

设备运行时间 / PLC_1 [CPU 1214C AC/DC/Rly] / 程序块

teamRunTimeBlock_scl [FB3]

teamRunTimeBlock_scl 属性

常规							
名称	teamRunTimeBlock_scl	编号	3	类型	FB	语言	SCL
编号	自动						
信息							
标题		作者		注释		系列	
版本	0.1	用户自定义 ID					

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0001  (/*
0002  =====
0003  库文件: 无
0004  功能描述: 设备累积运行时间、本次运行时间、班运行时间
0005  硬件平台: s7-1200/1500
0006  软件平台: TIA 博途 v17
0007  -----
0008  版本 日期 作者
0009  v2.0 2024-11-04 矿山电气小东(今日头条)
0010  =====
0011  */)
0012
0013  REGION _second_pulse_
0014      IF #iSecPulse AND NOT #sBit_1 THEN
0015          #sSecPulse := TRUE;
0016      ELSE
0017          #sSecPulse := FALSE;
0018      END_IF;
0019      #sBit_1 := #iSecPulse;
0020  END_REGION
0021  REGION _accumulate_second_
0022      IF #iStart AND #sSecPulse THEN
0023          #sAccumRunTimeVal := #sAccumRunTimeVal + 1;
0024          #sThisRunTimeVal := #sThisRunTimeVal + 1;
0025      END_IF;
0026  END_REGION
0027  REGION _accumu RunTime calculation_
0028      #oAccumSecond:= DINT_TO_BYTE (#sAccumRunTimeVal MOD 60);
0029      #AC0 := #sAccumRunTimeVal / 60;
0030      #oAccumMinute := DINT_TO_BYTE (#AC0 MOD 60);
0031      #oAccumHour := #AC0 / 60;
0032  END_REGION
0033  REGION _thisRunTime calculation_
0034      #oThisTimeSecond := DINT_TO_BYTE (#sThisRunTimeVal MOD 60);
0035      #AC0 := #sThisRunTimeVal / 60;
0036      #oThisTimeMinute := DINT_TO_BYTE (#AC0 MOD 60);
0037      #oThisTimeHour := #AC0 / 60;
0038  END_REGION
0039  REGION _reset_
0040      IF #iReset AND NOT #iStart THEN
0041          #sAccumRunTimeVal := 0;
0042      END_IF;
0043      IF NOT #iStart THEN
0044          #sThisRunTimeVal := 0;
0045      END_IF;
0046      IF #iChange THEN
0047          #sAccumRunTimeVal := #iChangeVal_s;
0048      END_IF;
0049  END_REGION
0050  REGION _readLocalTime,_set flagTime__
0051      #localReturn:=RD_LOC_T(#localTime);
0052      //set zero working time
0053      IF (#localTime.HOUR = 23 AND #localTime.MINUTE = 56 AND #localTime.SECOND = 0) OR
0054          (#iTeamEnable AND #localTime.HOUR>=0 AND #localTime.HOUR<=7 ) //Immediately activate the function after debugging
0055          THEN #team_0_tag := TRUE;
0056      END_IF;
0057      IF #localTime.HOUR = 7 AND #localTime.MINUTE = 56 AND #localTime.SECOND = 0 THEN
0058          #team_0_tag := FALSE;
0059      END_IF;
0060
0061      //set eight working time
0062      IF (#localTime.HOUR = 7 AND #localTime.MINUTE = 56 AND #localTime.SECOND = 0) OR
0063          (#iTeamEnable AND #localTime.HOUR>=8 AND #localTime.HOUR<=15)
0064          THEN
0065          #team_8_tag := TRUE;
0066      END_IF;
0067      IF #localTime.HOUR = 15 AND #localTime.MINUTE = 56 AND #localTime.SECOND = 0 THEN
0068          #team_8_tag := FALSE;
0069      END_IF;
0070
0071      //set sixteen working time
0072      IF (#localTime.HOUR = 15 AND #localTime.MINUTE = 56 AND #localTime.SECOND = 0 ) OR
0073          (#iTeamEnable AND #localTime.HOUR>=16 AND #localTime.HOUR<=23 )
0074          THEN
0075          #team_16_tag := TRUE;

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0076 END_IF;
0077 IF #localTime.HOUR = 23 AND #localTime.MINUTE = 56 AND #localTime.SECOND = 0 THEN
0078     #team_16_tag := FALSE;
0079 END_IF;
0080 END_REGION
0081 REGION _zero team runtime_
0082 IF #team_0_tag THEN
0083     IF #team_0_tag AND NOT #sBit_2 THEN
0084         #sTeam_0_Pulse := TRUE;
0085     ELSE
0086         #sTeam_0_Pulse := FALSE;
0087     END_IF;
0088     #sBit_2 := #team_0_tag;
0089     IF #sTeam_0_Pulse THEN
0090         #sStartVal := #sAccumRunTimeVal;
0091     END_IF;
0092     #sTeamRunTime := #sAccumRunTimeVal - #sStartVal;
0093     #oTeam_0_second := DINT_TO_BYTE(#sTeamRunTime MOD 60);
0094     #ACO := #sTeamRunTime / 60;
0095     #oTeam_0_minute := DINT_TO_BYTE(#ACO MOD 60);
0096     #oTeam_0_hour := DINT_TO_BYTE(#ACO / 60);
0097 END_IF;
0098 IF #localTime.HOUR = 8 AND #localTime.MINUTE = 15 AND #localTime.SECOND = 59 THEN
0099     #oTeam_0_second := 0;
0100     #oTeam_0_minute := 0;
0101     #oTeam_0_hour := 0;
0102 END_IF;
0103 END_REGION
0104 REGION _eight team runtime_
0105 IF #team_8_tag THEN
0106     IF #team_8_tag AND NOT #sBit_3 THEN
0107         #sTeam_8_Pulse := TRUE;
0108     ELSE
0109         #sTeam_8_Pulse := FALSE;
0110     END_IF;
0111     #sBit_3 := #team_8_tag;
0112     IF #sTeam_8_Pulse THEN
0113         #sStartVal := #sAccumRunTimeVal;
0114     END_IF;
0115     #sTeamRunTime := #sAccumRunTimeVal - #sStartVal;
0116     #oTeam_8_second := DINT_TO_BYTE(#sTeamRunTime MOD 60);
0117     #ACO := #sTeamRunTime / 60;
0118     #oTeam_8_minute := DINT_TO_BYTE(#ACO MOD 60);
0119     #oTeam_8_hour := DINT_TO_BYTE(#ACO / 60);
0120 END_IF;
0121 IF #localTime.HOUR = 16 AND #localTime.MINUTE = 15 AND #localTime.SECOND = 59 THEN
0122     #oTeam_8_second := 0;
0123     #oTeam_8_minute := 0;
0124     #oTeam_8_hour := 0;
0125 END_IF;
0126 END_REGION
0127 REGION _sixteen team runtime_
0128 IF #team_16_tag THEN
0129     IF #team_16_tag AND NOT #sBit_4 THEN
0130         #sTeam_16_Pulse := TRUE;
0131     ELSE
0132         #sTeam_16_Pulse := FALSE;
0133     END_IF;
0134     #sBit_4 := #team_16_tag;
0135     IF #sTeam_16_Pulse THEN
0136         #sStartVal := #sAccumRunTimeVal;
0137     END_IF;
0138     #sTeamRunTime := #sAccumRunTimeVal - #sStartVal;
0139     #oTeam_16_second := DINT_TO_BYTE(#sTeamRunTime MOD 60);
0140     #ACO := #sTeamRunTime / 60;
0141     #oTeam_16_minute := DINT_TO_BYTE(#ACO MOD 60);
0142     #oTeam_16_hour := DINT_TO_BYTE(#ACO / 60);
0143 END_IF;
0144 IF #localTime.HOUR = 0 AND #localTime.MINUTE = 15 AND #localTime.SECOND = 59 THEN
0145     #oTeam_16_second := 0;
0146     #oTeam_16_minute := 0;
0147     #oTeam_16_hour := 0;
0148 END_IF;
0149 END_REGION

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符号	地址	类型	注释
#ACO		Dint	数据过量, 等效 200smart 中的 ACO 累加器。
#iChange		Bool	修改累积时间
#iChangeVal_s		Dint	修改累积时间值
#iReset		Bool	复位
#iSecPulse		Bool	系统 1 秒脉冲接入
#iStart		Bool	启动
#iTeamEnable		Bool	班运行功能立即投入脉冲
#localReturn		Int	
#localTime		DTL	
#localTime.HOUR		USInt	
#localTime.MINUTE		USInt	
#localTime.SECOND		USInt	

Totally Integrated Automation Portal			
符号	地址	类型	注释
#oAccumHour		DInt	累积运行小时
#oAccumMinute		Byte	累积运行分钟
#oAccumSecond		Byte	累积运行秒
#oTeam_0_hour		Byte	零点班运行小时
#oTeam_0_minute		Byte	零点班运行分钟
#oTeam_0_second		Byte	零点班运行秒
#oTeam_8_hour		Byte	八点班运行小时
#oTeam_8_minute		Byte	八点班运行分钟
#oTeam_8_second		Byte	八点班运行秒
#oTeam_16_hour		Byte	十六点班运行小时
#oTeam_16_minute		Byte	十六点班运行分钟
#oTeam_16_second		Byte	十六点班运行秒
#oThisTimeHour		DInt	本次运行小时
#oThisTimeMinute		Byte	本次运行分钟
#oThisTimeSecond		Byte	本次运行秒
#sAccumRunTimeVal		DInt	累积运行时间值, 单位秒
#sBit_1		Bool	中间量 1
#sBit_2		Bool	中间量 2
#sBit_3		Bool	中间量 3
#sBit_4		Bool	中间量 4
#sSecPulse		Bool	秒信号上升沿
#sStartVal		DInt	
#sTeam_0_Pulse		Bool	零点班上升沿
#sTeam_8_Pulse		Bool	八点班上升沿
#sTeam_16_Pulse		Bool	十六点班上升沿
#sTeamRunTime		DInt	
#sThisRunTimeVal		DInt	本次运行时间值, 单位秒
#team_0_tag		Bool	
#team_8_tag		Bool	
#team_16_tag		Bool	