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_11</b>			
Type	Rectangle	Name	Rectangle_11
Y position	517	Width	324
Layer	0 - Layer_0	Background color	254, 255, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	VFD_HOA -	Data type	Range
End range	1	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_12</b>			
Type	Rectangle	Name	Rectangle_12
Y position	517	Width	324
Layer	0 - Layer_0	Background color	0, 128, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	VFD_HOA -	Data type	Range
End range	2	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_13</b>			
Type	Rectangle	Name	Rectangle_13
Y position	321	Width	324
Layer	0 - Layer_0	Background color	255, 51, 51
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Station_Interlock_HOA -	Data type	Range
End range	0	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_14</b>			
Type	Rectangle	Name	Rectangle_14
Y position	321	Width	324
Layer	0 - Layer_0	Background color	254, 255, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Station_Interlock_HOA -	Data type	Range
End range	1	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_15</b>			
Type	Rectangle	Name	Rectangle_15
X position	674	Height	80
Border color	24, 28, 49		

Totally Integrated Automation Portal			
Y position	321	Width	324
Layer	0 - Layer_0	Background color	0, 128, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Station_Interlock_HOA -	Data type	Range
End range	2	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_16</b>			
Type	Rectangle	Name	Rectangle_16
Y position	408	Width	324
Layer	0 - Layer_0	Background color	255, 51, 51
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Baffle_HOA -	Data type	Range
End range	0	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_17</b>			
Type	Rectangle	Name	Rectangle_17
Y position	408	Width	324
Layer	0 - Layer_0	Background color	254, 255, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Baffle_HOA -	Data type	Range
End range	1	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Rectangle_18</b>			
Type	Rectangle	Name	Rectangle_18
Y position	408	Width	324
Layer	0 - Layer_0	Background color	0, 128, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Baffle_HOA -	Data type	Range
End range	2	Visibility	Visible
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Text field_24</b>			
Type	Text field	Name	Text field_24
Y position	323	Width	126
Layer	0 - Layer_0	Font	Tahoma, 25px, style=Bold
X position	682	Height	34
Text	InterLock		
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_11</b>			
Type	Button	Name	Button_11
Y position	361	Width	96
Mode	Text	Text OFF	Hand
X position	683	Height	39
Text ON	Text		
<b>Dynamizations\Event</b>			
Event name	Press		
<b>Function list\SetBit</b>			
Tag	Station_interlock_HAND_PB		
<b>Dynamizations\Event</b>			
Event name	Release		
<b>Function list\ResetBit</b>			
Tag	Station_interlock_HAND_PB		
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_12</b>			
Type	Button	Name	Button_12
Y position	360	Width	96
Mode	Text	Text OFF	OFF
X position	788	Height	39
Text ON	Text		
<b>Dynamizations\Event</b>			
Event name	Release		
<b>Function list\ResetBit</b>			
Tag	Station_interlock_OFF_PB		
<b>Dynamizations\Event</b>			
Event name	Press		
<b>Function list\SetBit</b>			
Tag	Station_interlock_OFF_PB		
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_13</b>			
Type	Button	Name	Button_13
Y position	360	Width	96
Mode	Text	Text OFF	AUTO
X position	893	Height	39
Text ON	Text		
<b>Dynamizations\Event</b>			
Event name	Press		
<b>Function list\SetBit</b>			
Tag	Station_interlock_AUTO_PB		

Totally Integrated Automation Portal					
<b>Dynamizations\Event</b>					
Event name		Release			
<b>Function list\ResetBit</b>					
Tag	Station_interlock_AUTO_PB				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\I/O field_16</b>					
Type	I/O field	Name	I/O field_16	X position	899
Y position	538	Width	99	Height	44
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	ManualVFD_SP		
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Text field_28</b>					
Type	Text field	Name	Text field_28	X position	908
Y position	516	Width	82	Height	22
Layer	0 - Layer_0	Font	Tahoma, 15px, style=Bold	Text	Manual Sp
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Text field_27</b>					
Type	Text field	Name	Text field_27	X position	687
Y position	523	Width	177	Height	34
Layer	0 - Layer_0	Font	Tahoma, 25px, style=Bold	Text	Oil Pump VFD
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_18</b>					
Type	Button	Name	Button_18	X position	788
Y position	584	Width	96	Height	32
Mode	Text	Text OFF	OFF	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Release			
<b>Function list\ResetBit</b>					
Tag	VFDHOA_HAND_PB				
<b>Dynamizations\Event</b>					
Event name		Press			
<b>Function list\SetBit</b>					
Tag	VFDHOA_HAND_PB				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_19</b>					
Type	Button	Name	Button_19	X position	893
Y position	584	Width	96	Height	32
Mode	Text	Text OFF	AUTO	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Press			
<b>Function list\SetBit</b>					
Tag	VFDHOA_AUTO_PB				
<b>Dynamizations\Event</b>					
Event name		Release			
<b>Function list\ResetBit</b>					
Tag	VFDHOA_AUTO_PB				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_17</b>					
Type	Button	Name	Button_17	X position	683
Y position	585	Width	96	Height	32
Mode	Text	Text OFF	Hand	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Press			
<b>Function list\SetBit</b>					
Tag	VFDHOA_HAND_PB				
<b>Dynamizations\Event</b>					
Event name		Release			
<b>Function list\ResetBit</b>					
Tag	VFDHOA_HAND_PB				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Text field_23</b>					
Type	Text field	Name	Text field_23	X position	681
Y position	236	Width	78	Height	34
Layer	0 - Layer_0	Font	Tahoma, 25px, style=Bold	Text	Brake

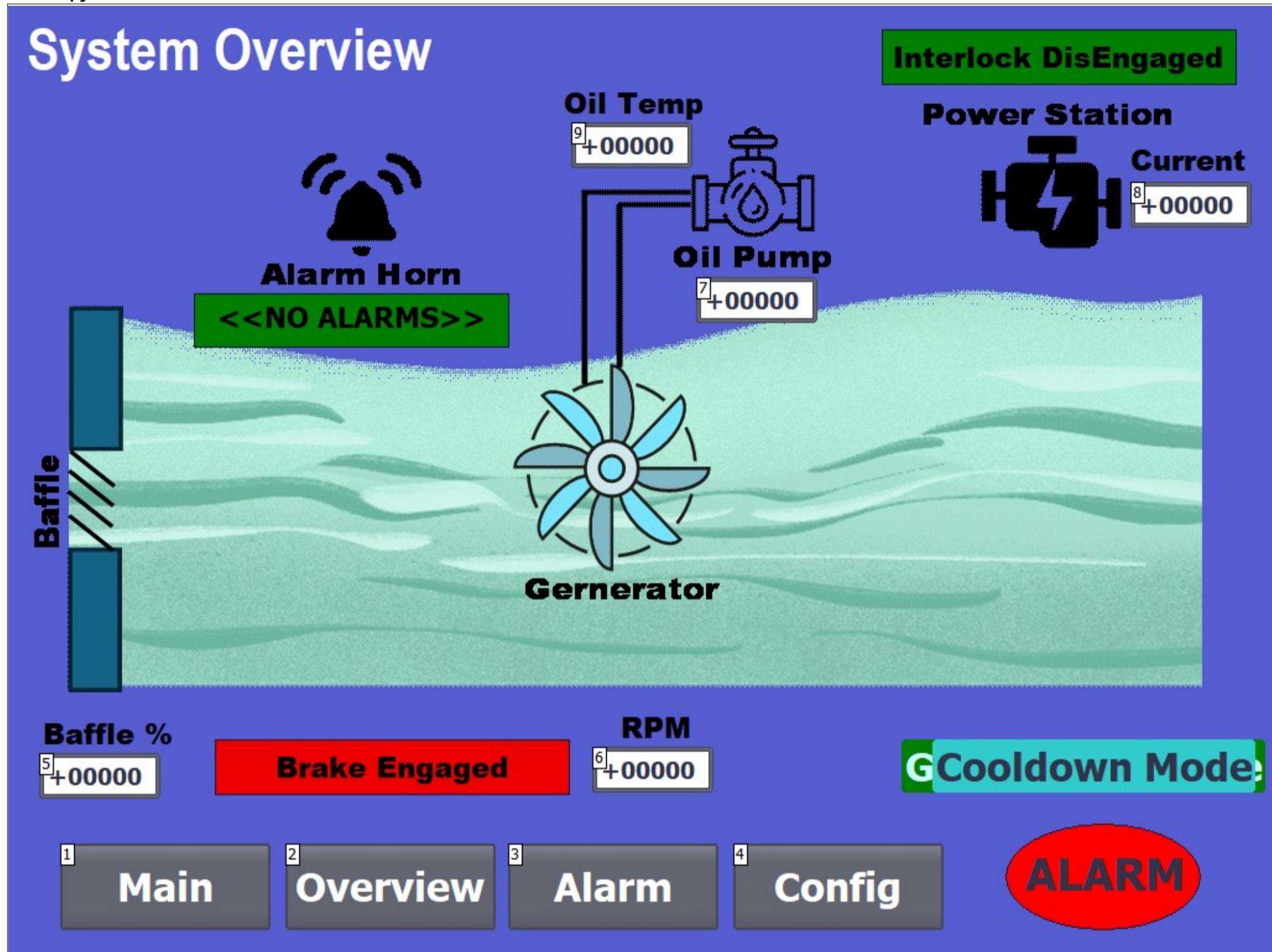
Totally Integrated Automation Portal					
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_9</b>					
Type	Button	Name	Button_9	X position	683
Y position	273	Width	96	Height	39
Mode	Text	Text OFF	Hand	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Press			
<b>Function list\SetBit</b>					
Tag		Brake_HAND_PB			
<b>Dynamizations\Event</b>					
Event name		Release			
<b>Function list\ResetBit</b>					
Tag		Brake_HAND_PB			
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_10</b>					
Type	Button	Name	Button_10	X position	788
Y position	272	Width	96	Height	39
Mode	Text	Text OFF	OFF	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Release			
<b>Function list\ResetBit</b>					
Tag		Brake_OFF_PB			
<b>Dynamizations\Event</b>					
Event name		Press			
<b>Function list\SetBit</b>					
Tag		Brake_OFF_PB			
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_8</b>					
Type	Button	Name	Button_8	X position	893
Y position	272	Width	96	Height	39
Mode	Text	Text OFF	AUTO	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Press			
<b>Function list\SetBit</b>					
Tag		Brake_AUTO_PB			
<b>Dynamizations\Event</b>					
Event name		Release			
<b>Function list\ResetBit</b>					
Tag		Brake_AUTO_PB			
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_5</b>					
Type	Button	Name	Button_5	X position	681
Y position	186	Width	96	Height	40
Mode	Text	Text OFF	Hand	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Press			
<b>Function list\SetBit</b>					
Tag		Alarm_HAND_PB			
<b>Dynamizations\Event</b>					
Event name		Release			
<b>Function list\ResetBit</b>					
Tag		Alarm_HAND_PB			
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Text field_22</b>					
Type	Text field	Name	Text field_22	X position	681
Y position	147	Width	148	Height	34
Layer	0 - Layer_0	Font	Tahoma, 25px, style=Bold	Text	Alarm Horn
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_6</b>					
Type	Button	Name	Button_6	X position	786
Y position	185	Width	96	Height	40
Mode	Text	Text OFF	OFF	Text ON	Text
<b>Dynamizations\Event</b>					
Event name		Release			

Totally Integrated Automation Portal					
<b>Function list\ResetBit</b>					
Tag	Alarm_OFF_PB				
<b>Dynamizations\Event</b>					
Event name	Press				
<b>Function list\SetBit</b>					
Tag	Alarm_OFF_PB				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_7</b>					
Type	Button	Name	Button_7	X position	891
Y position	185	Width	96	Height	40
Mode	Text	Text OFF	AUTO	Text ON	Text
<b>Dynamizations\Event</b>					
Event name	Press				
<b>Function list\SetBit</b>					
Tag	AlarmAuto_Pb				
<b>Dynamizations\Event</b>					
Event name	Release				
<b>Function list\ResetBit</b>					
Tag	AlarmAuto_Pb				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\I/O field_23</b>					
Type	I/O field	Name	I/O field_23	X position	900
Y position	429	Width	99	Height	44
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>					
Property name	Process value	Tag	ManualBaffle_SP		
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Text field_26</b>					
Type	Text field	Name	Text field_26	X position	909
Y position	407	Width	82	Height	22
Layer	0 - Layer_0	Font	Tahoma, 15px, style=Bold	Text	Manual Sp
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_16</b>					
Type	Button	Name	Button_16	X position	897
Y position	476	Width	96	Height	32
Mode	Text	Text OFF	AUTO	Text ON	Text
<b>Dynamizations\Event</b>					
Event name	Press				
<b>Function list\SetBit</b>					
Tag	Baffle_AUTO_PB				
<b>Dynamizations\Event</b>					
Event name	Release				
<b>Function list\ResetBit</b>					
Tag	Baffle_AUTO_PB				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_15</b>					
Type	Button	Name	Button_15	X position	792
Y position	476	Width	96	Height	32
Mode	Text	Text OFF	OFF	Text ON	Text
<b>Dynamizations\Event</b>					
Event name	Release				
<b>Function list\ResetBit</b>					
Tag	Baffle_OFF_PB				
<b>Dynamizations\Event</b>					
Event name	Press				
<b>Function list\SetBit</b>					
Tag	Baffle_OFF_PB				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Button_14</b>					
Type	Button	Name	Button_14	X position	687
Y position	477	Width	96	Height	32
Mode	Text	Text OFF	Hand	Text ON	Text
<b>Dynamizations\Event</b>					
Event name	Press				

Totally Integrated Automation Portal					
<b>Function list\SetBit</b>					
Tag	Baffle_HAND_PB				
<b>Dynamizations\Event</b>					
Event name	Release				
<b>Function list\ResetBit</b>					
Tag	Baffle_HAND_PB				
<b>Group_9\Group_1\Group\Group_2\Group_3\Group_4\Text field_25</b>					
Type	Text field	Name	Text field_25	X position	682
Y position	414	Width	80	Height	34
Layer	0 - Layer_0	Font	Tahoma, 25px, style=Bold	Text	Baffle

Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Screens  
OverView

Hardcopy of OverView



Name	OverView	Background color	86, 93, 209	Grid color	0, 0, 0
Number	3	Template		Tooltip	

#### Text field\_3

Type	Text field	Name	Text field_3	X position	12
Y position	5	Width	332	Height	61
Layer	0 - Layer_0	Font	Arial Narrow, 48px, style=Bold	Text	System Overview

#### Group\_1

Type	Group	Name	Group_1	X position	807
Y position	660	Width	156	Height	86
Layer	0 - Layer_0				

#### Group\_1\Ellipse\_2

Type	Ellipse	Name	Ellipse_2	X position	807
Y position	660	Width	156	Height	86
Layer	0 - Layer_0	Background color	51, 153, 102	Border color	24, 28, 49
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Invisible				

#### Group\_1\Text field\_2

Type	Text field	Name	Text field_2	X position	851
Y position	676	Width	70	Height	47
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold	Text	OK!
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Invisible				

Totally Integrated Automation Portal			
<b>Button_1</b>			
<b>Dynamizations\Event</b>			
Type	Button	Name	Button_1
Y position	676	Width	170
Mode	Text	Text OFF	Main
X position	42	Height	70
		Text ON	Text
<b>Function list\ActivateScreen</b>			
Screen name	Status	Object number	0
<b>Button_2</b>			
Type	Button	Name	Button_2
Y position	676	Width	170
Mode	Text	Text OFF	Overview
X position	224	Height	70
		Text ON	Text
<b>Dynamizations\Event</b>			
Event name	Click		
<b>Function list\ActivateScreen</b>			
Screen name	OverView	Object number	0
<b>Button_3</b>			
Type	Button	Name	Button_3
Y position	676	Width	170
Mode	Text	Text OFF	Alarm
X position	404	Height	70
		Text ON	Text
<b>Dynamizations\Event</b>			
Event name	Click		
<b>Function list\ActivateScreen</b>			
Screen name	Alarms	Object number	0
<b>Button_4</b>			
Type	Button	Name	Button_4
Y position	676	Width	170
Mode	Text	Text OFF	Config
X position	586	Height	70
		Text ON	Text
<b>Dynamizations\Event</b>			
Event name	Click		
<b>Function list\ActivateScreen</b>			
Screen name	Config	Object number	0
<b>Group</b>			
Type	Group	Name	Group
Y position	660	Width	158
Layer	0 - Layer_0		
X position	806	Height	86
<b>Group\Ellipse_1</b>			
Type	Ellipse	Name	Ellipse_1
Y position	660	Width	158
Layer	0 - Layer_0	Background color	255, 0, 0
X position	806	Height	86
		Border color	24, 28, 49
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Fault_Mode -	Data type	Single bit
Visibility	Visible		Specifies the bit to monitor.
			0
<b>Group\Text field_1</b>			
Type	Text field	Name	Text field_1
Y position	676	Width	134
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold
X position	819	Height	47
		Text	ALARM
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Fault_Mode -	Data type	Single bit
Visibility	Visible		Specifies the bit to monitor.
			0
<b>Graphic view_2</b>			
Type	Graphic view	Name	Graphic view_2
Y position	61	Width	982
Layer	0 - Layer_0	Graphic	Graphic_1
X position	3	Height	593
		Fit graphic to size	Stretch graphic
<b>I/O field_1</b>			
Type	I/O field	Name	I/O field_1
Y position	603	Width	98
Layer	0 - Layer_0	Mode	Input/output
X position	25	Height	37
		Font	Tahoma, 19px, style=Bold
<b>Dynamizations\Tag connection</b>			
Property name	Process value	Tag	baffle

Totally Integrated Automation Portal				
<b>Text field_4</b>				
Type	Text field	Name	Text field_4	X position
Y position	569	Width	111	Height
Layer	0 - Layer_0	Font	Arial Black, 23px, style=Bold	Text
<b>I/O field_2</b>				
Type	I/O field	Name	I/O field_2	X position
Y position	598	Width	98	Height
Layer	0 - Layer_0	Mode	Input/output	Font
<b>Dynamizations\Tag connection</b>				
Property name	Process value	Tag	RPM	
<b>Text field_5</b>				
Type	Text field	Name	Text field_5	X position
Y position	564	Width	62	Height
Layer	0 - Layer_0	Font	Arial Black, 23px, style=Bold	Text
<b>I/O field_3</b>				
Type	I/O field	Name	I/O field_3	X position
Y position	219	Width	98	Height
Layer	0 - Layer_0	Mode	Input/output	Font
<b>Dynamizations\Tag connection</b>				
Property name	Process value	Tag	OilPct	
<b>Text field_6</b>				
Type	Text field	Name	Text field_6	X position
Y position	60	Width	117	Height
Layer	0 - Layer_0	Font	Arial Black, 23px, style=Bold	Text
<b>Text field_7</b>				
Type	Text field	Name	Text field_7	X position
Y position	577	Width	15	Height
Layer	0 - Layer_0	Font	Tahoma, 15px, style=Bold	Text
<b>Group_2</b>				
Type	Group	Name	Group_2	X position
Y position	19	Width	286	Height
Layer	0 - Layer_0			
<b>Group_2\Rectangle_3</b>				
Type	Rectangle	Name	Rectangle_3	X position
Y position	19	Width	286	Height
Layer	0 - Layer_0	Background color	238, 0, 0	Border color
<b>Dynamizations\Visibility</b>				
Tag - Cycle	InterlockEN -	Data type	Single bit	Specifies the bit to monitor.
Visibility	Visible			0
<b>Group_2\Text field_10</b>				
Type	Text field	Name	Text field_10	X position
Y position	23	Width	233	Height
Layer	0 - Layer_0	Font	Arial Black, 23px, style=Bold	Text
<b>Dynamizations\Visibility</b>				
Tag - Cycle	InterlockEN -	Data type	Single bit	Specifies the bit to monitor.
Visibility	Visible			0
<b>Group_2\Group_3</b>				
Type	Group	Name	Group_3	X position
Y position	19	Width	286	Height
Layer	0 - Layer_0			
<b>Group_2\Group_3\Rectangle_4</b>				
Type	Rectangle	Name	Rectangle_4	X position
Y position	19	Width	286	Height
Layer	0 - Layer_0	Background color	0, 128, 0	Border color
<b>Dynamizations\Visibility</b>				
Tag - Cycle	InterlockEN -	Data type	Single bit	Specifies the bit to monitor.
Visibility	Invisible			0
<b>Group_2\Group_3\Text field_11</b>				
Type	Text field	Name	Text field_11	X position
Y position	23	Width	273	Height
Layer	0 - Layer_0	Font	Arial Black, 23px, style=Bold	Text
<b>Dynamizations\Visibility</b>				
Tag - Cycle	InterlockEN -	Data type	Single bit	Specifies the bit to monitor.
Visibility	Invisible			0

Totally Integrated Automation Portal			
<b>Group_2\Group_3\Group_4</b>			
Type	Group	Name	Group_4
Y position	592	Width	286
Layer	0 - Layer_0	X position	167
<b>Group_2\Group_3\Group_4\Rectangle_1</b>			
Type	Rectangle	Name	Rectangle_1
Y position	592	Width	286
Layer	0 - Layer_0	Background color	0, 128, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	brakeEN -	Data type	Single bit
Visibility	Invisible	Specifies the bit to monitor.	0
<b>Group_2\Group_3\Group_4\Text field_8</b>			
Type	Text field	Name	Text field_8
Y position	596	Width	232
Layer	0 - Layer_0	Font	Arial Black, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	brakeEN -	Data type	Single bit
Visibility	Invisible	Specifies the bit to monitor.	0
<b>Group_2\Group_3\Group_4\Group_5</b>			
Type	Group	Name	Group_5
Y position	592	Width	286
Layer	0 - Layer_0	X position	167
<b>Group_2\Group_3\Group_4\Group_5\Rectangle_2</b>			
Type	Rectangle	Name	Rectangle_2
Y position	592	Width	286
Layer	0 - Layer_0	Background color	238, 0, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	brakeEN -	Data type	Single bit
Visibility	Visible	Specifies the bit to monitor.	0
<b>Group_2\Group_3\Group_4\Group_5\Text field_9</b>			
Type	Text field	Name	Text field_9
Y position	596	Width	192
Layer	0 - Layer_0	Font	Arial Black, 23px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	brakeEN -	Data type	Single bit
Visibility	Visible	Specifies the bit to monitor.	0
<b>Group_2\Group_3\Group_4\Group_5\Group_6</b>			
Type	Group	Name	Group_6
Y position	232	Width	254
Layer	0 - Layer_0	X position	150
<b>Group_2\Group_3\Group_4\Group_5\Group_6\Rectangle_5</b>			
Type	Rectangle	Name	Rectangle_5
Y position	232	Width	254
Layer	0 - Layer_0	Background color	0, 128, 0
<b>Dynamizations\Visibility</b>			
Tag - Cycle	Fault_Mode -	Data type	Single bit
Visibility	Invisible	Specifies the bit to monitor.	0
<b>Group_2\Group_3\Group_4\Group_5\Group_6\Text field_17</b>			
Type	Text field	Name	Text field_17
Y position	235	Width	222
Layer	0 - Layer_0	Font	Tahoma, 23px, style=Bold
<b>Text field_12</b>			
Type	Text field	Name	Text field_12
Y position	592	Width	166
Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	ModelInt -	Data type	Range
End range	0	Visibility	Visible
<b>Text field_13</b>			
Type	Text field	Name	Text field_13
Y position	592	Width	243
Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	ModelInt -	Data type	Range
End range	1	Visibility	Visible

Totally Integrated Automation Portal																				
<b>Text field_14</b>																				
<table border="1"> <tr> <td>Type</td><td>Text field</td><td>Name</td><td>Text field_14</td><td>X position</td><td>765</td></tr> <tr> <td>Y position</td><td>592</td><td>Width</td><td>240</td><td>Height</td><td>43</td></tr> <tr> <td>Layer</td><td>0 - Layer_0</td><td>Font</td><td>Tahoma, 32px, style=Bold</td><td>Text</td><td>Stabilize Mode</td></tr> </table>			Type	Text field	Name	Text field_14	X position	765	Y position	592	Width	240	Height	43	Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold	Text	Stabilize Mode
Type	Text field	Name	Text field_14	X position	765															
Y position	592	Width	240	Height	43															
Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold	Text	Stabilize Mode															
<b>Dynamizations\Visibility</b>																				
Tag - Cycle	ModelInt -	Data type	Range	Start range	2															
End range	2	Visibility	Visible																	
<b>Text field_15</b>																				
<table border="1"> <tr> <td>Type</td><td>Text field</td><td>Name</td><td>Text field_15</td><td>X position</td><td>722</td></tr> <tr> <td>Y position</td><td>592</td><td>Width</td><td>294</td><td>Height</td><td>43</td></tr> <tr> <td>Layer</td><td>0 - Layer_0</td><td>Font</td><td>Tahoma, 32px, style=Bold</td><td>Text</td><td>Gerneration Mode</td></tr> </table>			Type	Text field	Name	Text field_15	X position	722	Y position	592	Width	294	Height	43	Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold	Text	Gerneration Mode
Type	Text field	Name	Text field_15	X position	722															
Y position	592	Width	294	Height	43															
Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold	Text	Gerneration Mode															
<b>Dynamizations\Visibility</b>																				
Tag - Cycle	ModelInt -	Data type	Range	Start range	3															
End range	3	Visibility	Visible																	
<b>Text field_16</b>																				
<table border="1"> <tr> <td>Type</td><td>Text field</td><td>Name</td><td>Text field_16</td><td>X position</td><td>747</td></tr> <tr> <td>Y position</td><td>592</td><td>Width</td><td>261</td><td>Height</td><td>43</td></tr> <tr> <td>Layer</td><td>0 - Layer_0</td><td>Font</td><td>Tahoma, 32px, style=Bold</td><td>Text</td><td>Cooldown Mode</td></tr> </table>			Type	Text field	Name	Text field_16	X position	747	Y position	592	Width	261	Height	43	Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold	Text	Cooldown Mode
Type	Text field	Name	Text field_16	X position	747															
Y position	592	Width	261	Height	43															
Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold	Text	Cooldown Mode															
<b>Dynamizations\Visibility</b>																				
Tag - Cycle	ModelInt -	Data type	Range	Start range	4															
End range	4	Visibility	Visible																	
<b>I/O field_4</b>																				
<table border="1"> <tr> <td>Type</td><td>I/O field</td><td>Name</td><td>I/O field_4</td><td>X position</td><td>907</td></tr> <tr> <td>Y position</td><td>142</td><td>Width</td><td>98</td><td>Height</td><td>37</td></tr> <tr> <td>Layer</td><td>0 - Layer_0</td><td>Mode</td><td>Input/output</td><td>Font</td><td>Tahoma, 19px, style=Bold</td></tr> </table>			Type	I/O field	Name	I/O field_4	X position	907	Y position	142	Width	98	Height	37	Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
Type	I/O field	Name	I/O field_4	X position	907															
Y position	142	Width	98	Height	37															
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold															
<b>Dynamizations\Tag connection</b>																				
Property name	Process value	Tag	Current																	
<b>Text field_18</b>																				
<table border="1"> <tr> <td>Type</td><td>Text field</td><td>Name</td><td>Text field_18</td><td>X position</td><td>904</td></tr> <tr> <td>Y position</td><td>106</td><td>Width</td><td>99</td><td>Height</td><td>36</td></tr> <tr> <td>Layer</td><td>0 - Layer_0</td><td>Font</td><td>Arial Black, 23px, style=Bold</td><td>Text</td><td>Current</td></tr> </table>			Type	Text field	Name	Text field_18	X position	904	Y position	106	Width	99	Height	36	Layer	0 - Layer_0	Font	Arial Black, 23px, style=Bold	Text	Current
Type	Text field	Name	Text field_18	X position	904															
Y position	106	Width	99	Height	36															
Layer	0 - Layer_0	Font	Arial Black, 23px, style=Bold	Text	Current															
<b>I/O field_5</b>																				
<table border="1"> <tr> <td>Type</td><td>I/O field</td><td>Name</td><td>I/O field_5</td><td>X position</td><td>455</td></tr> <tr> <td>Y position</td><td>94</td><td>Width</td><td>98</td><td>Height</td><td>37</td></tr> <tr> <td>Layer</td><td>0 - Layer_0</td><td>Mode</td><td>Input/output</td><td>Font</td><td>Tahoma, 19px, style=Bold</td></tr> </table>			Type	I/O field	Name	I/O field_5	X position	455	Y position	94	Width	98	Height	37	Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold
Type	I/O field	Name	I/O field_5	X position	455															
Y position	94	Width	98	Height	37															
Layer	0 - Layer_0	Mode	Input/output	Font	Tahoma, 19px, style=Bold															
<b>Dynamizations\Tag connection</b>																				
Property name	Process value	Tag	Oil temp																	

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Screens

## Status

Hardcopy of Status

# System Status

## MODES

**Cooldown Mode**

Current : +00000 kW  
 Interlock: **ENGAGED**

**Exit...****Start System****Stop System**

### Statement List

**LAD****FBD****SCL****STL****Main****Overview****Alarm****Config****ALARM**

Name	Status	Background color	153, 51, 102	Grid color	0, 0, 0
Number	1	Template		Tooltip	

**Softkey\_F5**

Type	Function key	Key code	202	Global assignment	Enabled
Graphic		Authorization		LED tag	
Bit in the LED tag	0				

**Softkey\_F4**

Type	Function key	Key code	211	Global assignment	Enabled
Graphic		Authorization		LED tag	
Bit in the LED tag	0				

**Softkey\_F1**

Type	Function key	Key code	200	Global assignment	Enabled
Graphic		Authorization		LED tag	
Bit in the LED tag	0				

**Button\_1**

Type	Button	Name	Button_1	X position	42
Y position	676	Width	170	Height	70
Mode	Text	Text OFF	Main	Text ON	Text

**Dynamizations\Event**

Event name	Click
------------	-------

**Function list\ActivateScreen**

Screen name	Status	Object number	0
-------------	--------	---------------	---

Totally Integrated Automation Portal			
<b>Button_2</b>			
Type	Button	Name	Button_2
Y position	676	Width	170
Mode	Text	Text OFF	Overview
<b>Dynamizations\Event</b>			
Event name		Click	
<b>Function list\ActivateScreen</b>			
Screen name	OverView	Object number	0
<b>Button_3</b>			
Type	Button	Name	Button_3
Y position	676	Width	170
Mode	Text	Text OFF	Alarm
<b>Dynamizations\Event</b>			
Event name		Click	
<b>Function list\ActivateScreen</b>			
Screen name	Alarms	Object number	0
<b>Button_4</b>			
Type	Button	Name	Button_4
Y position	676	Width	170
Mode	Text	Text OFF	Config
<b>Dynamizations\Event</b>			
Event name		Click	
<b>Function list\ActivateScreen</b>			
Screen name	Config	Object number	0
<b>Softkey_F12</b>			
Type	Function key	Key code	215
Graphic		Authorization	
Bit in the LED tag	0		
<b>Text field_3</b>			
Type	Text field	Name	Text field_3
Y position	5	Width	276
Layer	0 - Layer_0	Font	Arial Narrow, 48px, style=Bold
<b>Text field_4</b>			
Type	Text field	Name	Text field_4
Y position	185	Width	247
Layer	0 - Layer_0	Font	Tahoma, 48px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	ModelInt -	Data type	Range
End range	0	Visibility	Visible
<b>Text field_5</b>			
Type	Text field	Name	Text field_5
Y position	185	Width	361
Layer	0 - Layer_0	Font	Tahoma, 48px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	ModelInt -	Data type	Range
End range	1	Visibility	Visible
<b>Text field_6</b>			
Type	Text field	Name	Text field_6
Y position	185	Width	356
Layer	0 - Layer_0	Font	Tahoma, 48px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	ModelInt -	Data type	Range
End range	2	Visibility	Visible
<b>Text field_7</b>			
Type	Text field	Name	Text field_7
Y position	185	Width	442
Layer	0 - Layer_0	Font	Tahoma, 48px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	ModelInt -	Data type	Range
End range	3	Visibility	Visible
<b>Text field_8</b>			
Type	Text field	Name	Text field_8
Y position	185	Width	391
Layer	0 - Layer_0	Font	Tahoma, 48px, style=Bold

Totally Integrated Automation Portal						
<b>Dynamizations\Visibility</b>						
Tag - Cycle	ModelInt -	Data type	Range	Start range	4	
End range	4	Visibility	Visible			
<b>Button_5</b>						
Type	Button	Name	Button_5	X position	624	
Y position	549	Width	79	Height	62	
Mode	Text	Text OFF	LAD	Text ON	Text	
<b>Dynamizations\Event</b>						
Event name		Press				
<b>Function list\SetBit</b>						
Tag		LADpb				
<b>Dynamizations\Event</b>						
Event name		Release				
<b>Function list\ResetBit</b>						
Tag		LADpb				
<b>Button_6</b>						
Type	Button	Name	Button_6	X position	710	
Y position	549	Width	79	Height	62	
Mode	Text	Text OFF	FBD	Text ON	Text	
<b>Dynamizations\Event</b>						
Event name		Press				
<b>Function list\SetBit</b>						
Tag		FBDpb				
<b>Dynamizations\Event</b>						
Event name		Release				
<b>Function list\ResetBit</b>						
Tag		FBDpb				
<b>Button_7</b>						
Type	Button	Name	Button_7	X position	796	
Y position	549	Width	79	Height	62	
Mode	Text	Text OFF	SCL	Text ON	Text	
<b>Dynamizations\Event</b>						
Event name		Press				
<b>Function list\SetBit</b>						
Tag		SCLpb				
<b>Dynamizations\Event</b>						
Event name		Release				
<b>Function list\ResetBit</b>						
Tag		SCLpb				
<b>Button_8</b>						
Type	Button	Name	Button_8	X position	882	
Y position	549	Width	79	Height	62	
Mode	Text	Text OFF	STL	Text ON	Text	
<b>Dynamizations\Event</b>						
Event name		Press				
<b>Function list\SetBit</b>						
Tag		STLpb				
<b>Dynamizations\Event</b>						
Event name		Release				
<b>Function list\ResetBit</b>						
Tag		STLpb				
<b>Text field_9</b>						
Type	Text field	Name	Text field_9	X position	686	
Y position	475	Width	209	Height	43	
Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold	Text	Ladder Logic	
<b>Dynamizations\Visibility</b>						
Tag - Cycle	ProgramLanguage -	Data type	Range	Start range	1	
End range	1	Visibility	Visible			

Totally Integrated Automation Portal			
<b>Text field_10</b>			
<b>Dynamizations\Visibility</b>			
Type	Text field	Name	Text field_10
Y position	475	Width	241
Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold
<b>Tag - Cycle</b>			
Tag - Cycle	ProgramLanguage -	Data type	Range
End range	2	Visibility	Visible
<b>Text field_11</b>			
Type	Text field	Name	Text field_11
Y position	475	Width	302
Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	ProgramLanguage -	Data type	Range
End range	3	Visibility	Visible
<b>Text field_12</b>			
Type	Text field	Name	Text field_12
Y position	475	Width	238
Layer	0 - Layer_0	Font	Tahoma, 32px, style=Bold
<b>Dynamizations\Visibility</b>			
Tag - Cycle	ProgramLanguage -	Data type	Range
End range	4	Visibility	Visible
<b>Button_9</b>			
Type	Button	Name	Button_9
Y position	510	Width	211
Mode	Text	Text OFF	Start System
<b>Dynamizations\Event</b>			
Event name	Press		
<b>Function list\SetBit</b>			
Tag	StartSequencePB		
<b>Dynamizations\Event</b>			
Event name	Release		
<b>Function list\ResetBit</b>			
Tag	StartSequencePB		
<b>Button_10</b>			
Type	Button	Name	Button_10
Y position	510	Width	211
Mode	Text	Text OFF	Stop System
<b>Dynamizations\Event</b>			
Event name	Press		
<b>Function list\SetBit</b>			
Tag	System_Stop_PB		
<b>Dynamizations\Event</b>			
Event name	Release		
<b>Function list\ResetBit</b>			
Tag	System_Stop_PB		
<b>Text field_18</b>			
Type	Text field	Name	Text field_18
Y position	83	Width	239
Layer	0 - Layer_0	Font	Tahoma, 64px, style=Bold
<b>Button_11</b>			
Type	Button	Name	Button_11
Y position	353	Width	109
Mode	Text	Text OFF	Exit...
<b>Dynamizations\Event</b>			
Event name	Click		
<b>Function list\ActivateScreen</b>			
Screen name	Config	Object number	0
<b>Dynamizations\Event</b>			
Event name	Activate		
<b>Function list\StopRuntime</b>			
Mode	Runtime		

Totally Integrated Automation Portal				
<b>Group_1</b>				
Type	Group	Name	Group_1	X position
Y position	660	Width	156	Height
Layer	0 - Layer_0			
<b>Group_1\Ellipse_2</b>				
Type	Ellipse	Name	Ellipse_2	X position
Y position	660	Width	156	Height
Layer	0 - Layer_0	Background color	51, 153, 102	Border color
<b>Dynamizations\Visibility</b>				
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.
Visibility	Invisible			
<b>Group_1\Text field_2</b>				
Type	Text field	Name	Text field_2	X position
Y position	676	Width	70	Height
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold	Text
<b>Dynamizations\Visibility</b>				
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.
Visibility	Invisible			
<b>Group_1\Group</b>				
Type	Group	Name	Group	X position
Y position	660	Width	158	Height
Layer	0 - Layer_0			
<b>Group_1\Group\Ellipse_1</b>				
Type	Ellipse	Name	Ellipse_1	X position
Y position	660	Width	158	Height
Layer	0 - Layer_0	Background color	255, 0, 0	Border color
<b>Dynamizations\Visibility</b>				
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.
Visibility	Visible			
<b>Group_1\Group\Text field_1</b>				
Type	Text field	Name	Text field_1	X position
Y position	676	Width	134	Height
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold	Text
<b>Dynamizations\Visibility</b>				
Tag - Cycle	Fault_Mode -	Data type	Single bit	Specifies the bit to monitor.
Visibility	Visible			
<b>Rectangle_1</b>				
Type	Rectangle	Name	Rectangle_1	X position
Y position	290	Width	346	Height
Layer	0 - Layer_0	Background color	229, 237, 56	Border color
<b>Text field_17</b>				
Type	Text field	Name	Text field_17	X position
Y position	379	Width	163	Height
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold	Text
<b>Dynamizations\Visibility</b>				
Tag - Cycle	Station_interlock -	Data type	Single bit	Specifies the bit to monitor.
Visibility	Invisible			
<b>I/O field_1</b>				
Type	I/O field	Name	I/O field_1	X position
Y position	307	Width	138	Height
Layer	0 - Layer_0	Mode	Output	Font
<b>Dynamizations\Tag connection</b>				
Property name	Process value	Tag	Current	
<b>Text field_13</b>				
Type	Text field	Name	Text field_13	X position
Y position	312	Width	128	Height
Layer	0 - Layer_0	Font	Arial Narrow, 36px, style=Bold	Text
<b>Text field_14</b>				
Type	Text field	Name	Text field_14	X position
Y position	314	Width	49	Height
Layer	0 - Layer_0	Font	Arial Narrow, 36px, style=Bold	Text
<b>Text field_15</b>				
Type	Text field	Name	Text field_15	X position
				47

Totally Integrated Automation Portal					
Y position	381	Width	136	Height	46
Layer	0 - Layer_0	Font	Arial Narrow, 36px, style=Bold	Text	Interlock:
<b>Text field_16</b>					
Type	Text field	Name	Text field_16	X position	188
Y position	379	Width	183	Height	47
Layer	0 - Layer_0	Font	Tahoma, 36px, style=Bold	Text	ENGAGED
<b>Dynamizations\Visibility</b>					
Tag - Cycle	Station_interlock -	Data type	Single bit	Specifies the bit to monitor.	0
Visibility	Visible				

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Screen management

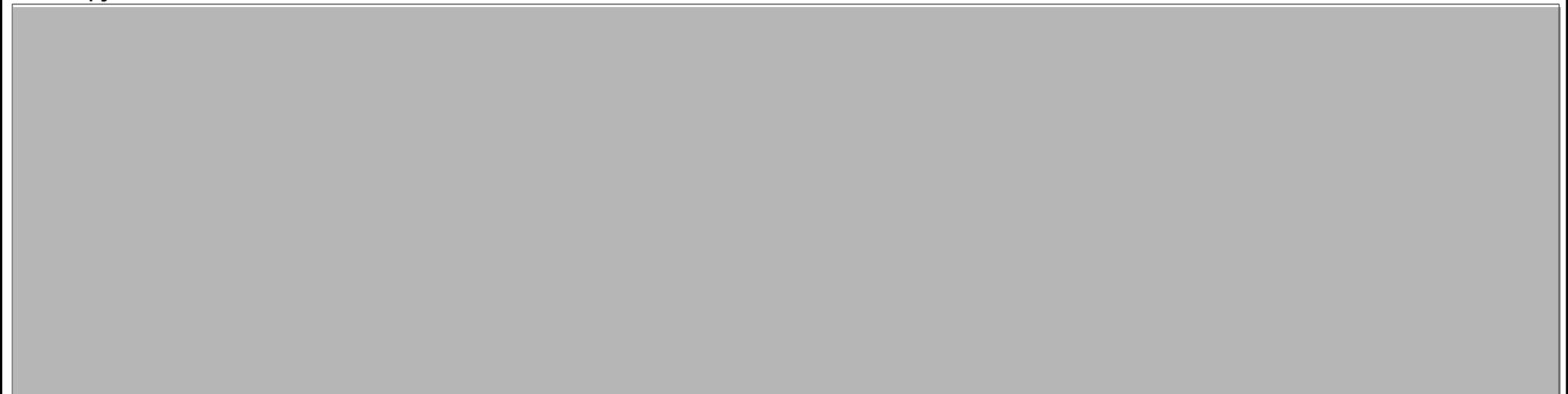
### Templates

This folder is empty.

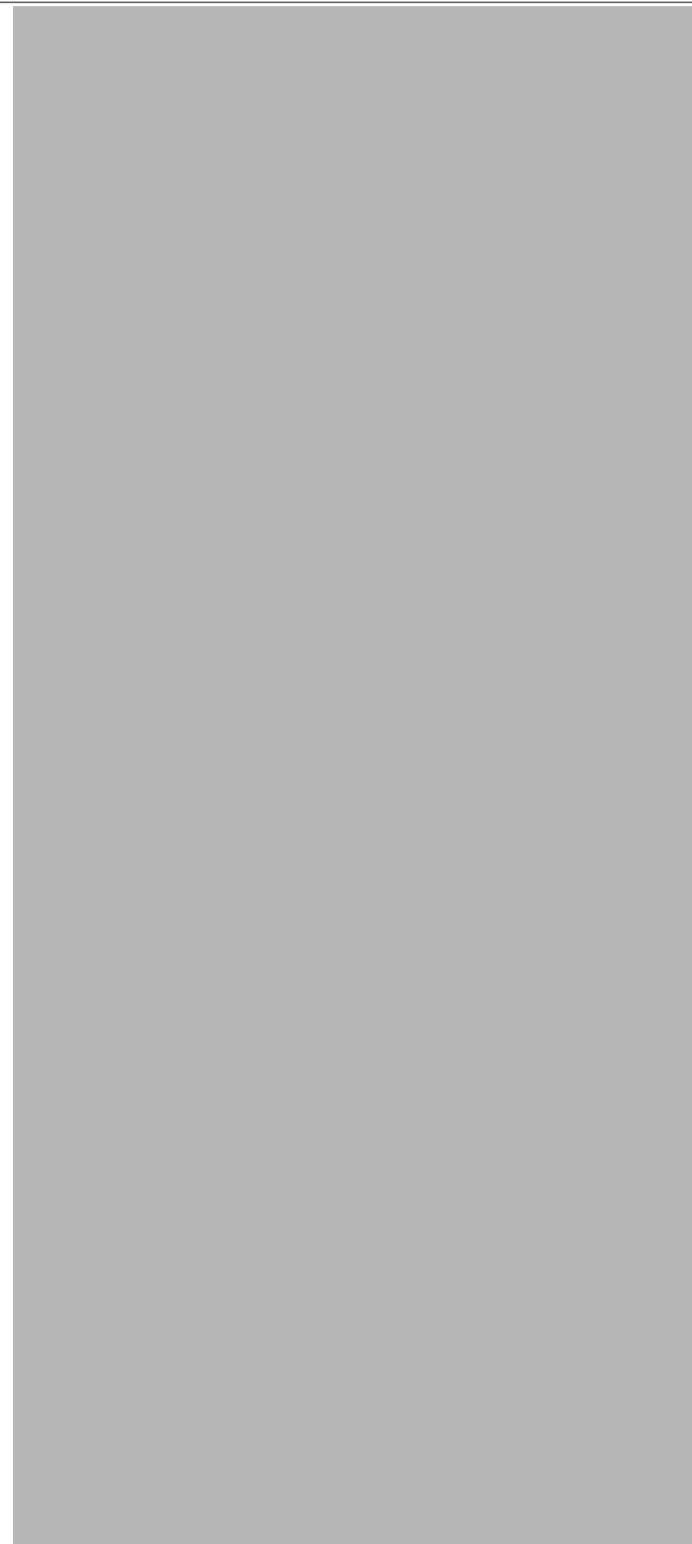
## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Screen management

### Pop-up screens

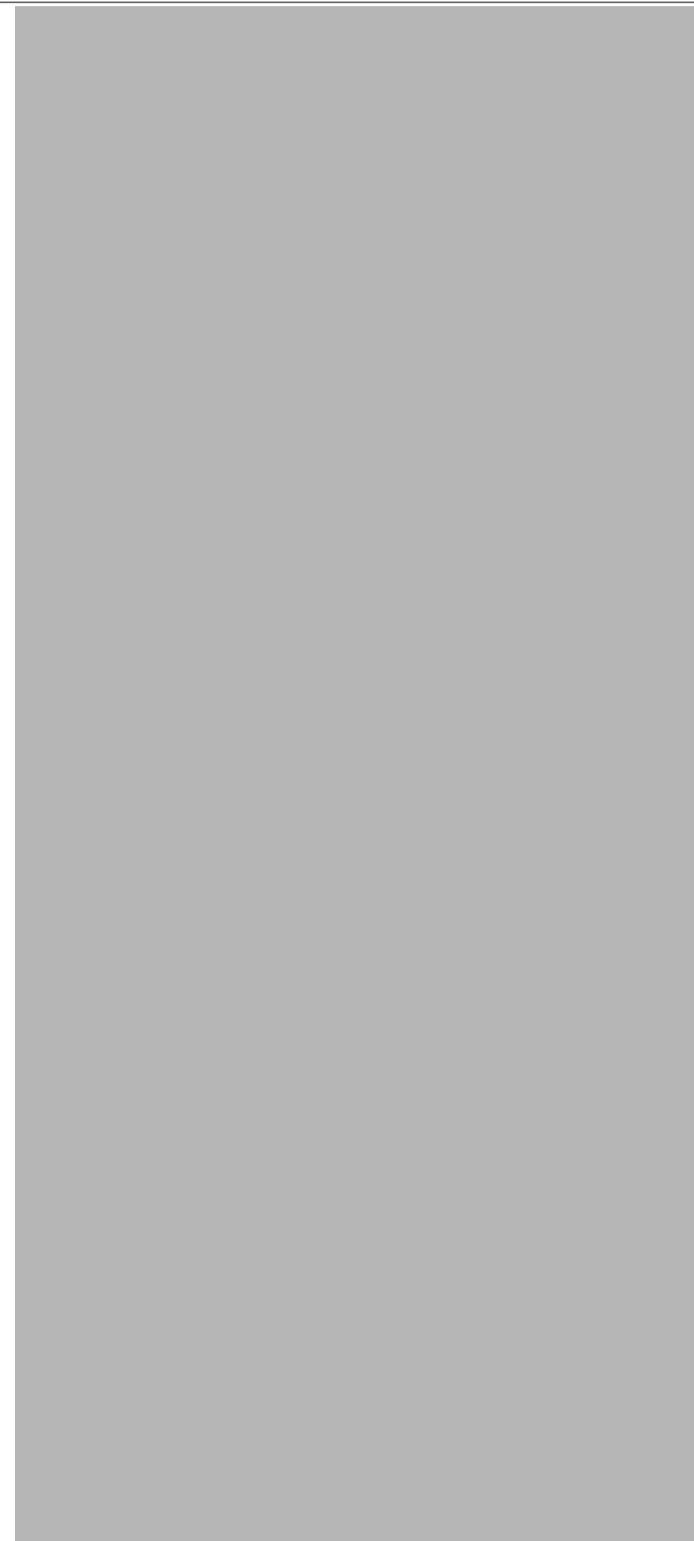
This folder is empty.

**Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] /  
Screen management / Slide-in screens****Slide-in screen bottom****Hardcopy of Slide-in screen bottom**

Name	Slide-in screen bottom	Activate slide-in screen	Disabled	Width	1024
Height	256	Active layer	0		

**Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] /  
Screen management / Slide-in screens****Slide-in screen left****Hardcopy of Slide-in screen left**

Name	Slide-in screen left	Activate slide-in screen	Disabled	Width	341
Height	768	Active layer	0		

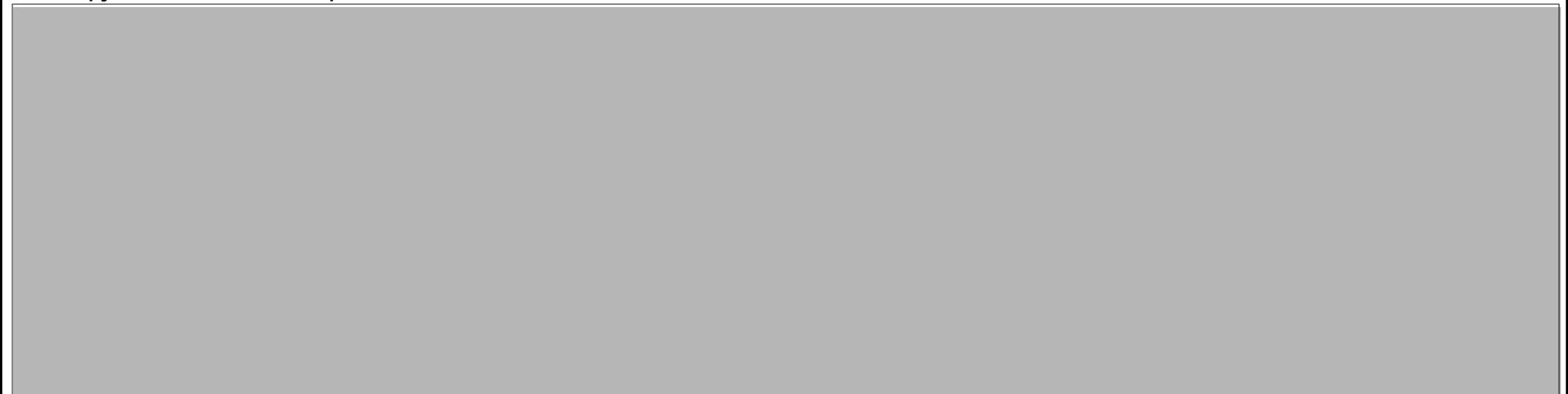
**Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] /  
Screen management / Slide-in screens****Slide-in screen right****Hardcopy of Slide-in screen right**

Name	Slide-in screen right	Activate slide-in screen	Disabled	Width	341
Height	768	Active layer	0		

Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] /  
Screen management / Slide-in screens

Slide-in screen top

Hardcopy of Slide-in screen top



Name	Slide-in screen top	Activate slide-in screen	Disabled	Width	1024
Height	256	Active layer	0		

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Screen management

### Global screen

Hardcopy of Global screen



Name	Global screen	Background color	182, 182, 182	Grid color	0, 0, 0
------	---------------	------------------	---------------	------------	---------

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Screen management

### Permanent area

Name	Permanent area	Background color	182, 182, 182	Grid color	0, 0, 0
Height	0	Active layer	0		

Totally Integrated Automation Portal		
--------------------------------------	--	--

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / HMI tags

### Default tag table [84]

#### StartSequencePB

Name	StartSequencePB	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### StartSequencePB

#### System\_Stop\_PB

Name	System_Stop_PB	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### System\_Stop\_PB

#### Alarm\_for\_E\_Stop

Name	Alarm_for_E_Stop	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### Alarm\_for\_E\_Stop

#### Alarm\_for\_Brake\_failure

Name	Alarm_for_Brake_failure	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### Alarm\_for\_Brake\_failure

#### Alarm\_for\_High\_temp

Name	Alarm_for_High_temp	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### Alarm\_for\_High\_temp

#### Alarm\_for\_LOW\_OIL

Name	Alarm_for_LOW_OIL	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### Alarm\_for\_LOW\_OIL

#### Alarm\_for\_Oil\_High\_Flow

Name	Alarm_for_Oil_High_Flow	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### Alarm\_for\_Oil\_High\_Flow

#### Alarm\_for\_Over\_Current

Name	Alarm_for_Over_Current	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### Alarm\_for\_Over\_Current

#### Alarm\_for\_Rotor\_over\_speed

Name	Alarm_for_Rotor_over_speed	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### Alarm\_for\_Rotor\_over\_speed

#### Alarm\_HAND\_PB

Name	Alarm_HAND_PB	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### Alarm\_HAND\_PB

#### Alarm\_HOA

Name	Alarm_HOA	Display name		Address	
Connection	1500	Data type	Int	Length	2

#### Alarm\_HOA

#### Alarm\_OFF\_PB

Name	Alarm_OFF_PB	Display name		Address	
Connection	1500	Data type	Bool	Length	1

#### Alarm\_OFF\_PB

#### Alarm\_reset

Name	Alarm_reset	Display name		Address	
Connection	1500	Data type	Bool	Length	1

Totally Integrated Automation Portal		
<b>Alarm_Reset</b>		
<b>Baffle_Out</b>		
Name	Baffle_Out	Display name
Connection	1500	Data type
<b>Baffle_Out</b>		
<b>Baffle_AUTO_PB</b>		
Name	Baffle_AUTO_PB	Display name
Connection	1500	Data type
<b>Baffle_AUTO_PB</b>		
<b>Baffle_HAND_PB</b>		
Name	Baffle_HAND_PB	Display name
Connection	1500	Data type
<b>Baffle_HAND_PB</b>		
<b>Baffle_HOA</b>		
Name	Baffle_HOA	Display name
Connection	1500	Data type
<b>Baffle_HOA</b>		
<b>Baffle_Manual</b>		
Name	Baffle_Manual	Display name
Connection	1500	Data type
<b>Baffle_Manual</b>		
<b>Baffle_OFF_PB</b>		
Name	Baffle_OFF_PB	Display name
Connection	1500	Data type
<b>Baffle_OFF_PB</b>		
<b>Brake_AUTO_PB</b>		
Name	Brake_AUTO_PB	Display name
Connection	1500	Data type
<b>Brake_AUTO_PB</b>		
<b>Brake_HAND_PB</b>		
Name	Brake_HAND_PB	Display name
Connection	1500	Data type
<b>Brake_HAND_PB</b>		
<b>Brake_OFF_PB</b>		
Name	Brake_OFF_PB	Display name
Connection	1500	Data type
<b>Brake_OFF_PB</b>		
<b>Brake_Out</b>		
Name	Brake_Out	Display name
Connection	1500	Data type
<b>Brake_Out</b>		
<b>Brake_Out_CTRL</b>		
Name	Brake_Out_CTRL	Display name
Connection	1500	Data type
<b>Brake_Out_CTRL</b>		
<b>Brake_Out_HOA</b>		
Name	Brake_Out_HOA	Display name
Connection	1500	Data type
<b>Brake_Out_HOA</b>		
<b>Station_interlock_HAND_PB</b>		
Name	Station_interlock_HAND_PB	Display name
Connection	1500	Data type

Totally Integrated Automation Portal		
<b>Station_interlock_HAND_PB</b>		
<b>Station_Interlock_HOA</b>		
Name	Station_Interlock_HOA	Display name
Connection	1500	Data type
Int		Address
		Length
		2
<b>Station_Interlock_HOA</b>		
<b>Station_interlock_OFF_PB</b>		
Name	Station_interlock_OFF_PB	Display name
Connection	1500	Data type
Bool		Address
		Length
		1
<b>Station_interlock_OFF_PB</b>		
<b>Station_interlock_AUTO_PB</b>		
Name	Station_interlock_AUTO_PB	Display name
Connection	1500	Data type
Bool		Address
		Length
		1
<b>Station_interlock_AUTO_PB</b>		
<b>Station_interlock</b>		
Name	Station_interlock	Display name
Connection	1500	Data type
Bool		Address
		Length
		1
<b>Station_interlock</b>		
<b>VFD_HOA</b>		
Name	VFD_HOA	Display name
Connection	1500	Data type
Int		Address
		Length
		2
<b>VFD_HOA</b>		
<b>VFDHOA_AUTO_PB</b>		
Name	VFDHOA_AUTO_PB	Display name
Connection	1500	Data type
Bool		Address
		Length
		1
<b>VFDHOA_AUTO_PB</b>		
<b>VFDHOA_HAND_PB</b>		
Name	VFDHOA_HAND_PB	Display name
Connection	1500	Data type
Bool		Address
		Length
		1
<b>VFDHOA_HAND_PB</b>		
<b>VFDHOA_OFF_PB</b>		
Name	VFDHOA_OFF_PB	Display name
Connection	1500	Data type
Bool		Address
		Length
		1
<b>VFDHOA_OFF_PB</b>		
<b>Notify_reset</b>		
Name	Notify_reset	Display name
Connection	1500	Data type
Bool		Address
		Length
		1
<b>Notify_reset</b>		
<b>Fault_Mode</b>		
Name	Fault_Mode	Display name
Connection	1500	Data type
Bool		Address
		Length
		1
<b>Fault_Mode</b>		
<b>HighOilTempDelaySP</b>		
Name	HighOilTempDelaySP	Display name
Connection	1500	Data type
Int		Address
		Length
		2
<b>HighOilTempDelaySP</b>		
<b>HM_Days</b>		
Name	HM_Days	Display name
Connection	1500	Data type
Int		Address
		Length
		2
<b>HM_Days</b>		
<b>HM_Hours</b>		
Name	HM_Hours	Display name
Connection	1500	Data type
Int		Address
		Length
		2

Totally Integrated Automation Portal		
<b>HM_Hours</b>		
<b>HM_Minutes</b>		
Name	HM_Minutes	Display name
Connection	1500	Data type
<b>HM_Minutes</b>		
<b>ModelInt</b>		
Name	ModelInt	Display name
Connection	1500	Data type
<b>ModelInt</b>		
<b>OverCurrenDelaytSP</b>		
Name	OverCurrenDelaytSP	Display name
Connection	1500	Data type
<b>OverCurrenDelaytSP</b>		
<b>OilHighFlowSP</b>		
Name	OilHighFlowSP	Display name
Connection	1500	Data type
<b>OilHighFlowSP</b>		
<b>OilLowFlowDelaySP</b>		
Name	OilLowFlowDelaySP	Display name
Connection	1500	Data type
<b>OilLowFlowDelaySP</b>		
<b>RotorOverSpeedSP</b>		
Name	RotorOverSpeedSP	Display name
Connection	1500	Data type
<b>RotorOverSpeedSP</b>		
<b>WarmUpOilTemp</b>		
Name	WarmUpOilTemp	Display name
Connection	1500	Data type
<b>WarmUpOilTempSp</b>		
<b>CoolDownlDelaySp</b>		
Name	CoolDownlDelaySp	Display name
Connection	1500	Data type
<b>CoolDownlDelaySp</b>		
<b>CoolDownOilTemp</b>		
Name	CoolDownOilTemp	Display name
Connection	1500	Data type
<b>CoolDownOilTempSp</b>		
<b>StabilizeDealysP</b>		
Name	StabilizeDealysP	Display name
Connection	1500	Data type
<b>StabilizeDealysP</b>		
<b>Alarm_horn_Q</b>		
Name	Alarm_horn_Q	Display name
Connection	1500	Data type
<b>Alarm_horn_Q</b>		
<b>ManualBaffle_SP</b>		
Name	ManualBaffle_SP	Display name
Connection	1500	Data type
<b>ManualBaffle_SP</b>		
<b>ManualVFD_SP</b>		
Name	ManualVFD_SP	Display name
Connection	1500	Data type

Totally Integrated Automation Portal		
<b>ManualVFD_SP</b>		
<b>Alarm_HighOilTemp_int</b>		
Name	Alarm_HighOilTemp_int	Display name
Connection	1500	Data type
Address		Length
		2
<b>Alarm_HighOilTemp_int</b>		
<b>Alarm_LowOilFlow_int</b>		
Name	Alarm_LowOilFlow_int	Display name
Connection	1500	Data type
Address		Length
		2
<b>Alarm_LowOilFlow_int</b>		
<b>Alarm_HighOilFlow_int</b>		
Name	Alarm_HighOilFlow_int	Display name
Connection	1500	Data type
Address		Length
		2
<b>Alarm_HighOilFlow_int</b>		
<b>Alarm_OverCurrent_int</b>		
Name	Alarm_OverCurrent_int	Display name
Connection	1500	Data type
Address		Length
		2
<b>Alarm_OverCurrent_int</b>		
<b>Alarm_RotorOverSpeed_int</b>		
Name	Alarm_RotorOverSpeed_int	Display name
Connection	1500	Data type
Address		Length
		2
<b>Alarm_RotorOverSpeed_int</b>		
<b>Alarm_BrakeFailure_int</b>		
Name	Alarm_BrakeFailure_int	Display name
Connection	1500	Data type
Address		Length
		2
<b>Alarm_BrakeFailure_int</b>		
<b>Alarm_EStop_int</b>		
Name	Alarm_EStop_int	Display name
Connection	1500	Data type
Address		Length
		2
<b>Alarm_EStop_int</b>		
<b>ProgramLanguage</b>		
Name	ProgramLanguage	Display name
Connection	1500	Data type
Address		Length
		2
<b>Program_lang</b>		
<b>LADpb</b>		
Name	LADpb	Display name
Connection	1500	Data type
Address		Length
		1
<b>PB_LAD</b>		
<b>FBDpb</b>		
Name	FBDpb	Display name
Connection	1500	Data type
Address		Length
		1
<b>PB_FBD</b>		
<b>SCLpb</b>		
Name	SCLpb	Display name
Connection	1500	Data type
Address		Length
		1
<b>PB_SCL</b>		
<b>STLpb</b>		
Name	STLpb	Display name
Connection	1500	Data type
Address		Length
		1
<b>PB_STL</b>		
<b>Current</b>		
Name	Current	Display name
Connection	1500	Data type
Address		Length
		2

Totally Integrated Automation Portal		
<b>Current_flow</b>		
<b>Oil Flow</b>		
Name	Oil Flow	Display name
Connection	1500	Data type
Address		Length
		2
<b>Oil_flow</b>		
<b>Oil temp</b>		
Name	Oil temp	Display name
Connection	1500	Data type
Address		Length
		2
<b>Oil_temp</b>		
<b>BrakeFailuredelay</b>		
Name	BrakeFailuredelay	Display name
Connection	1500	Data type
Address		Length
		2
<b>BrakeFailureSP</b>		
<b>Rpm_sp</b>		
Name	Rpm sp	Display name
Connection	1500	Data type
Address		Length
		2
<b>Rotor_Over_SpeedSp</b>		
<b>OverSpeedSP</b>		
Name	OverSpeedSP	Display name
Connection	1500	Data type
Address		Length
		2
<b>RotorOverSpeedSP</b>		
<b>Warmup delay</b>		
Name	Warmup delay	Display name
Connection	1500	Data type
Address		Length
		2
<b>WarmUpOilDelaySp</b>		
<b>AlarmAuto_Pb</b>		
Name	AlarmAuto_Pb	Display name
Connection	1500	Data type
Address		Length
		1
<b>Alarm_AUTO_PB</b>		
<b>RPM</b>		
Name	RPM	Display name
Connection	1500	Data type
Address		Length
		2
<b>rotor_rpm</b>		
<b>OilPct</b>		
Name	OilPct	Display name
Connection	1500	Data type
Address		Length
		2
<b>Oil_pump_vfd_per</b>		
<b>baffle</b>		
Name	baffle	Display name
Connection	1500	Data type
Address		Length
		2
<b>Baffle_per</b>		
<b>brakeEN</b>		
Name	brakeEN	Display name
Connection	1500	Data type
Address		Length
		1
<b>Brake_Out</b>		
<b>InterlockEN</b>		
Name	InterlockEN	Display name
Connection	1500	Data type
Address		Length
		1
<b>Station_interlock</b>		
<b>HM reset</b>		
Name	HM reset	Display name
Connection	1500	Data type
Address		Length
		1

Totally Integrated Automation Portal														
<b>Reset_HM_PB</b>														
<b>currentdealy</b>														
<table border="1"> <tr> <td>Name</td><td>currentdealy</td><td>Display name</td><td></td><td>Address</td><td></td></tr> <tr> <td>Connection</td><td>1500</td><td>Data type</td><td>Int</td><td>Length</td><td>2</td></tr> </table>			Name	currentdealy	Display name		Address		Connection	1500	Data type	Int	Length	2
Name	currentdealy	Display name		Address										
Connection	1500	Data type	Int	Length	2									
<b>OverCurrenDelaytSP</b>														
<b>high oil temp sp</b>														
<table border="1"> <tr> <td>Name</td><td>high oil temp sp</td><td>Display name</td><td></td><td>Address</td><td></td></tr> <tr> <td>Connection</td><td>1500</td><td>Data type</td><td>Int</td><td>Length</td><td>2</td></tr> </table>			Name	high oil temp sp	Display name		Address		Connection	1500	Data type	Int	Length	2
Name	high oil temp sp	Display name		Address										
Connection	1500	Data type	Int	Length	2									
<b>High_Oil_TempSp</b>														
<b>low oil flow sp</b>														
<table border="1"> <tr> <td>Name</td><td>low oil flow sp</td><td>Display name</td><td></td><td>Address</td><td></td></tr> <tr> <td>Connection</td><td>1500</td><td>Data type</td><td>Int</td><td>Length</td><td>2</td></tr> </table>			Name	low oil flow sp	Display name		Address		Connection	1500	Data type	Int	Length	2
Name	low oil flow sp	Display name		Address										
Connection	1500	Data type	Int	Length	2									
<b>Oil_lowSp</b>														
<b>curent sp</b>														
<table border="1"> <tr> <td>Name</td><td>curent sp</td><td>Display name</td><td></td><td>Address</td><td></td></tr> <tr> <td>Connection</td><td>1500</td><td>Data type</td><td>Int</td><td>Length</td><td>2</td></tr> </table>			Name	curent sp	Display name		Address		Connection	1500	Data type	Int	Length	2
Name	curent sp	Display name		Address										
Connection	1500	Data type	Int	Length	2									
<b>Over_currentSp</b>														
<b>high oil flow sp</b>														
<table border="1"> <tr> <td>Name</td><td>high oil flow sp</td><td>Display name</td><td></td><td>Address</td><td></td></tr> <tr> <td>Connection</td><td>1500</td><td>Data type</td><td>Int</td><td>Length</td><td>2</td></tr> </table>			Name	high oil flow sp	Display name		Address		Connection	1500	Data type	Int	Length	2
Name	high oil flow sp	Display name		Address										
Connection	1500	Data type	Int	Length	2									
<b>Oil_highSp</b>														

**Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced]****Connections****1500**

Name	1500	Communication driver	SIMATIC S7 1500	Comment

Totally Integrated Automation Portal														
<b>Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI_RT_1 [WinCC RT Advanced] / HMI alarms</b>														
<b>Discrete alarms</b>														
<b>Brake Failure</b>														
<table border="1"> <tr> <td>Name</td><td>Brake Failure</td><td>ID</td><td>7</td><td>Alarm class</td><td>Errors</td></tr> <tr> <td>Alarm text</td><td>Brake Failure Alert</td><td>Alarm group</td><td>&lt;No alarm group&gt;</td><td></td><td></td></tr> </table>			Name	Brake Failure	ID	7	Alarm class	Errors	Alarm text	Brake Failure Alert	Alarm group	<No alarm group>		
Name	Brake Failure	ID	7	Alarm class	Errors									
Alarm text	Brake Failure Alert	Alarm group	<No alarm group>											
<b>Alarm_BrakeFailure_int</b>														
<b>ESTOP</b>														
<table border="1"> <tr> <td>Name</td><td>ESTOP</td><td>ID</td><td>1</td><td>Alarm class</td><td>Errors</td></tr> <tr> <td>Alarm text</td><td>EStop Activated</td><td>Alarm group</td><td>&lt;No alarm group&gt;</td><td></td><td></td></tr> </table>			Name	ESTOP	ID	1	Alarm class	Errors	Alarm text	EStop Activated	Alarm group	<No alarm group>		
Name	ESTOP	ID	1	Alarm class	Errors									
Alarm text	EStop Activated	Alarm group	<No alarm group>											
<b>Alarm_EStop_int</b>														
<b>High Temp</b>														
<table border="1"> <tr> <td>Name</td><td>High Temp</td><td>ID</td><td>4</td><td>Alarm class</td><td>Errors</td></tr> <tr> <td>Alarm text</td><td>High Oil Temperature Alert</td><td>Alarm group</td><td>&lt;No alarm group&gt;</td><td></td><td></td></tr> </table>			Name	High Temp	ID	4	Alarm class	Errors	Alarm text	High Oil Temperature Alert	Alarm group	<No alarm group>		
Name	High Temp	ID	4	Alarm class	Errors									
Alarm text	High Oil Temperature Alert	Alarm group	<No alarm group>											
<b>Alarm_HighOilTemp_int</b>														
<b>Low Oil</b>														
<table border="1"> <tr> <td>Name</td><td>Low Oil</td><td>ID</td><td>2</td><td>Alarm class</td><td>Errors</td></tr> <tr> <td>Alarm text</td><td>Low Oil Flow Alert</td><td>Alarm group</td><td>&lt;No alarm group&gt;</td><td></td><td></td></tr> </table>			Name	Low Oil	ID	2	Alarm class	Errors	Alarm text	Low Oil Flow Alert	Alarm group	<No alarm group>		
Name	Low Oil	ID	2	Alarm class	Errors									
Alarm text	Low Oil Flow Alert	Alarm group	<No alarm group>											
<b>Alarm_LowOilFlow_int</b>														
<b>Oil High Flow</b>														
<table border="1"> <tr> <td>Name</td><td>Oil High Flow</td><td>ID</td><td>6</td><td>Alarm class</td><td>Errors</td></tr> <tr> <td>Alarm text</td><td>High Oil Flow Alert</td><td>Alarm group</td><td>&lt;No alarm group&gt;</td><td></td><td></td></tr> </table>			Name	Oil High Flow	ID	6	Alarm class	Errors	Alarm text	High Oil Flow Alert	Alarm group	<No alarm group>		
Name	Oil High Flow	ID	6	Alarm class	Errors									
Alarm text	High Oil Flow Alert	Alarm group	<No alarm group>											
<b>Alarm_HighOilFlow_int</b>														
<b>Over Current</b>														
<table border="1"> <tr> <td>Name</td><td>Over Current</td><td>ID</td><td>3</td><td>Alarm class</td><td>Errors</td></tr> <tr> <td>Alarm text</td><td>Over Current Alert</td><td>Alarm group</td><td>&lt;No alarm group&gt;</td><td></td><td></td></tr> </table>			Name	Over Current	ID	3	Alarm class	Errors	Alarm text	Over Current Alert	Alarm group	<No alarm group>		
Name	Over Current	ID	3	Alarm class	Errors									
Alarm text	Over Current Alert	Alarm group	<No alarm group>											
<b>Alarm_OverCurrent_int</b>														
<b>Rotor Over Speed</b>														
<table border="1"> <tr> <td>Name</td><td>Rotor Over Speed</td><td>ID</td><td>5</td><td>Alarm class</td><td>Errors</td></tr> <tr> <td>Alarm text</td><td>Over Speed RPM Alert</td><td>Alarm group</td><td>&lt;No alarm group&gt;</td><td></td><td></td></tr> </table>			Name	Rotor Over Speed	ID	5	Alarm class	Errors	Alarm text	Over Speed RPM Alert	Alarm group	<No alarm group>		
Name	Rotor Over Speed	ID	5	Alarm class	Errors									
Alarm text	Over Speed RPM Alert	Alarm group	<No alarm group>											
<b>Alarm_RotorOverSpeed_int</b>														

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / HMI alarms

### Analog alarms

This folder is empty.

Totally Integrated Automation Portal		
<b>Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI_RT_1 [WinCC RT Advanced] / HMI alarms</b>		
<b>Alarm groups</b>		
<b>Alarm_group_1</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_1
<b>ID</b>		1
<b>Alarm_group_10</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_10
<b>ID</b>		10
<b>Alarm_group_11</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_11
<b>ID</b>		11
<b>Alarm_group_12</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_12
<b>ID</b>		12
<b>Alarm_group_13</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_13
<b>ID</b>		13
<b>Alarm_group_14</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_14
<b>ID</b>		14
<b>Alarm_group_15</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_15
<b>ID</b>		15
<b>Alarm_group_16</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_16
<b>ID</b>		16
<b>Alarm_group_2</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_2
<b>ID</b>		2
<b>Alarm_group_3</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_3
<b>ID</b>		3
<b>Alarm_group_4</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_4
<b>ID</b>		4
<b>Alarm_group_5</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_5
<b>ID</b>		5
<b>Alarm_group_6</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_6
<b>ID</b>		6
<b>Alarm_group_7</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_7
<b>ID</b>		7
<b>Alarm_group_8</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_8
<b>ID</b>		8
<b>Alarm_group_9</b>		
<b>Subtype</b>	Alarm group	<b>Name</b>
		Alarm_group_9
<b>ID</b>		9

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / HMI alarms

### Alarm classes

#### Acknowledgement

Name	Acknowledgement	Display name	A	ID	33
Alarm log	<No log>				

#### Diagnosis events

Name	Diagnosis events	Display name	S7	ID	4
Alarm log	<No log>				

#### Errors

Name	Errors	Display name	!	ID	1
Alarm log	<No log>				

#### No Acknowledgement

Name	No Acknowledgement	Display name	NA	ID	34
Alarm log	<No log>				

#### System

Name	System	Display name	\$	ID	3
Alarm log	<No log>				

#### Warnings

Name	Warnings	Display name		ID	2
Alarm log	<No log>				

Totally Integrated Automation Portal		
<b>Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI_RT_1 [WinCC RT Advanced] / HMI alarms</b>		
<b>Controller alarms</b>		
<b>STEP_TIME_ALARM_INST</b>		
Object name	STEP_TIME_ALARM_INST	ID
		55
<b>IL_ALARM_INST</b>		
Object name	IL_ALARM_INST	ID
		53
<b>SUP_ALARM_INST</b>		
Object name	SUP_ALARM_INST	ID
		54
<b>SDIAG_ALCAT_SUBMODUL_MSG_0102</b>		
Object name	SDIAG_ALCAT_SUBMODUL_MSG_0102	ID
		30
<b>SDIAG_ALCAT_MODUL_MSG_0103</b>		
Object name	SDIAG_ALCAT_MODUL_MSG_0103	ID
		31
<b>SDIAG_ALCAT_RACK_MSG_0104</b>		
Object name	SDIAG_ALCAT_RACK_MSG_0104	ID
		32
<b>SDIAG_ALCAT_DEVICE_MSG_0105</b>		
Object name	SDIAG_ALCAT_DEVICE_MSG_0105	ID
		33
<b>SDIAG_ALCAT_IOSYSTEM_MSG_0106</b>		
Object name	SDIAG_ALCAT_IOSYSTEM_MSG_0106	ID
		34
<b>SDIAG_ALCAT_CPU_OST_MSG_010D</b>		
Object name	SDIAG_ALCAT_CPU_OST_MSG_010D	ID
		35
<b>SDIAG_ALCAT_CPU_ERR_MSG_0110</b>		
Object name	SDIAG_ALCAT_CPU_ERR_MSG_0110	ID
		36
<b>SDIAG_ALCAT_CPU_MD_MSG_0111</b>		
Object name	SDIAG_ALCAT_CPU_MD_MSG_0111	ID
		37
<b>SDIAG_ALCAT_CPU_MR_MSG1_0112</b>		
Object name	SDIAG_ALCAT_CPU_MR_MSG1_0112	ID
		38
<b>SDIAG_ALCAT_CH_ERR_MSG_0115</b>		
Object name	SDIAG_ALCAT_CH_ERR_MSG_0115	ID
		39
<b>SDIAG_ALCAT_ECH_ERR_MSG_0116</b>		
Object name	SDIAG_ALCAT_ECH_ERR_MSG_0116	ID
		40
<b>SDIAG_ALCAT_CH_MD_MSG_0118</b>		
Object name	SDIAG_ALCAT_CH_MD_MSG_0118	ID
		41
<b>SDIAG_ALCAT_ECH_MD_MSG_0119</b>		
Object name	SDIAG_ALCAT_ECH_MD_MSG_0119	ID
		42
<b>SDIAG_ALCAT_CH_MR_MSG_011B</b>		
Object name	SDIAG_ALCAT_CH_MR_MSG_011B	ID
		43
<b>SDIAG_ALCAT_ECH_MR_MSG_011C</b>		
Object name	SDIAG_ALCAT_ECH_MR_MSG_011C	ID
		44
<b>SDIAG_ALCAT_SUB_ERR_MSG_011E</b>		
Object name	SDIAG_ALCAT_SUB_ERR_MSG_011E	ID
		45
<b>SDIAG_ALCAT_ESUB_ERR_MSG_011F</b>		
Object name	SDIAG_ALCAT_ESUB_ERR_MSG_011F	ID
		46
<b>SDIAG_ALCAT_SUB_MD_MSG_0121</b>		
Object name	SDIAG_ALCAT_SUB_MD_MSG_0121	ID
		47
<b>SDIAG_ALCAT_ESUB_MD_MSG_0122</b>		
Object name	SDIAG_ALCAT_ESUB_MD_MSG_0122	ID
		48
<b>SDIAG_ALCAT_SUB_MR_MSG_0124</b>		
Object name	SDIAG_ALCAT_SUB_MR_MSG_0124	ID
		49

Totally Integrated Automation Portal		
<b>SDIAG_ALCAT_ESUB_MR_MSG_0125</b>		
Object name	SDIAG_ALCAT_ESUB_MR_MSG_0125	ID 50
<b>SDIAG_ALCAT_CONFIG_INFO_0128</b>		
Object name	SDIAG_ALCAT_CONFIG_INFO_0128	ID 51
<b>SDIAG_ALCAT_PLA_MSG_01FF</b>		
Object name	SDIAG_ALCAT_PLA_MSG_01FF	ID 52

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / HMI alarms

### System events

This folder is empty.

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced]

### Recipes

This folder is empty.

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Historical data

### Datalogs

This folder is empty.

Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] /  
Historical data

**AlarmLogs**

This folder is empty.

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Scripts

### VB scripts

This folder is empty.

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced]

### Scheduled tasks

This folder is empty.

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced]

### Cycles

1 h

Name	1 h	Cycle time	1	Cycle unit	hours
------	-----	------------	---	------------	-------

1 min

Name	1 min	Cycle time	1	Cycle unit	minutes
------	-------	------------	---	------------	---------

1 s

Name	1 s	Cycle time	1	Cycle unit	seconds
------	-----	------------	---	------------	---------

10 min

Name	10 min	Cycle time	10	Cycle unit	minutes
------	--------	------------	----	------------	---------

10 s

Name	10 s	Cycle time	10	Cycle unit	seconds
------	------	------------	----	------------	---------

100 ms

Name	100 ms	Cycle time	100	Cycle unit	milliseconds
------	--------	------------	-----	------------	--------------

2 s

Name	2 s	Cycle time	2	Cycle unit	seconds
------	-----	------------	---	------------	---------

5 min

Name	5 min	Cycle time	5	Cycle unit	minutes
------	-------	------------	---	------------	---------

5 s

Name	5 s	Cycle time	5	Cycle unit	seconds
------	-----	------------	---	------------	---------

500 ms

Name	500 ms	Cycle time	500	Cycle unit	milliseconds
------	--------	------------	-----	------------	--------------

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced]

### Reports

This folder is empty.

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Text and graphic lists

### Text lists

This folder is empty.

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / Text and graphic lists

### Graphic lists

This folder is empty.

Totally Integrated Automation Portal		
---	--	--

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / User administration

### User

#### Administrator

Name	Administrator	Number	1	Automatic logoff	Enabled
Logoff time	5	Groups	Administrator group;		

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI\_RT\_1 [WinCC RT Advanced] / User administration

### Groups

#### Administrator group

Name	Administrator group	Display name	Administrator group	Number
Authorizations	User administration; Monitor; Operate;			1
Name	Users	Display name	Users	Number
Authorizations	Operate;			2

### Users

Name	Users	Display name	Users	Number
Authorizations	Operate;			2

Totally Integrated Automation Portal		
<b>Hydroelectric Power Plant / PC station [SIMATIC PC station] / HMI_RT_1 [WinCC RT Advanced] / User administration</b>		
<b>Authorizations</b>		
<b>Monitor</b>		
Name	Monitor	Authorization
Monitor		
<b>Operate</b>		
Name	Operate	Authorization
Operate		
<b>User administration</b>		
Name	User administration	Authorization
User administration		

## Hydroelectric Power Plant / PC station [SIMATIC PC station] / Local modules

### IE general\_1

#### IE general\_1

Name	IE general_1	Rack	0	Slot	2
Short designation	IE general	Article number	IE_CP	Software version	V6.2.1

## Hydroelectric Power Plant

### Ungrouped devices

This folder is empty.

## Hydroelectric Power Plant

### Security settings

This folder is empty.

## Hydroelectric Power Plant / Cross-device functions

### Safety Activation Test

This folder is empty.

## Hydroelectric Power Plant / Cross-device functions / Project traces

### Measurements

This folder is empty.

## Hydroelectric Power Plant / Cross-device functions / Long-term project traces

### Measurements

This folder is empty.

## Hydroelectric Power Plant / Common data / Alarm classes

### Alarm classes

#### Alarm classes

Name	ID	Display name	Acknowledgment	Priority
Acknowledgement	33	A	True	0
No Acknowledgement	34	NA	False	0

## Hydroelectric Power Plant / Common data

### Logs

This folder is empty.

## Hydroelectric Power Plant / Common data

### Styles

This folder is empty.

## Hydroelectric Power Plant / Common data

### Designs

[WinCC 3D](#)

[WinCC Classic](#)

[WinCC Dark](#)

[WinCC Glass](#)

[WinCC Light](#)

[WinCC Ocean](#)

[WinCC Retro](#)

[WinCC Simple](#)

Totally Integrated Automation Portal		
<h2>Hydroelectric Power Plant / Languages &amp; resources</h2>		
<h3>Project languages</h3>		
<p><b>Languages</b></p>		
<p><b>Reference language</b></p>		
English (United States)		
<p><b>Editing language</b></p>		
English (United States)		
<p><b>Other project languages</b></p>		
Empty		

Totally Integrated Automation Portal		
<b>Hydroelectric Power Plant / Languages &amp; resources / Project texts</b>		
<b>Project texts</b>		
<b>Project texts</b>		
English (United States)	<b>Category</b>	<b>Reference</b>
	Multilingual text category	Subcategory 1\Description
	Multilingual text category	Subcategory 2\Description
	Multilingual text category	Subcategory 3\Description
	Multilingual text category	Subcategory 4\Description
	Multilingual text category	Subcategory 5\Description
	Multilingual text category	Subcategory 6\Description
	Multilingual text category	Subcategory 7\Description
	Multilingual text category	Subcategory 8\Description
	Multilingual text category	Subcategory 9\Description
	Multilingual text category	Subcategory 10\Description
	Multilingual text category	Subcategory 11\Description
	Multilingual text category	Subcategory 12\Description
	Multilingual text category	Subcategory 13\Description
	Multilingual text category	Subcategory 14\Description
	Multilingual text category	Subcategory 15\Description
	Multilingual text category	Subcategory 16\Description
	Multilingual text category	Subcategory 1\Description
	Multilingual text category	Subcategory 2\Description
	Multilingual text category	Subcategory 3\Description
	Multilingual text category	Subcategory 4\Description
	Multilingual text category	Subcategory 5\Description
	Multilingual text category	Subcategory 6\Description
	Multilingual text category	Subcategory 7\Description
	Multilingual text category	Subcategory 8\Description
	Multilingual text category	Subcategory 9\Description
	Multilingual text category	Subcategory 10\Description
	Multilingual text category	Subcategory 11\Description
	Multilingual text category	Subcategory 12\Description
	Multilingual text category	Subcategory 13\Description
	Multilingual text category	Subcategory 14\Description
	Multilingual text category	Subcategory 15\Description
	Multilingual text category	Subcategory 16\Description
	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 1\Comment
	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Block comment
	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_FBD [FB15]\Block comment
	Alarm class text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Errors\alarmclass name not set\ShortName
	Alarm class text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Warnings\alarmclass name not set_1\ShortName
	Alarm class text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\System\alarmclass name not set_2\ShortName
	Alarm class text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Diagnosis events\alarmclass name not set_3\ShortName
	Alarm class text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Safety warnings\alarmclass name not set_4\ShortName
	Alarm class text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Acknowledgement\ShortName
	Alarm class text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\No Acknowledgement\ShortName
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_SupervisionAlarm-Texts638859434186731605_1\Range 1\Text
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_InterlockAlarm-Texts638859434186781586_1\Range 1\Text
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_SupervisionAlarm-Texts638859434186731605_1\Range 3\Text
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_InterlockAlarm-Texts638859434186781586_1\Range 3\Text
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_SupervisionAlarm-Texts638859434186731605_1\Range 4\Text
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_InterlockAlarm-Texts638859434186781586_1\Range 4\Text
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_SupervisionAlarm-Texts638859434186731605_1\Range 5\Text
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_InterlockAlarm-Texts638859434186781586_1\Range 5\Text
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_SupervisionAlarm-Texts638859434186731605_1\Range 2\Text
	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_SupervisionAlarm-Texts638859434186731605_1\Range 2\Text
	Other text category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Comment
	Other text category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Comment
	Other text category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionSubCategories1\Comment
	Other text category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionSubCategories2\Comment
	Other text category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_Step-Names638859434186043789_1\Comment
	Other text category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_SupervisionAlarm-Texts638859434186731605_1\Comment
	Other text category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_InterlockAlarm-Texts638859434186781586_1\Comment



Totally Integrated Automation Portal		
English (United States)	Category	Reference
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\SUP_ALARM_INST\Additional text 5
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\SUP_ALARM_INST\Additional text 6
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\SUP_ALARM_INST\Additional text 7
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\SUP_ALARM_INST\Additional text 8
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\SUP_ALARM_INST\Additional text 9
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Info text
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Additional text 1
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Additional text 2
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Additional text 3
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Additional text 4
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Additional text 5
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Additional text 6
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Additional text 7
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Additional text 8
	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Additional text 9
	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Warnings\alarmclass name not set_1\AlarmClassData_IDisplayNaming_DisplayName
	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Acknowledgement\AlarmClassData_IDisplayNaming_DisplayName
	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\No Acknowledgement\AlarmClassData_IDisplayNaming_DisplayName
	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Text field_7\Text
--	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionSubCategories1\Range 0\Text
--	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionSubCategories2\Range 0\Text
!	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Errors\alarmclass name not set\AlarmClassData_IDisplayNaming_DisplayName
!!	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Safety warnings\alarmclass name not set_4\AlarmClassData_IDisplayNaming_DisplayName
"Main Program Sweep (Cycle)"	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks>Main [OB1]\Block title
\$	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\System\alarmclass name not set_2\AlarmClassData_IDisplayNaming_DisplayName
<<NO ALARMS>>	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_14\Text field_17\Text
<<NO ALARMS>>	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Group_6\Text field_17\Text
A	Alarm class text	Hydroelectric Power Plant\Acknowledgement\AlarmClassData_IDisplayNaming_DisplayName
A	Alarm class text	Hydroelectric Power Plant\Acknowledgement\ShortName
A	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Errors\AcknowledgedText
A	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Warnings\AcknowledgedText
A	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\System\AcknowledgedText
A	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Diagnosis events\AcknowledgedText
A	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Safety warnings\AcknowledgedText
A	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Acknowledgement\AcknowledgedText
A	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\No Acknowledgement\AcknowledgedText
Acknowledge all errors and faults	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\ACK_EF
Action	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 104\Text
Action	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 204\Text
Action	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 304\Text
Action	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 404\Text
Action	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 504\Text
Action	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 604\Text
Action	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 704\Text
Action	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 804\Text
Activate step indicated in S_NO	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\\$_ON
Activates remote authorization for the use of client-server scenarios.	HMI comment	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Enable remote control\Comment
Administrator group	HMI runtime	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Administrator group\DisplayName
Alarm	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_3\Text OFF
Alarm	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Button_3\Text OFF

Totally Integrated Automation Portal		
<b>English (United States)</b>	<b>Category</b>	<b>Reference</b>
Alarm	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Button_3\Text OFF
Alarm	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Button_3\Text OFF
ALARM	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Group\Text field_1\Text
ALARM	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group\Text field_1\Text
ALARM	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group\Text field_1\Text
ALARM	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Group\Text field_1\Text
Alarm Control	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_LAD [FB10]\Network 8>Title
Alarm Controls	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_2\Text field_6\Text
Alarm for Brake Failure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_LAD [FB10]\Network 6>Title
Alarm for E_STOP	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_LAD [FB10]\Network 7>Title
Alarm for High Oil Temp	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_LAD [FB10]\Network 3>Title
Alarm for Oil High Flow	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_LAD [FB10]\Network 5>Title
Alarm for OIL LOW FLOW	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_LAD [FB10]\Network 1>Title
Alarm for OVER CURRENT	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_LAD [FB10]\Network 2>Title
Alarm for Rotor Over Speed	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_LAD [FB10]\Network 4>Title
Alarm Horn	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Text field_22\Text
Alarm horn Control	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_FBD [FB11]\Network 8>Title
Alarm Management	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Text field_3\Text
Alarm Reset	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_2\Button_6\Text OFF
Alarm Values	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_4\Text
Analog Input's	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\I/O LAD [FB2]\Network 3>Title
Analog Input's	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\I/O FBD [FB3]\Network 3>Title
Analog Output's	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\I/O LAD [FB2]\Network 2>Title
Analog Output's	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\I/O FBD [FB3]\Network 2>Title
Authorization 'User administration' for managing users in the user view in Runtime.	HMI comment	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\User administration\Comment
AUTO	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_7\Text OFF
AUTO	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_8\Text OFF
AUTO	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_13\Text OFF
AUTO	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_16\Text OFF
AUTO	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_19\Text OFF
Automatic mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\SW_AUTO
Automatic mode is active	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\AUTO_ON
Baffle	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Text field_25\Text
Baffle %	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Text field_4\Text
Baffle HOA	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\PID [OB30]\Network 3\Comment
Brake	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_10\Group_4\Text field_8\Text
Brake	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Text field_23\Text
Brake DisEngaged	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Group_4\Text field_8\Text
Brake Engaged	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Group_5\Text field_9\Text
Brake Failure Alert	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Brake Failure\Alarm text
Brake Failure Delay	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_5\Text
Brake_Failure_Alarm	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_FBD [FB11]\Network 6>Title
Category : Supervision type : PLC name : FB name : Step name : Step number : Step specific field	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\IL_ALARM_INST\Alarm text
Category : Supervision type : PLC name : FB name : Step name : Step number : Step specific field	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\SUP_ALARM_INST\Alarm text
Category : Supervision type : PLC name : FB name : Step name : Step number : Step specific field	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\STEP_TIME_ALARM_INST\Alarm text



Totally Integrated Automation Portal		
<b>English (United States)</b>	<b>Category</b>	<b>Reference</b>
Current (kW)	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_33\Text
Current (sp)	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_34\Text
Current :	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_13\Text
data for controling part	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC data types\System data types\PID_CompactControl>Title of the PLC data type
data for estimation of deviance	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC data types\System data types\PID_StandardDeviation>Title of the PLC data type
data for scaling	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC data types\System data types\PID_Scaling>Title of the PLC data type
data set for cycle time estimation	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC data types\System data types\PID_CycleTime>Title of the PLC data type
data set for self tuning	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC data types\System data types\PID_CompactSelfTune>Title of the PLC data type
data set for start up tuning	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC data types\System data types\PID_Compact_SUT>Title of the PLC data type
data set for tuning in run	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC data types\System data types\PID_Compact_TIR>Title of the PLC data type
dataset of parameters for gradient estimation	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC data types\System data types\PID_GradientParams>Title of the PLC data type
Days	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_9\Text field_30\Text
Digital Output's	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\I/O LAD [FB2]\Network 1>Title
Digital Output's	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\I/O FBD [FB3]\Network 1>Title
Disable step indicated in S_NO	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\S_OFF
E_STOP_Alarm	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_FBD [FB11]\Network 7>Title
Enable transition to switch in semi automatic mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\T_PUSH
ENGAGED	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_16\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 101\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 102\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 103\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 104\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 105\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 106\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 107\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 108\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 109\Text
Error	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 110\Text
Error : GRAPH-Interlock : \$\$Cpu-Name\$\$ : Sequence : @1%t#SYS-TEM_StepNames638859434186043789_1@ : S@1%03d@ : @1%t#SYSTEM_InterlockAlarm-Texts638859434186781586_1@	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\IL_ALARM_INST\Alarm text
Error : GRAPH-Supervision : \$\$Cpu-Name\$\$ : Sequence : @1%t#SYS-TEM_StepNames638859434186043789_1@ : S@1%03d@ : @1%t#SYSTEM_SupervisionA-larmTexts638859434186731605_1@	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\SUP_ALARM_INST\Alarm text
Error message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 106\Text
Error message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 206\Text
Error message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 306\Text
Error message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 406\Text
Error message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 506\Text
Error message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 606\Text
Error message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 706\Text
Error message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 806\Text
EStop	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_13\Text field_11\Text
EStop Activated	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\ESTOP\Alarm text
Exit...	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_11\Text OFF
Failure	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_10\Group_4\Text field_12\Text
Fault_Mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 6>Title
Fault_Mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_FBD [FB15]\Network 6>Title
FBD	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_6\Text OFF
FBD I/O and Scaling parameters	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\I/O FBD [FB3]\Block title
FULLAUTOBIT	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\I/O FBD [FB3]\Network 4\Comment
Function Block	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_10\Text
Generation	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_Step-Names638859434186043789_1\Range 4\Text
Generation_Mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 3>Title
Generator should speed up until desired kW output is attained. Once we're stable within 5kW (+/-) of the setpoint for at least 10 seconds, we should transition into the next mode.	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 2\Comment

Totally Integrated Automation Portal		
English (United States)	Category	Reference
Geration_Mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_FBD [FB15]\Network 3>Title
Gerneration Mode	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_7\Text
Gerneration Mode	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Text field_15\Text
Gonna defined Analog and Digital I/O :p	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\I/O LAD [FB2]\Block comment
GRAPH-Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 108\Text
GRAPH-Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 208\Text
GRAPH-Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 308\Text
GRAPH-Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 408\Text
GRAPH-Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 508\Text
GRAPH-Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 608\Text
GRAPH-Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 708\Text
GRAPH-Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 808\Text
GRAPH-Supervision	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 109\Text
GRAPH-Supervision	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 209\Text
GRAPH-Supervision	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 309\Text
GRAPH-Supervision	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 409\Text
GRAPH-Supervision	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 509\Text
GRAPH-Supervision	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 609\Text
GRAPH-Supervision	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 709\Text
GRAPH-Supervision	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 809\Text
GRAPH-Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 110\Text
GRAPH-Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 210\Text
GRAPH-Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 310\Text
GRAPH-Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 410\Text
GRAPH-Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 510\Text
GRAPH-Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 610\Text
GRAPH-Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 710\Text
GRAPH-Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 810\Text
Hand	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_5\Text OFF
Hand	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_9\Text OFF
Hand	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_11\Text OFF
Hand	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_14\Text OFF
Hand	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_17\Text OFF
Hey, I'm going to create logic for water power plant in all language I mentioned above.	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks>Main [OB1]\Network 3\Comment
High	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_9\Group_3\Text field_7\Text
High	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Text field_20\Text
High OIL	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_8\Text field_4\Text
High Oil Flow (sp)	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_12\Text
high oil flow alarm handling	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\PID [OB30]\Network 1>Title
High Oil Flow Alert	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Oil High Flow\Alarm text
High Oil Temp (sp)	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_8\Text
High Oil Temperature Alert	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\High Temp\Alarm text
High_Oil_Temp_Alarm	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_FBD [FB11]\Network 3>Title
HM Reset	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_9\Button_20\Text OFF
HMI Display Values	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks>Main [OB1]\Network 8>Title
HOA Controls	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Text field_21\Text
Hour Meter	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_9\Text field_29\Text
Hours	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_9\Text field_31\Text
I	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Errors\ComingText
I	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Warnings\ComingText
I	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\System\ComingText
I	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Diagnosis events\ComingText
I	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Safety warnings\ComingText
I	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Acknowledgement\ComingText
I	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\No Acknowledgement\ComingText
I/O for FBD	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks>Main [OB1]\Network 5>Title
I/O for LAD	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks>Main [OB1]\Network 4>Title
I/O for SCL	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks>Main [OB1]\Network 6>Title
I/O for STL	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks>Main [OB1]\Network 7>Title

Totally Integrated Automation Portal		
<b>English (United States)</b>	<b>Category</b>	<b>Reference</b>
Idle	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_Step-Names638859434186043789_1\Range 1\Text
Idle – Interlock and baffle are deenergized and brake is engaged.	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 5\Comment
Idle Mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 5>Title
Idle Mode	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_4\Text
Idle Mode	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Text field_12\Text
Idle_mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_FBD [FB15]\Network 5>Title
Indicate next step in parameter S_NO	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\S_NEXT
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 301\Text
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 302\Text
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 303\Text
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 304\Text
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 305\Text
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 306\Text
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 307\Text
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 308\Text
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 309\Text
Info	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 310\Text
Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 102\Text
Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 202\Text
Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 302\Text
Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 402\Text
Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 502\Text
Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 602\Text
Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 702\Text
Interlock	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 802\Text
InterLock	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Text field_24\Text
Interlock DisEngaged	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Group_3\Text field_11\Text
Interlock Engaged	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Group_2\Text field_10\Text
Interlock or supervision group error	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\ERR_FLT
Interlock:	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_15\Text
Internal data area	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\RT_DATA
IO	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Errors\ComingGoingText
IO	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Warnings\ComingGoingText
IO	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\System\ComingGoingText
IO	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Diagnosis events\ComingGoingText
IO	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Safety warnings\ComingGoingText
IO	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Acknowledgement\ComingGoingText
IO	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\No Acknowledgement\ComingGoingText
Keep everything running and close the inter-lock.	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 3\Comment
kW	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_14\Text
LAD	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_5\Text OFF
LAD-1, FBD-1, SCL-1, STL-1.	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks>Main [OB1]\Network 3>Title
Ladder Logic	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_9\Text
Low OIL	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_7\Text field_5\Text
Low Oil Flow (sp)	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_10\Text
Low Oil Flow Alert	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Low Oil\Alarm text
Main	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_1\Text OFF
Main	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Button_1\Text OFF
Main	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Button_1\Text OFF
Main	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Button_1\Text OFF
Manual mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\SW_MAN
Manual mode is active	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\MAN_ON
Manual Sp	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Text field_26\Text
Manual Sp	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Text field_28\Text
Mins	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_9\Text field_32\Text
MODES	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_18\Text

Totally Integrated Automation Portal		
<b>English (United States)</b>	<b>Category</b>	<b>Reference</b>
Monitor	HMI runtime	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Monitor\ShortName
'Monitor' authorization.	HMI comment	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Monitor\Comment
More steps are available and can be shown in S_NO	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\S_MORE
NA	Alarm class text	Hydroelectric Power Plant\No Acknowledgement\AlarmClassData_IDisplayNaming_DisplayName
NA	Alarm class text	Hydroelectric Power Plant\No Acknowledgement\ShortName
O	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Errors\GoingText
O	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Warnings\GoingText
O	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\System\GoingText
O	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Diagnosis events\GoingText
O	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Safety warnings\GoingText
O	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Acknowledgement\GoingText
O	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\No Acknowledgement\GoingText
OFF	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_6\Text OFF
OFF	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_10\Text OFF
OFF	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_12\Text OFF
OFF	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_15\Text OFF
OFF	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_18\Text OFF
OFFLINE	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_17\Text
Oil Flow (GPM)	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_11\Text
Oil Flow (GPM)	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_13\Text
Oil Pump VFD	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Text field_27\Text
Oil Temp	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Text field_6\Text
Oil Temp Degree	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_9\Text
Oil_High_Flow	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_FBD [FB11]\Network 4>Title
Oil_Low_Flow_Alarm	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_FBD [FB11]\Network 1>Title
OK!	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Group_1\Text field_2\Text
OK!	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_1\Text field_2\Text
OK!	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_1\Text field_2\Text
OK!	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Group_1\Text field_2\Text
Once the Stop button has been pushed, open the interlock, slow the rotor to between 20 and 50 RPMs and maintain a high oil flow until the oil temp is below 150 degrees. Once we're below for ten seconds, we transition into Idle mode. Idle – Interlock and baffle are deenergized and brake is engaged.	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 4\Comment
Operand	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 101\Text
Operand	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 201\Text
Operand	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 301\Text
Operand	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 401\Text
Operand	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 501\Text
Operand	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 601\Text
Operand	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 701\Text
Operand	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 801\Text
Operate	HMI runtime	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Operate\ShortName
'Operate' authorization.	HMI comment	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Operate\Comment
Output previous step in parameter S_NO	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\S_PREV
Over	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_11\Group_5\Text field_9\Text
Over	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_12\Group_6\Text field_15\Text
Over Current Alert	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Over Current\Alarm text
Over Speed RPM Alert	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Rotor Over Speed\Alarm text
Over_Current_Alarm	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_FBD [FB11]\Network 2>Title
Overview	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_2\Text OFF

Totally Integrated Automation Portal		
English (United States)	Category	Reference
Overview	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Button_2\Text OFF
Overview	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Button_2\Text OFF
Overview	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Button_2\Text OFF
PID	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\PID [OB30]\Network 5\Comment
Position	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 105\Text
Position	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 205\Text
Position	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 305\Text
Position	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 405\Text
Position	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 505\Text
Position	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 605\Text
Position	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 705\Text
Position	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 805\Text
Process Values	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_3\Text field_14\Text
Push Button for HOA (OFF, HAND, AUTO)	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\HOA_LAD [FB6]\Block title
QGR	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Runtime settings\Hmi\AlarmSettingsData\AcknowledgementGroupText
Reaction	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 103\Text
Reaction	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 203\Text
Reaction	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 303\Text
Reaction	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 403\Text
Reaction	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 503\Text
Reaction	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 603\Text
Reaction	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 703\Text
Reaction	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 803\Text
retain data	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC data types\System data types\PID_CompactRetain>Title of the PLC data type
Rotor	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_12\Group_6\Text field_10\Text
Rotor RPM	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_6\Text
Rotor RPM (sp)	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_2\Text field_7\Text
Rotor_Speed_Alarm	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Alarm_FBD [FB11]\Network 5>Title
RPM	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Text field_5\Text
S7	Alarm text	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\HMI alarms\Diagnosis events\alarmclass name not set_3\AlarmClassData_IDisplay-Naming_DisplayName
SCL	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_7\Text OFF
Select step to be output to S_NO	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\S_SEL
Semiautomatic mode/ignore transition enabled	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\TOP_ON
Semiautomatic mode/step with transition enabled	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\TAP_ON
Semiautomatic/ignore transition	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\SW_TOP
Semiautomatic/switch with transition	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\SW_TAP
Set sequence to initial state	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\INIT_SQ
Setpoint Conversion	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\PID [OB30]\Network 2\Comment
Silence	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_2\Button_5\Text OFF
Speed	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_12\Group_6\Text field_16\Text
Stabilize	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_Step-Names638859434186043789_1\Range 3\Text
Stabilize Delay	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_3\Text field_18\Text
Stabilize Mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 2>Title
Stabilize Mode	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_6\Text
Stabilize Mode	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Text field_14\Text
Stabilize_Mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_FBD [FB15]\Network 2>Title
Start System	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_9\Text OFF
Statement List	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_12\Text
Step indicated in S_NO is active	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\S_ACTIVE
Step number	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\S_NO
Step structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Stabilize
Step structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Warm Up
Step structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Generation
Step structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Cool Down
Step structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Idle
STL	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_8\Text OFF
Stop System	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_10\Text OFF



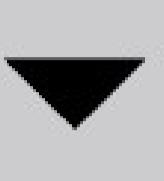
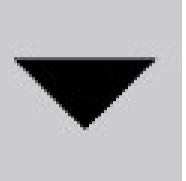
Totally Integrated Automation Portal		
English (United States)	Category	Reference
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Alarms\Group_2\Button_6\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_5\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_6\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_7\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_8\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_9\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_10\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_11\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_12\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_13\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_14\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_15\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_16\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_17\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_18\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_4\Button_19\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_9\Button_20\Text ON
Text	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Button_11\Text ON
Text message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 107\Text
Text message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 207\Text
Text message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 307\Text
Text message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 407\Text
Text message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 507\Text
Text message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 607\Text
Text message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 707\Text
Text message	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionTypes\Range 807\Text
The 'Administrator' group is initially granted all rights.	HMI comment	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Administrator group\Comment
The user 'Administrator' is assigned to the 'Administrator' group.	HMI comment	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Administrator\Comment
The 'Users' group is initially granted 'Operating' rights.	HMI comment	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Users\Comment
Transition structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Trans5
Transition structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Trans1
Transition structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Trans2
Transition structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Trans3
Transition structure	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\Trans4
Turn sequence off	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence [FB18]\OFF_SQ
User administration	HMI runtime	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\User administration\ShortName
Users	HMI runtime	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Users\DisplayName
VFD HOA	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\PID [OB30]\Network 4\Comment
Warm Up	Text List Text Category	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\PLC_1\SYSTEM_Step-Names638859434186043789_1\Range 2\Text
Warmup Delay	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_3\Text field_16\Text
WarmUp Mode	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens>Status\Text field_5\Text
WarmUp Mode	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\OverView\Text field_13\Text
Warmup Temp	HMI screen	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\Screens\Config\Group_3\Text field_15\Text
WarmUp_Mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 1>Title
WarmUp_Mode	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_FBD [FB15]\Network 1>Title
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 201\Text
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 202\Text
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 203\Text
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 204\Text
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 205\Text
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 206\Text
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 207\Text
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 208\Text
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 209\Text
Warning	Text List Text Category	Hydroelectric Power Plant\SYSTEM_Global_ProDiag_SupervisionCategories\Range 210\Text

Totally Integrated Automation Portal		
<b>English (United States)</b>	<b>Category</b>	<b>Reference</b>
Warning : GRAPH-Warning : \$\$Cpu-Name\$\$ : Sequence : @1%t#SYS-TEM_StepNames638859434186043789_1@ : S@1%03d@ : @1%t#SYSTEM_SupervisionA-larmTexts638859434186731605_1@	Formatted alarm text	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Sequence_DB [DB58]\STEP_TIME_ALARM_INST\Alarm text
Web access - view only. Authorization for the use of WebNavigator and for client-server systems.	HMI comment	Hydroelectric Power Plant\PC station [SIMATIC PC station]\HMI_RT_1 [WinCC RT Advanced]\User administration\Web access - view only\Comment
When we hit an alarm, the sequence should be aborted according to the alarm details (above in the Alarms section), and we should go into Fault mode (which is not part of our sequence).	Block comment	Hydroelectric Power Plant\PLC_1 [CPU 1511-1 PN]\Program blocks\Modes_LAD [FB14]\Network 6\Comment

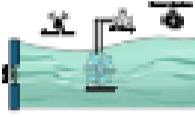
## Hydroelectric Power Plant / Languages & resources

### Project graphics

#### Down\_Arrow

Standard graphic	English (United States)
	
▶ Dithering mode	
Same color	Same color
▶ Smoothing	
Disabled	Disabled

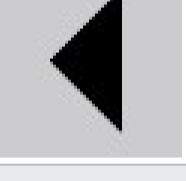
#### Graphic\_1

Standard graphic	English (United States)
	
▶ Dithering mode	
Same color	Same color
▶ Smoothing	
Disabled	Disabled

#### Home

Standard graphic	English (United States)
	
▶ Dithering mode	
Same color	Same color
▶ Smoothing	
Disabled	Disabled

#### Left\_Arrow

Standard graphic	English (United States)
	
▶ Dithering mode	
Same color	Same color
▶ Smoothing	
Disabled	Disabled

#### Right\_Arrow

Standard graphic	English (United States)
	
▶ Dithering mode	
Same color	Same color
▶ Smoothing	
Disabled	Disabled

#### System2

Standard graphic	English (United States)
	
▶ Dithering mode	
Same color	Same color

Totally Integrated Automation Portal		
Standard graphic	English (United States)	
▶ Smoothing		
Disabled	Disabled	
System2_1		
Standard graphic	English (United States)	
▶ Dithering mode		
Same color	Same color	
▶ Smoothing		
Disabled	Disabled	
Up_Arrow		
Standard graphic	English (United States)	
▶ Dithering mode		
Same color	Same color	
▶ Smoothing		
Disabled	Disabled	