- **Controller Milling_Machine**
- **Controller Fault Handler**
  - **Fault_Handler**
    - **Norm_Fault_Handler_Routine**
- **Power-Up Handler**

Tasks

- **Komunikace**
  periodicky kontroluje komunikaci s moduly
  - **Komunikace_program**
    - **MAIN_Komunikace_Routine**
- **MainTask**
  - **MainProgram**
    - **MainRoutine**
    - **Fault_Routine**
    - **AUTOMATIC_CONTROL**
    - **AUTOMAT_EDIT**
    - **Errors**
    - **INIT**
    - **IO_Routine**
    - **MANUAL_CONTROL**
    - **Motors_Runtime**
    - **Movement**
    - **PATH_FIND**
    - **Program_Freza**
    - **RESET_PATH**
    - **SETTINGS**
    - **VUT_logo**
- **Status**
  - **Status_program**
    - **MAIN_Status_Routine**
    - **Status**
- **Unscheduled**

Motion Groups

- **Test**
  - **OsaXCIP**
  - **OsaYCIP**
  - **OsaZCIP**
- **Ungrouped Axes**

Add-On Instructions

- **Add_OFFSET**
  - **Logic**
- **Copy_PATH**
  - **Logic**
- **Status_READ**
  - **Logic**
- **Time_formatting**
  formatuje cas d:h:m:s:ms
  - **Logic**

Data Types

- **User-Defined**
  - **Major_Fault_Data**
  - **RunTime**
    cas behu nastroje/motoru
- **Strings**
- **Add-On-Defined**

- **Add_OFFSET**
- **Copy_PATH**
- **Status_READ**
- **Time_formatting**
  formatuje cas d:h:m:s:ms

Module-Defined

- **AB:1769_DI32:I:0**
- **AB:1769_DO16:C:0**
- **AB:1769_DO16:I:0**
- **AB:1769_DO16:O:0**
- **AB:1783_EMS08T_25D5924F:I:0**
- **AB:1783_EMS08T_3DF9F243:I:0**
- **AB:440C_CR30:O:0**
- **AB:440C_CR30_p28:I:0**
- **AB:ETHERNET_MODULE:C:0**
- **AB:ETHERNET_MODULE_DINT_496Bytes:O:0**
- **AB:ETHERNET_MODULE_DINT_500Bytes:I:0**
- **AB:Motion_Diagnostics:S:1**

Trends

I/O Configuration

1769 Bus

- **[0] 1769-L36ERM Milling_Machine**
- **[1] 1769-IQ32/A DC_IN**
- **[2] 1769-OB16/B DC_OUT**

Ethernet

- **1769-L36ERM Milling_Machine**
- **1783-EMS08T Switch**
- **440C-CR30-22BBB/A CR30_SAFETY**
  Configurable Safety Relay to maintain safety function of milling machine
- **2097-V33PR3-LM F1**
- **2097-V33PR3-LM F2**
- **2097-V33PR3-LM F3**

Name	Value	Data Type	Scope
A_X_MC	20	DINT	MainProgram
Constant	No		
External Access:	Read/Write		
A_X_MC - MainProgram/AUTOMATIC_CONTROL - 7(MAM)			
A_X_MC - MainProgram/MANUAL_CONTROL - 12(MAJ), 13(MAJ), 14(MAS), 3(MAM), 9(MAM)			
A_XYZ_LOGO		INT[3,100]	MainProgram
Constant	No		
External Access:	Read/Write		
*A_XYZ_LOGO - MainProgram/AUTOMATIC_CONTROL - *3(Copy_PATH)*			
A_XYZ_LOGO - MainProgram/VUT_logo - #16, #17, #18			
A_Y_MC	20	DINT	MainProgram
Constant	No		
External Access:	Read/Write		
A_Y_MC - MainProgram/AUTOMATIC_CONTROL - 7(MAM)			
A_Y_MC - MainProgram/MANUAL_CONTROL - 16(MAJ), 17(MAJ), 18(MAS), 5(MAM)			
A_Z_MC	20	DINT	MainProgram
Constant	No		
External Access:	Read/Write		
A_Z_MC - MainProgram/AUTOMATIC_CONTROL - 7(MAM)			
A_Z_MC - MainProgram/MANUAL_CONTROL - 20(MAJ), 21(MAJ), 22(MAS), 7(MAM)			
A0_X_MAH		MOTION_INSTRUCTION	MainProgram
Constant	No		
External Access:	Read/Write		
*A0_X_MAH - MainProgram/AUTOMATIC_CONTROL - *2(MAH)*			
A0_X_MAH.PC	0	BOOL	
A0_X_MAH.PC - MainProgram/AUTOMATIC_CONTROL - 6(XIC)			
A0_X_MSO		MOTION_INSTRUCTION	MainProgram
Constant	No		
External Access:	Read/Write		
*A0_X_MSO - MainProgram/AUTOMATIC_CONTROL - *1(MSO)*			
A0_X_MSO.DN	0	BOOL	
A0_X_MSO.DN - MainProgram/AUTOMATIC_CONTROL - 2(XIC)			
A0_Y_MAH		MOTION_INSTRUCTION	MainProgram
Constant	No		
External Access:	Read/Write		
*A0_Y_MAH - MainProgram/AUTOMATIC_CONTROL - *2(MAH)*			
A0_Y_MAH.PC	0	BOOL	
A0_Y_MAH.PC - MainProgram/AUTOMATIC_CONTROL - 6(XIC)			
A0_Y_MSO		MOTION_INSTRUCTION	MainProgram
Constant	No		
External Access:	Read/Write		
*A0_Y_MSO - MainProgram/AUTOMATIC_CONTROL - *1(MSO)*			
A0_Y_MSO.DN	0	BOOL	
A0_Y_MSO.DN - MainProgram/AUTOMATIC_CONTROL - 2(XIC)			
A0_Z_MAH		MOTION_INSTRUCTION	MainProgram
Constant	No		
External Access:	Read/Write		
*A0_Z_MAH - MainProgram/AUTOMATIC_CONTROL - *2(MAH)*			
A0_Z_MAH.PC	0	BOOL	
A0_Z_MAH.PC - MainProgram/AUTOMATIC_CONTROL - 6(XIC)			
A0_Z_MSO		MOTION_INSTRUCTION	MainProgram
Constant	No		
External Access:	Read/Write		
*A0_Z_MSO - MainProgram/AUTOMATIC_CONTROL - *1(MSO)*			

A0_Z_MSO (Continued)
A0_Z_MSO.DN 0 BOOL
A0_Z_MSO.DN - MainProgram/AUTOMATIC_CONTROL - 2(XIC)

AIO_X Status_READ Status_program
Constant No
External Access: Read/Write
*AIO_X - Status_program/Status - *6(Status_READ)*
AIO_X.EnableIn 1 BOOL
Enable Input - System Defined Parameter
AIO_X.EnableOut 1 BOOL
Enable Output - System Defined Parameter

AIO_Y Status_READ Status_program
Constant No
External Access: Read/Write
*AIO_Y - Status_program/Status - *7(Status_READ)*
AIO_Y.EnableIn 1 BOOL
Enable Input - System Defined Parameter
AIO_Y.EnableOut 1 BOOL
Enable Output - System Defined Parameter

AIO_Z Status_READ Status_program
Constant No
External Access: Read/Write
*AIO_Z - Status_program/Status - *8(Status_READ)*
AIO_Z.EnableIn 1 BOOL
Enable Input - System Defined Parameter
AIO_Z.EnableOut 1 BOOL
Enable Output - System Defined Parameter

ax 3 DINT MainProgram
Constant No
External Access: Read/Write
*ax - MainProgram/PATH_FIND - #90, #90, #91, #91, #92, #92, *#5*

CIPAxisIO_X_Detect SINT[32] Milling_Machine
Constant No
External Access: Read/Write
*CIPAxisIO_X_Detect - Status_program/Status - *6(Status_READ)*

CIPAxisIO_X_Len 4 SINT Milling_Machine
Constant No
External Access: Read/Write
*CIPAxisIO_X_Len - Status_program/Status - *6(Status_READ)*

CIPAxisIO_Y_Detect SINT[32] Milling_Machine
Constant No
External Access: Read/Write
*CIPAxisIO_Y_Detect - Status_program/Status - *7(Status_READ)*

CIPAxisIO_Y_Len 4 SINT Milling_Machine
Constant No
External Access: Read/Write
*CIPAxisIO_Y_Len - Status_program/Status - *7(Status_READ)*

CIPAxisIO_Z_Detect SINT[32] Milling_Machine
Constant No
External Access: Read/Write
*CIPAxisIO_Z_Detect - Status_program/Status - *8(Status_READ)*

CIPAxisIO_Z_Len 4 SINT Milling_Machine
Constant No
External Access: Read/Write

CIPAxisIO_Z_Len (Continued)
*CIPAxisIO_Z_Len - Status_program/Status - *8(Status_READ)*

COM_X_MAJ_FWD 0 BOOL MainProgram
Constant No
External Access: Read/Write
COM_X_MAJ_FWD - MainProgram/MANUAL_CONTROL - 12(XIC), 13(XIO), 14(XIO)

COM_X_MAJ_REV 0 BOOL MainProgram
Constant No
External Access: Read/Write
COM_X_MAJ_REV - MainProgram/MANUAL_CONTROL - 12(XIO), 13(XIC), 14(XIO)

COM_X_MSO 0 BOOL MainProgram
Constant No
External Access: Read/Write
*COM_X_MSO - MainProgram/MANUAL_CONTROL - *0(OTE), 2(XIC)*

COM_X_MSO2 0 BOOL MainProgram
Constant No
External Access: Read/Write
*COM_X_MSO2 - MainProgram/MANUAL_CONTROL - *8(OTE), 2(XIC)*

COM_XYZ_MAH 0 BOOL MainProgram
Constant No
External Access: Read/Write
COM_XYZ_MAH - MainProgram/MANUAL_CONTROL - 8(XIC), 9(XIC)

COM_XYZ_MAM 0 BOOL MainProgram
Constant No
External Access: Read/Write
COM_XYZ_MAM - MainProgram/MANUAL_CONTROL - 0(XIC), 3(XIC), 5(XIC), 7(XIC)

COM_Y_MAJ_FWD 0 BOOL MainProgram
Constant No
External Access: Read/Write
COM_Y_MAJ_FWD - MainProgram/MANUAL_CONTROL - 16(XIC), 17(XIO), 18(XIO)

COM_Y_MAJ_REV 0 BOOL MainProgram
Constant No
External Access: Read/Write
COM_Y_MAJ_REV - MainProgram/MANUAL_CONTROL - 16(XIO), 17(XIC), 18(XIO)

COM_Y_MSO 0 BOOL MainProgram
Constant No
External Access: Read/Write
*COM_Y_MSO - MainProgram/MANUAL_CONTROL - *0(OTE), 4(XIC)*

COM_Y_MSO2 0 BOOL MainProgram
Constant No
External Access: Read/Write
*COM_Y_MSO2 - MainProgram/MANUAL_CONTROL - *8(OTE), 4(XIC)*

COM_Z_MAJ_FWD 0 BOOL MainProgram
Constant No
External Access: Read/Write
COM_Z_MAJ_FWD - MainProgram/MANUAL_CONTROL - 20(XIC), 21(XIO), 22(XIO)

COM_Z_MAJ_REV 0 BOOL MainProgram
Constant No
External Access: Read/Write
COM_Z_MAJ_REV - MainProgram/MANUAL_CONTROL - 20(XIO), 21(XIC), 22(XIO)

COM_Z_MSO 0 BOOL MainProgram

COM_Z_MSO (Continued)
Constant No
External Access: Read/Write
*COM_Z_MSO - MainProgram/MANUAL_CONTROL - *0(OTE), 6(XIC)*

COM_Z_MSO2	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
*COM_Z_MSO2 - MainProgram/MANUAL_CONTROL - *8(OTE), 6(XIC)*			
Copy_Prog1		Copy_PATH	MainProgram
Constant	No		
External Access:	Read/Write		
*Copy_Prog1 - MainProgram/AUTOMATIC_CONTROL - *3(Copy_PATH)*			
Copy_Prog1.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
Copy_Prog1.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
Copy_Prog2		Copy_PATH	MainProgram
Constant	No		
External Access:	Read/Write		
*Copy_Prog2 - MainProgram/AUTOMATIC_CONTROL - *4(Copy_PATH)*			
Copy_Prog2.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
Copy_Prog2.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
Copy_Prog3		Copy_PATH	MainProgram
Constant	No		
External Access:	Read/Write		
*Copy_Prog3 - MainProgram/AUTOMATIC_CONTROL - *5(Copy_PATH)*			
Copy_Prog3.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
Copy_Prog3.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
D22R2_1_STATUS	1	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
*D22R2_1_STATUS - MainProgram/IO_Routine - *4(OTE)*			
D22R2_2_STATUS	1	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
*D22R2_2_STATUS - MainProgram/IO_Routine - *5(OTE)*			
dole_ONS	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
*dole_ONS - MainProgram/AUTOMAT_EDIT - *2(ONS)*			
EntryStatus_CR30	16384	INT	Komunikace_program
Constant	No		
External Access:	Read/Write		
*EntryStatus_CR30 - Komunikace_program/MAIN_Komunikace_Routine - *6(GSV), 6(BTD)*			
EntryStatus_DC_IN	16384	INT	Komunikace_program
Constant	No		
External Access:	Read/Write		
*EntryStatus_DC_IN - Komunikace_program/MAIN_Komunikace_Routine - *10(GSV), 10(BTD)*			
EntryStatus_DC_OUT	16384	INT	Komunikace_program
Constant	No		

EntryStatus_DC_OUT (Continued)
External Access: Read/Write
*EntryStatus_DC_OUT - Komunikace_program/MAIN_Komunikace_Routine - *12(GSV), 12(BTD)*

EntryStatus_F1 16384 INT Komunikace_program
pouze bity 12...15 značí status
Constant No
External Access: Read/Write
*EntryStatus_F1 - Komunikace_program/MAIN_Komunikace_Routine - *0(GSV), 0(BTD)*

EntryStatus_F2 16384 INT Komunikace_program
Constant No
External Access: Read/Write
*EntryStatus_F2 - Komunikace_program/MAIN_Komunikace_Routine - *2(GSV), 2(BTD)*

EntryStatus_F3 16384 INT Komunikace_program
Constant No
External Access: Read/Write
*EntryStatus_F3 - Komunikace_program/MAIN_Komunikace_Routine - *4(GSV), 4(BTD)*

EntryStatus_PLC 12640 INT Komunikace_program
Constant No
External Access: Read/Write
*EntryStatus_PLC - Komunikace_program/MAIN_Komunikace_Routine - *14(GSV), 14(BTD)*

EntryStatus_SWITCH 4096 INT Komunikace_program
Constant No
External Access: Read/Write
*EntryStatus_SWITCH - Komunikace_program/MAIN_Komunikace_Routine - *8(GSV), 8(BTD)*

ERROR 0 BOOL MainProgram
Constant No
External Access: Read/Write
ERROR - MainProgram/AUTOMATIC_CONTROL - 1(XIO), 6(XIO)
*ERROR - MainProgram/Errors - *1(OTL)*
*ERROR - MainProgram/MainRoutine - *1(OTU), 2(XIC), 3(XIO), 4(XIO), 5(XIO)*

ERROR_INIT 0 BOOL MainProgram
Constant No
External Access: Read/Write
ERROR_INIT - MainProgram/Errors - 1(XIC)
*ERROR_INIT - MainProgram/INIT - *5(OTE)*

Fault Major_Fault_Data Milling_Machine
Constant No
External Access: Read/Write
Fault.TimeLow 0 DINT
*Fault.TimeLow - MainProgram/Fault_Routine - *1(GSV)*

Fault_Detected 0 BOOL Milling_Machine
Constant No
External Access: Read/Write
*Fault_Detected - MainProgram/Fault_Routine - *0(OTL)*

Fault_Handler_Detected 0 BOOL Milling_Machine
Constant No
External Access: Read/Write
*Fault_Handler_Detected - Fault_Handler/Norm_Fault_Handler_Routine - *0(OTL)*
*Fault_Handler_Detected - MainProgram/Errors - *0(OTU)*

Fault_In_Handler Major_Fault_Data Milling_Machine
Constant No
External Access: Read/Write
Fault_In_Handler - Fault_Handler/Norm_Fault_Handler_Routine - 4(SSV)

Fault_In_Handler (Continued)
Fault_In_Handler.TimeLow -844051724 DINT
*Fault_In_Handler.TimeLow - Fault_Handler/Norm_Fault_Handler_Routine - *1(GSV)*
Fault_In_Handler.Type 0 INT
*Fault_In_Handler.Type - Fault_Handler/Norm_Fault_Handler_Routine - *2(MOV), *3(MOV), 2(EQU), 3(EQU)*
Fault_In_Handler.Code 0 INT
*Fault_In_Handler.Code - Fault_Handler/Norm_Fault_Handler_Routine - *2(MOV), *3(MOV), 2(EQU), 2(EQU), 2(EQU), 3(EQU)*

FREZ_COMM_START 0 BOOL MainProgram
AliasFor: Local:2:O.Data.1(C)
Base Tag: Local:2:O.Data.1(C)
Constant No
External Access: Read/Write
*FREZ_COMM_START - MainProgram/IO_Routine - *9(OTE)*

FREZ_FEEDBACK 0 BOOL MainProgram
Constant No
External Access: Read/Write
*FREZ_FEEDBACK - MainProgram/IO_Routine - *8(OTE)*
FREZ_FEEDBACK - MainProgram/Motors_Runtime - 0(XIC)

Freza Time_formatting MainProgram
formatuje cas d:h:m:s:ms
Constant No
External Access: Read/Write
*Freza - MainProgram/Motors_Runtime - *2(Time_formatting)*
Freza.EnableIn 1 BOOL
formatuje cas d:h:m:s:ms Enable Input - System Defined Parameter
Freza.EnableOut 1 BOOL
formatuje cas d:h:m:s:ms Enable Output - System Defined Parameter
Freza.Done_s 0 BOOL
formatuje cas d:h:m:s:ms

GF_X Status_READ Milling_Machine
Constant No
External Access: Read/Write
*GF_X - Status_program/Status - *3(Status_READ)*
GF_X.EnableIn 1 BOOL
Enable Input - System Defined Parameter
GF_X.EnableOut 1 BOOL
Enable Output - System Defined Parameter

GF_Y Status_READ Milling_Machine
Constant No
External Access: Read/Write
*GF_Y - Status_program/Status - *4(Status_READ)*
GF_Y.EnableIn 1 BOOL
Enable Input - System Defined Parameter
GF_Y.EnableOut 1 BOOL
Enable Output - System Defined Parameter

GF_Z Status_READ Milling_Machine
Constant No
External Access: Read/Write
*GF_Z - Status_program/Status - *5(Status_READ)*
GF_Z.EnableIn 1 BOOL
Enable Input - System Defined Parameter
GF_Z.EnableOut 1 BOOL
Enable Output - System Defined Parameter

GM_1_STATUS 1 BOOL MainProgram
Constant No
External Access: Read/Write
*GM_1_STATUS - MainProgram/IO_Routine - *0(OTE)*

GM_2_STATUS	1	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
*GM_2_STATUS - MainProgram/IO_Routine - *2(OTE)*			
GM_3_STATUS	1	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
*GM_3_STATUS - MainProgram/IO_Routine - *3(OTE)*			
GS_X		Status_READ	Milling_Machine
Constant	No		
External Access:	Read/Write		
*GS_X - Status_program/Status - *0(Status_READ)*			
GS_X.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
GS_X.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
GS_Y		Status_READ	Milling_Machine
Constant	No		
External Access:	Read/Write		
*GS_Y - Status_program/Status - *1(Status_READ)*			
GS_Y.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
GS_Y.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
GS_Z		Status_READ	Milling_Machine
Constant	No		
External Access:	Read/Write		
*GS_Z - Status_program/Status - *2(Status_READ)*			
GS_Z.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
GS_Z.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
GuardFaults_X_Detect		SINT[32]	Milling_Machine
Constant	No		
External Access:	Read/Write		
*GuardFaults_X_Detect - Status_program/Status - *3(Status_READ)*			
GuardFaults_X_Len	0	SINT	Milling_Machine
Constant	No		
External Access:	Read/Write		
*GuardFaults_X_Len - Status_program/Status - *3(Status_READ)*			
GuardFaults_Y_Detect		SINT[32]	Milling_Machine
Constant	No		
External Access:	Read/Write		
*GuardFaults_Y_Detect - Status_program/Status - *4(Status_READ)*			
GuardFaults_Y_Len	0	SINT	Milling_Machine
Constant	No		
External Access:	Read/Write		
*GuardFaults_Y_Len - Status_program/Status - *4(Status_READ)*			
GuardFaults_Z_Detect		SINT[32]	Milling_Machine
Constant	No		
External Access:	Read/Write		
*GuardFaults_Z_Detect - Status_program/Status - *5(Status_READ)*			
GuardFaults_Z_Len	0	SINT	Milling_Machine
Constant	No		

GuardFaults_Z_Len (Continued)
External Access: Read/Write
*GuardFaults_Z_Len - Status_program/Status - *5(Status_READ)*

GuardStatus_X_Detect SINT[32] Milling_Machine
Constant No
External Access: Read/Write
*GuardStatus_X_Detect - Status_program/Status - *0(Status_READ)*

GuardStatus_X_Len 3 SINT Milling_Machine
Constant No
External Access: Read/Write
*GuardStatus_X_Len - Status_program/Status - *0(Status_READ)*

GuardStatus_Y_Detect SINT[32] Milling_Machine
Constant No
External Access: Read/Write
*GuardStatus_Y_Detect - Status_program/Status - *1(Status_READ)*

GuardStatus_Y_Len 3 SINT Milling_Machine
Constant No
External Access: Read/Write
*GuardStatus_Y_Len - Status_program/Status - *1(Status_READ)*

GuardStatus_Z_Detect SINT[32] Milling_Machine
Constant No
External Access: Read/Write
*GuardStatus_Z_Detect - Status_program/Status - *2(Status_READ)*

GuardStatus_Z_Len 3 SINT Milling_Machine
Constant No
External Access: Read/Write
*GuardStatus_Z_Len - Status_program/Status - *2(Status_READ)*

hore_ONS 0 BOOL MainProgram
Constant No
External Access: Read/Write
*hore_ONS - MainProgram/AUTOMAT_EDIT - *1(ONS)*

I 10 DINT MainProgram
Constant No
External Access: Read/Write
*I - MainProgram/AUTOMAT_EDIT - *0(MOV), *1(ADD), *2(ADD), *3(MOV), 1(ADD), 1(LES), 2(ADD), 2(GRT), 4(MOV), 5(MOV), 6(MOV)*
*I - MainProgram/AUTOMATIC_CONTROL - *6(JSR), *8(MOV), 6(JSR), 7(MAM), 7(MAM), 7(MAM)*
I - MainProgram/PATH_FIND - #10, #11, #15, #16, #17, #21, #22, #23, #27, #29, #30, #31, #32, #35, #36, #37, #38, #41, #42, #43, #44, #47, #48, #49, #50, #51, #54, #55, #56, #57, #6, #60, #61, #62, #63, #68, #69, #70, #71, #75, #76, #77, #81, #82, #83, #89, #89, #9, #90, #91, #92
*I - MainProgram/Program_Freza - #17, #18, #19, #29, #35, #35, #35, #35, #37, *#37, *#43, *#8*
*I - MainProgram/VUT_logo - #16, #17, #18, #28, #34, #34, #34, #34, #36, *#36, *#42, *#7*

I_MAX 99 INT MainProgram
Constant No
External Access: Read/Write
I_MAX - MainProgram/AUTOMAT_EDIT - 1(LES), 3(GRT), 3(LEQ)
I_MAX - MainProgram/PATH_FIND - #47, #68, #89
I_MAX - MainProgram/Program_Freza - #29, #35
I_MAX - MainProgram/RESET_PATH - #2, #20, #38
I_MAX - MainProgram/VUT_logo - #28, #34

I_RESET 0 BOOL MainProgram
Constant No
External Access: Read/Write
I_RESET - MainProgram/AUTOMAT_EDIT - 0(XIC)
I_RESET - MainProgram/AUTOMATIC_CONTROL - 3(XIO), 4(XIO), 5(XIO)

I_SET 0 BOOL MainProgram
Constant No
External Access: Read/Write
*I_SET - MainProgram/AUTOMAT_EDIT - *0(OTU)*

I_SET_VAL 10 DINT MainProgram
Constant No
External Access: Read/Write
*I_SET_VAL - MainProgram/AUTOMAT_EDIT - *3(MOV), *3(MOV), 3(GRT), 3(GRT), 3(LEQ), 3(LEQ), 3(MOV), 3(MOV), 3(NEQ)*
I_SET_VAL - MainProgram/AUTOMATIC_CONTROL - 8(MOV), 8(MOV), 8(NEQ)

I_SET_VAL_temp 10 DINT MainProgram
Constant No
External Access: Read/Write
*I_SET_VAL_temp - MainProgram/AUTOMAT_EDIT - *3(MOV), 3(MOV), 3(MOV), 3(NEQ)*
*I_SET_VAL_temp - MainProgram/AUTOMATIC_CONTROL - *8(MOV), 8(NEQ)*

INIT 0 BOOL MainProgram
Constant No
External Access: Read/Write
*INIT - MainProgram/INIT - *4(OTU)*

INIT_DN 0 BOOL MainProgram
Constant No
External Access: Read/Write
*INIT_DN - MainProgram/INIT - *4(OTE)*

INIT_X_MAFR MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*INIT_X_MAFR - MainProgram/INIT - *0(MAFR)*
INIT_X_MAFR.DN 1 BOOL
INIT_X_MAFR.DN - MainProgram/INIT - 2(XIC)

INIT_X_MAH MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*INIT_X_MAH - MainProgram/INIT - *3(MAH)*
INIT_X_MAH.DN 0 BOOL
INIT_X_MAH.DN - MainProgram/INIT - 4(XIC)

INIT_X_MSO MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*INIT_X_MSO - MainProgram/INIT - *2(MSO)*
INIT_X_MSO.DN 0 BOOL
INIT_X_MSO.DN - MainProgram/INIT - 3(XIC)

INIT_Y_MAFR MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*INIT_Y_MAFR - MainProgram/INIT - *0(MAFR)*
INIT_Y_MAFR.DN 1 BOOL
INIT_Y_MAFR.DN - MainProgram/INIT - 2(XIC)

INIT_Y_MAH MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*INIT_Y_MAH - MainProgram/INIT - *3(MAH)*
INIT_Y_MAH.DN 0 BOOL
INIT_Y_MAH.DN - MainProgram/INIT - 4(XIC)

INIT_Y_MSO MOTION_INSTRUCTION MainProgram
Constant No

INIT_Y_MSO (Continued)
External Access: Read/Write
*INIT_Y_MSO - MainProgram/INIT - *2(MSO)*

INIT_Y_MSO.DN 0 BOOL
INIT_Y_MSO.DN - MainProgram/INIT - 3(XIC)

INIT_Z_MAFR MOTION_INSTRUCTION MainProgram
Constant: No
External Access: Read/Write
*INIT_Z_MAFR - MainProgram/INIT - *0(MAFR)*

INIT_Z_MAFR.DN 1 BOOL
INIT_Z_MAFR.DN - MainProgram/INIT - 2(XIC)

INIT_Z_MAH MOTION_INSTRUCTION MainProgram
Constant: No
External Access: Read/Write
*INIT_Z_MAH - MainProgram/INIT - *3(MAH)*

INIT_Z_MAH.DN 0 BOOL
INIT_Z_MAH.DN - MainProgram/INIT - 4(XIC)

INIT_Z_MSO MOTION_INSTRUCTION MainProgram
Constant: No
External Access: Read/Write
*INIT_Z_MSO - MainProgram/INIT - *2(MSO)*

INIT_Z_MSO.DN 0 BOOL
INIT_Z_MSO.DN - MainProgram/INIT - 3(XIC)

j 100 DINT MainProgram
Constant: No
External Access: Read/Write
*j - MainProgram/RESET_PATH - #10, #11, #12, #13, #14, #15, #16, #17, #21, #22, #23, #24, #25, #26, #27, #28, #29, #3, #30, #31, #32, #33, #34, #35, #39, #4, #40, #41, #42, #43, #44, #45, #46, #47, #48, #49, #5, #50, #51, #52, #53, #6, #7, #8, #9, *#2, *#20, *#38*

JOG_FAST_SETTING_V 0 BOOL MainProgram
Constant: No
External Access: Read/Write
JOG_FAST_SETTING_V - MainProgram/SETTINGS - 1(XIO), 2(XIC)

JOG_FINE_SETTING_V 0 BOOL MainProgram
Constant: No
External Access: Read/Write
JOG_FINE_SETTING_V - MainProgram/SETTINGS - 0(XIC), 1(XIC), 2(XIO)

JOG_X_IP 0 BOOL MainProgram
Constant: No
External Access: Read/Write
*JOG_X_IP - MainProgram/MANUAL_CONTROL - *12(OTL), *13(OTL), *15(OTU), 14(XIC)*

JOG_Y_IP 0 BOOL MainProgram
Constant: No
External Access: Read/Write
*JOG_Y_IP - MainProgram/MANUAL_CONTROL - *16(OTL), *17(OTL), *19(OTU), 18(XIC)*

JOG_Z_IP 0 BOOL MainProgram
Constant: No
External Access: Read/Write
*JOG_Z_IP - MainProgram/MANUAL_CONTROL - *20(OTL), *21(OTL), *23(OTU), 22(XIC)*

Local:1:I AB:1769_DI32:I:0 Milling_Machine
Constant: No
External Access: Read/Write

Local:1:I.Data.1 0 BOOL
Local:1:I.Data.1 - MainProgram/IO_Routine - 0(XIO)

Local:1:I.Data.2 0 BOOL

Local:1:I (Continued)
Local:1:I.Data.2 - MainProgram/IO_Routine - 1(XIC)
Local:1:I.Data.3 0 BOOL
Local:1:I.Data.3 - MainProgram/IO_Routine - 2(XIO)
Local:1:I.Data.4 0 BOOL
Local:1:I.Data.4 - MainProgram/IO_Routine - 3(XIO)
Local:1:I.Data.5 0 BOOL
Local:1:I.Data.5 - MainProgram/IO_Routine - 4(XIO)
Local:1:I.Data.6 0 BOOL
CR30
Local:1:I.Data.6 - MainProgram/IO_Routine - 5(XIO)
Local:1:I.Data.7 0 BOOL
Local:1:I.Data.7 - MainProgram/IO_Routine - 6(XIC)
Local:1:I.Data.9 0 BOOL
Local:1:I.Data.9 - MainProgram/IO_Routine - 7(XIC)
Local:1:I.Data.11 1 BOOL
Local:1:I.Data.11 - MainProgram/IO_Routine - 8(XIO)

Local:2:O AB:1769_DO16:O:0 Milling_Machine
Constant No
External Access: Read/Write
Local:2:O.Data.1 0 BOOL
*FREZ_COMM_START - MainProgram/IO_Routine - *9(OTE)*

LOGO_CASE 0 DINT MainProgram
Constant No
External Access: Read/Write
*LOGO_CASE - MainProgram/AUTOMAT_EDIT - *0(MOV)*
*LOGO_CASE - MainProgram/Program_Freza - #14, #27, #3, #4, *#21, *#36, *#6*
*LOGO_CASE - MainProgram/VUT_logo - #13, #2, #26, #3, *#20, *#35, *#5*

LOGO_DN 0 BOOL MainProgram
Constant No
External Access: Read/Write
*LOGO_DN - MainProgram/AUTOMAT_EDIT - *0(OTU)*
LOGO_DN - MainProgram/AUTOMATIC_CONTROL - 6(XIO)
*LOGO_DN - MainProgram/Program_Freza - *#30*
*LOGO_DN - MainProgram/VUT_logo - *#29*

LOGO_X 100 DINT MainProgram
Constant No
External Access: Read/Write
LOGO_X - MainProgram/AUTOMATIC_CONTROL - 7(MAM)
*LOGO_X - MainProgram/Program_Freza - *#17*
*LOGO_X - MainProgram/VUT_logo - *#16*

LOGO_X_MAM MOTION_INSTRUCTION[100] MainProgram
Constant No
External Access: Read/Write
*LOGO_X_MAM - MainProgram/AUTOMATIC_CONTROL - *7(MAM)*
LOGO_X_MAM - MainProgram/Program_Freza - #35
*LOGO_X_MAM - MainProgram/RESET_PATH - *#10, *#11, *#12, *#13, *#14, *#15, *#16, *#17, *#3, *#4, *#5, *#6, *#7, *#8, *#9*
LOGO_X_MAM - MainProgram/VUT_logo - #34

LOGO_Y 200 DINT MainProgram
Constant No
External Access: Read/Write
LOGO_Y - MainProgram/AUTOMATIC_CONTROL - 7(MAM)
*LOGO_Y - MainProgram/Program_Freza - *#18*
*LOGO_Y - MainProgram/VUT_logo - *#17*

LOGO_Y_MAM MOTION_INSTRUCTION[100] MainProgram
Constant No
External Access: Read/Write

LOGO_Y_MAM (Continued)
*LOGO_Y_MAM - MainProgram/AUTOMATIC_CONTROL - *7(MAM)*
LOGO_Y_MAM - MainProgram/Program_Freza - #35
*LOGO_Y_MAM - MainProgram/RESET_PATH - *#21, *#22, *#23, *#24, *#25, *#26, *#27, *#28, *#29, *#30, *#31, *#32, *#33, *#34, *#35*
LOGO_Y_MAM - MainProgram/VUT_logo - #34

LOGO_Z 0 DINT MainProgram
Constant No
External Access: Read/Write
LOGO_Z - MainProgram/AUTOMATIC_CONTROL - 7(MAM)
*LOGO_Z - MainProgram/Program_Freza - *#19*
*LOGO_Z - MainProgram/VUT_logo - *#18*

LOGO_Z_MAM MOTION_INSTRUCTION[100] MainProgram
Constant No
External Access: None
*LOGO_Z_MAM - MainProgram/AUTOMATIC_CONTROL - *7(MAM)*
LOGO_Z_MAM - MainProgram/Program_Freza - #35
*LOGO_Z_MAM - MainProgram/RESET_PATH - *#39, *#40, *#41, *#42, *#43, *#44, *#45, *#46, *#47, *#48, *#49, *#50, *#51, *#52, *#53*
LOGO_Z_MAM - MainProgram/VUT_logo - #34

MAFR_ERR 0 BOOL MainProgram
Constant No
External Access: Read/Write
*MAFR_ERR - MainProgram/Errors - *2(OTE)*

MAIN_COMM_FREZ_START 0 BOOL MainProgram
Constant No
External Access: Read/Write
MAIN_COMM_FREZ_START - MainProgram/IO_Routine - 9(XIC)
MAIN_COMM_FREZ_START - MainProgram/MANUAL_CONTROL - 1(XIC)

MAIN_COMM_XYZ_MSO 0 BOOL MainProgram
Constant No
External Access: Read/Write
MAIN_COMM_XYZ_MSO - MainProgram/MainRoutine - 3(XIC)

MAIN_X_MAFR MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MAIN_X_MAFR - MainProgram/MainRoutine - *1(MAFR)*
MAIN_X_MAFR.ER 0 BOOL
MAIN_X_MAFR.ER - MainProgram/Errors - 2(XIC)

MAIN_X_MSO MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MAIN_X_MSO - MainProgram/MainRoutine - *3(MSO)*
MAIN_X_MSO.ER 0 BOOL
MAIN_X_MSO.ER - MainProgram/Errors - 3(XIC)

MAIN_Y_MAFR MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MAIN_Y_MAFR - MainProgram/MainRoutine - *1(MAFR)*
MAIN_Y_MAFR.ER 0 BOOL
MAIN_Y_MAFR.ER - MainProgram/Errors - 2(XIC)

MAIN_Y_MSO MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MAIN_Y_MSO - MainProgram/MainRoutine - *3(MSO)*
MAIN_Y_MSO.ER 0 BOOL
MAIN_Y_MSO.ER - MainProgram/Errors - 3(XIC)

MAIN_Z_MAFR MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MAIN_Z_MAFR - MainProgram/MainRoutine - *1(MAFR)*
MAIN_Z_MAFR.ER 0 BOOL
MAIN_Z_MAFR.ER - MainProgram/Errors - 2(XIC)

MAIN_Z_MSO MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MAIN_Z_MSO - MainProgram/MainRoutine - *3(MSO)*
MAIN_Z_MSO.ER 0 BOOL
MAIN_Z_MSO.ER - MainProgram/Errors - 3(XIC)

MANUAL_CONTROL 0 BOOL MainProgram
Constant No
External Access: Read/Write
MANUAL_CONTROL - MainProgram/MainRoutine - 4(XIC), 5(XIO)

MC_X_MAH MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_X_MAH - MainProgram/MANUAL_CONTROL - *11(MAH)*

MC_X_MAJ_FWD MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_X_MAJ_FWD - MainProgram/MANUAL_CONTROL - *12(MAJ)*

MC_X_MAJ_REV MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_X_MAJ_REV - MainProgram/MANUAL_CONTROL - *13(MAJ)*

MC_X_MAM MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_X_MAM - MainProgram/MANUAL_CONTROL - *3(MAM)*

MC_X_MAM_HOME MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_X_MAM_HOME - MainProgram/MANUAL_CONTROL - *9(MAM)*
MC_X_MAM_HOME.PC 0 BOOL
MC_X_MAM_HOME.PC - MainProgram/MANUAL_CONTROL - 10(XIC)

MC_X_MAS MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_X_MAS - MainProgram/MANUAL_CONTROL - *14(MAS)*
MC_X_MAS.PC 0 BOOL
*MC_X_MAS.PC - MainProgram/MANUAL_CONTROL - *12(OTU), *13(OTU), 15(XIC)*

MC_X_MSO MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_X_MSO - MainProgram/MANUAL_CONTROL - *2(MSO)*
MC_X_MSO.DN 0 BOOL
MC_X_MSO.DN - MainProgram/MANUAL_CONTROL - 11(XIC), 3(XIC), 7(XIC)

MC_Y_MAH MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Y_MAH - MainProgram/MANUAL_CONTROL - *11(MAH)*

MC_Y_MAJ_FWD MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Y_MAJ_FWD - MainProgram/MANUAL_CONTROL - *16(MAJ)*

MC_Y_MAJ_REV MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Y_MAJ_REV - MainProgram/MANUAL_CONTROL - *17(MAJ)*

MC_Y_MAM MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Y_MAM - MainProgram/MANUAL_CONTROL - *5(MAM)*

MC_Y_MAS MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Y_MAS - MainProgram/MANUAL_CONTROL - *18(MAS)*
MC_Y_MAS.PC 0 BOOL
*MC_Y_MAS.PC - MainProgram/MANUAL_CONTROL - *16(OTU), *17(OTU), 19(XIC)*

MC_Y_MSO MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Y_MSO - MainProgram/MANUAL_CONTROL - *4(MSO)*
MC_Y_MSO.DN 0 BOOL
MC_Y_MSO.DN - MainProgram/MANUAL_CONTROL - 11(XIC), 5(XIC)

MC_Z_MAH MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Z_MAH - MainProgram/MANUAL_CONTROL - *11(MAH)*

MC_Z_MAJ_FWD MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Z_MAJ_FWD - MainProgram/MANUAL_CONTROL - *20(MAJ)*

MC_Z_MAJ_REV MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Z_MAJ_REV - MainProgram/MANUAL_CONTROL - *21(MAJ)*

MC_Z_MAM MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Z_MAM - MainProgram/MANUAL_CONTROL - *7(MAM)*

MC_Z_MAS MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Z_MAS - MainProgram/MANUAL_CONTROL - *22(MAS)*
MC_Z_MAS.PC 0 BOOL
*MC_Z_MAS.PC - MainProgram/MANUAL_CONTROL - *20(OTU), *21(OTU), 23(XIC)*

MC_Z_MSO MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MC_Z_MSO - MainProgram/MANUAL_CONTROL - *6(MSO)*
MC_Z_MSO.DN 0 BOOL
MC_Z_MSO.DN - MainProgram/MANUAL_CONTROL - 11(XIC)

Motion_Fault_counter 0 DINT Milling_Machine

Motion_Fault_counter (Continued)
Constant No
External Access: Read/Write
*Motion_Fault_counter - Fault_Handler/Norm_Fault_Handler_Routine - *2(ADD), *2(ADD), *2(ADD), 2(ADD), 2(ADD), 2(ADD)*

Motion_FAULT_Detected 0 BOOL Milling_Machine
Constant No
External Access: Read/Write
*Motion_FAULT_Detected - Fault_Handler/Norm_Fault_Handler_Routine - *2(OTL)*
*Motion_FAULT_Detected - MainProgram/Errors - *0(OTU)*

Motion_FAULT_DRIVE 0 BOOL Milling_Machine
Constant No
External Access: Read/Write
*Motion_FAULT_DRIVE - Fault_Handler/Norm_Fault_Handler_Routine - *2(OTL)*
*Motion_FAULT_DRIVE - MainProgram/Errors - *0(OTU)*
Motion_FAULT_DRIVE - MainProgram/MainRoutine - 4(XIO), 5(XIO)

Motion_FAULT_PHYSICAL 0 BOOL Milling_Machine
Constant No
External Access: Read/Write
*Motion_FAULT_PHYSICAL - Fault_Handler/Norm_Fault_Handler_Routine - *2(OTL)*
*Motion_FAULT_PHYSICAL - MainProgram/Errors - *0(OTU)*

Motion_Time_Lost 0 BOOL Milling_Machine
Constant No
External Access: Read/Write
*Motion_Time_Lost - Fault_Handler/Norm_Fault_Handler_Routine - *3(OTL)*
*Motion_Time_Lost - MainProgram/Errors - *0(OTU)*

MP_X_MSF MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MP_X_MSF - MainProgram/MainRoutine - *2(MSF)*

MP_Y_MSF MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MP_Y_MSF - MainProgram/MainRoutine - *2(MSF)*

MP_Z_MSF MOTION_INSTRUCTION MainProgram
Constant No
External Access: Read/Write
*MP_Z_MSF - MainProgram/MainRoutine - *2(MSF)*

MSO_ERR 0 BOOL MainProgram
Constant No
External Access: Read/Write
*MSO_ERR - MainProgram/Errors - *3(OTE)*

n_p 0 BOOL MainProgram
Constant No
External Access: Read/Write
*n_p - MainProgram/PATH_FIND - *#2*

OFF_ONSA 0 BOOL MainProgram
Constant No
External Access: Read/Write
*OFF_ONSA - MainProgram/AUTOMATIC_CONTROL - *3(ONS)*

OFF_ONSA2 0 BOOL MainProgram
Constant No
External Access: Read/Write
*OFF_ONSA2 - MainProgram/AUTOMATIC_CONTROL - *4(ONS)*

OFF_ONSA3 0 BOOL MainProgram
Constant No
External Access: Read/Write
*OFF_ONSA3 - MainProgram/AUTOMATIC_CONTROL - *5(ONS)*

OFFSET_Program1 Add_OFFSET MainProgram
Constant No
External Access: Read/Write
*OFFSET_Program1 - MainProgram/AUTOMATIC_CONTROL - *3(Add_OFFSET)*
OFFSET_Program1.EnableIn 0 BOOL
Enable Input - System Defined Parameter
OFFSET_Program1.EnableOut 0 BOOL
Enable Output - System Defined Parameter

OFFSET_Program2 Add_OFFSET MainProgram
Constant No
External Access: Read/Write
*OFFSET_Program2 - MainProgram/AUTOMATIC_CONTROL - *4(Add_OFFSET)*
OFFSET_Program2.EnableIn 0 BOOL
Enable Input - System Defined Parameter
OFFSET_Program2.EnableOut 0 BOOL
Enable Output - System Defined Parameter

OFFSET_Program3 Add_OFFSET MainProgram
Constant No
External Access: Read/Write
*OFFSET_Program3 - MainProgram/AUTOMATIC_CONTROL - *5(Add_OFFSET)*
OFFSET_Program3.EnableIn 1 BOOL
Enable Input - System Defined Parameter
OFFSET_Program3.EnableOut 0 BOOL
Enable Output - System Defined Parameter

Online_CR30 1 BOOL Komunikace_program
Constant No
External Access: Read/Write
*Online_CR30 - Komunikace_program/MAIN_Komunikace_Routine - *7(OTE)*

Online_DC_IN 1 BOOL Komunikace_program
Constant No
External Access: Read/Write
*Online_DC_IN - Komunikace_program/MAIN_Komunikace_Routine - *11(OTE)*

Online_DC_OUT 1 BOOL Komunikace_program
Constant No
External Access: Read/Write
*Online_DC_OUT - Komunikace_program/MAIN_Komunikace_Routine - *13(OTE)*

Online_F1 1 BOOL Komunikace_program
running
Constant No
External Access: Read/Write
*Online_F1 - Komunikace_program/MAIN_Komunikace_Routine - *1(OTE)*

Online_F2 1 BOOL Komunikace_program
Constant No
External Access: Read/Write
*Online_F2 - Komunikace_program/MAIN_Komunikace_Routine - *3(OTE)*

Online_F3 1 BOOL Komunikace_program
Constant No
External Access: Read/Write
*Online_F3 - Komunikace_program/MAIN_Komunikace_Routine - *5(OTE)*

Online_PLC 0 BOOL Komunikace_program

Online_PLC (Continued)
Constant No
External Access: Read/Write
*Online_PLC - Komunikace_program/MAIN_Komunikace_Routine - *15(OTE)*

Online_SWITCH 1 BOOL Komunikace_program
Constant No
External Access: Read/Write
*Online_SWITCH - Komunikace_program/MAIN_Komunikace_Routine - *9(OTE)*

ONS_RESET 0 BOOL MainProgram
Constant No
External Access: Read/Write
*ONS_RESET - MainProgram/Errors - *0(ONS)*

Osa_X Time_formatting MainProgram
formatuje cas d:h:m:s:ms
Constant No
External Access: Read/Write
*Osa_X - MainProgram/Motors_Runtime - *5(Time_formatting)*
Osa_X.EnableIn 1 BOOL
formatuje cas d:h:m:s:ms Enable Input - System Defined Parameter
Osa_X.EnableOut 1 BOOL
formatuje cas d:h:m:s:ms Enable Output - System Defined Parameter
Osa_X.Done_s 0 BOOL
formatuje cas d:h:m:s:ms

Osa_Y Time_formatting MainProgram
formatuje cas d:h:m:s:ms
Constant No
External Access: Read/Write
*Osa_Y - MainProgram/Motors_Runtime - *8(Time_formatting)*
Osa_Y.EnableIn 1 BOOL
formatuje cas d:h:m:s:ms Enable Input - System Defined Parameter
Osa_Y.EnableOut 1 BOOL
formatuje cas d:h:m:s:ms Enable Output - System Defined Parameter
Osa_Y.Done_s 0 BOOL
formatuje cas d:h:m:s:ms

Osa_Z Time_formatting MainProgram
formatuje cas d:h:m:s:ms
Constant No
External Access: Read/Write
*Osa_Z - MainProgram/Motors_Runtime - *11(Time_formatting)*
Osa_Z.EnableIn 1 BOOL
formatuje cas d:h:m:s:ms Enable Input - System Defined Parameter
Osa_Z.EnableOut 1 BOOL
formatuje cas d:h:m:s:ms Enable Output - System Defined Parameter
Osa_Z.Done_s 0 BOOL
formatuje cas d:h:m:s:ms

OsaXCIP AXIS_CIP_DRIVE Milling_Machine
External Access: Read/Write
OsaXCIP - MainProgram/AUTOMATIC_CONTROL - 1(MSO), 2(MAH), 7(MAM)
OsaXCIP - MainProgram/INIT - 0(MAFR), 2(MSO), 3(MAH)
OsaXCIP - MainProgram/MainRoutine - 1(MAFR), 2(MSF), 3(MSO)
OsaXCIP - MainProgram/MANUAL_CONTROL - 11(MAH), 12(MAJ), 13(MAJ), 14(MAS), 2(MSO), 3(MAM), 9(MAM)
OsaXCIP.MoveStatus 0 BOOL
OsaXCIP.MoveStatus - MainProgram/Movement - 0(XIC)
OsaXCIP.JogStatus 0 BOOL
OsaXCIP.JogStatus - MainProgram/Movement - 0(XIC)
OsaXCIP.SoftTravelLimitPositiveAlarm
0 BOOL
OsaXCIP.SoftTravelLimitPositiveAlarm - MainProgram/MANUAL_CONTROL - 12(XIO), 3(XIO)

OsaXCIP (Continued)
OsaXCIP.SoftTravelLimitNegativeAlarm
0 BOOL
OsaXCIP.SoftTravelLimitNegativeAlarm - MainProgram/MANUAL_CONTROL - 13(XIO), 3(XIO)
OsaXCIP.ActualPosition -0.00125 REAL
OsaXCIP.ActualPosition - MainProgram/MANUAL_CONTROL - 12(LEQ), 13(GEQ), 9(GEQ), 9(LES)
OsaXCIP.ActualPosition - MainProgram/Movement - 3(MOV)
OsaXCIP.GuardStatus 16#0000_0010 DINT
OsaXCIP.GuardStatus - Status_program/Status - 0(Status_READ)
OsaXCIP.GuardFaults 16#0000_0000 DINT
OsaXCIP.GuardFaults - Status_program/Status - 3(Status_READ)
OsaXCIP.CIPAxisIOStatus 16#0000_0032 DINT
OsaXCIP.CIPAxisIOStatus - Status_program/Status - 6(Status_READ)

OsaYCIP AXIS_CIP_DRIVE Milling_Machine
External Access: Read/Write
OsaYCIP - MainProgram/AUTOMATIC_CONTROL - 1(MSO), 2(MAH), 7(MAM)
OsaYCIP - MainProgram/INIT - 0(MAFR), 2(MSO), 3(MAH)
OsaYCIP - MainProgram/MainRoutine - 1(MAFR), 2(MSF), 3(MSO)
OsaYCIP - MainProgram/MANUAL_CONTROL - 11(MAH), 16(MAJ), 17(MAJ), 18(MAS), 4(MSO), 5(MAM)
OsaYCIP.MoveStatus 0 BOOL
OsaYCIP.MoveStatus - MainProgram/Movement - 1(XIC)
OsaYCIP.JogStatus 0 BOOL
OsaYCIP.JogStatus - MainProgram/Movement - 1(XIC)
OsaYCIP.SoftTravelLimitPositiveAlarm
0 BOOL
OsaYCIP.SoftTravelLimitPositiveAlarm - MainProgram/MANUAL_CONTROL - 16(XIO), 5(XIO)
OsaYCIP.SoftTravelLimitNegativeAlarm
0 BOOL
OsaYCIP.SoftTravelLimitNegativeAlarm - MainProgram/MANUAL_CONTROL - 17(XIO), 5(XIO)
OsaYCIP.ActualPosition 0.00125 REAL
OsaYCIP.ActualPosition - MainProgram/MANUAL_CONTROL - 16(LEQ), 17(GEQ)
OsaYCIP.ActualPosition - MainProgram/Movement - 3(MOV)
OsaYCIP.GuardStatus 16#0000_0010 DINT
OsaYCIP.GuardStatus - Status_program/Status - 1(Status_READ)
OsaYCIP.GuardFaults 16#0000_0000 DINT
OsaYCIP.GuardFaults - Status_program/Status - 4(Status_READ)
OsaYCIP.CIPAxisIOStatus 16#0000_0032 DINT
OsaYCIP.CIPAxisIOStatus - Status_program/Status - 7(Status_READ)

OsaZCIP AXIS_CIP_DRIVE Milling_Machine
External Access: Read/Write
OsaZCIP - MainProgram/AUTOMATIC_CONTROL - 1(MSO), 2(MAH), 7(MAM)
OsaZCIP - MainProgram/INIT - 0(MAFR), 2(MSO), 3(MAH)
OsaZCIP - MainProgram/MainRoutine - 1(MAFR), 2(MSF), 3(MSO)
OsaZCIP - MainProgram/MANUAL_CONTROL - 11(MAH), 20(MAJ), 21(MAJ), 22(MAS), 6(MSO), 7(MAM)
OsaZCIP.MoveStatus 0 BOOL
OsaZCIP.MoveStatus - MainProgram/Movement - 2(XIC)
OsaZCIP.JogStatus 0 BOOL
OsaZCIP.JogStatus - MainProgram/Movement - 2(XIC)
OsaZCIP.SoftTravelLimitPositiveAlarm
0 BOOL
OsaZCIP.SoftTravelLimitPositiveAlarm - MainProgram/MANUAL_CONTROL - 20(XIO), 7(XIO)
OsaZCIP.SoftTravelLimitNegativeAlarm
0 BOOL
OsaZCIP.SoftTravelLimitNegativeAlarm - MainProgram/MANUAL_CONTROL - 21(XIO), 7(XIO)
OsaZCIP.ActualPosition 0.00062 REAL
OsaZCIP.ActualPosition - MainProgram/MANUAL_CONTROL - 20(LEQ), 21(GEQ)
OsaZCIP.ActualPosition - MainProgram/Movement - 3(MOV)
OsaZCIP.GuardStatus 16#0000_0010 DINT
OsaZCIP.GuardStatus - Status_program/Status - 2(Status_READ)
OsaZCIP.GuardFaults 16#0000_0000 DINT
OsaZCIP.GuardFaults - Status_program/Status - 5(Status_READ)
OsaZCIP.CIPAxisIOStatus 16#0000_0032 DINT

OsaZCIP (Continued)
OsaZCIP.CIPAxisIOStatus - Status_program/Status - 8(Status_READ)

OVERride_CR30 0 BOOL Komunikace_program
Constant No
External Access: Read/Write
OVERride_CR30 - Komunikace_program/MAIN_Komunikace_Routine - 7(XIC)

OVERride_DC_IN 0 BOOL Komunikace_program
Constant No
External Access: Read/Write
OVERride_DC_IN - Komunikace_program/MAIN_Komunikace_Routine - 11(XIC)

OVERride_DC_OUT 0 BOOL Komunikace_program
Constant No
External Access: Read/Write
OVERride_DC_OUT - Komunikace_program/MAIN_Komunikace_Routine - 13(XIC)

OVERride_F1 0 BOOL Komunikace_program
Constant No
External Access: Read/Write
OVERride_F1 - Komunikace_program/MAIN_Komunikace_Routine - 1(XIC)

OVERride_F2 0 BOOL Komunikace_program
Constant No
External Access: Read/Write
OVERride_F2 - Komunikace_program/MAIN_Komunikace_Routine - 3(XIC)

OVERride_F3 16#0 BOOL Komunikace_program
Constant No
External Access: Read/Write
OVERride_F3 - Komunikace_program/MAIN_Komunikace_Routine - 5(XIC)

OVERride_PLC 0 BOOL Komunikace_program
Constant No
External Access: Read/Write
OVERride_PLC - Komunikace_program/MAIN_Komunikace_Routine - 15(XIC)

OVERride_Switch 1 BOOL Komunikace_program
Constant No
External Access: Read/Write
OVERride_Switch - Komunikace_program/MAIN_Komunikace_Routine - 9(XIC)

p_p 0 BOOL MainProgram
Constant No
External Access: Read/Write
*p_p - MainProgram/PATH_FIND - *#3*

PLC_RESET_SW 0 BOOL MainProgram
Constant No
External Access: Read/Write
*PLC_RESET_SW - MainProgram/IO_Routine - *6(OTE)*

PLC_REZIM_SW 0 BOOL MainProgram
Constant No
External Access: Read/Write
*PLC_REZIM_SW - MainProgram/IO_Routine - *1(OTE)*

PLC_RFID 0 BOOL MainProgram
Constant No
External Access: Read/Write
*PLC_RFID - MainProgram/IO_Routine - *7(OTE)*

POHYB 0 BOOL MainProgram

POHYB (Continued)
Constant No
External Access: Read/Write
*POHYB - MainProgram/AUTOMAT_EDIT - *0(OTU)*
POHYB - MainProgram/AUTOMATIC_CONTROL - 7(XIC)
*POHYB - MainProgram/Program_Freza - *#28, *#38, *#9*
*POHYB - MainProgram/VUT_logo - *#27, *#37, *#8*

POS_HOME_X 0 BOOL MainProgram
Constant No
External Access: Read/Write
*POS_HOME_X - MainProgram/MANUAL_CONTROL - *9(OTE), 11(XIC)*

POS_HOME_X_Latch 0 BOOL MainProgram
Constant No
External Access: Read/Write
*POS_HOME_X_Latch - MainProgram/MANUAL_CONTROL - *10(OTL), *11(OTU), 11(XIC)*

POS_HOME_X_ONS 0 BOOL MainProgram
Constant No
External Access: Read/Write
*POS_HOME_X_ONS - MainProgram/MANUAL_CONTROL - *10(ONS)*

POSITION_X 0 DINT MainProgram
Constant No
External Access: Read/Write
POSITION_X - MainProgram/MANUAL_CONTROL - 3(MAM)
*POSITION_X - MainProgram/Movement - *3(MOV)*

POSITION_Y 0 DINT MainProgram
Constant No
External Access: Read/Write
POSITION_Y - MainProgram/MANUAL_CONTROL - 5(MAM)
*POSITION_Y - MainProgram/Movement - *3(MOV)*

POSITION_Z 0 DINT MainProgram
Constant No
External Access: Read/Write
POSITION_Z - MainProgram/MANUAL_CONTROL - 7(MAM)
*POSITION_Z - MainProgram/Movement - *3(MOV)*

posun_dole 0 BOOL MainProgram
Constant No
External Access: Read/Write
posun_dole - MainProgram/AUTOMAT_EDIT - 2(XIC)

posun_hore 0 BOOL MainProgram
Constant No
External Access: Read/Write
posun_hore - MainProgram/AUTOMAT_EDIT - 1(XIC)

PROG_2 INT[3,100] MainProgram
Constant No
External Access: Read/Write
*PROG_2 - MainProgram/AUTOMATIC_CONTROL - *4(Copy_PATH)*

PROG_3 INT[3,100] MainProgram
Constant No
External Access: Read/Write
*PROG_3 - MainProgram/AUTOMATIC_CONTROL - *5(Copy_PATH)*

PROG_AKTIV 0 BOOL MainProgram
Constant No
External Access: Read/Write

PROG_AKTIV (Continued)
*PROG_AKTIV - MainProgram/AUTOMAT_EDIT - *0(OTU)*
*PROG_AKTIV - MainProgram/AUTOMATIC_CONTROL - *9(OTU)*
*PROG_AKTIV - MainProgram/Program_Freza - *#10, *#31*
*PROG_AKTIV - MainProgram/VUT_logo - *#30, *#9*

PROG_OFFSET INT[3] MainProgram
Constant No
External Access: Read/Write
*PROG_OFFSET - MainProgram/AUTOMATIC_CONTROL - *3(Add_OFFSET), *4(Add_OFFSET), *5(Add_OFFSET)*

PROG_ONS1 1 BOOL MainProgram
Constant No
External Access: Read/Write
*PROG_ONS1 - MainProgram/AUTOMATIC_CONTROL - *3(ONS)*

PROG_ONS2 0 BOOL MainProgram
Constant No
External Access: Read/Write
*PROG_ONS2 - MainProgram/AUTOMATIC_CONTROL - *4(ONS)*

PROG_ONS3 0 BOOL MainProgram
Constant No
External Access: Read/Write
*PROG_ONS3 - MainProgram/AUTOMATIC_CONTROL - *5(ONS)*

PROG_Running INT[3,100] MainProgram
Constant No
External Access: Read/Write
*PROG_Running - MainProgram/AUTOMAT_EDIT - *4(MOV), *5(MOV), *6(MOV)*
*PROG_Running - MainProgram/AUTOMATIC_CONTROL - *3(Add_OFFSET), *3(Copy_PATH), *4(Add_OFFSET), *4(Copy_PATH), *5(Add_OFFSET), *5(Copy_PATH)*
PROG_Running - MainProgram/PATH_FIND - #10, #11, #15, #16, #17, #21, #22, #23, #29, #30, #31, #32, #35, #36, #37, #38, #41, #42, #43, #44, #48, #49, #50, #51, #54, #55, #56, #57, #60, #61, #62, #63, #69, #70, #71, #75, #76, #77, #81, #82, #83, #9, #90, #91, #92
PROG_Running - MainProgram/Program_Freza - #17, #18, #19

Program_NUM 1 DINT MainProgram
Constant No
External Access: Read/Write
Program_NUM - MainProgram/AUTOMATIC_CONTROL - 3(EQU), 4(EQU), 5(EQU)

RESET 0 BOOL MainProgram
Constant No
External Access: Read/Write
RESET - MainProgram/Errors - 0(XIC)
RESET - MainProgram/MainRoutine - 1(XIC)

RunTime_Freza RunTime MainProgram
cas behu nastroje/motoru
Constant No
External Access: Read/Write
*RunTime_Freza - MainProgram/Motors_Runtime - *2(Time_formatting)*
RunTime_Freza.ms 420 DINT
cas behu nastroje/motoru milisekundy
RunTime_Freza.s 0 DINT
cas behu nastroje/motoru sekundy
*RunTime_Freza.s - MainProgram/Motors_Runtime - *1(ADD), 1(ADD)*
RunTime_Freza.m 0 DINT
cas behu nastroje/motoru minuty
RunTime_Freza.h 0 DINT
cas behu nastroje/motoru hodiny
RunTime_Freza.d 0 DINT
cas behu nastroje/motoru dny

RunTime_X		RunTime	MainProgram
cas behu nastroje/motoru			
Constant	No		
External Access:	Read/Write		
*RunTime_X - MainProgram/Motors_Runtime - *5(Time_formatting)*			
RunTime_X.ms	375	DINT	
cas behu nastroje/motoru milisekundy			
RunTime_X.s	52	DINT	
cas behu nastroje/motoru sekundy			
*RunTime_X.s - MainProgram/Motors_Runtime - *4(ADD), 4(ADD)*			
RunTime_X.m	0	DINT	
cas behu nastroje/motoru minuty			
RunTime_X.h	0	DINT	
cas behu nastroje/motoru hodiny			
RunTime_X.d	0	DINT	
cas behu nastroje/motoru dny			
RunTime_Y		RunTime	MainProgram
cas behu nastroje/motoru			
Constant	No		
External Access:	Read/Write		
*RunTime_Y - MainProgram/Motors_Runtime - *8(Time_formatting)*			
RunTime_Y.ms	47	DINT	
cas behu nastroje/motoru milisekundy			
RunTime_Y.s	4	DINT	
cas behu nastroje/motoru sekundy			
*RunTime_Y.s - MainProgram/Motors_Runtime - *7(ADD), 7(ADD)*			
RunTime_Y.m	0	DINT	
cas behu nastroje/motoru minuty			
RunTime_Y.h	0	DINT	
cas behu nastroje/motoru hodiny			
RunTime_Y.d	0	DINT	
cas behu nastroje/motoru dny			
RunTime_Z		RunTime	MainProgram
cas behu nastroje/motoru			
Constant	No		
External Access:	Read/Write		
*RunTime_Z - MainProgram/Motors_Runtime - *11(Time_formatting)*			
RunTime_Z.ms	319	DINT	
cas behu nastroje/motoru milisekundy			
RunTime_Z.s	2	DINT	
cas behu nastroje/motoru sekundy			
*RunTime_Z.s - MainProgram/Motors_Runtime - *10(ADD), 10(ADD)*			
RunTime_Z.m	0	DINT	
cas behu nastroje/motoru minuty			
RunTime_Z.h	0	DINT	
cas behu nastroje/motoru hodiny			
RunTime_Z.d	0	DINT	
cas behu nastroje/motoru dny			
SAVED	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
*SAVED - MainProgram/SETTINGS - *0(OTL), 0(XIC), 0(XIO)*			
SET_ACTUAL_POSITION	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		
SET_ACTUAL_POSITION - MainProgram/Movement - 3(XIC)			
SET_FINE	0	BOOL	MainProgram
Constant	No		
External Access:	Read/Write		

SET_FINE (Continued)
*SET_FINE - MainProgram/SETTINGS - *1(OTE)*

SET_OFFSET 0 BOOL MainProgram
Constant No
External Access: Read/Write
*SET_OFFSET - MainProgram/AUTOMAT_EDIT - *0(OTU)*
SET_OFFSET - MainProgram/AUTOMATIC_CONTROL - 3(XIC), 4(XIC), 5(XIC)

sour_X DINT[5] MainProgram
Constant No
External Access: Read/Write
*sour_X - MainProgram/PATH_FIND - *#90*
sour_X[0] 67 DINT
*sour_X[0] - MainProgram/PATH_FIND - *#28, *#48, *#69, *#7*
sour_X[1] 13 DINT
*sour_X[1] - MainProgram/PATH_FIND - *#29, *#49, *#70, *#8*
sour_X[2] 13 DINT
*sour_X[2] - MainProgram/PATH_FIND - *#30, *#50, *#71, *#9*
sour_X[3] 28 DINT
*sour_X[3] - MainProgram/PATH_FIND - *#10, *#31, *#51, *#72*
sour_X[4] 28 DINT
*sour_X[4] - MainProgram/PATH_FIND - *#11, *#32, *#52, *#73*

sour_Y DINT[5] MainProgram
Constant No
External Access: Read/Write
*sour_Y - MainProgram/PATH_FIND - *#91*
sour_Y[0] 65 DINT
*sour_Y[0] - MainProgram/PATH_FIND - *#13, *#34, *#54, *#75*
sour_Y[1] 12 DINT
*sour_Y[1] - MainProgram/PATH_FIND - *#14, *#35, *#55, *#76*
sour_Y[2] 12 DINT
*sour_Y[2] - MainProgram/PATH_FIND - *#15, *#36, *#56, *#77*
sour_Y[3] 12 DINT
*sour_Y[3] - MainProgram/PATH_FIND - *#16, *#37, *#57, *#78*
sour_Y[4] 14 DINT
*sour_Y[4] - MainProgram/PATH_FIND - *#17, *#38, *#58, *#79*

sour_Z DINT[5] MainProgram
Constant No
External Access: Read/Write
*sour_Z - MainProgram/PATH_FIND - *#92*
sour_Z[0] 90 DINT
*sour_Z[0] - MainProgram/PATH_FIND - *#19, *#40, *#60, *#81*
sour_Z[1] 90 DINT
*sour_Z[1] - MainProgram/PATH_FIND - *#20, *#41, *#61, *#82*
sour_Z[2] 121 DINT
*sour_Z[2] - MainProgram/PATH_FIND - *#21, *#42, *#62, *#83*
sour_Z[3] 121 DINT
*sour_Z[3] - MainProgram/PATH_FIND - *#22, *#43, *#63, *#84*
sour_Z[4] 121 DINT
*sour_Z[4] - MainProgram/PATH_FIND - *#23, *#44, *#64, *#85*

Status_CR30 4 INT Komunikace_program
Constant No
External Access: Read/Write
*Status_CR30 - Komunikace_program/MAIN_Komunikace_Routine - *6(BTD), 7(EQU)*

Status_DC_IN 4 INT Komunikace_program
Constant No
External Access: Read/Write
*Status_DC_IN - Komunikace_program/MAIN_Komunikace_Routine - *10(BTD), 11(EQU)*

Status_DC_OUT 4 INT Komunikace_program
Constant No
External Access: Read/Write
*Status_DC_OUT - Komunikace_program/MAIN_Komunikace_Routine - *12(BTD), 13(EQU)*

Status_F1 4 INT Komunikace_program
Constant No
External Access: Read/Write
*Status_F1 - Komunikace_program/MAIN_Komunikace_Routine - *0(BTD), 1(EQU)*

Status_F2 4 INT Komunikace_program
Constant No
External Access: Read/Write
*Status_F2 - Komunikace_program/MAIN_Komunikace_Routine - *2(BTD), 3(EQU)*

Status_F3 4 INT Komunikace_program
Constant No
External Access: Read/Write
*Status_F3 - Komunikace_program/MAIN_Komunikace_Routine - *4(BTD), 5(EQU)*

Status_PLC 790 INT Komunikace_program
Constant No
External Access: Read/Write
*Status_PLC - Komunikace_program/MAIN_Komunikace_Routine - *14(BTD), 15(EQU)*

Status_SWITCH 1 INT Komunikace_program
Constant No
External Access: Read/Write
*Status_SWITCH - Komunikace_program/MAIN_Komunikace_Routine - *8(BTD), 9(EQU)*

STOP 0 BOOL MainProgram
Constant No
External Access: Read/Write
STOP - MainProgram/MainRoutine - 2(XIC)

SUB 0 BOOL MainProgram
Constant No
External Access: Read/Write
*SUB - MainProgram/Program_Freza - *#23*
*SUB - MainProgram/VUT_logo - *#22*

subrut_DN 1 BOOL MainProgram
Constant No
External Access: Read/Write
*subrut_DN - MainProgram/Program_Freza - *#22, *#7*
*subrut_DN - MainProgram/VUT_logo - *#21, *#6*

TIMER_Freza TIMER MainProgram
Constant No
External Access: Read/Write
*TIMER_Freza - MainProgram/Motors_Runtime - *0(RTO), *1(RES), *2(Time_formatting)*
TIMER_Freza.DN 0 BOOL
TIMER_Freza.DN - MainProgram/Motors_Runtime - 1(XIC)

TIMER_X TIMER MainProgram
Constant No
External Access: Read/Write
*TIMER_X - MainProgram/Motors_Runtime - *3(RTO), *4(RES), *5(Time_formatting)*
TIMER_X.DN 0 BOOL
TIMER_X.DN - MainProgram/Motors_Runtime - 4(XIC)

TIMER_Y TIMER MainProgram
Constant No
External Access: Read/Write

TIMER_Y (Continued)
*TIMER_Y - MainProgram/Motors_Runtime - *6(RTO), *7(RES), *8(Time_formatting)*
TIMER_Y.DN 0 BOOL
TIMER_Y.DN - MainProgram/Motors_Runtime - 7(XIC)

TIMER_Z TIMER MainProgram
Constant No
External Access: Read/Write
*TIMER_Z - MainProgram/Motors_Runtime - *10(RES), *11(Time_formatting), *9(RTO)*
TIMER_Z.DN 0 BOOL
TIMER_Z.DN - MainProgram/Motors_Runtime - 10(XIC)

TON_FREZ TIMER MainProgram
Constant No
External Access: Read/Write
*TON_FREZ - MainProgram/MANUAL_CONTROL - *1(TON)*
TON_FREZ.DN 0 BOOL
TON_FREZ.DN - MainProgram/MANUAL_CONTROL - 1(XIO)

TON_mozna 0 BOOL MainProgram
Constant No
External Access: Read/Write
TON_mozna - MainProgram/INIT - 5(XIC)

V_X_MC 50 DINT MainProgram
Constant No
External Access: Read/Write
V_X_MC - MainProgram/AUTOMATIC_CONTROL - 7(MAM)
*V_X_MC - MainProgram/INIT - *1(MOV)*
V_X_MC - MainProgram/MANUAL_CONTROL - 12(MAJ), 13(MAJ), 3(MAM), 9(MAM)
*V_X_MC - MainProgram/SETTINGS - *1(MOV), *2(MOV), 0(MOV)*

V_X_SAVED 50 DINT MainProgram
Constant No
External Access: Read/Write
V_X_SAVED - MainProgram/INIT - 1(MOV)
*V_X_SAVED - MainProgram/SETTINGS - *0(MOV), 2(MOV)*

V_Y_MC 50 DINT MainProgram
Constant No
External Access: Read/Write
V_Y_MC - MainProgram/AUTOMATIC_CONTROL - 7(MAM)
*V_Y_MC - MainProgram/INIT - *1(MOV)*
V_Y_MC - MainProgram/MANUAL_CONTROL - 16(MAJ), 17(MAJ), 5(MAM)
*V_Y_MC - MainProgram/SETTINGS - *1(MOV), *2(MOV), 0(MOV)*

V_Y_SAVED 50 DINT MainProgram
Constant No
External Access: Read/Write
V_Y_SAVED - MainProgram/INIT - 1(MOV)
*V_Y_SAVED - MainProgram/SETTINGS - *0(MOV), 2(MOV)*

V_Z_MC 50 DINT MainProgram
Constant No
External Access: Read/Write
V_Z_MC - MainProgram/AUTOMATIC_CONTROL - 7(MAM)
*V_Z_MC - MainProgram/INIT - *1(MOV)*
V_Z_MC - MainProgram/MANUAL_CONTROL - 20(MAJ), 21(MAJ), 7(MAM)
*V_Z_MC - MainProgram/SETTINGS - *1(MOV), *2(MOV), 0(MOV)*

V_Z_SAVED 50 DINT MainProgram
Constant No
External Access: Read/Write
V_Z_SAVED - MainProgram/INIT - 1(MOV)

V_Z_SAVED (Continued)
*V_Z_SAVED - MainProgram/SETTINGS - *0(MOV), 2(MOV)*

VUT_LOGO_START 0 BOOL MainProgram
Constant No
External Access: Read/Write
VUT_LOGO_START - MainProgram/AUTOMATIC_CONTROL - 1(XIC), 7(XIC), 9(XIO)
VUT_LOGO_START - MainProgram/Program_Freza - #5
VUT_LOGO_START - MainProgram/VUT_logo - #4

X_MOVE 0 BOOL MainProgram
Constant No
External Access: Read/Write
X_MOVE - MainProgram/Motors_Runtime - 3(XIC)
*X_MOVE - MainProgram/Movement - *0(OTE)*

X_SET_VAL 0 DINT MainProgram
Constant No
External Access: Read/Write
*X_SET_VAL - MainProgram/AUTOMAT_EDIT - *4(MOV), *4(MOV), 4(GEQ), 4(GRT), 4(LEQ), 4(LES), 4(MOV), 4(MOV), 4(NEQ)*

X_SET_VAL_temp 0 DINT MainProgram
Constant No
External Access: Read/Write
*X_SET_VAL_temp - MainProgram/AUTOMAT_EDIT - *4(MOV), 4(MOV), 4(MOV), 4(NEQ)*

Y_MOVE 0 BOOL MainProgram
Constant No
External Access: Read/Write
Y_MOVE - MainProgram/Motors_Runtime - 6(XIC)
*Y_MOVE - MainProgram/Movement - *1(OTE)*

Y_SET_VAL 0 DINT MainProgram
Constant No
External Access: Read/Write
*Y_SET_VAL - MainProgram/AUTOMAT_EDIT - *5(MOV), *5(MOV), 5(GEQ), 5(GRT), 5(LEQ), 5(LES), 5(MOV), 5(MOV), 5(NEQ)*

Y_SET_VAL_temp 0 DINT MainProgram
Constant No
External Access: Read/Write
*Y_SET_VAL_temp - MainProgram/AUTOMAT_EDIT - *5(MOV), 5(MOV), 5(MOV), 5(NEQ)*

Z_MOVE 0 BOOL MainProgram
Constant No
External Access: Read/Write
Z_MOVE - MainProgram/Motors_Runtime - 9(XIC)
*Z_MOVE - MainProgram/Movement - *2(OTE)*

Z_SET_VAL 0 DINT MainProgram
Constant No
External Access: Read/Write
*Z_SET_VAL - MainProgram/AUTOMAT_EDIT - *6(MOV), *6(MOV), 6(GEQ), 6(GRT), 6(LEQ), 6(LES), 6(MOV), 6(MOV), 6(NEQ)*

Z_SET_VAL_temp 0 DINT MainProgram
Constant No
External Access: Read/Write
*Z_SET_VAL_temp - MainProgram/AUTOMAT_EDIT - *6(MOV), 6(MOV), 6(MOV), 6(NEQ)*

16#0000. Standby
16#1000. Faulted
16#2000. Validating
16#3000. Connecting
16#4000. Running
16#5000. Shutting down
16#6000. Inhibited
16#7000. Waiting
16#9000. Firmware Updating
16#A000. Configuring

0

OSA X
pouze bity 12...15
značí status

GSV
Class Name Module
Instance Name F1
Attribute Name EntryStatus
Dest EntryStatus_F1
16384

BTD
Source EntryStatus_F1
16384
Source Bit 12
Dest Status_F1
4
Dest Bit 0
Length 4

1

EQU
Source A Status_F1
4
Source B 4

OVERride_F1

running
Online_F1

2

OSA Y

GSV
Class Name Module
Instance Name F2
Attribute Name EntryStatus
Dest EntryStatus_F2
16384

BTD
Source EntryStatus_F2
16384
Source Bit 12
Dest Status_F2
4
Dest Bit 0
Length 4

3

EQU
Source A Status_F2
4
Source B 4

OVERride_F2

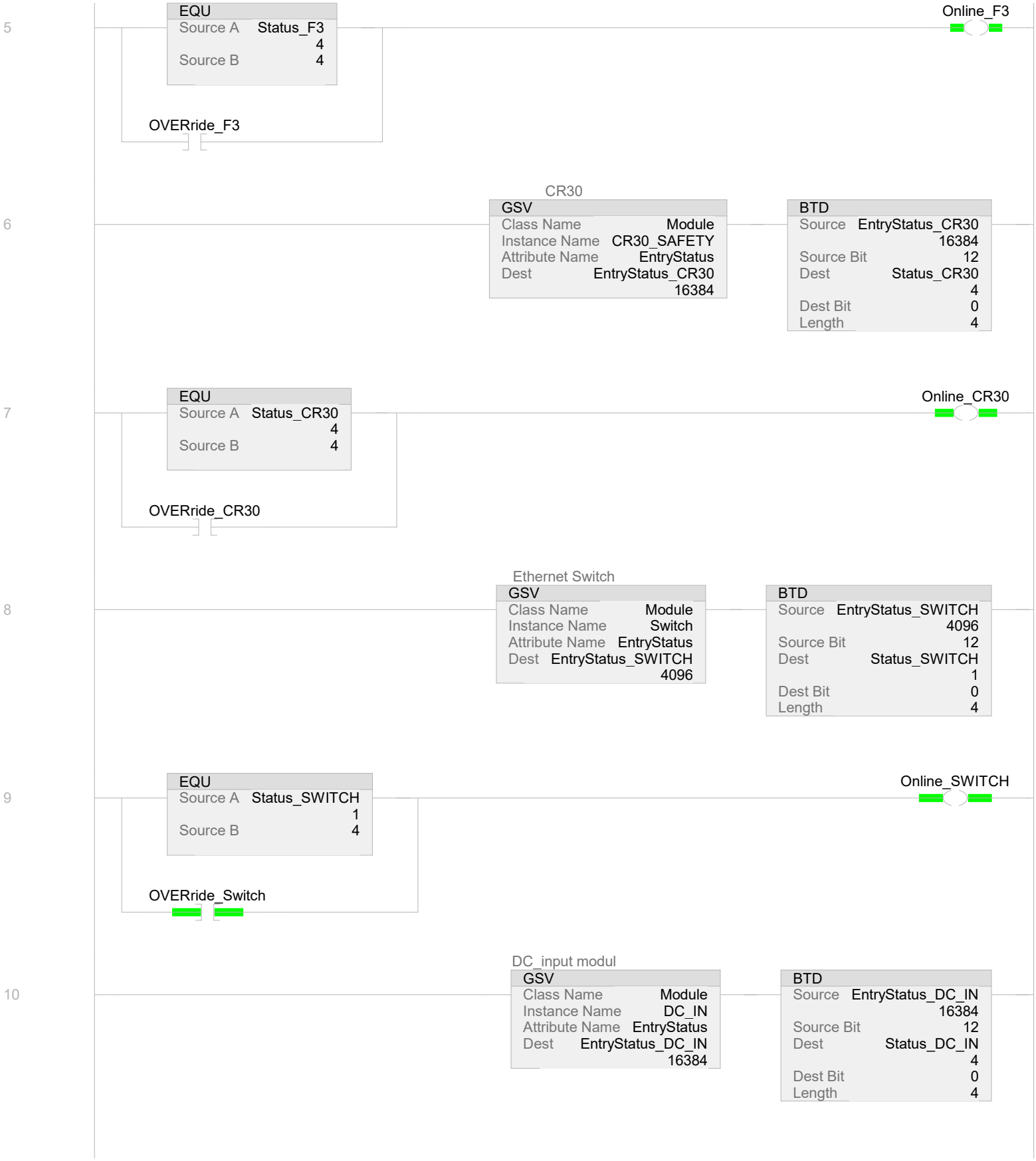
Online_F2

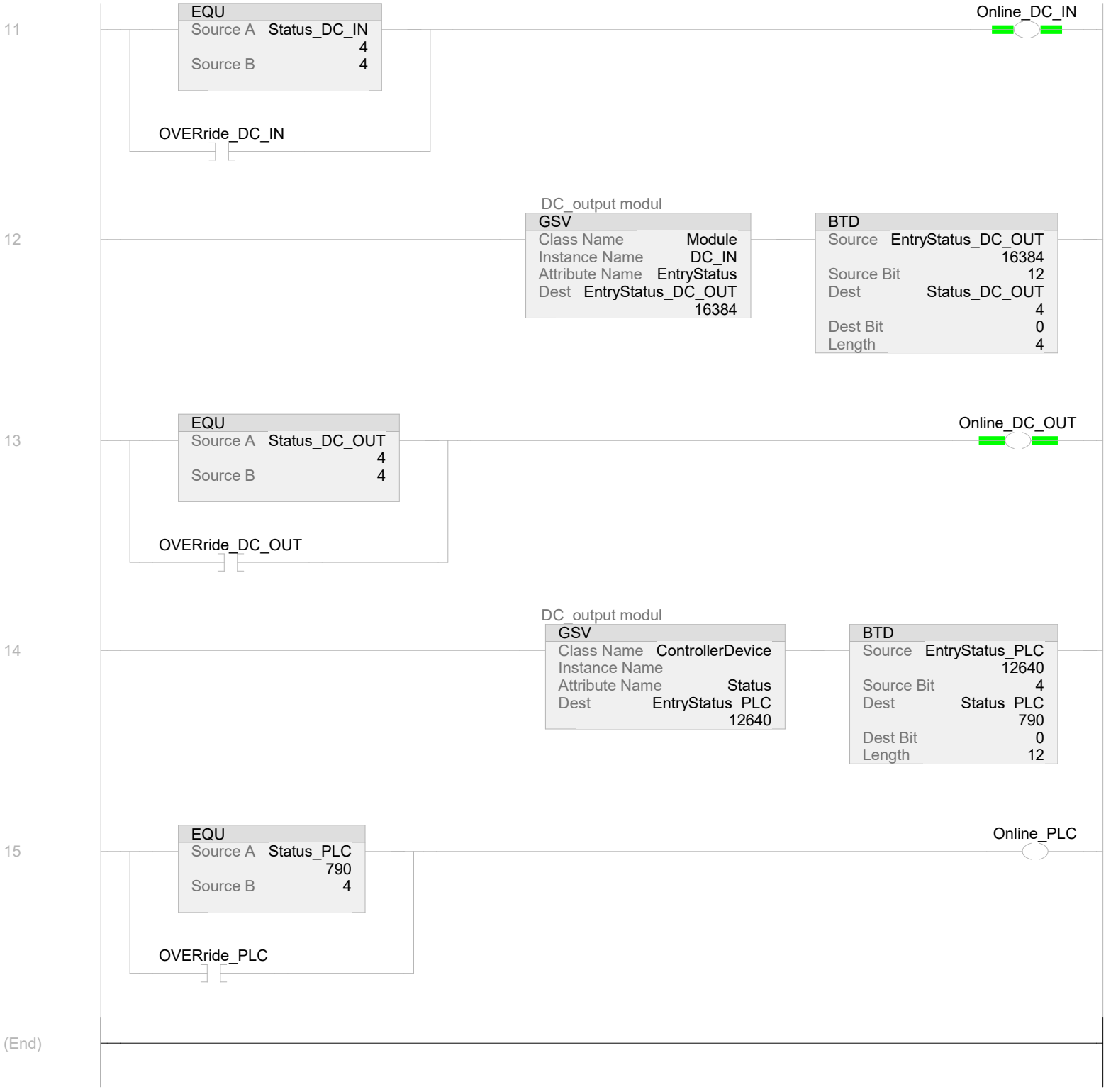
4

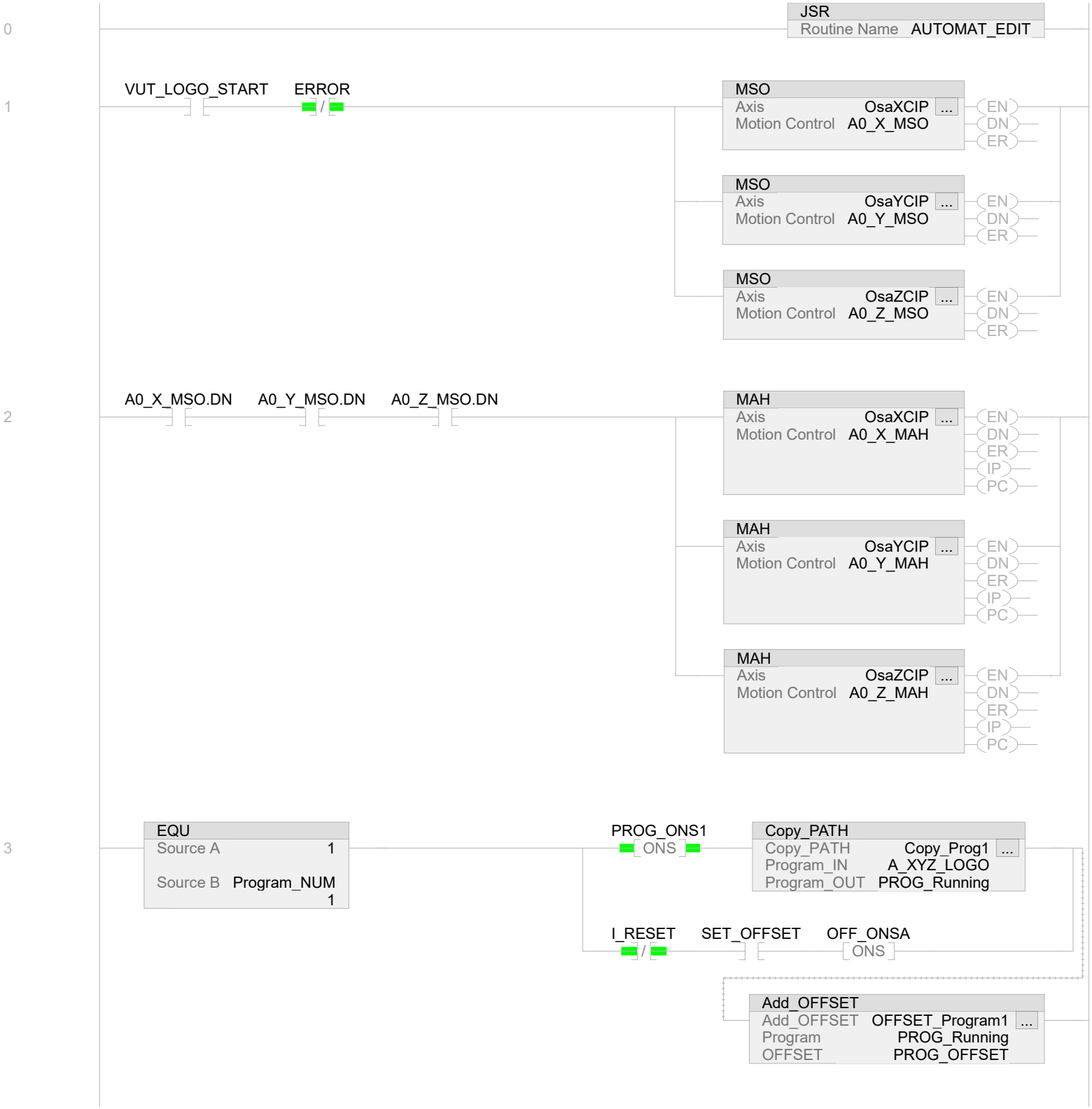
OSA Z

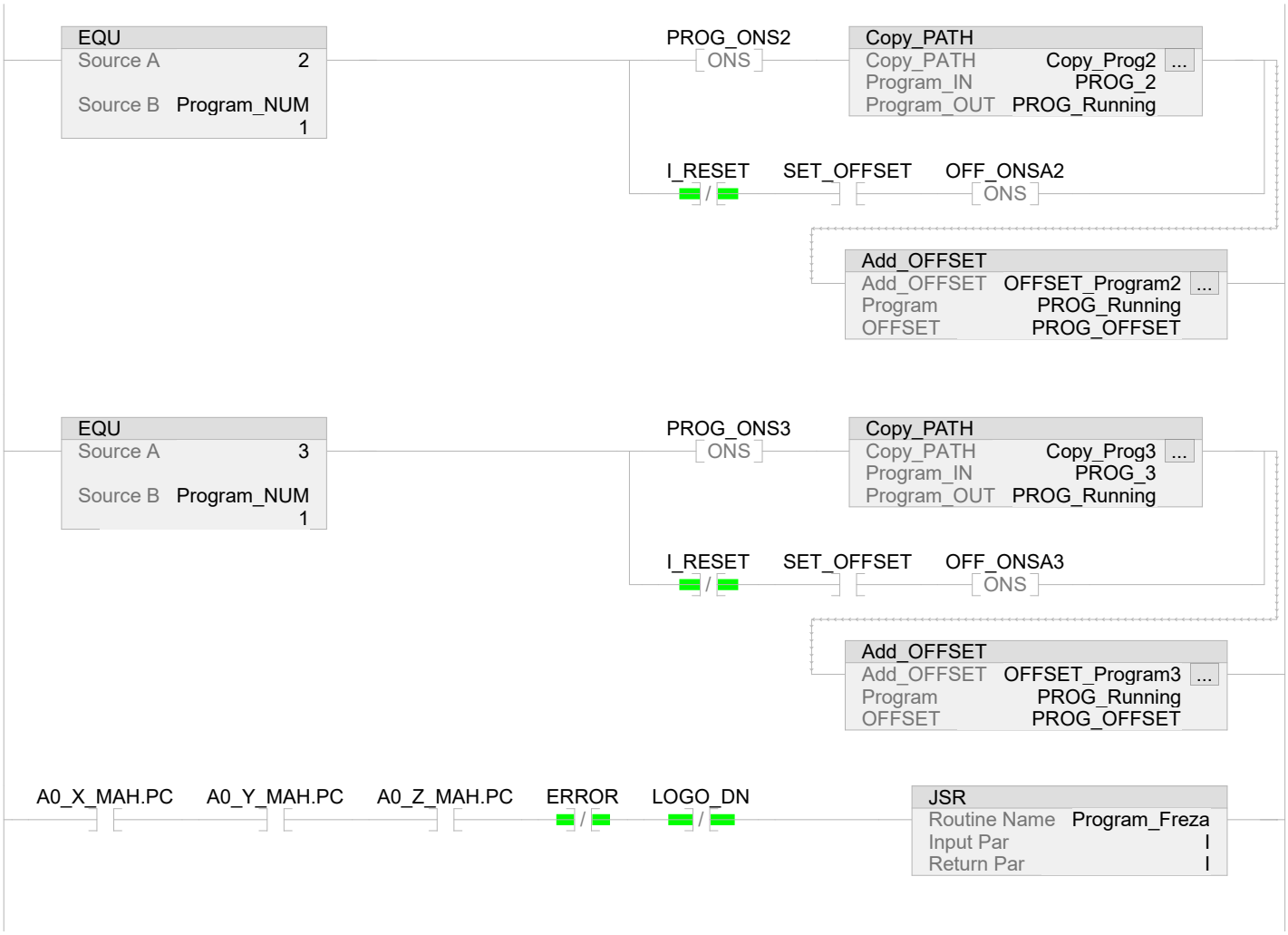
GSV
Class Name Module
Instance Name F3
Attribute Name EntryStatus
Dest EntryStatus_F3
16384

BTD
Source EntryStatus_F3
16384
Source Bit 12
Dest Status_F3
4
Dest Bit 0
Length 4


5
EQU
Source A Status_F3
4
Source B 4
OVERride_F3
Online_F3
6
CR30
GSV
Class Name Module
Instance Name CR30_SAFETY
Attribute Name EntryStatus
Dest EntryStatus_CR30
16384
BTD
Source EntryStatus_CR30
16384
Source Bit 12
Dest Status_CR30
4
Dest Bit 0
Length 4
7
EQU
Source A Status_CR30
4
Source B 4
OVERride_CR30
Online_CR30
8
Ethernet Switch
GSV
Class Name Module
Instance Name Switch
Attribute Name EntryStatus
Dest EntryStatus_SWITCH
4096
BTD
Source EntryStatus_SWITCH
4096
Source Bit 12
Dest Status_SWITCH
1
Dest Bit 0
Length 4
9
EQU
Source A Status_SWITCH
1
Source B 4
OVERride_Switch
Online_SWITCH
10
DC_input modul
GSV
Class Name Module
Instance Name DC_IN
Attribute Name EntryStatus
Dest EntryStatus_DC_IN
16384
BTD
Source EntryStatus_DC_IN
16384
Source Bit 12
Dest Status_DC_IN
4
Dest Bit 0
Length 4


11
EQU
Source A Status_DC_IN
4
Source B 4
OVERride_DC_IN
Online_DC_IN
12
DC_output modul
GSV
Class Name Module
Instance Name DC_IN
Attribute Name EntryStatus
Dest EntryStatus_DC_OUT
16384
BTD
Source EntryStatus_DC_OUT
16384
Source Bit 12
Dest Status_DC_OUT
4
Dest Bit 0
Length 4
13
EQU
Source A Status_DC_OUT
4
Source B 4
OVERride_DC_OUT
Online_DC_OUT
14
DC_output modul
GSV
Class Name ControllerDevice
Instance Name
Attribute Name Status
Dest EntryStatus_PLC
12640
BTD
Source EntryStatus_PLC
12640
Source Bit 4
Dest Status_PLC
790
Dest Bit 0
Length 12
15
EQU
Source A Status_PLC
790
Source B 4
OVERride_PLC
Online_PLC
(End)


0
JSR
Routine Name AUTOMAT_EDIT
1
VUT_LOGO_START
ERROR
MSO
Axis OsaXCIP
Motion Control A0_X_MSO
EN
DN
ER
MSO
Axis OsaYCIP
Motion Control A0_Y_MSO
MSO
Axis OsaZCIP
Motion Control A0_Z_MSO
2
A0_X_MSO.DN
A0_Y_MSO.DN
A0_Z_MSO.DN
MAH
Axis OsaXCIP
Motion Control A0_X_MAH
IP
PC
MAH
Axis OsaYCIP
Motion Control A0_Y_MAH
MAH
Axis OsaZCIP
Motion Control A0_Z_MAH
3
EQU
Source A 1
Source B Program_NUM
1
PROG_ONS1
ONS
Copy_PATH
Copy_PATH Copy_Prog1
Program_IN A_XYZ_LOGO
Program_OUT PROG_Running
I_RESET
SET_OFFSET
OFF_ONSA
ONS
Add_OFFSET
Add_OFFSET OFFSET_Program1
Program PROG_Running
OFFSET PROG_OFFSET


4
EQU
Source A 2
Source B Program_NUM 1
PROG_ONS2
ONS
Copy_PATH
Copy_PATH Copy_Prog2 ...
Program_IN PROG_2
Program_OUT PROG_Running
I_RESET
/
SET_OFFSET
OFF_ONSA2
ONS
Add_OFFSET
Add_OFFSET OFFSET_Program2 ...
Program PROG_Running
OFFSET PROG_OFFSET
5
EQU
Source A 3
Source B Program_NUM 1
PROG_ONS3
ONS
Copy_PATH
Copy_PATH Copy_Prog3 ...
Program_IN PROG_3
Program_OUT PROG_Running
I_RESET
/
SET_OFFSET
OFF_ONSA3
ONS
Add_OFFSET
Add_OFFSET OFFSET_Program3 ...
Program PROG_Running
OFFSET PROG_OFFSET
6
A0_X_MAH.PC
A0_Y_MAH.PC
A0_Z_MAH.PC
ERROR
/
LOGO_DN
/
JSR
Routine Name Program_Freza
Input Par I
Return Par I

drzi hodnotu i v pameti, nelze resetovat na 0 ani nastavit na nizsi hodnotu nez aktualni i

7

VUT_LOGO_START POHYB

MAM

Axis	OsaXCIP
Motion Control	LOGO_X_MAM[I]
Move Type	0
Position	LOGO_X 100
Speed	V_X_MC 50
Speed Units	Units per sec
Accel Rate	A_X_MC 20
Accel Units	Units per sec2
Decel Rate	A_X_MC 20
Decel Units	Units per sec2
Profile	Trapezoidal
Accel Jerk	10
Decel Jerk	10
Jerk Units	Units per sec3
Merge	Disabled
Merge Speed	Current
Lock Position	0
Lock Direction	None
Event Distance	0
Calculated Data	0

EN DN ER IP PC

MAM

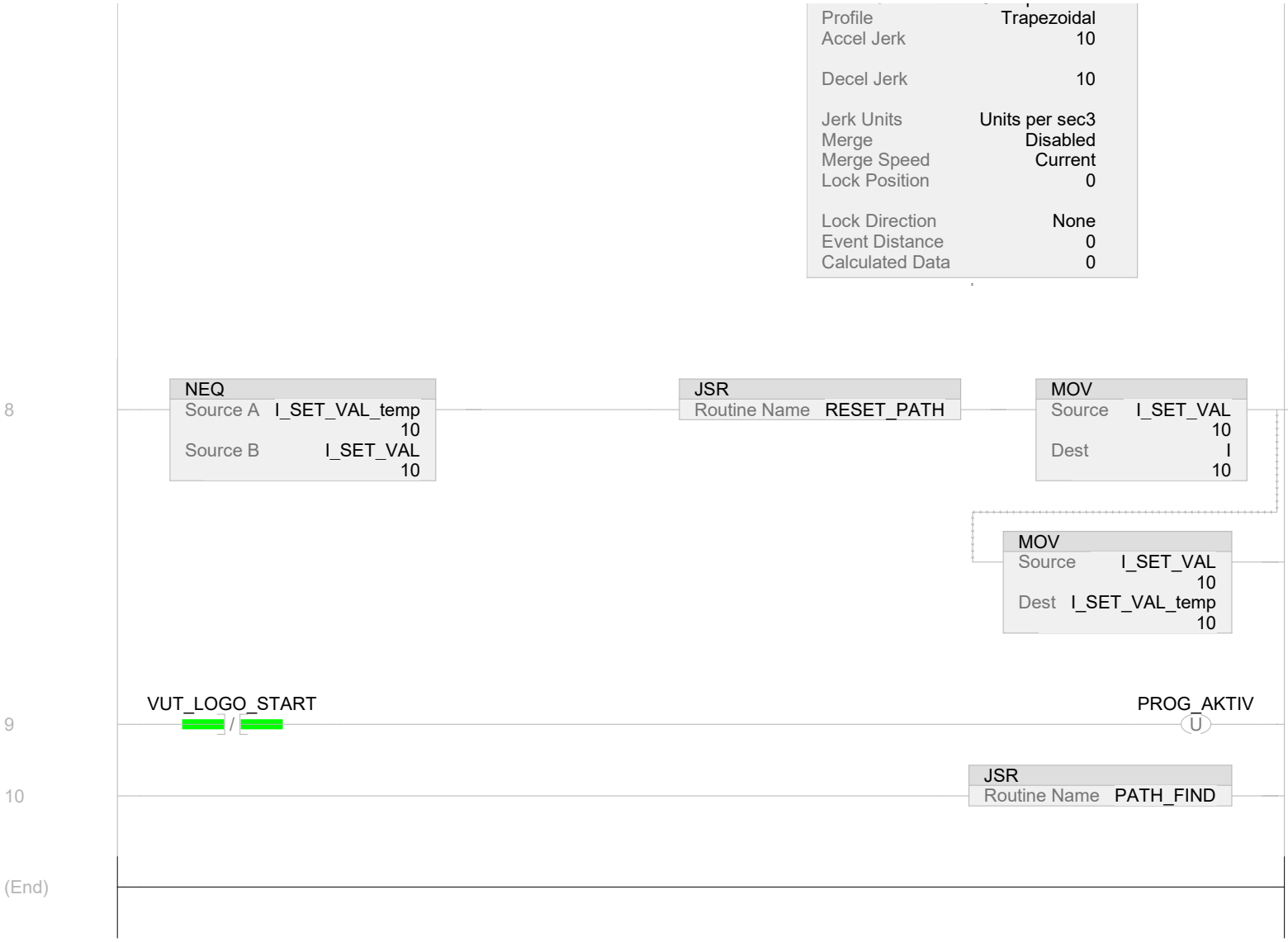
Axis	OsaYCIP
Motion Control	LOGO_Y_MAM[I]
Move Type	0
Position	LOGO_Y 200
Speed	V_Y_MC 50
Speed Units	Units per sec
Accel Rate	A_Y_MC 20
Accel Units	Units per sec2
Decel Rate	A_Y_MC 20
Decel Units	Units per sec2
Profile	Trapezoidal
Accel Jerk	10
Decel Jerk	10
Jerk Units	Units per sec3
Merge	Disabled
Merge Speed	Current
Lock Position	0
Lock Direction	None
Event Distance	0
Calculated Data	0

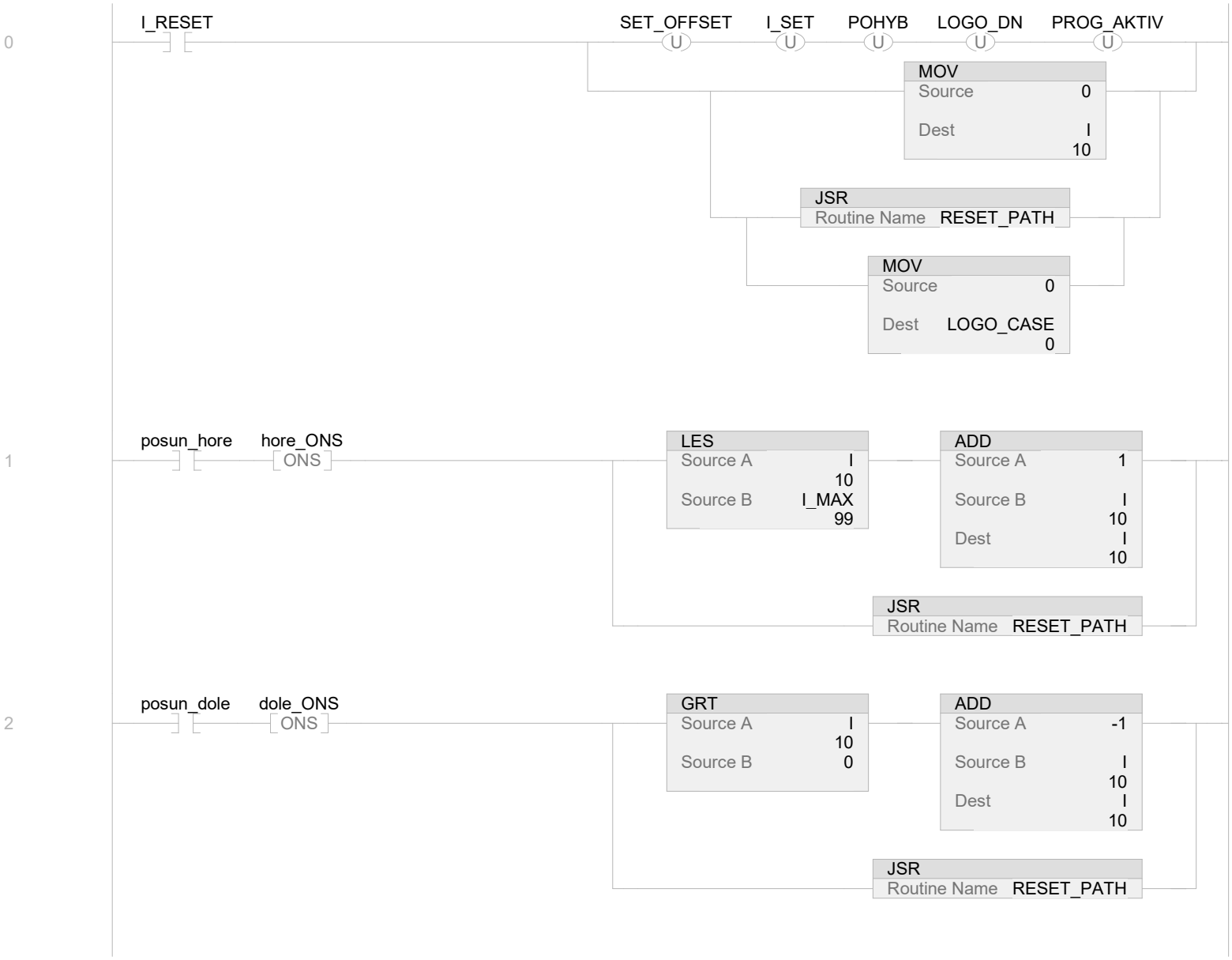
EN DN ER IP PC

MAM

Axis	OsaZCIP
Motion Control	LOGO_Z_MAM[I]
Move Type	0
Position	LOGO_Z 0
Speed	V_Z_MC 50
Speed Units	Units per sec
Accel Rate	A_Z_MC 20
Accel Units	Units per sec2
Decel Rate	A_Z_MC 20
Decel Units	Units per sec2

EN DN ER IP PC

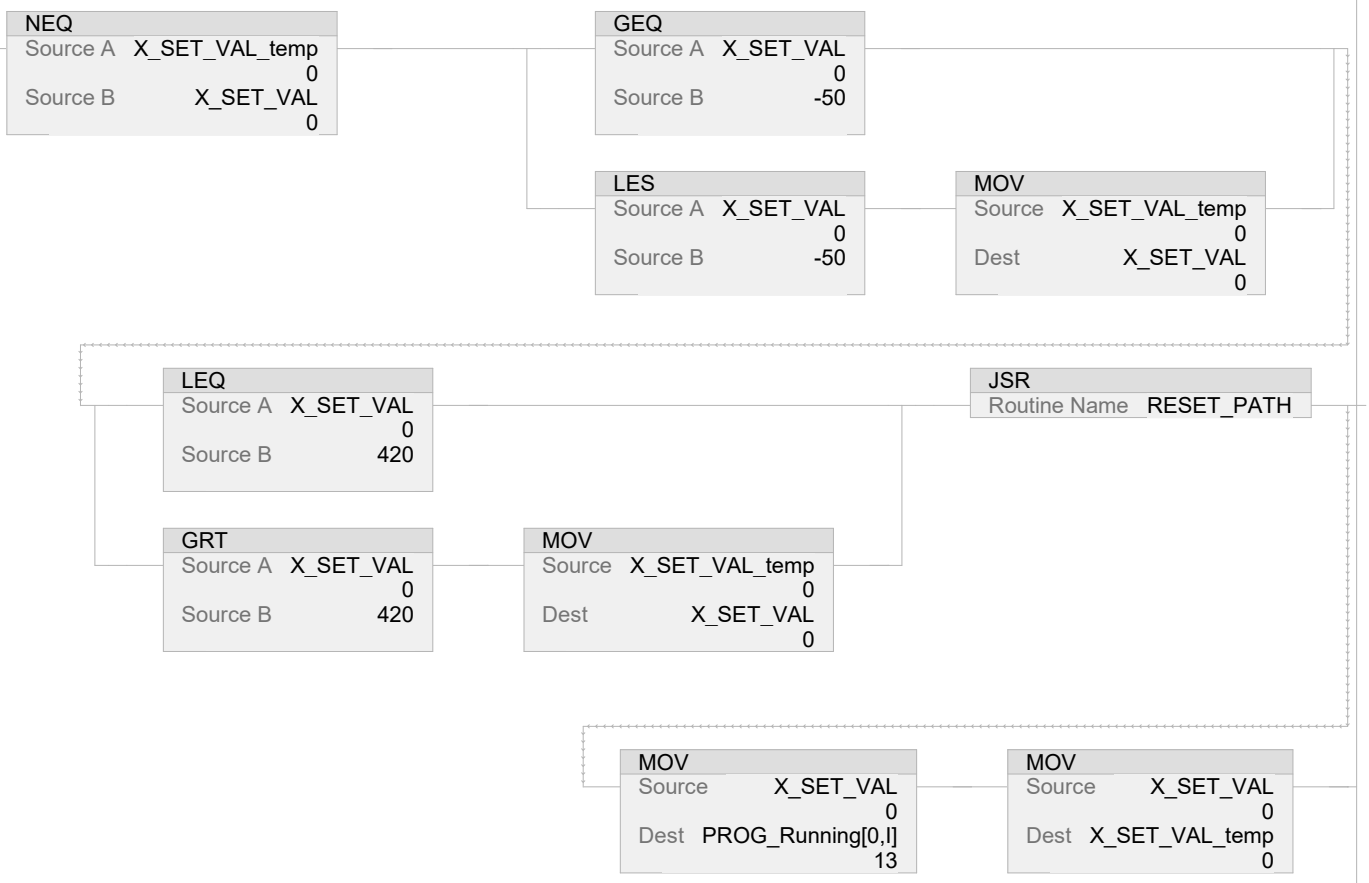

Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Current
Lock Position 0
Lock Direction None
Event Distance 0
Calculated Data 0
8
NEQ
Source A I_SET_VAL_temp 10
Source B I_SET_VAL 10
JSR
Routine Name RESET_PATH
MOV
Source I_SET_VAL 10
Dest I 10
MOV
Source I_SET_VAL 10
Dest I_SET_VAL_temp 10
9
VUT_LOGO_START
PROG_AKTIV
U
10
JSR
Routine Name PATH_FIND
(End)


0
I_RESET
SET_OFFSET
U
I_SET
U
POHYB
U
LOGO_DN
U
PROG_AKTIV
U
MOV
Source 0
Dest I
10
JSR
Routine Name RESET_PATH
MOV
Source 0
Dest LOGO_CASE
0
1
posun_hore
hore_ONS
ONS
LES
Source A I
10
Source B I_MAX
99
ADD
Source A 1
Source B I
10
Dest I
10
JSR
Routine Name RESET_PATH
2
posun_dole
dole_ONS
ONS
GRT
Source A I
10
Source B 0
ADD
Source A -1
Source B I
10
Dest I
10
JSR
Routine Name RESET_PATH

3

NEQ
Source A I_SET_VAL_temp 10
Source B I_SET_VAL 10
GRT
Source A I_SET_VAL 10
Source B 0
LEQ
Source A I_SET_VAL 10
Source B 0
MOV
Source I_SET_VAL_temp 10
Dest I_SET_VAL 10
LEQ
Source A I_SET_VAL 10
Source B I_MAX 99
JSR
Routine Name RESET_PATH
GRT
Source A I_SET_VAL 10
Source B I_MAX 99
MOV
Source I_SET_VAL_temp 10
Dest I_SET_VAL 10
MOV
Source I_SET_VAL 10
Dest I 10
MOV
Source I_SET_VAL 10
Dest I_SET_VAL_temp 10

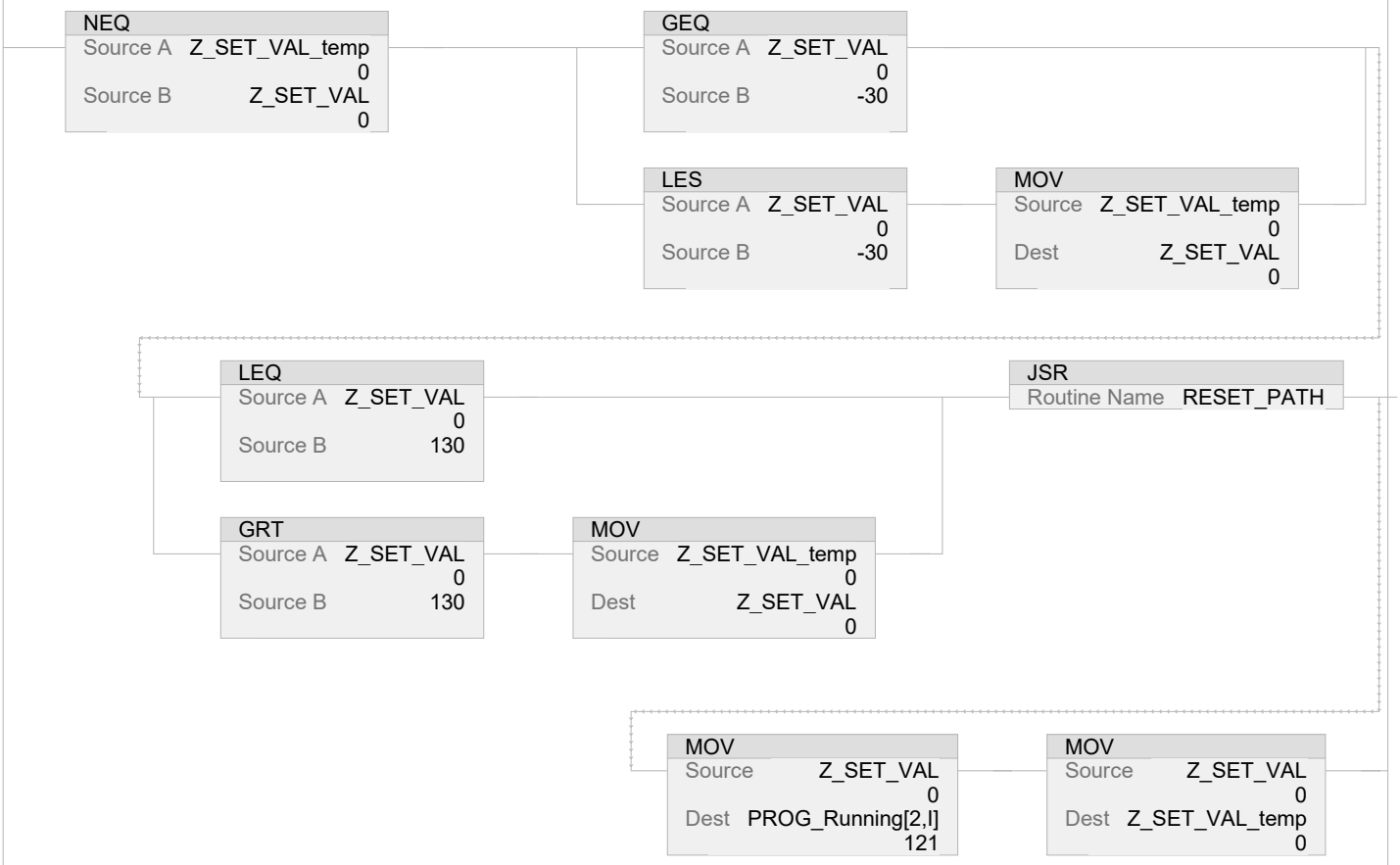
4


NEQ
Source A X_SET_VAL_temp 0
Source B X_SET_VAL 0
GEQ
Source A X_SET_VAL 0
Source B -50
LES
Source A X_SET_VAL 0
Source B -50
MOV
Source X_SET_VAL_temp 0
Dest X_SET_VAL 0
LEQ
Source A X_SET_VAL 0
Source B 420
JSR
Routine Name RESET_PATH
GRT
Source A X_SET_VAL 0
Source B 420
MOV
Source X_SET_VAL_temp 0
Dest X_SET_VAL 0
MOV
Source X_SET_VAL 0
Dest PROG_Running[0,I] 13
MOV
Source X_SET_VAL 0
Dest X_SET_VAL_temp 0

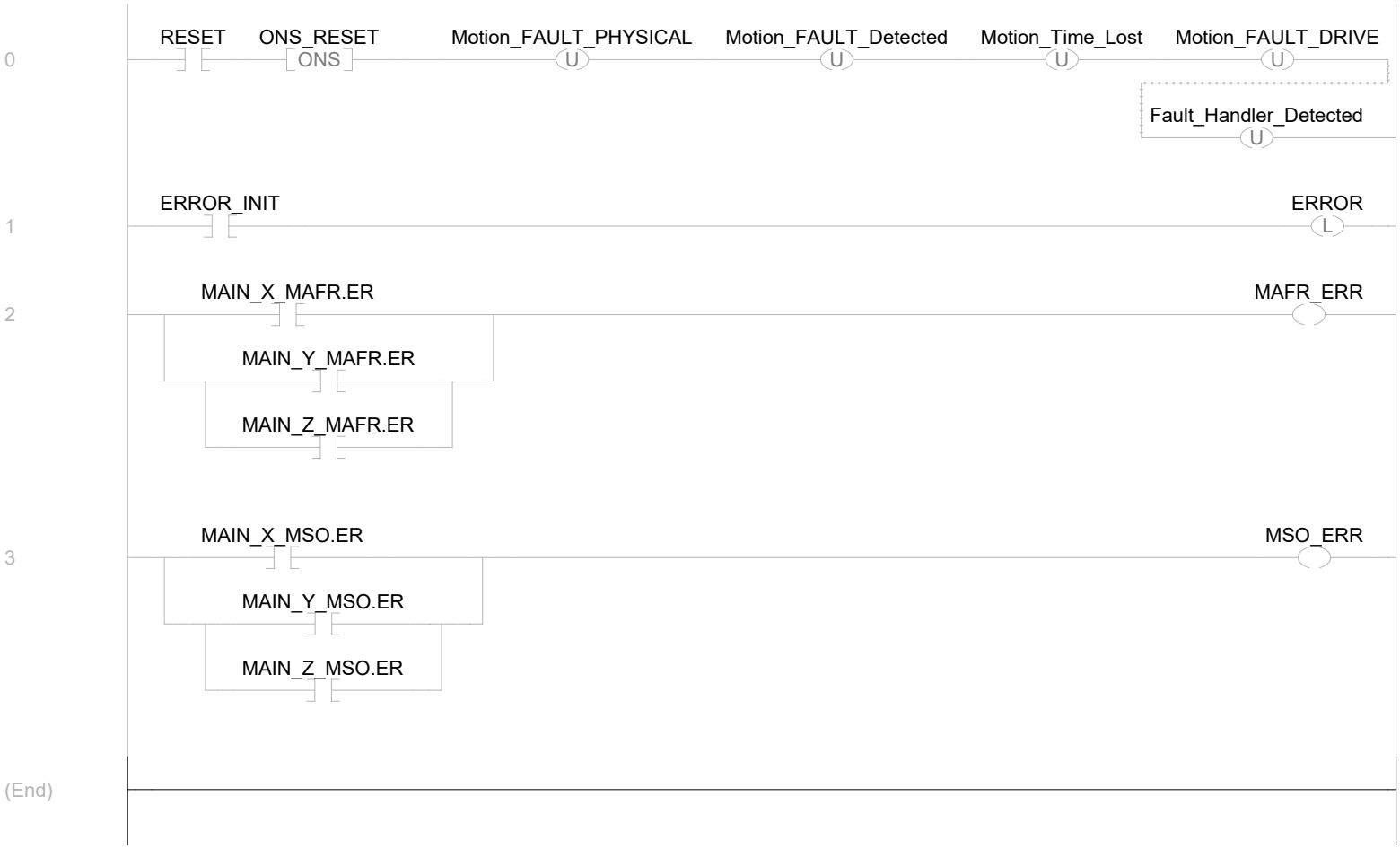
5

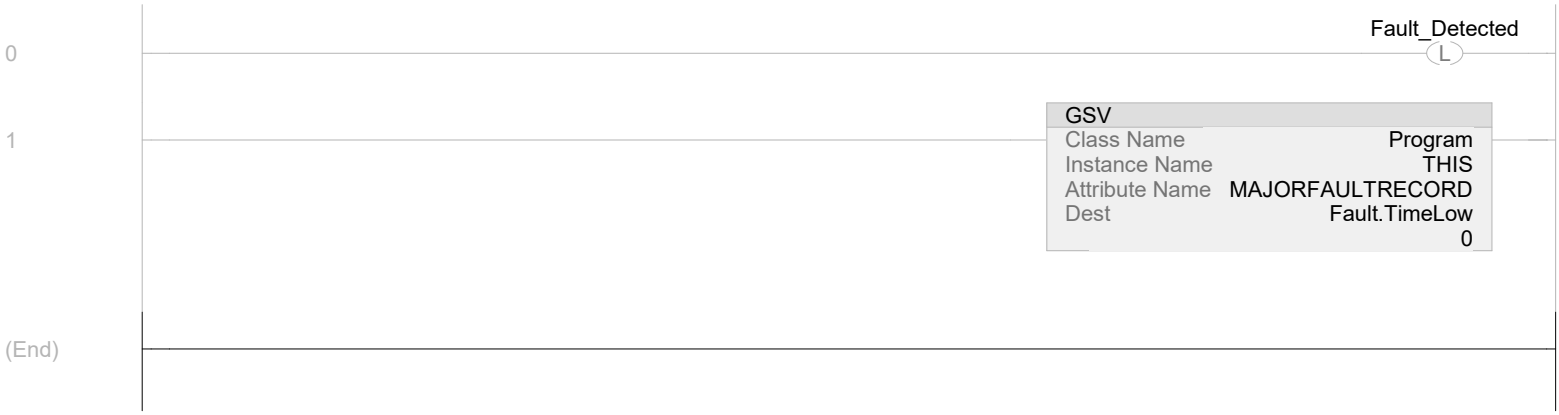
NEQ
Source A Y_SET_VAL_temp 0
Source B Y_SET_VAL 0
GEQ
Source A Y_SET_VAL 0
Source B -50
LES
Source A Y_SET_VAL 0
Source B -50
MOV
Source Y_SET_VAL_temp 0
Dest Y_SET_VAL 0
LEQ
Source A Y_SET_VAL 0
Source B 420
JSR
Routine Name RESET_PATH
GRT
Source A Y_SET_VAL 0
Source B 420
MOV
Source Y_SET_VAL_temp 0
Dest Y_SET_VAL 0
MOV
Source Y_SET_VAL 0
Dest PROG_Running[1,I] 12
MOV
Source Y_SET_VAL 0
Dest Y_SET_VAL_temp 0

6


NEQ
Source A Z_SET_VAL_temp 0
Source B Z_SET_VAL 0
GEQ
Source A Z_SET_VAL 0
Source B -30
LES
Source A Z_SET_VAL 0
Source B -30
MOV
Source Z_SET_VAL_temp 0
Dest Z_SET_VAL 0
LEQ
Source A Z_SET_VAL 0
Source B 130
JSR
Routine Name RESET_PATH
GRT
Source A Z_SET_VAL 0
Source B 130
MOV
Source Z_SET_VAL_temp 0
Dest Z_SET_VAL 0
MOV
Source Z_SET_VAL 0
Dest PROG_Running[2,I] 121
MOV
Source Z_SET_VAL 0
Dest Z_SET_VAL_temp 0

(End)


0
RESET
ONS_RESET
ONS
Motion_FAULT_PHYSICAL
U
Motion_FAULT_Detected
U
Motion_Time_Lost
U
Motion_FAULT_DRIVE
U
Fault_Handler_Detected
U
1
ERROR_INIT
ERROR
L
2
MAIN_X_MAFR.ER
MAFR_ERR
MAIN_Y_MAFR.ER
MAIN_Z_MAFR.ER
3
MAIN_X_MSO.ER
MSO_ERR
MAIN_Y_MSO.ER
MAIN_Z_MSO.ER
(End)


0
Fault_Detected
L
1
GSV
Class Name Program
Instance Name THIS
Attribute Name MAJORFAULTRECORD
Dest Fault.TimeLow
0
(End)

0

MAFR
Axis OsaXCIP ...
Motion Control INIT_X_MAFR
EN DN ER

MAFR
Axis OsaYCIP ...
Motion Control INIT_Y_MAFR
EN DN ER

MAFR
Axis OsaZCIP ...
Motion Control INIT_Z_MAFR
EN DN ER

1

MOV
Source V_X_SAVED
50
Dest V_X_MC
50

MOV
Source V_Y_SAVED
50
Dest V_Y_MC
50

MOV
Source V_Z_SAVED
50
Dest V_Z_MC
50

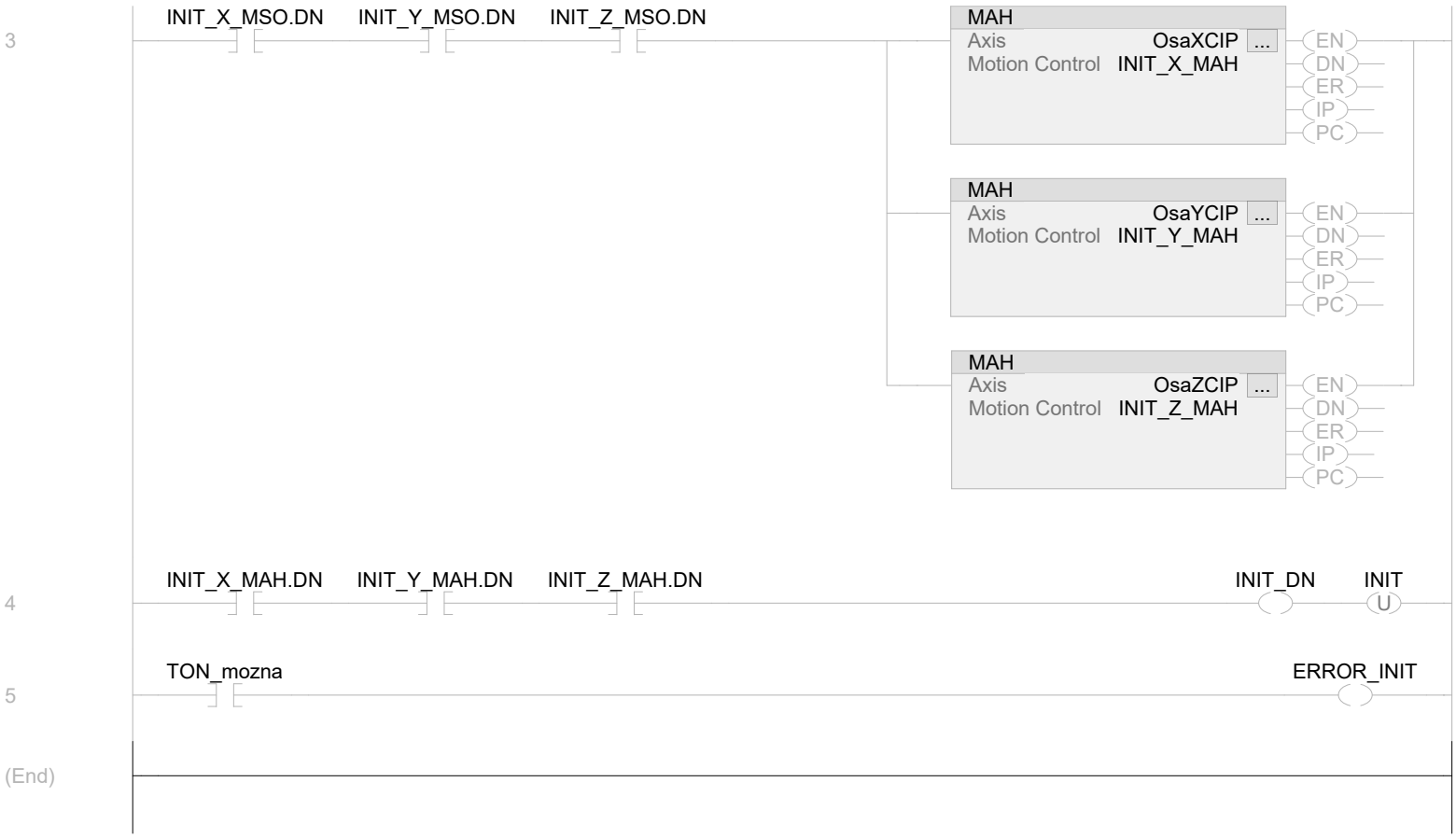
2

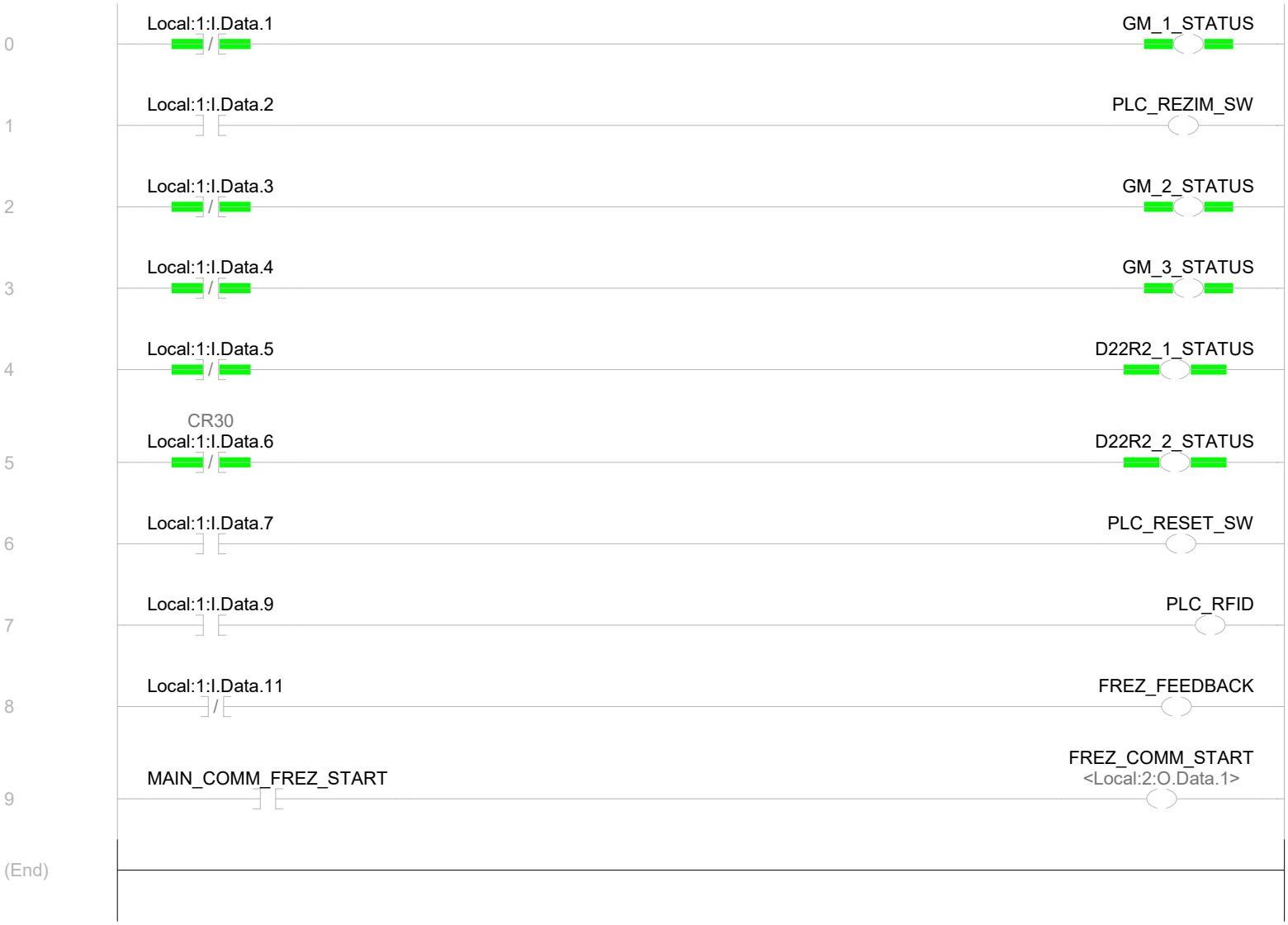
INIT_X_MAFR.DN INIT_Y_MAFR.DN INIT_Z_MAFR.DN

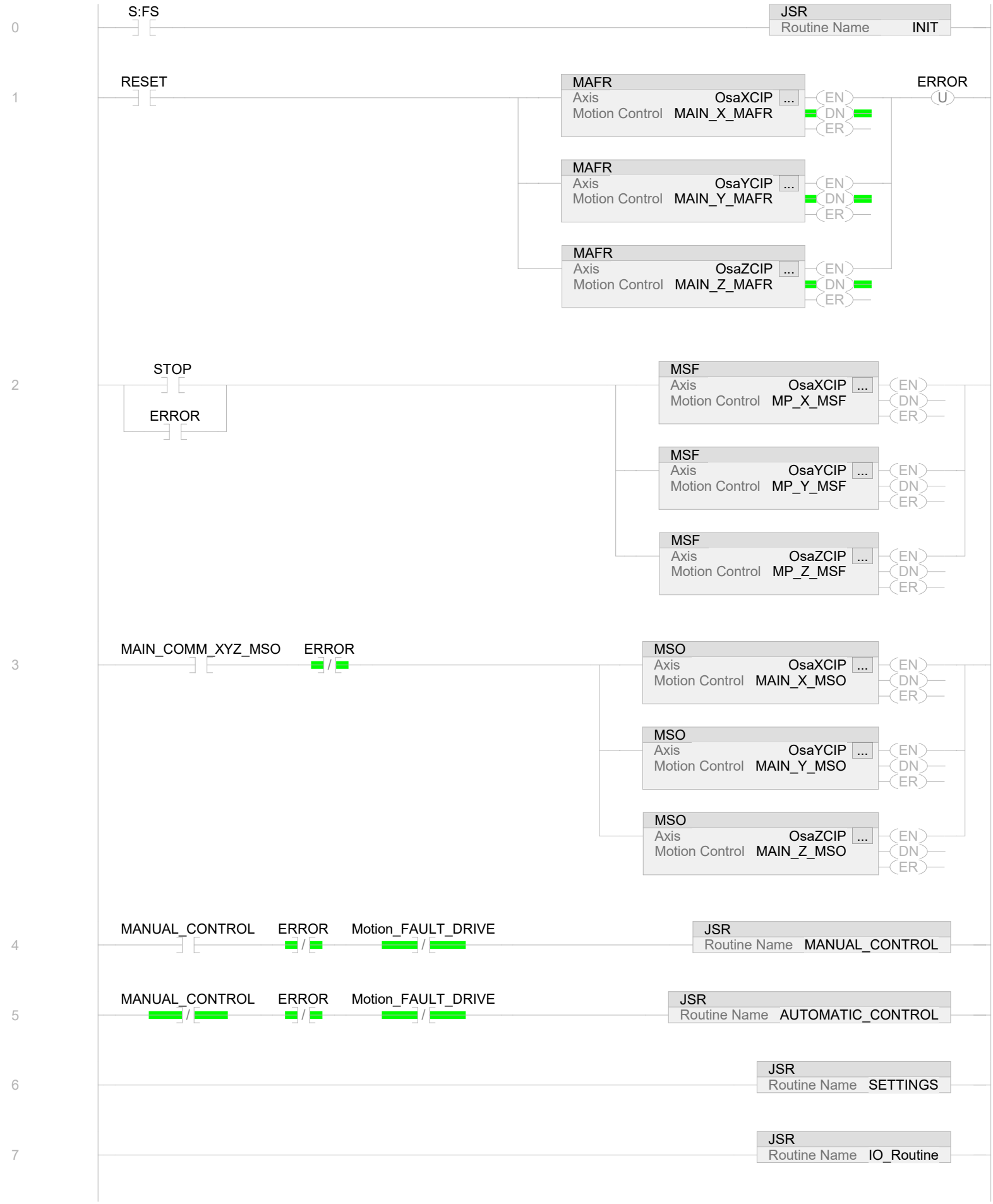
MSO
Axis OsaXCIP ...
Motion Control INIT_X_MSO
EN DN ER

MSO
Axis OsaYCIP ...
Motion Control INIT_Y_MSO
EN DN ER

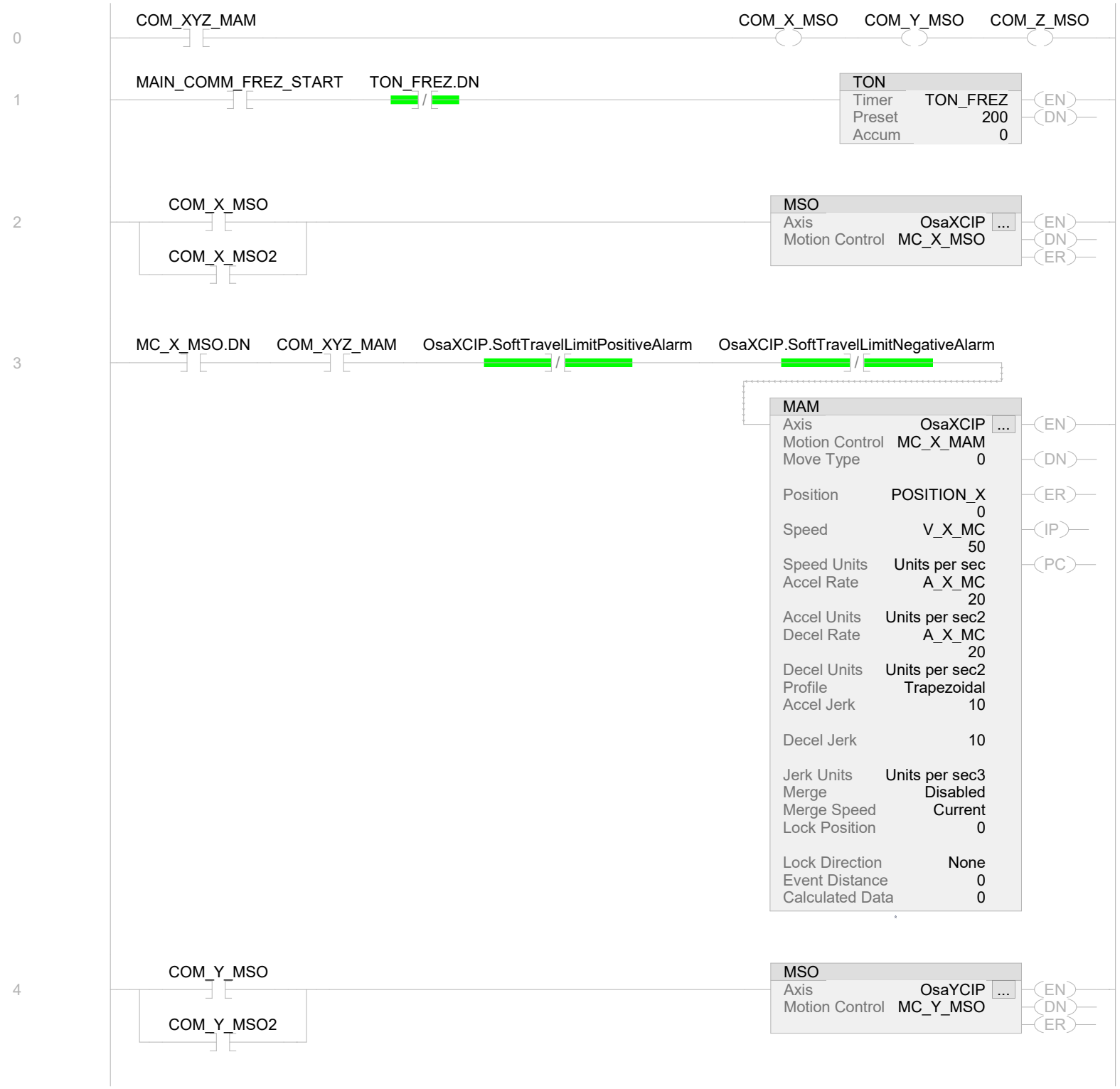
MSO
Axis OsaZCIP ...
Motion Control INIT_Z_MSO
EN DN ER


3
INIT_X_MSO.DN
INIT_Y_MSO.DN
INIT_Z_MSO.DN
MAH
Axis OsaXCIP ...
Motion Control INIT_X_MAH
EN
DN
ER
IP
PC
MAH
Axis OsaYCIP ...
Motion Control INIT_Y_MAH
EN
DN
ER
IP
PC
MAH
Axis OsaZCIP ...
Motion Control INIT_Z_MAH
EN
DN
ER
IP
PC
4
INIT_X_MAH.DN
INIT_Y_MAH.DN
INIT_Z_MAH.DN
INIT_DN
INIT
U
5
TON_mozna
ERROR_INIT
(End)


0
Local:1:I.Data.1
GM_1_STATUS
1
Local:1:I.Data.2
PLC_REZIM_SW
2
Local:1:I.Data.3
GM_2_STATUS
3
Local:1:I.Data.4
GM_3_STATUS
4
Local:1:I.Data.5
D22R2_1_STATUS
5
CR30
Local:1:I.Data.6
D22R2_2_STATUS
6
Local:1:I.Data.7
PLC_RESET_SW
7
Local:1:I.Data.9
PLC_RFID
8
Local:1:I.Data.11
FREZ_FEEDBACK
9
MAIN_COMM_FREZ_START
FREZ_COMM_START
<Local:2:O.Data.1>
(End)


0
S:FS
JSR
Routine Name INIT
1
RESET
MAFR
Axis OsaXCIP ...
Motion Control MAIN_X_MAFR
EN DN ER
MAFR
Axis OsaYCIP ...
Motion Control MAIN_Y_MAFR
EN DN ER
MAFR
Axis OsaZCIP ...
Motion Control MAIN_Z_MAFR
EN DN ER
ERROR
U
2
STOP
ERROR
MSF
Axis OsaXCIP ...
Motion Control MP_X_MSF
EN DN ER
MSF
Axis OsaYCIP ...
Motion Control MP_Y_MSF
EN DN ER
MSF
Axis OsaZCIP ...
Motion Control MP_Z_MSF
EN DN ER
3
MAIN_COMM_XYZ_MSO
ERROR
MSO
Axis OsaXCIP ...
Motion Control MAIN_X_MSO
EN DN ER
MSO
Axis OsaYCIP ...
Motion Control MAIN_Y_MSO
EN DN ER
MSO
Axis OsaZCIP ...
Motion Control MAIN_Z_MSO
EN DN ER
4
MANUAL_CONTROL
ERROR
Motion_FAULT_DRIVE
JSR
Routine Name MANUAL_CONTROL
5
MANUAL_CONTROL
ERROR
Motion_FAULT_DRIVE
JSR
Routine Name AUTOMATIC_CONTROL
6
JSR
Routine Name SETTINGS
7
JSR
Routine Name IO_Routine

8
JSR
Routine Name Movement
9
JSR
Routine Name Errors
10
JSR
Routine Name Motors_Runtime
(End)


0
COM_XYZ_MAM
COM_X_MSO
COM_Y_MSO
COM_Z_MSO
1
MAIN_COMM_FREZ_START
TON_FREZ.DN
TON
Timer TON_FREZ
Preset 200
Accum 0
EN
DN
2
COM_X_MSO
COM_X_MSO2
MSO
Axis OsaXCIP
Motion Control MC_X_MSO
EN
DN
ER
3
MC_X_MSO.DN
COM_XYZ_MAM
OsaXCIP.SoftTravelLimitPositiveAlarm
OsaXCIP.SoftTravelLimitNegativeAlarm
MAM
Axis OsaXCIP
Motion Control MC_X_MAM
Move Type 0
Position POSITION_X
0
Speed V_X_MC
50
Speed Units Units per sec
Accel Rate A_X_MC
20
Accel Units Units per sec2
Decel Rate A_X_MC
20
Decel Units Units per sec2
Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Current
Lock Position 0
Lock Direction None
Event Distance 0
Calculated Data 0
EN
DN
ER
IP
PC
4
COM_Y_MSO
COM_Y_MSO2
MSO
Axis OsaYCIP
Motion Control MC_Y_MSO
EN
DN
ER

5

MC_Y_MSO.DN COM_XYZ_MAM OsaYCIP.SoftTravelLimitPositiveAlarm OsaYCIP.SoftTravelLimitNegativeAlarm

MAM

Axis	OsaYCIP	...
Motion Control	MC_Y_MAM	
Move Type	0	
Position	POSITION_Y	
	0	
Speed	V_Y_MC	
	50	
Speed Units	Units per sec	
Accel Rate	A_Y_MC	
	20	
Accel Units	Units per sec2	
Decel Rate	A_Y_MC	
	20	
Decel Units	Units per sec2	
Profile	Trapezoidal	
Accel Jerk	10	
Decel Jerk	10	
Jerk Units	Units per sec3	
Merge	Disabled	
Merge Speed	Current	
Lock Position	0	
Lock Direction	None	
Event Distance	0	
Calculated Data	0	

EN DN ER IP PC

6

COM_Z_MSO

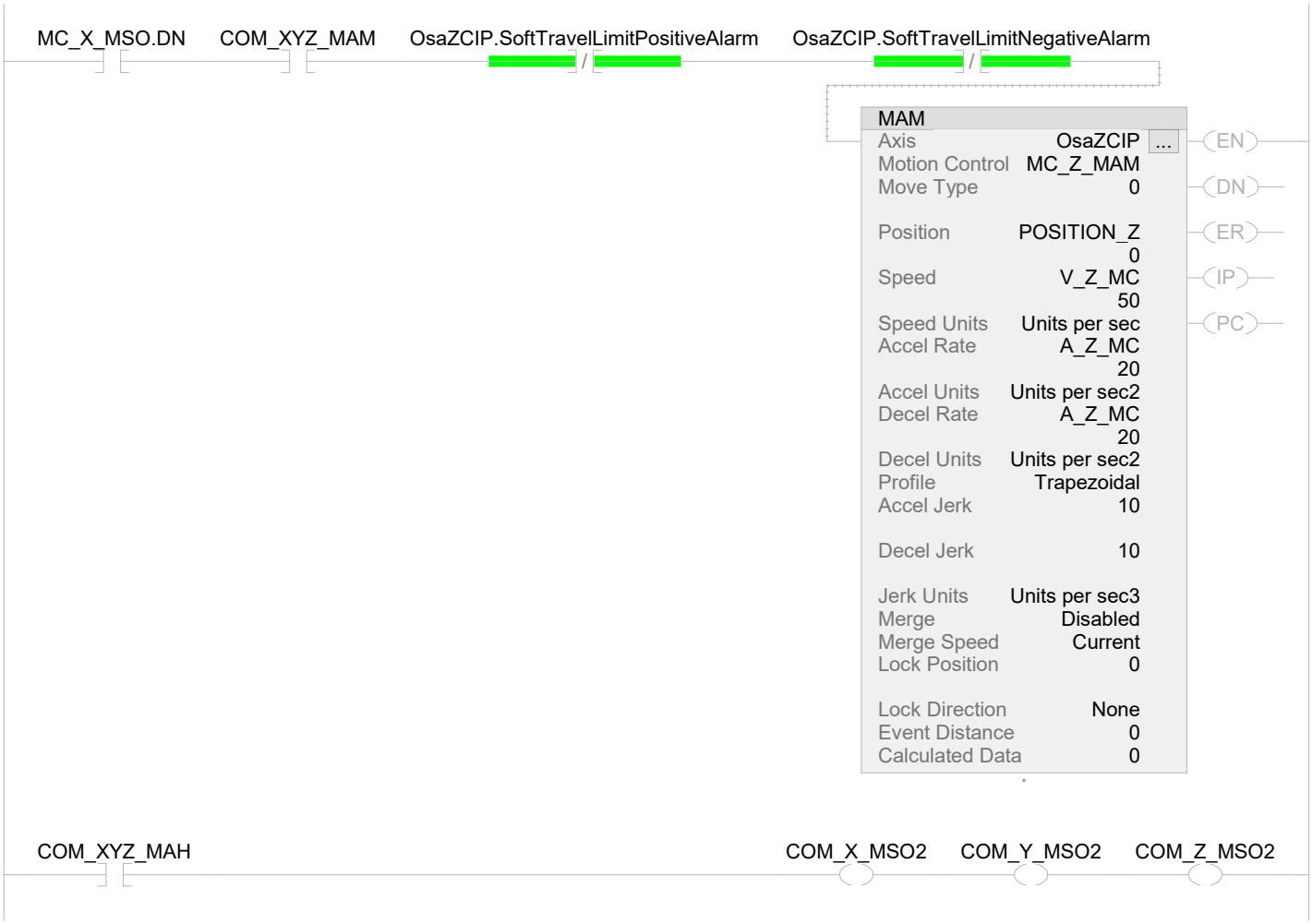
COM_Z_MSO2

MSO

Axis	OsaZCIP	...
Motion Control	MC_Z_MSO	

EN DN ER

7


MC_X_MSO.DN
COM_XYZ_MAM
OsaZCIP.SoftTravelLimitPositiveAlarm
OsaZCIP.SoftTravelLimitNegativeAlarm
MAM
Axis OsaZCIP
Motion Control MC_Z_MAM
Move Type 0
Position POSITION_Z
0
Speed V_Z_MC
50
Speed Units Units per sec
Accel Rate A_Z_MC
20
Accel Units Units per sec2
Decel Rate A_Z_MC
20
Decel Units Units per sec2
Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Current
Lock Position 0
Lock Direction None
Event Distance 0
Calculated Data 0
EN
DN
ER
IP
PC

8

COM_XYZ_MAH
COM_X_MSO2
COM_Y_MSO2
COM_Z_MSO2

9

COM_XYZ_MAH

LES
Source A OsaXCIP.ActualPosition -0.00125
Source B -20

MAM
Axis OsaXCIP
Motion Control MC_X_MAM_HOME
Move Type 0
Position 0
Speed V_X_MC 50
Speed Units Units per sec
Accel Rate A_X_MC 20
Accel Units Units per sec2
Decel Rate A_X_MC 20
Decel Units Units per sec2
Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Current
Lock Position 0
Lock Direction None
Event Distance 0
Calculated Data 0
EN DN ER IP PC

GEQ
Source A OsaXCIP.ActualPosition -0.00125
Source B -20

POS_HOME_X

10

MC_X_MAM_HOME.PC POS_HOME_X_ONS [ONS] POS_HOME_X_Latch [L]

11

POS_HOME_X
POS_HOME_X_Latch
MC_X_MSO.DN
MC_Y_MSO.DN
MC_Z_MSO.DN

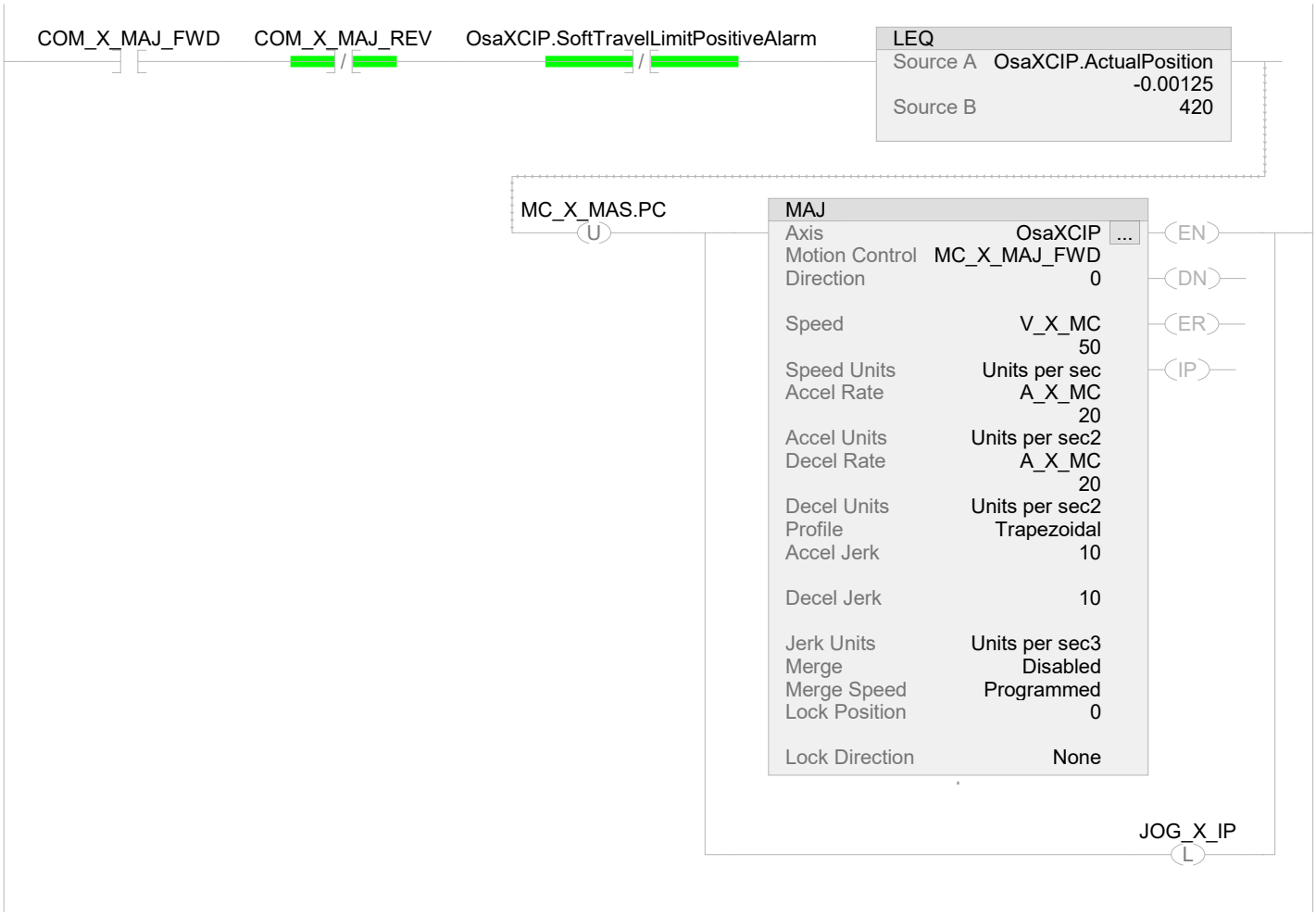
MAH
Axis OsaXCIP
Motion Control MC_X_MAH
EN DN ER IP PC

MAH
Axis OsaYCIP
Motion Control MC_Y_MAH
EN DN ER IP PC

MAH
Axis OsaZCIP
Motion Control MC_Z_MAH
EN DN ER IP PC

POS_HOME_X_Latch [U]

12


COM_X_MAJ_FWD
COM_X_MAJ_REV
OsaXCIP.SoftTravelLimitPositiveAlarm
LEQ
Source A OsaXCIP.ActualPosition
-0.00125
Source B 420
MC_X_MAS.PC
U
MAJ
Axis OsaXCIP
Motion Control MC_X_MAJ_FWD
Direction 0
Speed V_X_MC
50
Speed Units Units per sec
Accel Rate A_X_MC
20
Accel Units Units per sec2
Decel Rate A_X_MC
20
Decel Units Units per sec2
Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Programmed
Lock Position 0
Lock Direction None
EN
DN
ER
IP
JOG_X_IP
L

13

COM_X_MAJ_REV COM_X_MAJ_FWD OsaXCIP.SoftTravelLimitNegativeAlarm

GEQ
Source A OsaXCIP.ActualPosition
-0.00125
Source B -50

MC_X_MAS.PC
U

MAJ
Axis OsaXCIP ...
Motion Control MC_X_MAJ_REV
Direction 1
Speed V_X_MC
50
Speed Units Units per sec
Accel Rate A_X_MC
20
Accel Units Units per sec2
Decel Rate A_X_MC
20
Decel Units Units per sec2
Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Programmed
Lock Position 0
Lock Direction None
EN
DN
ER
IP

JOG_X_IP
L

14

JOG_X_IP COM_X_MAJ_FWD COM_X_MAJ_REV

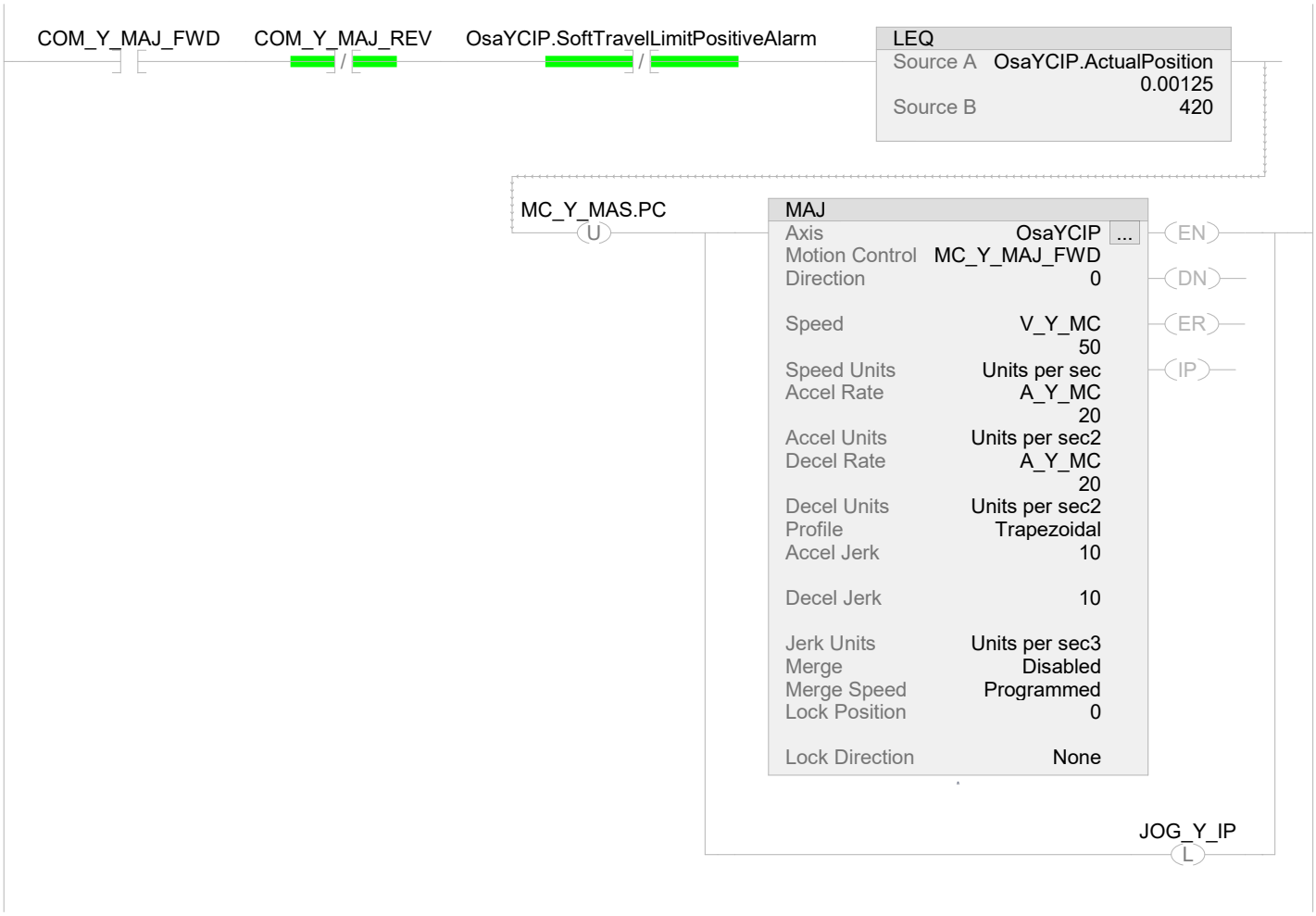
MAS
Axis OsaXCIP ...
Motion Control MC_X_MAS
Stop Type All
Change Decel No
Decel Rate A_X_MC
20
Decel Units Units per sec2
Change Decel Jerk No
Decel Jerk 10
Jerk Units Units per sec3
EN
DN
ER
IP
PC

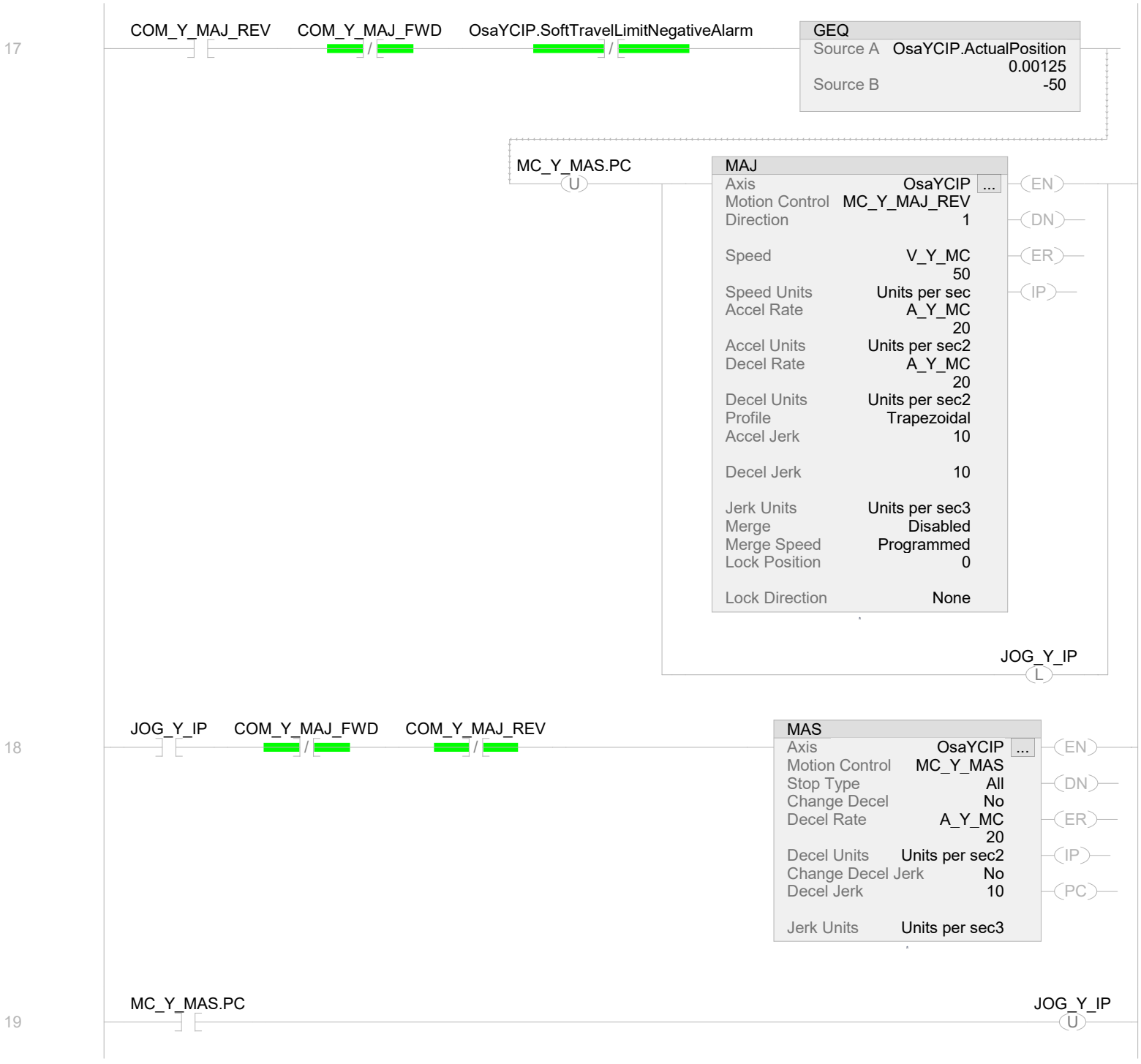
15

MC_X_MAS.PC

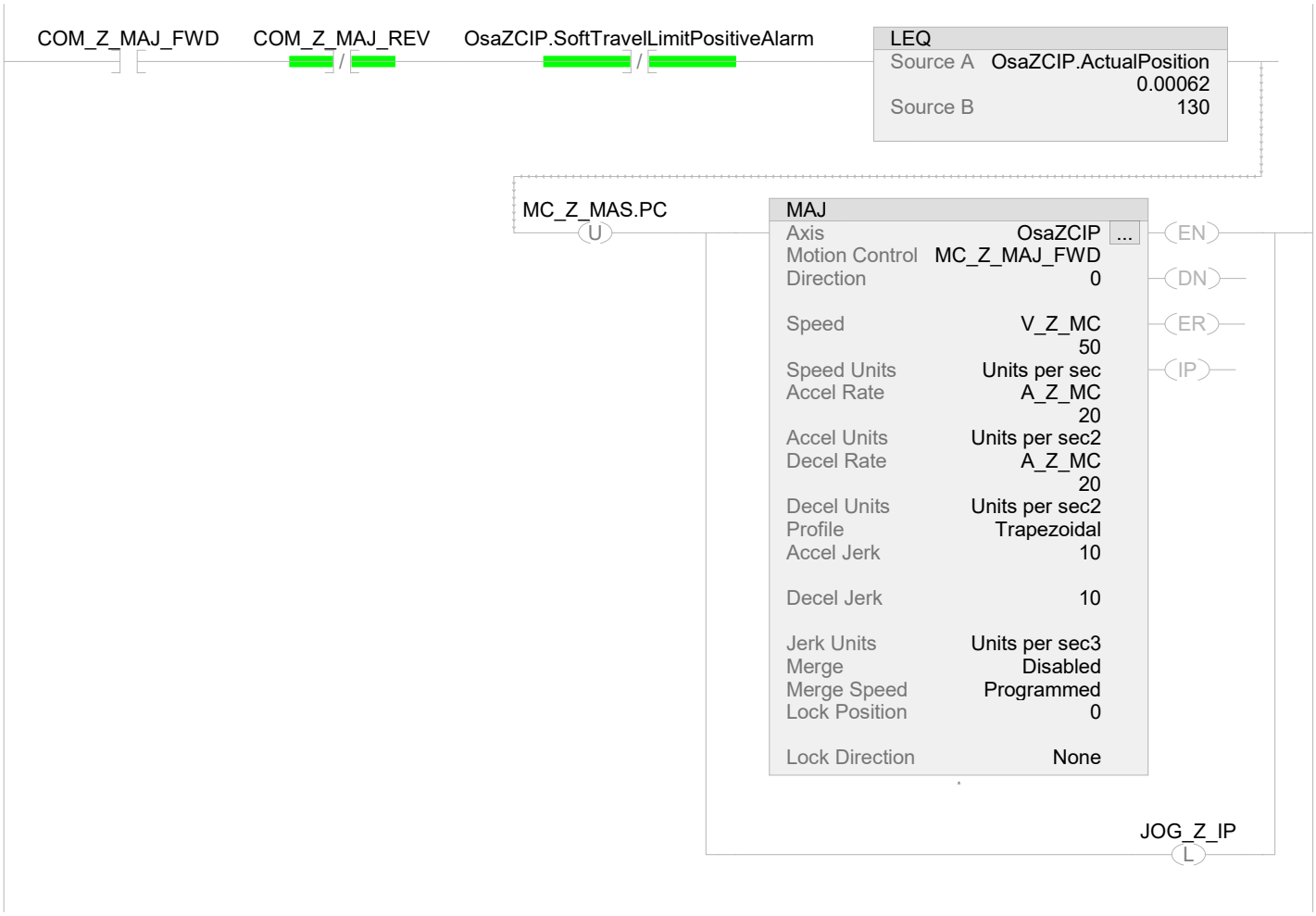
JOG_X_IP
U

16


COM_Y_MAJ_FWD
COM_Y_MAJ_REV
OsaYCIP.SoftTravelLimitPositiveAlarm
LEQ
Source A OsaYCIP.ActualPosition
0.00125
Source B 420
MC_Y_MAS.PC
U
MAJ
Axis OsaYCIP
Motion Control MC_Y_MAJ_FWD
Direction 0
Speed V_Y_MC
50
Speed Units Units per sec
Accel Rate A_Y_MC
20
Accel Units Units per sec2
Decel Rate A_Y_MC
20
Decel Units Units per sec2
Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Programmed
Lock Position 0
Lock Direction None
EN
DN
ER
IP
JOG_Y_IP
L


17
COM_Y_MAJ_REV
COM_Y_MAJ_FWD
OsaYCIP.SoftTravelLimitNegativeAlarm
GEQ
Source A OsaYCIP.ActualPosition
0.00125
Source B -50
MC_Y_MAS.PC
U
MAJ
Axis OsaYCIP
Motion Control MC_Y_MAJ_REV
Direction 1
Speed V_Y_MC
50
Speed Units Units per sec
Accel Rate A_Y_MC
20
Accel Units Units per sec2
Decel Rate A_Y_MC
20
Decel Units Units per sec2
Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Programmed
Lock Position 0
Lock Direction None
EN
DN
ER
IP
JOG_Y_IP
L
18
JOG_Y_IP
COM_Y_MAJ_FWD
COM_Y_MAJ_REV
MAS
Axis OsaYCIP
Motion Control MC_Y_MAS
Stop Type All
Change Decel No
Decel Rate A_Y_MC
20
Decel Units Units per sec2
Change Decel Jerk No
Decel Jerk 10
Jerk Units Units per sec3
EN
DN
ER
IP
PC
19
MC_Y_MAS.PC
JOG_Y_IP
U

20


COM_Z_MAJ_FWD
COM_Z_MAJ_REV
OsaZCIP.SoftTravelLimitPositiveAlarm
LEQ
Source A OsaZCIP.ActualPosition
0.00062
Source B 130
MC_Z_MAS.PC
U
MAJ
Axis OsaZCIP
Motion Control MC_Z_MAJ_FWD
Direction 0
Speed V_Z_MC
50
Speed Units Units per sec
Accel Rate A_Z_MC
20
Accel Units Units per sec2
Decel Rate A_Z_MC
20
Decel Units Units per sec2
Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Programmed
Lock Position 0
Lock Direction None
EN
DN
ER
IP
JOG_Z_IP
L

21

COM_Z_MAJ_REV COM_Z_MAJ_FWD OsaZCIP.SoftTravelLimitNegativeAlarm

GEQ
Source A OsaZCIP.ActualPosition
0.00062
Source B -30

MC_Z_MAS.PC
U

MAJ
Axis OsaZCIP ...
Motion Control MC_Z_MAJ_REV
Direction 1
Speed V_Z_MC
50
Speed Units Units per sec
Accel Rate A_Z_MC
20
Accel Units Units per sec2
Decel Rate A_Z_MC
20
Decel Units Units per sec2
Profile Trapezoidal
Accel Jerk 10
Decel Jerk 10
Jerk Units Units per sec3
Merge Disabled
Merge Speed Programmed
Lock Position 0
Lock Direction None

EN DN ER IP

JOG_Z_IP
L

22

JOG_Z_IP COM_Z_MAJ_FWD COM_Z_MAJ_REV

MAS
Axis OsaZCIP ...
Motion Control MC_Z_MAS
Stop Type All
Change Decel No
Decel Rate A_Z_MC
20
Decel Units Units per sec2
Change Decel Jerk No
Decel Jerk 10
Jerk Units Units per sec3

EN DN ER IP PC

23

MC_Z_MAS.PC

JOG_Z_IP
U

(End)

0

FREZ_FEEDBACK

RTO
Timer TIMER_Freza
Preset 1000
Accum 420
EN
DN

1

TIMER_Freza.DN

cas behu nastroje/motoru sekundy

ADD
Source A RunTime_Freza.s 0
Source B 1
Dest RunTime_Freza.s 0

TIMER_Freza
RES

2

formatuje cas d:h:m:s:ms

Time_formatting
Time_formatting Freza ...
RT RunTime_Freza
Timer TIMER_Freza

3

X_MOVE

RTO
Timer TIMER_X
Preset 1000
Accum 375
EN
DN

4

TIMER_X.DN

cas behu nastroje/motoru sekundy

ADD
Source A RunTime_X.s 52
Source B 1
Dest RunTime_X.s 52

TIMER_X
RES

5

formatuje cas d:h:m:s:ms

Time_formatting
Time_formatting Osa_X ...
RT RunTime_X
Timer TIMER_X

6

Y_MOVE

RTO
Timer TIMER_Y
Preset 1000
Accum 47
EN
DN

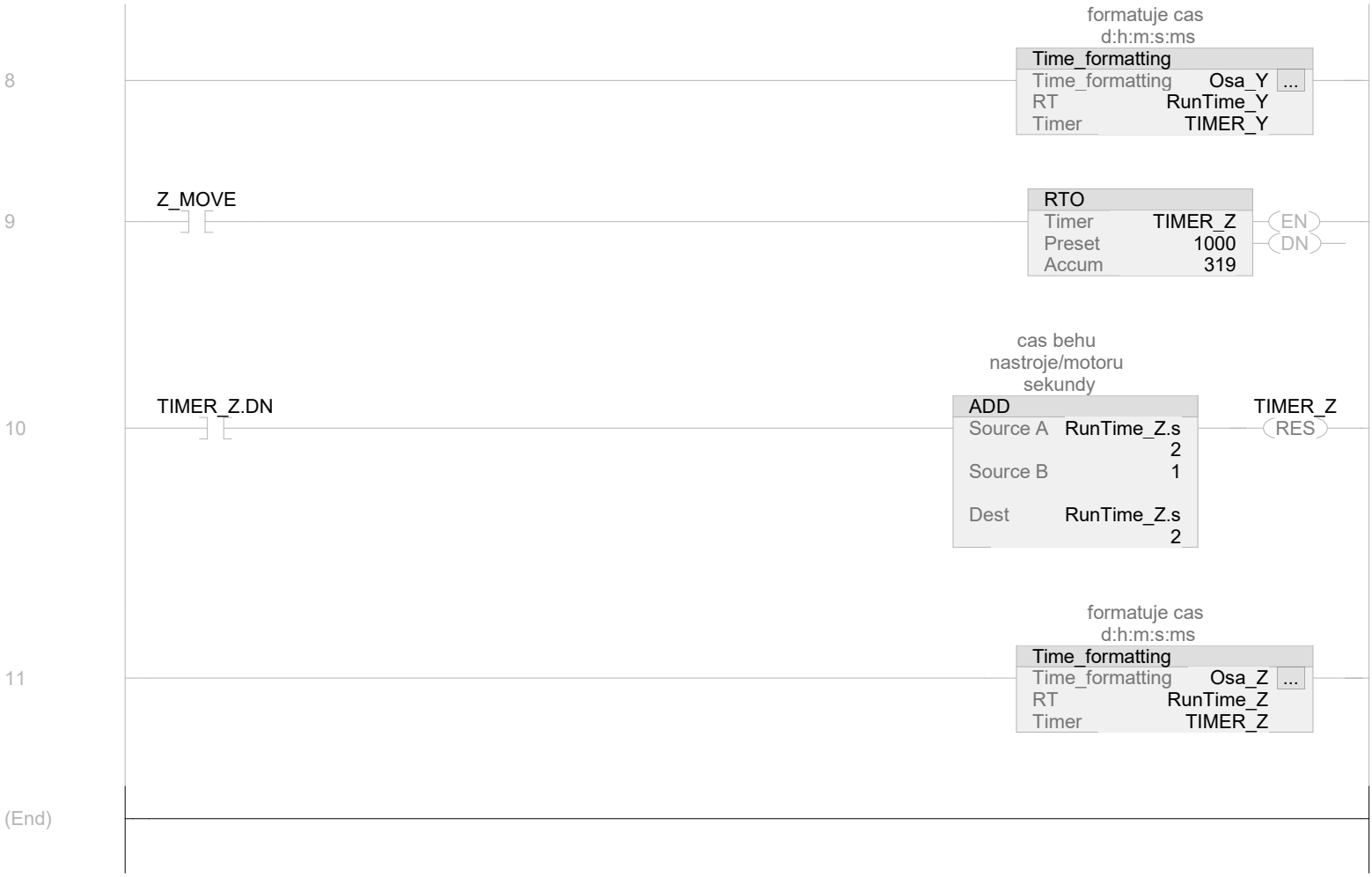
7

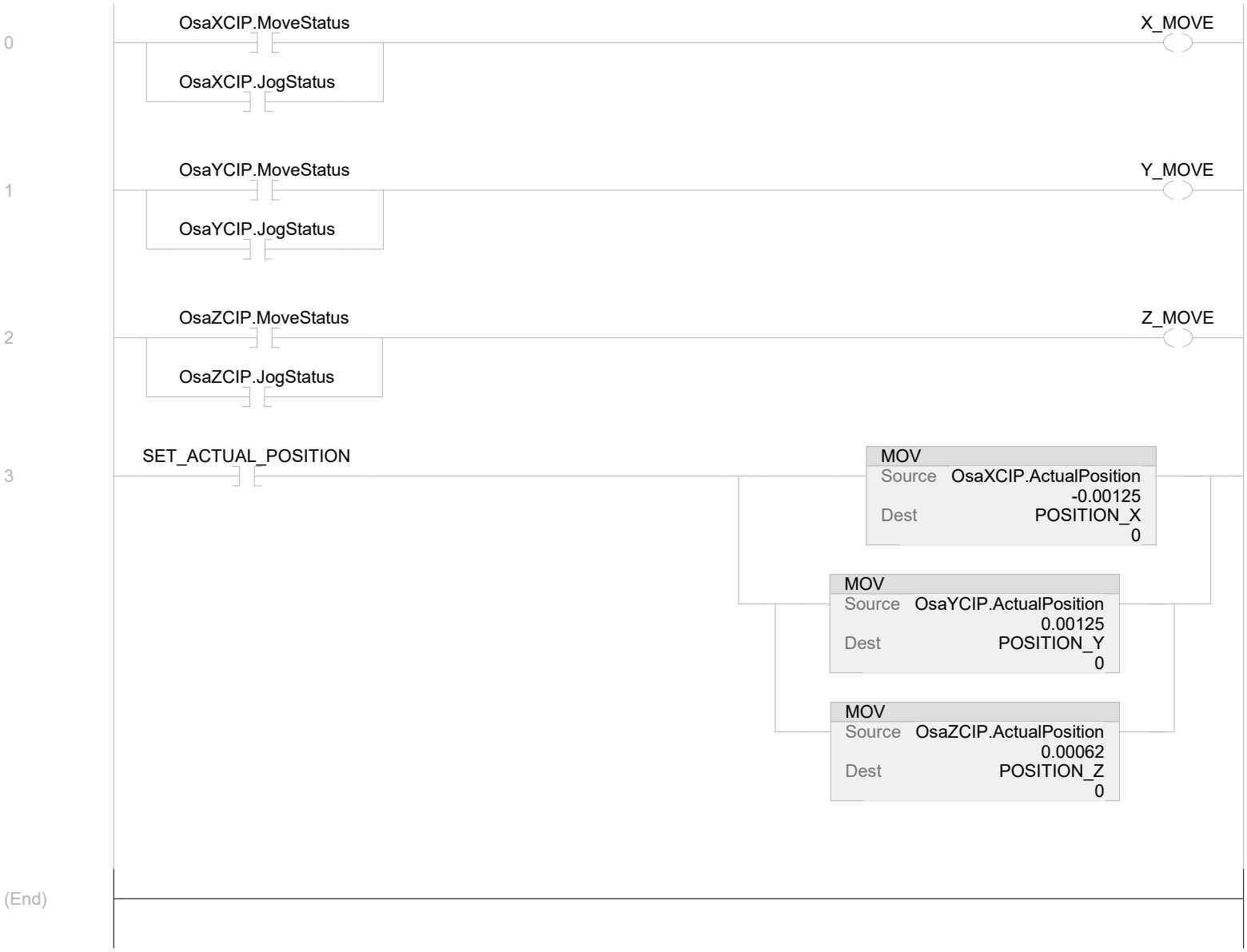
TIMER_Y.DN

cas behu nastroje/motoru sekundy

ADD
Source A RunTime_Y.s 4
Source B 1
Dest RunTime_Y.s 4

TIMER_Y
RES


8
formatuje cas
d:h:m:s:ms
Time_formatting
Time_formatting Osa_Y ...
RT RunTime_Y
Timer TIMER_Y
9
Z_MOVE
RTO
Timer TIMER_Z
Preset 1000
Accum 319
EN
DN
10
cas behu
nastroje/motoru
sekundy
TIMER_Z.DN
ADD
Source A RunTime_Z.s
2
Source B 1
Dest RunTime_Z.s
2
TIMER_Z
RES
11
formatuje cas
d:h:m:s:ms
Time_formatting
Time_formatting Osa_Z ...
RT RunTime_Z
Timer TIMER_Z
(End)

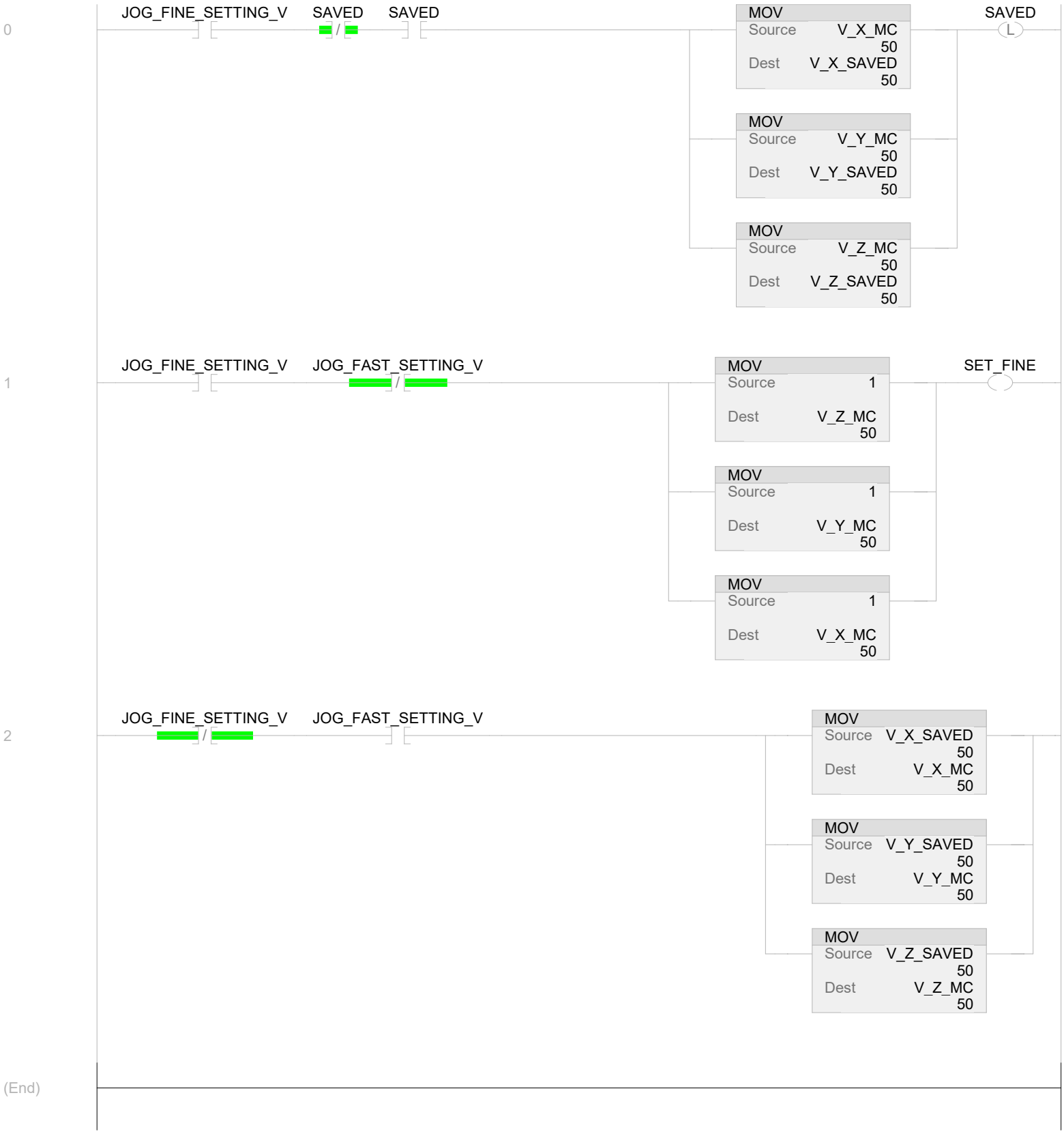

0
OsaXCIP.MoveStatus
OsaXCIP.JogStatus
X_MOVE
1
OsaYCIP.MoveStatus
OsaYCIP.JogStatus
Y_MOVE
2
OsaZCIP.MoveStatus
OsaZCIP.JogStatus
Z_MOVE
3
SET_ACTUAL_POSITION
MOV
Source OsaXCIP.ActualPosition
-0.00125
Dest POSITION_X
0
MOV
Source OsaYCIP.ActualPosition
0.00125
Dest POSITION_Y
0
MOV
Source OsaZCIP.ActualPosition
0.00062
Dest POSITION_Z
0
(End)

```
1
2  n_p := 0;
3  p_p := 0;
4
5  for ax := -2 to 2 do
6      if (I = 0) then
7          sour_X[0] := 10000;
8          sour_X[1] := 10000;
9          sour_X[2] := PROG_Running[0,I];
10         sour_X[3] := PROG_Running[0,I+1];
11         sour_X[4] := PROG_Running[0,I+2];
12
13         sour_Y[0] := 10000;
14         sour_Y[1] := 10000;
15         sour_Y[2] := PROG_Running[1,I];
16         sour_Y[3] := PROG_Running[1,I+1];
17         sour_Y[4] := PROG_Running[1,I+2];
18
19         sour_Z[0] := 10000;
20         sour_Z[1] := 10000;
21         sour_Z[2] := PROG_Running[2,I];
22         sour_Z[3] := PROG_Running[2,I+1];
23         sour_Z[4] := PROG_Running[2,I+2];
24         exit;
25     end_if;
26
27     if (I = 1) then
28         sour_X[0] := 10000;
29         sour_X[1] := PROG_Running[0,I-1];
30         sour_X[2] := PROG_Running[0,I];
31         sour_X[3] := PROG_Running[0,I+1];
32         sour_X[4] := PROG_Running[0,I+2];
33
34         sour_Y[0] := 10000;
35         sour_Y[1] := PROG_Running[1,I-1];
36         sour_Y[2] := PROG_Running[1,I];
37         sour_Y[3] :=PROG_Running[1, I+1];
38         sour_Y[4] := PROG_Running[1,I+2];
39
40         sour_Z[0] := 10000;
41         sour_Z[1] :=  PROG_Running[2,I-1];
42         sour_Z[2] :=  PROG_Running[2,I];
43         sour_Z[3] :=  PROG_Running[2,I+1];
44         sour_Z[4] :=  PROG_Running[2,I+2];
45     end_if;
46
47     if (I = I_MAX-1) then
48         sour_X[0] := PROG_Running[0,I-2];
49         sour_X[1] := PROG_Running[0,I-1];
50         sour_X[2] := PROG_Running[0,I];
51         sour_X[3] :=  PROG_Running[0,I+1];
52         sour_X[4] := 10000;
53
54         sour_Y[0] := PROG_Running[1,I-2];
55         sour_Y[1] :=PROG_Running[1,I-1];
56         sour_Y[2] := PROG_Running[1,I];
57         sour_Y[3] := PROG_Running[1,I+1];
58         sour_Y[4] := 10000;
59
```

```
60          sour_Z[0] := PROG_Running[2,I-2];
61          sour_Z[1] := PROG_Running[2,I-1];
62          sour_Z[2] :=  PROG_Running[2,I];
63          sour_Z[3] := PROG_Running[2,I+1];
64          sour_Z[4] := 10000;
65          exit;
66      end_if;
67
68      if (I = I_MAX) then
69          sour_X[0] := PROG_Running[0, I-2];
70          sour_X[1] := PROG_Running[0, I-1];
71          sour_X[2] := PROG_Running[0, I];
72          sour_X[3] := 10000;
73          sour_X[4] := 10000;
74
75          sour_Y[0] := PROG_Running[1, I-2];
76          sour_Y[1] := PROG_Running[1, I-1];
77          sour_Y[2] := PROG_Running[1, I];
78          sour_Y[3] := 10000;
79          sour_Y[4] := 10000;
80
81          sour_Z[0] := PROG_Running[2, I-2];
82          sour_Z[1] := PROG_Running[2, I-1];
83          sour_Z[2] := PROG_Running[2,I];
84          sour_Z[3] := 10000;
85          sour_Z[4] := 10000;
86          exit;
87      end_if;
88
89      if ((I >= 2)AND(I < I_MAX-2)) then
90          sour_X[ax+2] := PROG_Running[0,I+ax];
91          sour_Y[ax+2] := PROG_Running[1,I+ax];
92          sour_Z[ax+2] := PROG_Running[2,I+ax];
93      end_if;
94
95  end_for;
```

```
1
2
3  case LOGO_CASE OF
4      0:  IF LOGO_CASE = 0 then
5              IF VUT_LOGO_START then
6                  LOGO_CASE:=1;
7                  subrut_DN:=0;
8                  I:=1;
9                  POHYB:= 0;
10                 PROG_AKTIV:=1;
11             end_if;
12         end_if;
13
14     1:  IF LOGO_CASE = 1 then
15
16
17             LOGO_X := PROG_Running[0,I];
18             LOGO_Y := PROG_Running[1,I];
19             LOGO_Z := PROG_Running[2,I];
20
21             LOGO_CASE:=2;
22             subrut_DN:=1;
23             SUB:=0;
24
25         end_if;
26
27     2:  IF LOGO_CASE = 2 then
28             POHYB:= 1;
29             IF I = I_MAX then
30                 LOGO_DN :=1;
31                 PROG_AKTIV:=0;
32
33
34             end_if;
35             IF (LOGO_X_MAM[I].PC AND LOGO_Y_MAM[I].PC AND LOGO_Z_MAM[I].PC AND I < I_MAX) THEN
36                 LOGO_CASE := 1;
37                 I:=1+I;
38                 POHYB:=0;
39             end_if;
40         end_if;
41 end_case;
42
43 RET(I);
```

```
1
2  for j := 0 to I_MAX do
3      LOGO_X_MAM[j].AC := 0;
4      LOGO_X_MAM[j].ACCEL := 0;
5      LOGO_X_MAM[j].CalculatedDataAvailable := 0;
6      LOGO_X_MAM[j].DECEL := 0;
7      LOGO_X_MAM[j].DN := 0;
8      LOGO_X_MAM[j].EN := 0;
9      LOGO_X_MAM[j].ERR := 0;
10     LOGO_X_MAM[j].EXERR := 0;
11     LOGO_X_MAM[j].FLAGS := 0;
12     LOGO_X_MAM[j].IP := 0;
13     LOGO_X_MAM[j].PC := 0;
14     LOGO_X_MAM[j].SEGMENT := 0;
15     LOGO_X_MAM[j].STATE := 0;
16     LOGO_X_MAM[j].STATUS := 0;
17     LOGO_X_MAM[j].TrackingMaster := 0;
18 end_for;
19
20 for j := 0 to I_MAX do
21     LOGO_Y_MAM[j].AC := 0;
22     LOGO_Y_MAM[j].ACCEL := 0;
23     LOGO_Y_MAM[j].CalculatedDataAvailable := 0;
24     LOGO_Y_MAM[j].DECEL := 0;
25     LOGO_Y_MAM[j].DN := 0;
26     LOGO_Y_MAM[j].EN := 0;
27     LOGO_Y_MAM[j].ERR := 0;
28     LOGO_Y_MAM[j].EXERR := 0;
29     LOGO_Y_MAM[j].FLAGS := 0;
30     LOGO_Y_MAM[j].IP := 0;
31     LOGO_Y_MAM[j].PC := 0;
32     LOGO_Y_MAM[j].SEGMENT := 0;
33     LOGO_Y_MAM[j].STATE := 0;
34     LOGO_Y_MAM[j].STATUS := 0;
35     LOGO_Y_MAM[j].TrackingMaster := 0;
36 end_for;
37
38 for j := 0 to I_MAX do
39     LOGO_Z_MAM[j].AC := 0;
40     LOGO_Z_MAM[j].ACCEL := 0;
41     LOGO_Z_MAM[j].CalculatedDataAvailable := 0;
42     LOGO_Z_MAM[j].DECEL := 0;
43     LOGO_Z_MAM[j].DN := 0;
44     LOGO_Z_MAM[j].EN := 0;
45     LOGO_Z_MAM[j].ERR := 0;
46     LOGO_Z_MAM[j].EXERR := 0;
47     LOGO_Z_MAM[j].FLAGS := 0;
48     LOGO_Z_MAM[j].IP := 0;
49     LOGO_Z_MAM[j].PC := 0;
50     LOGO_Z_MAM[j].SEGMENT := 0;
51     LOGO_Z_MAM[j].STATE := 0;
52     LOGO_Z_MAM[j].STATUS := 0;
53     LOGO_Z_MAM[j].TrackingMaster := 0;
54 end_for;
```


0
JOG_FINE_SETTING_V
SAVED
SAVED
MOV
Source V_X_MC 50
Dest V_X_SAVED 50
MOV
Source V_Y_MC 50
Dest V_Y_SAVED 50
MOV
Source V_Z_MC 50
Dest V_Z_SAVED 50
SAVED
L
1
JOG_FINE_SETTING_V
JOG_FAST_SETTING_V
MOV
Source 1
Dest V_Z_MC 50
MOV
Source 1
Dest V_Y_MC 50
MOV
Source 1
Dest V_X_MC 50
SET_FINE
2
JOG_FINE_SETTING_V
JOG_FAST_SETTING_V
MOV
Source V_X_SAVED 50
Dest V_X_MC 50
MOV
Source V_Y_SAVED 50
Dest V_Y_MC 50
MOV
Source V_Z_SAVED 50
Dest V_Z_MC 50
(End)

```
1
2  case LOGO_CASE OF
3      0:  IF LOGO_CASE = 0 then
4              IF VUT_LOGO_START then
5                  LOGO_CASE:=1;
6                  subrut_DN:=0;
7                  I:=1;
8                  POHYB:= 0;
9                  PROG_AKTIV:=1;
10             end_if;
11         end_if;
12
13     1:  IF LOGO_CASE = 1 then
14
15
16             LOGO_X := A_XYZ_LOGO[0,I];
17             LOGO_Y := A_XYZ_LOGO[1,I];
18             LOGO_Z := A_XYZ_LOGO[2,I];
19
20             LOGO_CASE:=2;
21             subrut_DN:=1;
22             SUB:=0;
23
24         end_if;
25
26     2:  IF LOGO_CASE = 2 then
27             POHYB:= 1;
28             IF I = I_MAX then
29                 LOGO_DN :=1;
30                 PROG_AKTIV:=0;
31
32
33             end_if;
34             IF (LOGO_X_MAM[I].PC AND LOGO_Y_MAM[I].PC AND LOGO_Z_MAM[I].PC AND I < I_MAX) THEN
35                 LOGO_CASE := 1;
36                 I:=1+I;
37                 POHYB:=0;
38             end_if;
39         end_if;
40 end_case;
41
42 RET(I);
```

0
JSR
Routine Name
Status
(End)

Guard STATUS

0

Status_READ
Status_READ GS_X ...
Detekovano GuardStatus_X_Detect
Pocet GuardStatus_X_Len
Status OsaXCIP.GuardStatus
16#0000_0010

1

Status_READ
Status_READ GS_Y ...
Detekovano GuardStatus_Y_Detect
Pocet GuardStatus_Y_Len
Status OsaYCIP.GuardStatus
16#0000_0010

2

Status_READ
Status_READ GS_Z ...
Detekovano GuardStatus_Z_Detect
Pocet GuardStatus_Z_Len
Status OsaZCIP.GuardStatus
16#0000_0010

Guard FAULTS

3

Status_READ
Status_READ GF_X ...
Detekovano GuardFaults_X_Detect
Pocet GuardFaults_X_Len
Status OsaXCIP.GuardFaults
16#0000_0000

4

Status_READ
Status_READ GF_Y ...
Detekovano GuardFaults_Y_Detect
Pocet GuardFaults_Y_Len
Status OsaYCIP.GuardFaults
16#0000_0000

5

Status_READ
Status_READ GF_Z ...
Detekovano GuardFaults_Z_Detect
Pocet GuardFaults_Z_Len
Status OsaZCIP.GuardFaults
16#0000_0000

CIP Axis IO Status

6

Status_READ
Status_READ AIO_X ...
Detekovano CIPAxisIO_X_Detect
Pocet CIPAxisIO_X_Len
Status OsaXCIP.CIPAxisIOStatus
16#0000_0032

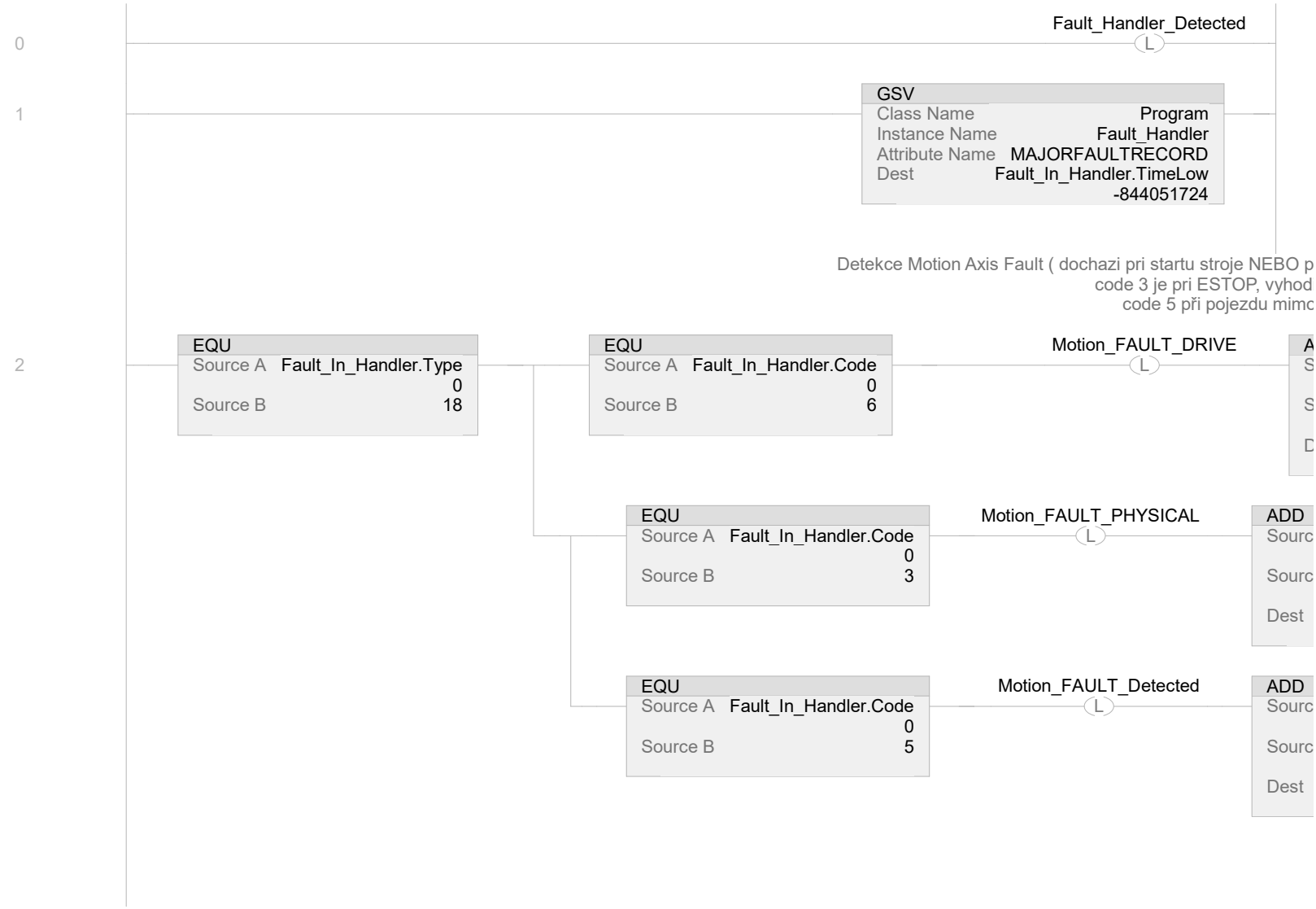
7

Status_READ
Status_READ AIO_Y ...
Detekovano CIPAxisIO_Y_Detect
Pocet CIPAxisIO_Y_Len
Status OsaYCIP.CIPAxisIOStatus
16#0000_0032

8

Status_READ	
Status_READ	AIO_Z ...
Detekovano	CIPAxisIO_Z_Detect
Pocet	CIPAxisIO_Z_Len
Status	OsaZCIP.CIPAxisIOStatus
	16#0000_0032

(End)


0
Fault_Handler_Detected
L
1
GSV
Class Name Program
Instance Name Fault_Handler
Attribute Name MAJORFAULTRECORD
Dest Fault_In_Handler.TimeLow
-844051724
Detekce Motion Axis Fault (dochazi pri startu stroje NEBO p
code 3 je pri ESTOP, vyhod
code 5 při pojezdu mimo
2
EQU
Source A Fault_In_Handler.Type
0
Source B 18
EQU
Source A Fault_In_Handler.Code
0
Source B 6
Motion_FAULT_DRIVE
L
EQU
Source A Fault_In_Handler.Code
0
Source B 3
Motion_FAULT_PHYSICAL
L
ADD
Sourc
Sourc
Dest
EQU
Source A Fault_In_Handler.Code
0
Source B 5
Motion_FAULT_Detected
L
ADD
Sourc
Sourc
Dest

ruseni komunikace se servomenicem)
sy (Y)
su

D	
urce A	Motion_Fault_counter 0
urce B	1
st	Motion_Fault_counter 0

MOV	
Source	0
Dest	Fault_In_Handler.Type 0

MOV	
Source	0
Dest	Fault_In_Handler.Code 0

A	Motion_Fault_counter 0
B	1
	Motion_Fault_counter 0

A	Motion_Fault_counter 0
B	1
	Motion_Fault_counter 0

Detekce Motion - Coordinated System time lost (dochazi pri startu stroje)

3

EQU	
Source A	Fault_In_Handler.Type 0
Source B	11

EQU	
Source A	Fault_In_Handler.Code 0
Source B	33

MOV	
Source	0
Dest	Fault_In_Handler.Type 0

MOV	
Source	0
Dest	Fault_In_Handler.Code 0

Motion_Time_Lost
(L)

4

SSV	
Class Name	Program
Instance Name	THIS
Attribute Name	MAJORFAULTRECORD
Source	Fault_In_Handler.TimeLow -844051724

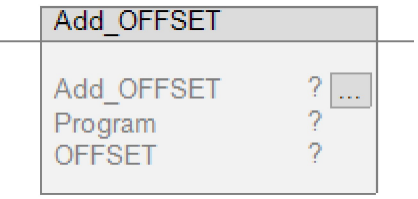
(End)

Signature Listing

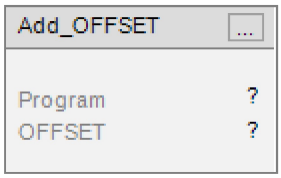
Add_OFFSET v1.0

Available Languages

Relay Ladder



Function Block



Structured Text

```
Add_OFFSET(Program, OFFSET);
```

Parameters

Required	Name	Data Type	Usage	Description
X	Add_OFFSET	Add_OFFSET	InOut	
	EnableIn	BOOL	Input	
	EnableOut	BOOL	Output	
X	Program	INT	InOut	
X	OFFSET	INT	InOut	

Extended Description

Execution

Condition	Description
EnableIn is true	

Revision v1.0 Notes

Name	Default	Data Type	Scope
OFFSET		INT[3]	Add_OFFSET
Usage:	InOut Parameter		
Required:	Yes		
Visible:	Yes		
Constant	No		
OFFSET - Add_OFFSET/Logic - #13			
Program		INT[3,100]	Add_OFFSET
Usage:	InOut Parameter		
Required:	Yes		
Visible:	Yes		
Constant	No		
*Program - Add_OFFSET/Logic - #13, #17, #22, #30, #35, #4, #43, #48, #5, #6, *#13, *#61, *#62, *#63*			

Name	Default	Data Type	Scope
delka	0	DINT	Add_OFFSET
Usage:	Local Tag		
External Access:	None		
*delka - Add_OFFSET/Logic - #13, #13, #17, #22, #30, #35, #4, #4, #43, #48, #5, #5, #6, #6, #61, #61, #62, #62, #63, #63, *#11, *#3, *#60*			
ERROR	0	BOOL	Add_OFFSET
Usage:	Local Tag		
External Access:	None		
*ERROR - Add_OFFSET/Logic - #59, *#1, *#19, *#24, *#32, *#37, *#45, *#50*			
osy	0	DINT	Add_OFFSET
Usage:	Local Tag		
External Access:	None		
*osy - Add_OFFSET/Logic - #13, #13, #13, #16, #17, #22, #29, #30, #35, #42, #43, #48, *#10*			
Program_backup_x		DINT[100]	Add_OFFSET
Usage:	Local Tag		
External Access:	None		
*Program_backup_x - Add_OFFSET/Logic - #61, *#4*			
Program_backup_y		DINT[100]	Add_OFFSET
Usage:	Local Tag		
External Access:	None		
*Program_backup_y - Add_OFFSET/Logic - #62, *#5*			
Program_backup_z		DINT[100]	Add_OFFSET
Usage:	Local Tag		
External Access:	None		
*Program_backup_z - Add_OFFSET/Logic - #63, *#6*			

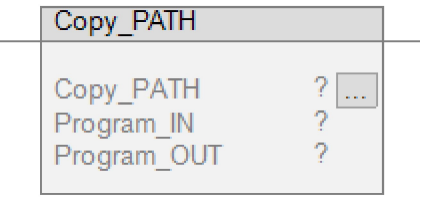
```
ERROR := 0;

for delka := 0 to 99 do
        Program_backup_x[delka] := Program[0,delka];
        Program_backup_y[delka] := Program[1,delka];
        Program_backup_z[delka] := Program[2,delka];
end_for;


for osy := 0 to 2 do
    for delka := 0 to 99 do

        Program[osy,delka] := Program[osy,delka]+OFFSET[osy];


        if (osy = 2) then
            if (Program[osy,delka] <= -29) then

                ERROR := 1;
            end_if;

            if (Program[osy,delka] >= 129) then

                ERROR := 1;
            end_if;

        end_if;

        if (osy = 1) then
            if(Program[osy,delka] <= -49) then

                ERROR := 1;
            end_if;

            if(Program[osy,delka] >= 419) then

                ERROR := 1;
            end_if;

        end_if;

        if(osy = 0)then
            if (Program[osy,delka] <= -49) then

                ERROR := 1;
            end_if;

            if (Program[osy,delka] >= 419) then

                ERROR := 1;
            end_if;

        end_if;

    end_for;

end_for;

```

```
59 if ERROR then
60     for delka := 0 to 99 do
61         Program[0,delka] := Program_backup_x[delka];
62         Program[1,delka] := Program_backup_y[delka];
63         Program[2,delka] := Program_backup_z[delka];
64     end_for;
65 
66 end_if;
```

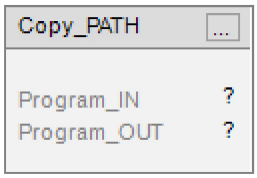
Copy_PATH v1.0

Available Languages

Relay Ladder



Function Block



Structured Text

```
Copy_PATH(Program_IN, Program_OUT);
```

Parameters

Required	Name	Data Type	Usage	Description
X	Copy_PATH	Copy_PATH	InOut	
	EnableIn	BOOL	Input	
	EnableOut	BOOL	Output	
X	Program_IN	INT	InOut	
X	Program_OUT	INT	InOut	

Extended Description

Execution

Condition	Description
EnableIn is true	

Revision v1.0 Notes

Name	Default	Data Type	Scope
Program_IN		INT[3,100]	Copy_PATH
Usage:	InOut Parameter		
Required:	Yes		
Visible:	Yes		
Constant	No		
Program_IN - Copy_PATH/Logic - #4			
Program_OUT		INT[3,100]	Copy_PATH
Usage:	InOut Parameter		
Required:	Yes		
Visible:	Yes		
Constant	No		
*Program_OUT - Copy_PATH/Logic - *#4*			

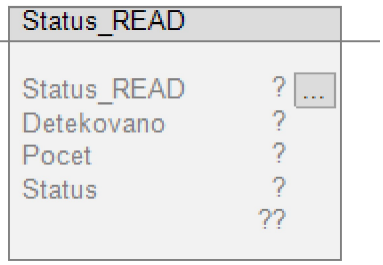
Name	Default	Data Type	Scope
delka	0	DINT	Copy_PATH
Usage:	Local Tag		
External Access:	None		
*delka - Copy_PATH/Logic - #4, #4, *#3*			
osy	0	DINT	Copy_PATH
Usage:	Local Tag		
External Access:	None		
*osy - Copy_PATH/Logic - #4, #4, *#2*			

```
1
2 for osy := 0 to 2 do
3     for delka := 0 to 99 do
4         Program_OUT[osy,delka] := Program_IN[osy,delka];
5
6     end_for;
7
8 end_for;
```

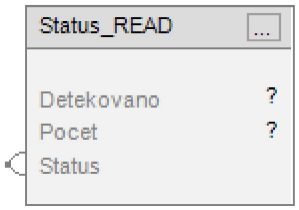
Status_READ v1.0

Available Languages

Relay Ladder



Function Block



Structured Text

```
Status_READ(Detekovano, Pocet, Status);
```

Parameters

Required	Name	Data Type	Usage	Description
X	Status_READ	Status_READ	InOut	
	EnableIn	BOOL	Input	
	EnableOut	BOOL	Output	
X	Detekovano	SINT	InOut	
X	Pocet	SINT	InOut	
X	Status	DINT	Input	

Extended Description

Execution

Condition	Description
EnableIn is true	

Revision v1.0 Notes

Name	Default	Data Type	Scope
Detekovano		SINT[32]	Status_READ
Usage:	InOut Parameter		
Required:	Yes		
Visible:	Yes		
Constant	No		
*Detekovano - Status_READ/Logic - *#14, *#3*			
Pocet	??	SINT	Status_READ
Usage:	InOut Parameter		
Required:	Yes		
Visible:	Yes		
Constant	No		
*Pocet - Status_READ/Logic - #14, #15, *#1, *#15*			
Status	0	DINT	Status_READ
Usage:	Input Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read/Write		
Status - Status_READ/Logic - #11			

Name	Default	Data Type	Scope
valREAD	0	DINT	Status_READ
Usage:	Local Tag		
External Access:	None		
*valREAD - Status_READ/Logic - #11, #13, #17, #21, #9, *#11, *#18, *#21, *#7*			
valREAD_tmp	0	DINT	Status_READ
Usage:	Local Tag		
External Access:	None		
*valREAD_tmp - Status_READ/Logic - #18, *#9*			
x	0	DINT	Status_READ
Usage:	Local Tag		
External Access:	None		
*x - Status_READ/Logic - #14, #3, *#2, *#8*			

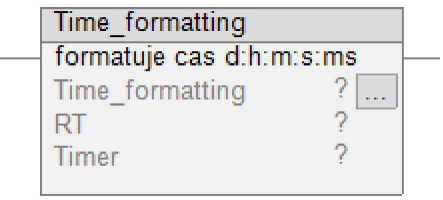
```
Pocet := 0;
for x := 0 to 31 do
    Detekovano[x] := 0;

end_for;

valREAD := 1;
for x := 0 to 31 do
    valREAD_tmp := valREAD;

    valREAD := valREAD AND Status;

    if valREAD > 0 then
        Detekovano[Pocet] := x;
        Pocet := Pocet + 1;
    end_if;
    if valREAD = 0 then
        valREAD := valREAD_tmp;
    end_if;

    valREAD := valREAD * 2;
end_for;
```

Time_formatting v1.0

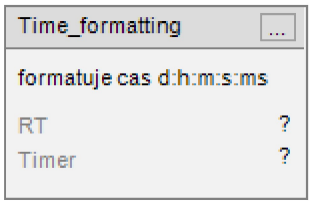
formatuje cas d:h:m:s:ms

Available Languages

Relay Ladder



Function Block



Structured Text

```
Time_formatting(RT, Timer);
```

Parameters

Required	Name	Data Type	Usage	Description
X	Time_formatting	Time_formatting	InOut	formatuje cas d:h:m:s:ms
	EnableIn	BOOL	Input	
	EnableOut	BOOL	Output	
	Done_s	BOOL	Input	
X	RT	RunTime	InOut	
X	Timer	TIMER	InOut	

Extended Description

Execution

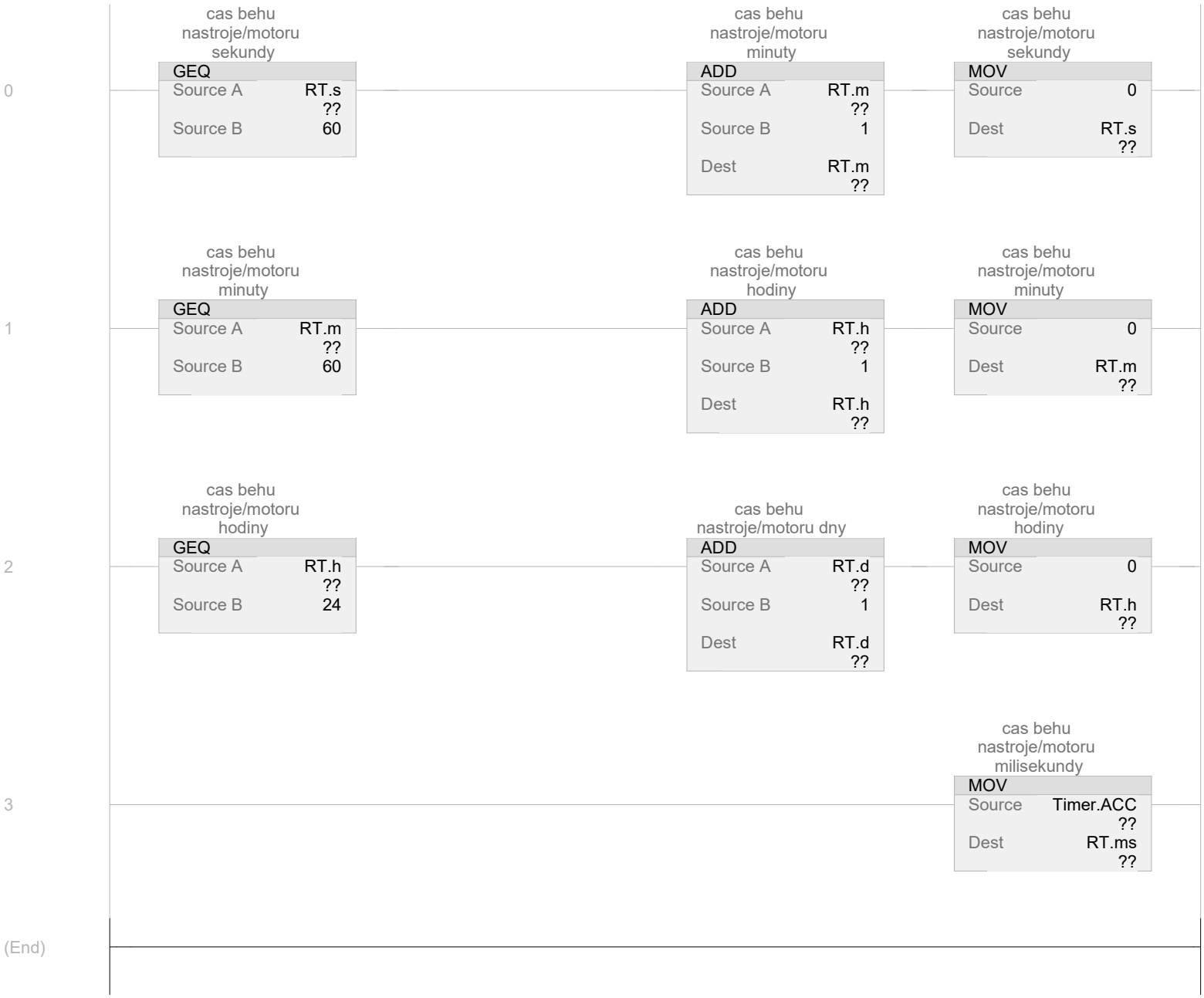
Condition	Description
EnableIn is true	

Revision v1.0 Notes

Name	Default	Data Type	Scope
RT		RunTime	Time_formatting
cas behu nastroje/motoru			
Usage:	InOut Parameter		
Required:	Yes		
Visible:	Yes		
Constant	No		
RT.ms	??	DINT	
cas behu nastroje/motoru milisekundy			
*RT.ms - Time_formatting/Logic - *3(MOV)*			
RT.s	??	DINT	
cas behu nastroje/motoru sekundy			
*RT.s - Time_formatting/Logic - *0(MOV), 0(GEQ)*			
RT.m	??	DINT	
cas behu nastroje/motoru minuty			
*RT.m - Time_formatting/Logic - *0(ADD), *1(MOV), 0(ADD), 1(GEQ)*			
RT.h	??	DINT	
cas behu nastroje/motoru hodiny			
*RT.h - Time_formatting/Logic - *1(ADD), *2(MOV), 1(ADD), 2(GEQ)*			
RT.d	??	DINT	
cas behu nastroje/motoru dny			
*RT.d - Time_formatting/Logic - *2(ADD), 2(ADD)*			
Timer		TIMER	Time_formatting
Usage:	InOut Parameter		
Required:	Yes		
Visible:	Yes		
Constant	No		
Timer.ACC	??	DINT	
Timer.ACC - Time_formatting/Logic - 3(MOV)			

Name	Default	Data Type	Scope

No Tags Exist


0
cas behu nastroje/motoru sekundy
GEQ
Source A RT.s ??
Source B 60
cas behu nastroje/motoru minuty
ADD
Source A RT.m ??
Source B 1
Dest RT.m ??
cas behu nastroje/motoru sekundy
MOV
Source 0
Dest RT.s ??
1
cas behu nastroje/motoru minuty
GEQ
Source A RT.m ??
Source B 60
cas behu nastroje/motoru hodiny
ADD
Source A RT.h ??
Source B 1
Dest RT.h ??
cas behu nastroje/motoru minuty
MOV
Source 0
Dest RT.m ??
2
cas behu nastroje/motoru hodiny
GEQ
Source A RT.h ??
Source B 24
cas behu nastroje/motoru dny
ADD
Source A RT.d ??
Source B 1
Dest RT.d ??
cas behu nastroje/motoru hodiny
MOV
Source 0
Dest RT.h ??
3
cas behu nastroje/motoru milisekundy
MOV
Source Timer.ACC ??
Dest RT.ms ??
(End)

Data type Name: Major_Fault_Data

Description:

Size: 48 byte(s)

Name	Value	Data Type	Style
TimeLow		DINT	Decimal
External Access:	Read/Write		
TimeHigh		DINT	Decimal
External Access:	Read/Write		
Type		INT	Decimal
External Access:	Read/Write		
Code		INT	Decimal
External Access:	Read/Write		
Info		DINT[8]	Hex
External Access:	Read/Write		
DisableFlag		SINT	Decimal
External Access:	Read/Write		

Data type Name: RunTime

Description:
cas behu nastroje/motoru

Size: 20 byte(s)

Name	Value	Data Type	Style
ms		DINT	Decimal
milisekundy			
External Access:	Read/Write		
s		DINT	Decimal
sekundy			
External Access:	Read/Write		
m		DINT	Decimal
minuty			
External Access:	Read/Write		
h		DINT	Decimal
hodiny			
External Access:	Read/Write		
d		DINT	Decimal
dny			
External Access:	Read/Write		

Data type Name: STRING

Description:

Size: 88 byte(s)

Name	Value	Data Type	Style
LEN		DINT	Decimal
External Access:	Read/Write		
DATA		SINT[82]	ASCII
External Access:	Read/Write		

Data type Name: STRING_16

Description:

Size: 20 byte(s)

Name	Value	Data Type	Style
LEN		DINT	Decimal
External Access:	Read/Write		
DATA		SINT[16]	ASCII
External Access:	Read/Write		

Data type Name: STRING_32

Description:

Size: 36 byte(s)

Name	Value	Data Type	Style
LEN		DINT	Decimal
External Access:	Read/Write		
DATA		SINT[32]	ASCII
External Access:	Read/Write		

Data type Name: Add_OFFSET

Description:

Size: 1212 byte(s)

Name	Value	Data Type	Style
EnableIn		BOOL	Decimal
Enable Input - System Defined Parameter			
External Access:	Read Only		
EnableOut		BOOL	Decimal
Enable Output - System Defined Parameter			
External Access:	Read Only		

Data type Name: Copy_PATH

Description:

Size: 12 byte(s)

Name	Value	Data Type	Style
EnableIn		BOOL	Decimal
Enable Input - System Defined Parameter			
External Access:	Read Only		
EnableOut		BOOL	Decimal
Enable Output - System Defined Parameter			
External Access:	Read Only		

Data type Name: Status_READ

Description:

Size: 20 byte(s)

Name	Value	Data Type	Style
EnableIn		BOOL	Decimal
Enable Input - System Defined Parameter			
External Access:	Read Only		
EnableOut		BOOL	Decimal
Enable Output - System Defined Parameter			
External Access:	Read Only		
Status		DINT	Decimal
External Access:	Read/Write		

Data type Name: Time_formatting

Description:
formatuje cas d:h:m:s:ms

Size: 4 byte(s)

Name	Value	Data Type	Style
EnableIn		BOOL	Decimal
Enable Input - System Defined Parameter			
External Access:	Read Only		
EnableOut		BOOL	Decimal
Enable Output - System Defined Parameter			
External Access:	Read Only		
Done_s		BOOL	Decimal
External Access:	Read/Write		

1769 Bus : Local Modules

Local: [0] 1769-L36ERM Milling_Machine

Type:	1769-L36ERM CompactLogix™ 5370 Controller	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
Slot:	0	Electronic Keying:	Exact Match
Revision:	33.12	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off

Local: [1] 1769-IQ32/A DC_IN

Type:	1769-IQ32/A 32 Point High Density 24V DC Input	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
Slot:	1	Electronic Keying:	Compatible Module
Revision:	3.1	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
Use Unicast:	No		

Local: [2] 1769-OB16/B DC_OUT

Type:	1769-OB16/B 16 Point 24V DC Output, Source	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
Slot:	2	Electronic Keying:	Compatible Module
Revision:	3.1	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
Use Unicast:	No		

Module Defined Configuration Tag	Value	Data Type
Local:2:C		AB:1769_DO16:C:0
.Config	2#0000_0000_0000_0000	INT
.ProgToFaultEn	0	BOOL
.ProgMode	2#0000_0000_0000_0000	INT
.ProgValue	2#0000_0000_0000_0000	INT
.FaultMode	2#0000_0000_0000_0000	INT
.FaultValue	2#0000_0000_0000_0000	INT

Ethernet : Local Modules

1783-EMS08T Switch

Type:	1783-EMS08T 1783-EMS08T ENet Managed Switch	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	192.168.1.1	Electronic Keying:	Compatible Module
Revision:	1.3	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
ConnectionName:	Exclusive Owner	RPI:	200 ms
Input Type:	Multicast	Input Trigger:	Cyclic
Use Unicast:	n/a		

440C-CR30-22BBB/A CR30_SAFETY

Configurable Safety Relay to maintain safety function of milling machine

Type:	440C-CR30-22BBB/A Guardmaster 440C-CR30 software configured safety relay	Parent:	Local

Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	192.168.1.82	Electronic Keying:	Exact Match
Revision:	9.4	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
RPI:	240 ms	Use Unicast:	No

2097-V33PR3-LM F1

Type:	2097-V33PR3-LM Kinetix 350, 4A, 240V, No Filter Ethernet Drive	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	192.168.1.84	Electronic Keying:	Exact Match
Revision:	2.4	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
Motion Connection Update Period:	2.0 ms		

2097-V33PR3-LM F2

Type:	2097-V33PR3-LM Kinetix 350, 4A, 240V, No Filter Ethernet Drive	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	192.168.1.85	Electronic Keying:	Exact Match
Revision:	2.4	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
Motion Connection Update Period:	2.0 ms		

2097-V33PR3-LM F3

Type:	2097-V33PR3-LM Kinetix 350, 4A, 240V, No Filter Ethernet Drive	Parent:	Local
Vendor:	Rockwell Automation/Allen-Bradley	Vendor ID:	1
IP Address or Host Name:	192.168.1.86	Electronic Keying:	Exact Match
Revision:	2.4	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
Motion Connection Update Period:	2.0 ms		

Milling_Machine
Label does not exist 1
Tag Listing 3
Komunikace
Komunikace_program
MAIN_Komunikace_Routine
Ladder Diagram 29
MainTask
MainProgram
AUTOMATIC_CONTROL
Ladder Diagram 32
AUTOMAT_EDIT
Ladder Diagram 36
Errors
Ladder Diagram 40
Fault_Routine
Ladder Diagram 41
INIT
Ladder Diagram 42
IO_Routine
Ladder Diagram 44
MainRoutine
Ladder Diagram 45
MANUAL_CONTROL
Ladder Diagram 47
Motors_Runtime
Ladder Diagram 57
Movement
Ladder Diagram 59
PATH_FIND
Structured Text 60
Program_Freza
Structured Text 62
RESET_PATH
Structured Text 63
SETTINGS
Ladder Diagram 64
VUT_logo
Structured Text 65
Status
Status_program
MAIN_Status_Routine
Ladder Diagram 66
Status
Ladder Diagram 67
Controller Fault Handler
Fault_Handler
Norm_Fault_Handler_Routine
Ladder Diagram 69
Add-On Instruction Signature Listing
Add-On Instructions
Instruction Definition 72
Add_OFFSET
Parameter Listing 73
Local Tag Listing 74
Logic Routine 75
Instruction Definition 77
Copy_PATH
Parameter Listing 78
Local Tag Listing 79
Logic Routine 80
Instruction Definition 81
Status_READ
Parameter Listing 82

Local Tag Listing 83
Logic Routine 84
Instruction Definition 85
Time_formatting
Parameter Listing 86
Local Tag Listing 87
Logic Routine 88
Data Types
User-Defined Data Type 89
Major_Fault_Data 89
RunTime 90
Strings 91
Add-On-Defined Data Type 94
Module Properties
1769 Bus : Local Modules 98
Ethernet : Local Modules 98