

Filename: SINS2.pro  
Directory: C:\devel\nussins2\eps\PLC  
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Title: SSLS SINS.2 Reflectometer Branchline  
Author: Carl Cork  
Version:  
Description:

0001	PROGRAM Actuator_SM
0002	
0003	VAR CONSTANT
0004	strAddress        : STRING := '192.168.1.11';
0005	wPort             : WORD := 502;
0006	bID               : BYTE := 1;
0007	tTCP_Timeout: TIME := t#100ms;
0008	tTCP_Watchdog   : TIME := t#10s;
0009	END_VAR
0010	VAR
0011	oActuator        : Actuator; (* Actuator control and status object *)
0012	
0013	uiSuccessful     : UINT; (* total numbers of successful Transfers *)
0014	uiFailing        : UINT;     (* total numbers of failing Transfers  *)
0015	END_VAR
0001	(* Actuator State Machine *)
0002	CASE oActuator.wState OF
0003	10: (* RESET: reset connection *)
0004	xActuatorReady := FALSE;
0005	oActuator.xConnect := FALSE;
0006	CONNECT();
0007	oActuator.wState := 15;
0008	
0009	15: (* INIT: Initialize connection *)
0010	oActuator.xConnect := TRUE;
0011	CONNECT();
0012	oActuator.wState := 20;
0013	
0014	20: (* CONNECTING: wait for TCP connection*)
0015	CONNECT();
0016	IF oActuator.oMBMaster.xIS_CONNECTED THEN
0017	oActuator.xBusy := FALSE;
0018	oActuator.wState := 30;
0019	END_IF
0020	
0021	30: (* INITIALIZING: wait for servo on *)
0022	STATUS_READ();
0023	IF oActuator.xDataReady THEN
0024	(* test for EMGS ON or PWR OFF *)
0025	IF (oActuator.awStatus[5].15 OR NOT oActuator.awStatus[5].13 ) THEN
0026	(* Wait for this condition to be satisfied *)
0027	oActuator.wState := 30;
0028	(* test for ALMH alarm *)
0029	ELSIF oActuator.awStatus[5].10 THEN
0030	(* try to reset alarm *)
0031	oActuator.wState := 31;
0032	(* test for SV servo OFF or PEND OFF *)
0033	ELSIF (NOT oActuator.awStatus[5].12) OR (NOT oActuator.awStatus[5].3) THEN
0034	(* try to turn on servo *)
0035	oActuator.wState := 33;
0036	(* test for HEND homing complete *)
0037	ELSIF NOT oActuator.awStatus[5].4 THEN
0038	(* try to HOME motor *)
0039	oActuator.wState := 35;
0040	ELSE
0041	(* ready to receive position commands *)
0042	oActuator.wState := 40;
0043	END_IF
0044	END_IF
0045	
0046	31: (* ALRS ON: reset alarm *)
0047	(* first assert ALRS *)
0048	oActuator.wCommand := 16#0100;
0049	DRG1_WRITE();
0050	IF oActuator.xDataReady THEN
0051	(* next step is to clear ALRS flag *)
0052	oActuator.wState := 32;
0053	END_IF
0054	
0055	32: (* ALRS OFF: clear flag *)
0056	(* clear ALRS flag *)
0057	oActuator.wCommand := 16#0000;

0058	DRG1_WRITE();
0059	IF oActuator.xDataReady THEN
0060	(* finish initialization *)
0061	oActuator.wState := 30;
0062	END_IF
0063	
0064	33: (* SON: turn on servo *)
0065	oActuator.wCommand := 16#1000;
0066	DRG1_WRITE();
0067	IF oActuator.xDataReady THEN
0068	(* finish initialization *)
0069	oActuator.wState := 30;
0070	END_IF
0071	
0072	35: (* HOME OFF: reset HOME flag *)
0073	(* leave SON ON *)
0074	oActuator.wCommand := 16#1000;
0075	DRG1_WRITE();
0076	IF oActuator.xDataReady THEN
0077	(* now set the flag *)
0078	oActuator.wState := 36;
0079	END_IF
0080	
0081	36: (* HOME ON: set HOME flag *)
0082	(* SON   HOME *)
0083	oActuator.wCommand := 16#1010;
0084	DRG1_WRITE();
0085	IF oActuator.xDataReady THEN
0086	(* wait for HEND *)
0087	oActuator.wState := 37;
0088	END_IF
0089	
0090	37: (* HEND: wait for home to finish *)
0091	STATUS_READ();
0092	IF oActuator.xDataReady THEN
0093	(* test for HEND *)
0094	IF NOT oActuator.awStatus[5].4 THEN
0095	(* not home yet *)
0096	oActuator.wState := 37;
0097	ELSE
0098	(* ready to receive position commands *)
0099	oActuator.wState := 40;
0100	END_IF
0101	END_IF
0102	
0103	40: (* IDLING: wait for new destination *)
0104	STATUS_READ();
0105	IF oActuator.xDataReady THEN
0106	(* New target? *)
0107	IF wActuatorTarget <> wActuatorPosition THEN
0108	(* update target *)
0109	PCMD_WRITE();
0110	xActuatorReady := FALSE;
0111	oActuator.wState := 50;
0112	ELSE
0113	(* continue idling *)
0114	STATUS_READ();
0115	xActuatorReady := TRUE;
0116	oActuator.wState := 40;
0117	END_IF
0118	END_IF
0119	
0120	50: (* STARTING: set new target position*)
0121	PCMD_WRITE();
0122	IF oActuator.xDataReady THEN
0123	(* started, now test for motion complete *)
0124	STATUS_READ();
0125	oActuator.wState := 60;
0126	END_IF
0127	
0128	60: (* MOVING: wait until move is completed*)
0129	STATUS_READ();
0130	IF oActuator.xDataReady THEN

0131	(* wStatus & PEND ? *)
0132	IF oActuator.awStatus[5].3 THEN
0133	(* Move complete, goto IDLING *)
0134	uiSuccessful := uiSuccessful + 1;
0135	STATUS_READ();
0136	oActuator.wState := 40;
0137	ELSE
0138	(* Still moving, test again *)
0139	STATUS_READ();
0140	oActuator.wState := 60;
0141	END_IF
0142	END_IF
0143	
0144	ELSE (* Should never get here *)
0145	oActuator.xConnect := FALSE;
0146	oActuator.wState := 10;
0147	END_CASE

CONNECT (ST)

0001	(* CONNECT *)
0002	(* initiate TCP connection *)
0003	
0004	(* Delay before initiating connection *)
0005	(*BEGDEBUG oActuator.tonConnect(IN := oActuator.xConnect, PT := DWORD_TO_TIME((BYTE_TO_DWORD(bID) * 100)));
0006	oActuator.tonConnect(IN := oActuator.xConnect, PT := t#100ms);
0007	
0008	(* Connect *)
0009	oActuator.xSend := FALSE;
0010	oActuator.oMBMaster(
0011	xCONNECT              := oActuator.tonConnect.Q,
0012	strIP_ADDRESS         := strAddress,
0013	wPORT                 := wPort,
0014	bUNIT_ID              := bID,
0015	bFUNCTION_CODE       := 16#03,              (*ReadHoldingCoils*)
0016	wREAD_ADDRESS:= 16#9000,
0017	wREAD_QUANTITY       := 10,
0018	ptREAD_DATA           := ADR(oActuator.awStatus[0]),
0019	wWRITE_ADDRESS       := 0,
0020	wWRITE_QUANTITY       := 0,
0021	ptSEND_DATA           := 0,
0022	tTIME_OUT             := tTCP_Timeout,
0023	tCON_WATCHDOG         := tTCP_Watchdog,
0024	xSEND                 := oActuator.xSend
0025	);
0026	
0027	(* Test for connection error *)
0028	IF oActuator.oMBMaster.wError <> 0 THEN
0029	(* error, return to RESET *)
0030	uiFailing := uiFailing + 1;
0031	oActuator.xConnect := FALSE;
0032	oActuator.wState := 10;
0033	END_IF

ENDDEBUG\* )

DRG1\_WRITE (ST)

0001	(* DRG1_WRITE*)		
0002	(* Write to DRG1 command register *)		
0003			
0004	(* check for start condition *)		
0005	IF NOT oActuator.xBusy THEN		
0006	oActuator.xBusy	:= TRUE;	
0007	oActuator.xSend	:= TRUE;	
0008	END_IF		
0009			
0010	(* set DRG1 command register *)		
0011	oActuator.OMBMaster(		
0012	xCONNECT	:= oActuator.tonConnect.Q,	
0013	strIP_ADDRESS	:= strAddress,	
0014	wPORT	:= wPort,	
0015	bUNIT_ID	:= bID,	
0016	bFUNCTION_CODE	:= 16#06,	(*WriteSingleRegister*)
0017	wREAD_ADDRESS:=	0,	
0018	wREAD_QUANTITY	:= 0,	
0019	ptREAD_DATA	:= 0,	
0020	wWRITE_ADDRESS	:= 16#0D00,	

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0021     WRITE_QUANTITY      := 1,
0022     ptSEND_DATA          := ADDR(oActuator.wCommand),
0023     tTIME_OUT            := tTCP_Timeout,
0024     tCON_WATCHDOG        := tTCP_Watchdog,
0025     xSEND                := oActuator.xSend
0026 );
0027
0028 (* Test for transaction complete *)
0029 IF oActuator.oMBMaster.wError <> 0 THEN
0030     (* error, return to INIT *)
0031     uiFailing := uiFailing + 1;
0032     oActuator.xConnect := FALSE;
0033     oActuator.xBusy := FALSE;
0034     oActuator.xDataReady := FALSE;
0035     oActuator.wState := 10;
0036 ELSIF NOT oActuator.xSend THEN
0037     oActuator.xBusy := FALSE;
0038     oActuator.xDataReady := TRUE;
0039 ELSE
0040     oActuator.xDataReady := FALSE;
0041 END_IF

PCMD_WRITE (ST)
0001 (* PCMD_WRITE *)
0002 (* Write to PCMD target position register *)
0003
0004 (* check for start condition *)
0005 IF NOT oActuator.xBusy THEN
0006     oActuator.wTarget := wActuatorTarget;
0007     oActuator.xBusy := TRUE;
0008     oActuator.xSend := TRUE;
0009 END_IF
0010
0011 (* set PCMD target position *)
0012 oActuator.oMBMaster(
0013     xCONNECT      := oActuator.tonConnect.Q,
0014     strIP_ADDRESS  := strAddress,
0015     wPORT          := wPort,
0016     bUNIT_ID      := bID,
0017     bFUNCTION_CODE := 16#06,          (*WriteSingleRegister*)
0018     wREAD_ADDRESS := 0,
0019     wREAD_QUANTITY := 0,
0020     ptREAD_DATA    := 0,
0021     wWRITE_ADDRESS := 16#9901,
0022     wWRITE_QUANTITY := 1,
0023     ptSEND_DATA     := ADDR(oActuator.wTarget),
0024     tTIME_OUT       := tTCP_Timeout,
0025     tCON_WATCHDOG   := tTCP_Watchdog,
0026     xSEND           := oActuator.xSend
0027 );
0028
0029 (* Test for transaction complete *)
0030 IF oActuator.oMBMaster.wError <> 0 THEN
0031     (* error, return to RESET *)
0032     uiFailing := uiFailing + 1;
0033     oActuator.xConnect := FALSE;
0034     oActuator.xBusy := FALSE;
0035     oActuator.xDataReady := FALSE;
0036     oActuator.wState := 10;
0037 ELSIF NOT oActuator.xSend THEN
0038     oActuator.xBusy := FALSE;
0039     oActuator.xDataReady := TRUE;
0040 ELSE
0041     oActuator.xDataReady := FALSE;
0042 END_IF

STATUS_READ (ST)
0001 (* STATUS_READ *)
0002 (* read status registers PNOW thru STAT *)
0003
0004 (* check for start condition *)
0005 IF NOT oActuator.xBusy THEN
0006     oActuator.xBusy := TRUE;
0007     oActuator.xSend := TRUE;

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0008 END_IF
0009
0010 (* Get actuator status words *)
0011 oActuator.oMBMaster(
0012     xCONNECT      := oActuator.tonConnect.Q,
0013     strIP_ADDRESS  := strAddress,
0014     wPORT          := wPort,
0015     bUNIT_ID       := bID,
0016     bFUNCTION_CODE := 16#03,          (*ReadHoldingCoils*)
0017     wREAD_ADDRESS:= 16#9000,
0018     wREAD_QUANTITY := 10,
0019     ptREAD_DATA    := ADR(oActuator.awStatus[0]),
0020     wWRITE_ADDRESS := 0,
0021     wWRITE_QUANTITY := 0,
0022     ptSEND_DATA    := 0,
0023     tTIME_OUT      := tTCP_Timeout,
0024     tCON_WATCHDOG  := tTCP_Watchdog,
0025     xSEND          := oActuator.xSend
0026 );
0027
0028 (* Test for transaction complete *)
0029 IF oActuator.oMBMaster.wError <> 0 THEN
0030     (* error, return to RESET *)
0031     uiFailing := uiFailing + 1;
0032     oActuator.xConnect := FALSE;
0033     oActuator.xBusy := FALSE;
0034     oActuator.xDataReady := FALSE;
0035     oActuator.wState := 10;
0036 ELSIF NOT oActuator.xSend THEN
0037     wActuatorPosition := oActuator.awStatus[1];
0038     wActuatorAlarm := oActuator.awStatus[2];
0039     wActuatorStatus := oActuator.awStatus[5];
0040     oActuator.xBusy := FALSE;
0041     oActuator.xDataReady := TRUE;
0042 ELSE
0043     oActuator.xDataReady := FALSE;
0044 END_IF

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PLC_PRG (PRG-ST)
0001 PROGRAM PLC_PRG
0002 VAR CONSTANT
0003     (* Version control *)
0004     cVERSION_MAJOR : WORD := 0;    (* Version major index *)
0005     cVERSION_MINOR : WORD := 1;    (* Version minor index *)
0006
0007     (* BR_SELECTOR indexes *)
0008     cSINS01        : WORD := 1;    (* SINS.1 branchline *)
0009     cSINS02        : WORD := 2;    (* SINS.2 branchline *)
0010     cSINS03        : WORD := 3;    (* SINS.3 branchline *)
0011     cYAG           : WORD := 4;    (* YAG screen *)
0012
0013     (* Actuator Limits *)
0014     cBR_SELECTOR_UL : WORD := 10000;
0015     cACTUATOR_TARGET: ARRAY [1..4] OF WORD := 0,9500,2500,7225;
0016 END_VAR
0017
0018 VAR
0019 (* ***** Supervisory Control ***** *)
0020 (* PFC_OUT DISCRETES *)
0021 (* %MX0.0 .. %MX639.15 *)
0022     SC_RESET_REQUIRED AT %MX0.0:BOOL;
0023     (* 1 SPARE *)
0024     SC_ATB AT %MX0.2: BOOL := TRUE;
0025     SC_AFB AT %MX0.3: BOOL := FALSE;
0026     (* 4 SPARE *)
0027
0028     SC_PE101_PSL AT %MX0.8:BOOL;
0029     SC_PE201_PSL AT %MX0.9:BOOL;
0030     SC_PE202_PSL AT %MX0.10:BOOL;
0031     (* 1 SPARE *)
0032
0033     SC_RP2110_AT_SPEED AT %MX0.12:BOOL;
0034     SC_RP2111_AT_SPEED AT %MX0.13:BOOL;
0035     SC_PE2110_PSL AT %MX0.14:BOOL;

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0036	SC_PE2111_PSL AT %MX0.15:BOOL;
0037	
0038	SC_PE203_OK AT %MX1.0:BOOL;
0039	SC_PE203_PSL_HI AT %MX1.1:BOOL;
0040	SC_PE203_PSL_MIDHI AT %MX1.2:BOOL;
0041	SC_PE203_PSL_MIDLO AT %MX1.3:BOOL;
0042	SC_PE203_PSL_LO AT %MX1.4:BOOL;
0043	(* 3 SPARE *)
0044	
0045	SC_PE211_OK AT %MX1.8:BOOL;
0046	SC_PE211_PSL_HI AT %MX1.9:BOOL;
0047	SC_PE211_PSL_MIDHI AT %MX1.10:BOOL;
0048	SC_PE211_PSL_MIDLO AT %MX1.11:BOOL;
0049	SC_PE211_PSL_LO AT %MX1.12:BOOL;
0050	(* 3 SPARE *)
0051	
0052	SC_PE212_OK AT %MX2.0:BOOL;
0053	SC_PE212_PSL_HI AT %MX2.1:BOOL;
0054	SC_PE212_PSL_MIDHI AT %MX2.2:BOOL;
0055	SC_PE212_PSL_MIDLO AT %MX2.3:BOOL;
0056	SC_PE212_PSL_LO AT %MX2.4:BOOL;
0057	(* 3 SPARE *)
0058	
0059	SC_LL211_LID_CLOSED AT %MX2.8:BOOL;
0060	SC_LL211_ARM_RETRACTED AT %MX2.9:BOOL;
0061	(* 6 SPARE *)
0062	
0063	SC_V100_OPEN AT %MX3.0:BOOL;
0064	SC_V100_CLOSED AT %MX3.1:BOOL;
0065	(* 6 SPARE *)
0066	
0067	SC_V101_BEAM_PASS AT %MX3.8:BOOL;
0068	SC_V101_OPEN AT %MX3.9:BOOL;
0069	SC_V101_CLOSED AT %MX3.10:BOOL;
0070	SC_V101_OPEN_PERMIT AT %MX3.11:BOOL;
0071	SC_V101_CLOSE_PERMIT AT %MX3.12:BOOL;
0072	SC_V101_OPEN_CMD AT %MX3.13:BOOL;
0073	SC_V101_NOT_SYMBOL AT %MX3.14:BOOL;
0074	(* 1 SPARE *)
0075	
0076	SC_V201_BEAM_PASS AT %MX4.0 : BOOL;
0077	SC_V201_OPEN AT %MX4.1 : BOOL;
0078	SC_V201_CLOSED AT %MX4.2 : BOOL;
0079	SC_V201_OPEN_PERMIT AT %MX4.3 : BOOL;
0080	SC_V201_CLOSE_PERMIT AT %MX4.4 : BOOL;
0081	SC_V201_OPEN_CMD AT %MX4.5 : BOOL;
0082	SC_V201_NOT_SYMBOL AT %MX4.6:BOOL;
0083	(* 1 SPARE *)
0084	
0085	SC_V202_OPEN AT %MX4.8 : BOOL;
0086	SC_V202_CLOSED AT %MX4.9 : BOOL;
0087	SC_V202_BEAM_PASS AT %MX4.10 : BOOL;
0088	(* 5 SPARE *)
0089	
0090	SC_V203_BEAM_PASS AT %MX5.0 : BOOL;
0091	SC_V203_OPEN AT %MX5.1 : BOOL;
0092	SC_V203_CLOSED AT %MX5.2 : BOOL;
0093	SC_V203_OPEN_PERMIT AT %MX5.3 : BOOL;
0094	SC_V203_CLOSE_PERMIT AT %MX5.4 : BOOL;
0095	SC_V203_OPEN_CMD AT %MX5.5 : BOOL;
0096	SC_V203_NOT_SYMBOL AT %MX5.6:BOOL;
0097	(* 1 SPARE *)
0098	
0099	SC_V204_BEAM_PASS AT %MX5.8 : BOOL;
0100	SC_V204_OPEN AT %MX5.9 : BOOL;
0101	SC_V204_CLOSED AT %MX5.10 : BOOL;
0102	SC_V204_OPEN_PERMIT AT %MX5.11 : BOOL;
0103	SC_V204_CLOSE_PERMIT AT %MX5.12 : BOOL;
0104	SC_V204_OPEN_CMD AT %MX5.13 : BOOL;
0105	SC_V204_NOT_SYMBOL AT %MX5.14:BOOL;
0106	(* 1 SPARE *)
0107	
0108	(* 1 SPARE *)

0109	SC_RPV211_OPEN AT %MX6.1 : BOOL;
0110	SC_RPV211_CLOSED AT %MX6.2 : BOOL;
0111	(* 2 SPARE *)
0112	SC_RPV211_OPEN_CMD AT %MX6.5 : BOOL;
0113	(* 2 SPARE *)
0114	
0115	(* 3 SPARE *)
0116	SC_VENT211_SLOW_CMD AT %MX6.11 : BOOL;
0117	SC_VENT211_FAST_CMD AT %MX6.12 : BOOL;
0118	(* 3 SPARE *)
0119	
0120	(* 1 SPARE *)
0121	SC_TPV211_OPEN AT %MX7.1 : BOOL;
0122	SC_TPV211_CLOSED AT %MX7.2 : BOOL;
0123	(* 2 SPARE *)
0124	SC_TPV211_OPEN_CMD AT %MX7.5 : BOOL;
0125	(* 2 SPARE *)
0126	
0127	(* 1 SPARE *)
0128	SC_SLOTV211_OPEN AT %MX7.9 : BOOL;
0129	SC_SLOTV211_CLOSED AT %MX7.10 : BOOL;
0130	SC_SLOTV211_OPEN_PERMIT AT %MX7.11 : BOOL;
0131	SC_SLOTV211_CLOSE_PERMIT AT %MX7.12 : BOOL;
0132	SC_SLOTV211_OPEN_CMD AT %MX7.13 : BOOL;
0133	SC_SLOTV211_CLOSE_CMD AT %MX7.14 : BOOL;
0134	SC_SLOTV211_NOT_SYMBOL AT %MX7.15:BOOL;
0135	
0136	(* 1 SPARE *)
0137	SC_RPV212_OPEN AT %MX8.1 : BOOL;
0138	SC_RPV212_CLOSED AT %MX8.2 : BOOL;
0139	(* 2 SPARE *)
0140	SC_RPV212_OPEN_CMD AT %MX8.5 : BOOL;
0141	(* 2 SPARE *)
0142	
0143	(* 3 SPARE *)
0144	SC_VENT212_SLOW_CMD AT %MX8.11 : BOOL;
0145	SC_VENT212_FAST_CMD AT %MX8.12 : BOOL;
0146	(* 3 SPARE *)
0147	
0148	(* 1 SPARE *)
0149	SC_TPV212_OPEN AT %MX9.1 : BOOL;
0150	SC_TPV212_CLOSED AT %MX9.2 : BOOL;
0151	(* 2 SPARE *)
0152	SC_TPV212_OPEN_CMD AT %MX9.5 : BOOL;
0153	(* 2 SPARE *)
0154	
0155	SC_RP2110_ON AT %MX9.8 : BOOL;
0156	SC_RP2110_ON_CMD AT %MX9.9 : BOOL;
0157	(* 6 SPARE *)
0158	
0159	SC_RP2111_ON AT %MX10.0 : BOOL;
0160	SC_RP2111_ON_CMD AT %MX10.1 : BOOL;
0161	(* 3 SPARE *)
0162	SC_TP201_VENT_ENABLE_CMD AT %MX10.5 : BOOL;
0163	SC_TP201_VENT_NOT_SYMBOL AT %MX10.6 : BOOL;
0164	(* 1 SPARE *)
0165	
0166	SC_TP201_OK AT %MX10.8 : BOOL;
0167	SC_TP201_ON AT %MX10.9 : BOOL;
0168	SC_TP201_OFF AT %MX10.10 : BOOL;
0169	SC_TP201_ON_PERMIT AT %MX10.11 : BOOL;
0170	SC_TP201_OFF_PERMIT AT %MX10.12 : BOOL;
0171	SC_TP201_ON_CMD AT %MX10.13 : BOOL;
0172	SC_TP201_NOT_SYMBOL AT %MX10.14:BOOL;
0173	(* 1 SPARE *)
0174	
0175	SC_TP211_OK AT %MX11.0 : BOOL;
0176	SC_TP211_ON AT %MX11.1 : BOOL;
0177	SC_TP211_OFF AT %MX11.2 : BOOL;
0178	(* 5 SPARE *)
0179	
0180	SC_TP212_OK AT %MX11.8 : BOOL;
0181	SC_TP212_ON AT %MX11.9 : BOOL;

0182	SC_TP212_OFF AT %MX11.10 : BOOL;
0183	(* 5 SPARE *)
0184	
0185	SC_LL_ACTUATOR_OK AT %MX12.0 : BOOL;
0186	SC_LL_PE101_PSL AT %MX12.1 : BOOL;
0187	SC_LL_PE201_PSL AT %MX12.2 : BOOL;
0188	SC_LL_V202_OPN AT %MX12.3 : BOOL;
0189	SC_LL_PE202_PSL AT %MX12.4 : BOOL;
0190	SC_LL_PE203_OK AT %MX12.5 : BOOL;
0191	SC_LL_PE203_PSL_LO AT %MX12.6 : BOOL;
0192	SC_LL_TP201_OK AT %MX12.7 : BOOL;
0193	(* 8 SPARE *)
0194	
0195	SC_LL_ES_CONFIG_OK AT %MX13.0 : BOOL;
0196	SC_LL_LL_CONFIG_OK AT %MX13.1 : BOOL;
0197	SC_LL_PE211_OK AT %MX13.2 : BOOL;
0198	SC_LL_PE212_OK AT %MX13.3 : BOOL;
0199	SC_LL_RP2111_ON AT %MX13.4 : BOOL;
0200	SC_LL_PE2111_PSL AT %MX13.5 : BOOL;
0201	SC_LL_TP211_TURBO_OK AT %MX13.6 : BOOL;
0202	SC_LL_TP212_TURBO_OK AT %MX13.7 : BOOL;
0203	SC_LL_PE2111_PSL_ES AT %MX13.8 : BOOL;
0204	SC_LL_PE2111_PSL_LL AT %MX13.9 : BOOL;
0205	(* 6 SPARE *)
0206	
0207	(* PFC_IN DISCRETES *)
0208	(* %MX640.0 .. %MX1279.15 *)
0209	SC_RESET_REQ AT %MX640.0 : BOOL;
0210	(* 15 SPARE *)
0211	
0212	SC_V101_OPN_REQ AT %MX641.0 : BOOL;
0213	SC_V101_CLS_REQ AT %MX641.1 : BOOL;
0214	SC_V201_OPN_REQ AT %MX641.2 : BOOL;
0215	SC_V201_CLS_REQ AT %MX641.3 : BOOL;
0216	(* 2 RESERVED *)
0217	SC_V203_OPN_REQ AT %MX641.6 : BOOL;
0218	SC_V203_CLS_REQ AT %MX641.7 : BOOL;
0219	SC_V204_OPN_REQ AT %MX641.8 : BOOL;
0220	SC_V204_CLS_REQ AT %MX641.9 : BOOL;
0221	SC_TP201_ON_REQ AT %MX641.10 : BOOL;
0222	SC_TP201_OFF_REQ AT %MX641.11 : BOOL;
0223	SC_TP201_VENT_ENABLE_REQ AT %MX641.12 : BOOL;
0224	SC_TP201_VENT_DISABLE_REQ AT %MX641.13 : BOOL;
0225	(* 2 SPARE *)
0226	
0227	SC_SLOTV211_OPN_REQ AT %MX642.0 : BOOL;
0228	SC_SLOTV211_CLS_REQ AT %MX642.1 : BOOL;
0229	(* 14 SPARE *)
0230	
0231	(* PFC_OUT WORDs *)
0232	(* %MW1280 .. %MW3711 *)
0233	(* Version Numbers *)
0234	SC_VERSION_MAJOR AT %MW1280 : WORD;
0235	SC_VERSION_MINOR AT %MW1281 : WORD;
0236	(* 2 RESERVED *)
0237	
0238	(* Analog vacuum pressure *)
0239	SC_PE101_PII AT %MW1284 : WORD;
0240	SC_PE201_PII AT %MW1285 : WORD;
0241	SC_PE202_PII AT %MW1286 : WORD;
0242	SC_PE203_HI_PII AT %MW1287 : WORD;
0243	SC_PE203_LO_PII AT %MW1288 : WORD;
0244	SC_PE211_HI_PII AT %MW1289 : WORD;
0245	SC_PE211_LO_PII AT %MW1290 : WORD;
0246	SC_PE212_HI_PII AT %MW1291 : WORD;
0247	SC_PE212_LO_PII AT %MW1292 : WORD;
0248	(* 3 SPARE *)
0249	
0250	(* State Machine current command values *)
0251	SC_BR_CMD_VAL AT %MW1296 : WORD;
0252	SC_ES_CMD_VAL AT %MW1297 : WORD;
0253	SC_LL_CMD_VAL AT %MW1298 : WORD;
0254	(* 5 SPARE *)

0255	
0256	(* State Machine current values *)
0257	SC_BR_STATE AT %MW1304 : WORD;
0258	SC_ES_STATE AT %MW1305 : WORD;
0259	SC_LL_STATE AT %MW1306 : WORD;
0260	(* 5 SPARE *)
0261	
0262	
0263	(* PFC_IN WORDs *)
0264	(* %MW3712 .. %MW4927 *)
0265	(* State Machine current command requests *)
0266	SC_BR_CMD_REQ AT %MW3712 : WORD;
0267	SC_ES_CMD_REQ AT %MW3713 : WORD;
0268	SC_LL_CMD_REQ AT %MW3714 : WORD;
0269	(* 5 SPARE *)
0270	
0271	
0272	
0273	(* ***** Internal Variables ***** *)
0274	count : BYTE;
0275	count2 : BYTE;
0276	a_num : BYTE;
0277	
0278	(* Request to reset latched faults *)
0279	RESET_REQ : BOOL;
0280	
0281	(* Vacuum Interlocks *)
0282	PE101_PSL_LO: BOOL;
0283	PE201_PSL_LO: BOOL;
0284	PE202_PSL_LO: BOOL;
0285	PE203_Piy_OK: BOOL;
0286	PE203_PSH_HI: BOOL;
0287	PE203_PSH_MIDHI: BOOL;
0288	PE203_PSL_MIDLO: BOOL;
0289	PE203_PSL_LO: BOOL;
0290	PE211_Piy_OK: BOOL;
0291	PE211_PSH_HI: BOOL;
0292	PE211_PSH_MIDHI: BOOL;
0293	PE211_PSL_MIDLO: BOOL;
0294	PE211_PSL_LO: BOOL;
0295	PE212_Piy_OK: BOOL;
0296	PE212_PSH_HI: BOOL;
0297	PE212_PSH_MIDHI: BOOL;
0298	PE212_PSL_MIDLO: BOOL;
0299	PE212_PSL_LO: BOOL;
0300	RP211_PSL: BOOL;
0301	BP211_PSL: BOOL;
0302	
0303	(* Valve Positions *)
0304	V100_OPN: BOOL;
0305	V100_CSD: BOOL;
0306	V101_OPN: BOOL;
0307	V101_CSD: BOOL;
0308	V201_OPN: BOOL;
0309	V201_CSD: BOOL;
0310	V202_OPN: BOOL;
0311	V202_CSD: BOOL;
0312	V203_OPN: BOOL;
0313	V203_CSD: BOOL;
0314	V204_OPN: BOOL;
0315	V204_CSD: BOOL;
0316	VPV211_OPN: BOOL;
0317	VPV211_CSD: BOOL;
0318	RPV211_OPN: BOOL;
0319	RPV211_CSD: BOOL;
0320	TPV211_OPN: BOOL;
0321	TPV211_CSD: BOOL;
0322	LLV211_OPN: BOOL;
0323	LLV211_CSD: BOOL;
0324	VPV212_OPN: BOOL;
0325	VPV212_CSD: BOOL;
0326	RPV212_OPN: BOOL;
0327	RPV212_CSD: BOOL;

0328	TPV212_OPN: BOOL;
0329	TPV212_CSD: BOOL;
0330	
0331	(* Pump Status *)
0332	TP201_OK: BOOL;
0333	TP201_ON: BOOL;
0334	TP201_READY: BOOL;
0335	TP211_OK: BOOL;
0336	TP211_READY: BOOL;
0337	TP212_OK: BOOL;
0338	TP212_READY: BOOL;
0339	RP211_ON: BOOL;
0340	BP211_ON: BOOL;
0341	
0342	(* LoadLock Status *)
0343	LL211_LID_CLOSED: BOOL;
0344	LL211_ARM_RETRACTED: BOOL;
0345	
0346	(* Configuration Interlocks *)
0347	ES_CONFIG_OK: BOOL;
0348	LL_CONFIG_OK: BOOL;
0349	
0350	(* Latched Interlocks *)
0351	LL_ACTUATOR_OK: BOOL;
0352	LL_PE101_PSL_LO: BOOL;
0353	LL_PE201_PSL_LO: BOOL;
0354	LL_V202_OPN: BOOL;
0355	LL_PE202_PSL_LO: BOOL;
0356	LL_PE203_PIIY_OK: BOOL;
0357	LL_PE203_PSL_LO: BOOL;
0358	LL_TP201_OK: BOOL;
0359	LL_ES_CONFIG_OK: BOOL;
0360	LL_LL_CONFIG_OK: BOOL;
0361	LL_PE211_PIIY_OK: BOOL;
0362	LL_PE212_PIIY_OK: BOOL;
0363	LL_BP211_ON: BOOL;
0364	LL_TP211_OK: BOOL;
0365	LL_TP212_OK: BOOL;
0366	
0367	Reset_Required: BOOL;
0368	
0369	(* IAI Actuator Data and Commands *)
0370	ACTUATOR_AT_TARGET: WORD;
0371	ACTUATOR_CMD: WORD;
0372	ACTUATOR_OK: BOOL;
0373	
0374	(* Valve and Pump requests *)
0375	V101_OPN_REQ_SC: BOOL;
0376	V101_CLS_REQ_SC: BOOL;
0377	V201_OPN_REQ_SC: BOOL;
0378	V201_CLS_REQ_SC: BOOL;
0379	V203_OPN_REQ_SC: BOOL;
0380	V203_CLS_REQ_SC: BOOL;
0381	V204_OPN_REQ_SC: BOOL;
0382	V204_CLS_REQ_SC: BOOL;
0383	V204_CLS_REQ_ES: BOOL;
0384	VPV211_SLOW_OPN_REQ_ES: BOOL;
0385	VPV211_SLOW_CLS_REQ_ES: BOOL;
0386	VPV211_FAST_OPN_REQ_ES: BOOL;
0387	VPV211_FAST_CLS_REQ_ES: BOOL;
0388	RPV211_OPN_REQ_ES: BOOL;
0389	RPV211_CLS_REQ_ES: BOOL;
0390	TPV211_OPN_REQ_ES: BOOL;
0391	TPV211_CLS_REQ_ES: BOOL;
0392	LLV211_OPN_REQ_SC: BOOL;
0393	LLV211_CLS_REQ_SC: BOOL;
0394	LLV211_CLS_REQ_ES: BOOL;
0395	LLV211_CLS_REQ_LL: BOOL;
0396	VPV212_SLOW_OPN_REQ_LL: BOOL;
0397	VPV212_SLOW_CLS_REQ_LL: BOOL;
0398	VPV212_FAST_OPN_REQ_LL: BOOL;
0399	VPV212_FAST_CLS_REQ_LL: BOOL;
0400	RPV212_OPN_REQ_LL: BOOL;

0401	RPV212_CLS_REQ_LL: BOOL;
0402	TPV212_OPN_REQ_LL: BOOL;
0403	TPV212_CLS_REQ_LL: BOOL;
0404	
0405	TP201_ON_REQ_SC: BOOL;
0406	TP201_OFF_REQ_SC: BOOL;
0407	TP201_VENT_ENABLE_REQ_SC: BOOL;
0408	TP201_VENT_DISABLE_REQ_SC: BOOL;
0409	
0410	RP211_ON_REQ_ES: BOOL;
0411	RP211_ON_REQ_LL: BOOL;
0412	TP211_ON_REQ_ES: BOOL;
0413	TP211_OFF_REQ_ES: BOOL;
0414	TP212_ON_REQ_LL: BOOL;
0415	TP212_OFF_REQ_LL: BOOL;
0416	
0417	(* State Machine States and Controls*)
0418	BR_STATE: BR_ST := BR_ERROR;
0419	BR_REQUEST: BR_REQ := BR_NONE_REQ;
0420	ES_STATE: PV_ST := PV_ERROR;
0421	ES_REQUEST: PV_REQ := PV_NONE_REQ;
0422	LL_STATE: PV_ST := PV_ERROR;
0423	LL_REQUEST: PV_REQ := PV_NONE_REQ;
0424	
0425	(* Valves *)
0426	V101: VALVE_FB;
0427	V201: VALVE_FB;
0428	V203: VALVE_FB;
0429	V204: VALVE_FB;
0430	
0431	VPV201: VALVE_FB;
0432	VPV211_SLOW: VALVE_FB;
0433	VPV211_FAST: VALVE_FB;
0434	RPV211: VALVE_FB;
0435	TPV211: VALVE_FB;
0436	
0437	LLV211: VALVE_BI_FB;
0438	
0439	VPV212_SLOW: VALVE_FB;
0440	VPV212_FAST: VALVE_FB;
0441	RPV212: VALVE_FB;
0442	TPV212: VALVE_FB;
0443	
0444	(* Pumps *)
0445	TP201: TP_FB;
0446	
0447	RP211: RP_FB;
0448	BP211_ON_CMD: BOOL := TRUE; (* always on *)
0449	
0450	TP211: TP_FB;
0451	TP212: TP_FB;
0452	END_VAR
0453	
0001	(* Evaluate Inputs *)
0002	Process_Inputs();
0003	SC_Inputs();
0004	Actuator_Inputs();
0005	
0006	(* Temporary interlock bypasses *)
0007	Bypasses();
0008	
0009	(* Internal logic *)
0010	Fault_Logic();
0011	
0012	BR_SM();
0013	ES_SM();
0014	LL_SM();
0015	
0016	Pumps(); (* must go before Valves() *)
0017	Valves();
0018	
0019	(* Evaluate Outputs *)
0020	Actuator_Outputs();

0021	SC_Outputs();
0022	Process_Outputs();
0023	
0024	(* Clear rising edge requests *)
0025	Clear_Reqs();
Actuator_Inputs (ST)	
0001	(* Process Actuator Inputs *)
0002	
0003	ACTUATOR_OK := NOT (wActuatorStatus.10 OR wActuatorStatus.12);
0004	
0005	IF (xActuatorReady) THEN
0006	FOR count2:=1 TO 4 DO
0007	IF (wActuatorPosition = cACTUATOR_TARGET[count2]) THEN
0008	ACTUATOR_AT_TARGET := count2;
0009	EXIT;
0010	END_IF;
0011	END_FOR;
0012	ELSE
0013	ACTUATOR_AT_TARGET := 0;
0014	END_IF;
Actuator_Outputs (ST)	
0001	(* IAI Actuator Outputs *)
0002	
0003	IF ACTUATOR_CMD <> 0 THEN
0004	wActuatorTarget := cACTUATOR_TARGET[ACTUATOR_CMD] ;
0005	END_IF
BR_SM (ST)	
0001	(* State Machine for BRanchline selection *)
0002	
0003	(* Always test for BR_ERROR first *)
0004	IF NOT LL_ACTUATOR_OK THEN
0005	BR_STATE := BR_ERROR;
0006	END_IF
0007	
0008	CASE BR_STATE OF
0009	BR_ERROR:
0010	(* Leave in place *)
0011	ACTUATOR_CMD := 0;
0012	
0013	IF LL_ACTUATOR_OK THEN
0014	BR_STATE := BR_SINS1_SELECTING;
0015	END_IF
0016	
0017	BR_SINS1_SELECTING:
0018	(* Move actuator to SINS.1 *)
0019	ACTUATOR_CMD := cSINS01;
0020	
0021	(* Wait for motion to complete *)
0022	IF ACTUATOR_AT_TARGET = ACTUATOR_CMD THEN
0023	BR_STATE := BR_SINS1_READY;
0024	ELSIF BR_REQUEST = BR_SINS1_REQ THEN
0025	BR_STATE := BR_SINS1_SELECTING;
0026	ELSIF BR_REQUEST = BR_SINS2_REQ THEN
0027	BR_STATE := BR_SINS2_SELECTING;
0028	ELSIF BR_REQUEST = BR_SINS3_REQ THEN
0029	BR_STATE := BR_SINS3_SELECTING;
0030	ELSIF BR_REQUEST = BR_YAG_REQ THEN
0031	BR_STATE := BR_YAG_SELECTING;
0032	END_IF
0033	
0034	BR_SINS1_READY:
0035	(* Keep at SINS.1 *)
0036	ACTUATOR_CMD := cSINS01;
0037	
0038	(* Look for state change request *)
0039	IF BR_REQUEST = BR_NONE_REQ THEN
0040	BR_STATE := BR_SINS1_READY;
0041	ELSIF BR_REQUEST = BR_SINS1_REQ THEN
0042	BR_STATE := BR_SINS1_READY;
0043	ELSIF BR_REQUEST = BR_SINS2_REQ THEN
0044	BR_STATE := BR_SINS2_SELECTING;

0045	ELSIF BR_REQUEST = BR_SINS3_REQ THEN
0046	BR_STATE := BR_SINS3_SELECTING;
0047	ELSIF BR_REQUEST = BR_YAG_REQ THEN
0048	BR_STATE := BR_YAG_SELECTING;
0049	END_IF
0050	
0051	BR_SINS2_SELECTING:
0052	(* Move actuator to SINS.2 *)
0053	ACTUATOR_CMD := cSINS02;
0054	
0055	(* Wait for motion to complete *)
0056	IF ACTUATOR_AT_TARGET = ACTUATOR_CMD THEN
0057	BR_STATE := BR_SINS2_READY;
0058	(* Else look for state change request *)
0059	ELSIF BR_REQUEST = BR_SINS1_REQ THEN
0060	BR_STATE := BR_SINS1_SELECTING;
0061	ELSIF BR_REQUEST = BR_SINS2_REQ THEN
0062	BR_STATE := BR_SINS2_SELECTING;
0063	ELSIF BR_REQUEST = BR_SINS3_REQ THEN
0064	BR_STATE := BR_SINS3_SELECTING;
0065	ELSIF BR_REQUEST = BR_YAG_REQ THEN
0066	BR_STATE := BR_YAG_SELECTING;
0067	END_IF
0068	
0069	BR_SINS2_READY:
0070	(* Keep at SINS.2 *)
0071	ACTUATOR_CMD := cSINS02;
0072	
0073	(* Look for state change request *)
0074	IF BR_REQUEST = BR_NONE_REQ THEN
0075	BR_STATE := BR_SINS2_READY;
0076	ELSIF BR_REQUEST = BR_SINS1_REQ THEN
0077	BR_STATE := BR_SINS1_SELECTING;
0078	ELSIF BR_REQUEST = BR_SINS2_REQ THEN
0079	BR_STATE := BR_SINS2_READY;
0080	ELSIF BR_REQUEST = BR_SINS3_REQ THEN
0081	BR_STATE := BR_SINS3_SELECTING;
0082	ELSIF BR_REQUEST = BR_YAG_REQ THEN
0083	BR_STATE := BR_YAG_SELECTING;
0084	END_IF
0085	
0086	
0087	BR_SINS3_SELECTING:
0088	(* Move actuator to SINS.3 *)
0089	ACTUATOR_CMD := cSINS03;
0090	
0091	(* Wait for motion to complete *)
0092	IF ACTUATOR_AT_TARGET = ACTUATOR_CMD THEN
0093	BR_STATE := BR_SINS3_READY;
0094	(* Else look for state change request *)
0095	ELSIF BR_REQUEST = BR_SINS1_REQ THEN
0096	BR_STATE := BR_SINS1_SELECTING;
0097	ELSIF BR_REQUEST = BR_SINS2_REQ THEN
0098	BR_STATE := BR_SINS2_SELECTING;
0099	ELSIF BR_REQUEST = BR_SINS3_REQ THEN
0100	BR_STATE := BR_SINS3_SELECTING;
0101	ELSIF BR_REQUEST = BR_YAG_REQ THEN
0102	BR_STATE := BR_YAG_SELECTING;
0103	END_IF
0104	
0105	BR_SINS3_READY:
0106	(* Keep at SINS.3 *)
0107	ACTUATOR_CMD := cSINS03;
0108	
0109	(* Look for state change request *)
0110	IF BR_REQUEST = BR_NONE_REQ THEN
0111	BR_STATE := BR_SINS3_READY;
0112	ELSIF BR_REQUEST = BR_SINS1_REQ THEN
0113	BR_STATE := BR_SINS1_SELECTING;
0114	ELSIF BR_REQUEST = BR_SINS2_REQ THEN
0115	BR_STATE := BR_SINS2_SELECTING;
0116	ELSIF BR_REQUEST = BR_SINS3_REQ THEN
0117	BR_STATE := BR_SINS3_READY;



0118	ELSIF BR_REQUEST = BR_YAG_REQ THEN
0119	BR_STATE := BR_YAG_SELECTING;
0120	END_IF
0121	
0122	
0123	BR_YAG_SELECTING:
0124	(* Move actuator to YAG *)
0125	ACTUATOR_CMD := cYAG;
0126	
0127	(* Wait for motion to complete *)
0128	IF ACTUATOR_AT_TARGET = ACTUATOR_CMD THEN
0129	BR_STATE := BR_YAG_READY;
0130	(* Else look for state change request *)
0131	ELSIF BR_REQUEST = BR_SINS1_REQ THEN
0132	BR_STATE := BR_SINS1_SELECTING;
0133	ELSIF BR_REQUEST = BR_SINS2_REQ THEN
0134	BR_STATE := BR_SINS2_SELECTING;
0135	ELSIF BR_REQUEST = BR_SINS3_REQ THEN
0136	BR_STATE := BR_SINS3_SELECTING;
0137	ELSIF BR_REQUEST = BR_YAG_REQ THEN
0138	BR_STATE := BR_YAG_SELECTING;
0139	END_IF
0140	
0141	BR_YAG_READY:
0142	(* Keep at YAG *)
0143	ACTUATOR_CMD := cYAG;
0144	
0145	(* Look for state change request *)
0146	IF BR_REQUEST = BR_NONE_REQ THEN
0147	BR_STATE := BR_YAG_READY;
0148	ELSIF BR_REQUEST = BR_SINS1_REQ THEN
0149	BR_STATE := BR_SINS1_SELECTING;
0150	ELSIF BR_REQUEST = BR_SINS2_REQ THEN
0151	BR_STATE := BR_SINS2_SELECTING;
0152	ELSIF BR_REQUEST = BR_SINS3_REQ THEN
0153	BR_STATE := BR_SINS3_SELECTING;
0154	ELSIF BR_REQUEST = BR_YAG_REQ THEN
0155	BR_STATE := BR_YAG_READY;
0156	END_IF
0157	
0158	ELSE
0159	BR_STATE := BR_ERROR;
0160	END_CASE;
Bypasses (ST)	
0001	(* Temporary Bypass Logic *)
0002	(* Will remove this after initial testing *)
0003	ACTUATOR_OK := TRUE;
0004	ES_CONFIG_OK := TRUE;
0005	LL_CONFIG_OK := TRUE;
0006	
0007	(* For testing at LBNL *)
0008	PE101_PSL_LO := TRUE;
0009	PE201_PSL_LO := TRUE;
0010	PE202_PSL_LO := TRUE;
0011	
0012	V100_OPN := TRUE;
0013	V100_CSD := FALSE;
0014	
0015	V101_OPN := FALSE;
0016	V101_CSD := TRUE;
0017	
0018	V201_OPN := TRUE;
0019	V201_CSD := FALSE;
0020	
0021	V202_OPN := TRUE;
0022	V202_CSD := FALSE;
0023	
0024	V203_OPN := FALSE;
0025	V203_CSD := TRUE;
Clear_Reqs (ST)	
0001	(* Clear all edge-triggered supervisory requests *)
0002	

0003	SC_RESET_REQ := 0;
0004	
0005	SC_V101_OPN_REQ := 0;
0006	SC_V101_CLS_REQ := 0;
0007	
0008	SC_V201_OPN_REQ := 0;
0009	SC_V201_CLS_REQ := 0;
0010	
0011	SC_V203_OPN_REQ := 0;
0012	SC_V203_CLS_REQ := 0;
0013	
0014	SC_V204_OPN_REQ := 0;
0015	SC_V204_CLS_REQ := 0;
0016	
0017	SC_TP201_ON_REQ := 0;
0018	SC_TP201_OFF_REQ := 0;
0019	SC_TP201_VENT_ENABLE_REQ := 0;
0020	SC_TP201_VENT_DISABLE_REQ := 0;
0021	
0022	SC_SLOTV211_OPN_REQ := 0;
0023	SC_SLOTV211_CLS_REQ := 0;
ES_SM (ST)	
0001	(* ES211 Pump/Vent State Machine *)
0002	
0003	(* Always test for PV_ERROR first *)
0004	IF NOT (LL_PE211_PIIY_OK AND LL_ES_CONFIG_OK) THEN
0005	ES_STATE := PV_ERROR;
0006	END_IF
0007	
0008	CASE ES_STATE OF
0009	PV_ERROR:
0010	V204_CLS_REQ_ES := TRUE;
0011	LLV211_CLS_REQ_ES := TRUE;
0012	RPV211_OPN_REQ_ES := FALSE;
0013	RP211_ON_REQ_ES := FALSE;
0014	VPV211_SLOW_OPN_REQ_ES := FALSE;
0015	VPV211_FAST_OPN_REQ_ES := FALSE;
0016	TPV211_OPN_REQ_ES := FALSE;
0017	TP211_ON_REQ_ES := FALSE;
0018	
0019	IF LL_PE211_PIIY_OK THEN
0020	ES_STATE := PV_ISOLATING;
0021	END_IF
0022	
0023	PV_ISOLATING:
0024	V204_CLS_REQ_ES := TRUE;
0025	LLV211_CLS_REQ_ES := TRUE;
0026	RPV211_OPN_REQ_ES := FALSE;
0027	RP211_ON_REQ_ES := FALSE;
0028	VPV211_SLOW_OPN_REQ_ES := FALSE;
0029	VPV211_FAST_OPN_REQ_ES := FALSE;
0030	TPV211_OPN_REQ_ES := FALSE;
0031	TP211_ON_REQ_ES := FALSE;
0032	
0033	IF V204_CSD AND LLV211_CSD AND RPV211_CSD THEN
0034	ES_STATE := PV_ISOLATED;
0035	END_IF
0036	
0037	PV_ISOLATED:
0038	V204_CLS_REQ_ES := TRUE;
0039	LLV211_CLS_REQ_ES := TRUE;
0040	RPV211_OPN_REQ_ES := FALSE;
0041	RP211_ON_REQ_ES := FALSE;
0042	VPV211_SLOW_OPN_REQ_ES := FALSE;
0043	VPV211_FAST_OPN_REQ_ES := FALSE;
0044	TPV211_OPN_REQ_ES := FALSE;
0045	TP211_ON_REQ_ES := FALSE;
0046	
0047	IF (ES_REQUEST = PV_VENT_REQ) THEN
0048	ES_STATE := PV_SLOW_VENTING;
0049	ELSIF (ES_REQUEST = PV_PUMP_REQ) AND PE211_PSL_MIDLO AND TP211_OK THEN
0050	ES_STATE := PV_TP_PUMPING;
0051	ELSIF (ES_REQUEST = PV_PUMP_REQ) THEN

0052	ES_STATE := PV_RP_STARTING;
0053	END_IF
0054	
0055	PV_SLOW_VENTING:
0056	V204_CLS_REQ_ES := TRUE;
0057	LLV211_CLS_REQ_ES := TRUE;
0058	RPV211_OPN_REQ_ES := FALSE;
0059	RP211_ON_REQ_ES := FALSE;
0060	VPV211_SLOW_OPN_REQ_ES := TRUE;
0061	VPV211_FAST_OPN_REQ_ES := FALSE;
0062	TPV211_OPN_REQ_ES := FALSE;
0063	TP211_ON_REQ_ES := FALSE;
0064	
0065	IF (ES_REQUEST = PV_NONE_REQ) THEN
0066	ES_STATE := PV_SLOW_VENTING;
0067	ELSIF NOT (ES_REQUEST = PV_VENT_REQ) THEN
0068	ES_STATE := PV_ISOLATING;
0069	ELSIF (PE211_PSH_MIDHI) THEN
0070	ES_STATE := PV_FAST_VENTING;
0071	END_IF
0072	
0073	PV_FAST_VENTING:
0074	V204_CLS_REQ_ES := TRUE;
0075	LLV211_CLS_REQ_ES := TRUE;
0076	RPV211_OPN_REQ_ES := FALSE;
0077	RP211_ON_REQ_ES := FALSE;
0078	VPV211_SLOW_OPN_REQ_ES := TRUE;
0079	VPV211_FAST_OPN_REQ_ES := TRUE;
0080	TPV211_OPN_REQ_ES := FALSE;
0081	TP211_ON_REQ_ES := FALSE;
0082	
0083	IF (ES_REQUEST = PV_NONE_REQ) THEN
0084	ES_STATE := PV_FAST_VENTING;
0085	ELSIF NOT (ES_REQUEST = PV_VENT_REQ) THEN
0086	ES_STATE := PV_ISOLATING;
0087	ELSIF (PE211_PSH_HI) THEN
0088	ES_STATE := PV_VENTED;
0089	END_IF
0090	
0091	PV_VENTED:
0092	V204_CLS_REQ_ES := TRUE;
0093	LLV211_CLS_REQ_ES := FALSE; (* LLV211 can be opened when both ES211 and LL211 are vented *)
0094	RPV211_OPN_REQ_ES := FALSE;
0095	RP211_ON_REQ_ES := FALSE;
0096	VPV211_SLOW_OPN_REQ_ES := FALSE;
0097	VPV211_FAST_OPN_REQ_ES := FALSE;
0098	TPV211_OPN_REQ_ES := FALSE;
0099	TP211_ON_REQ_ES := FALSE;
0100	
0101	IF (ES_REQUEST = PV_NONE_REQ) THEN
0102	ES_STATE := PV_VENTED;
0103	ELSIF NOT (ES_REQUEST = PV_VENT_REQ) THEN
0104	ES_STATE := PV_ISOLATING;
0105	ELSIF (NOT PE211_PSH_HI) THEN
0106	ES_STATE := PV_FAST_VENTING;
0107	END_IF
0108	
0109	PV_RP_STARTING:
0110	V204_CLS_REQ_ES := TRUE;
0111	LLV211_CLS_REQ_ES := TRUE;
0112	RPV211_OPN_REQ_ES := FALSE;
0113	RP211_ON_REQ_ES := TRUE;
0114	VPV211_SLOW_OPN_REQ_ES := FALSE;
0115	VPV211_FAST_OPN_REQ_ES := FALSE;
0116	TPV211_OPN_REQ_ES := FALSE;
0117	TP211_ON_REQ_ES := FALSE;
0118	
0119	IF (ES_REQUEST = PV_NONE_REQ) THEN
0120	ES_STATE := PV_RP_STARTING;
0121	ELSIF NOT (ES_REQUEST = PV_PUMP_REQ) THEN
0122	ES_STATE := PV_ISOLATING;
0123	ELSIF (RP211_ON) THEN
0124	(* ignore RP211_PSL *)

0125	ES_STATE := PV_RP_PUMPING;
0126	END_IF
0127	
0128	PV_RP_PUMPING:
0129	V204_CLS_REQ_ES := TRUE;
0130	LLV211_CLS_REQ_ES := TRUE;
0131	RPV211_OPN_REQ_ES := TRUE;
0132	RP211_ON_REQ_ES := TRUE;
0133	VPV211_SLOW_OPN_REQ_ES := FALSE;
0134	VPV211_FAST_OPN_REQ_ES := FALSE;
0135	TPV211_OPN_REQ_ES := FALSE;
0136	TP211_ON_REQ_ES := FALSE;
0137	
0138	IF (ES_REQUEST = PV_NONE_REQ) THEN
0139	ES_STATE := PV_RP_PUMPING;
0140	ELSIF NOT (ES_REQUEST = PV_PUMP_REQ) THEN
0141	ES_STATE := PV_ISOLATING;
0142	ELSIF (PE211_PSL_MIDLO) THEN
0143	ES_STATE := PV_RP_PUMPED;
0144	END_IF
0145	
0146	PV_RP_PUMPED:
0147	V204_CLS_REQ_ES := TRUE;
0148	LLV211_CLS_REQ_ES := TRUE;
0149	RPV211_OPN_REQ_ES := TRUE;
0150	RP211_ON_REQ_ES := TRUE;
0151	VPV211_SLOW_OPN_REQ_ES := FALSE;
0152	VPV211_FAST_OPN_REQ_ES := FALSE;
0153	TPV211_OPN_REQ_ES := FALSE;
0154	TP211_ON_REQ_ES := FALSE;
0155	
0156	IF (ES_REQUEST = PV_NONE_REQ) THEN
0157	ES_STATE := PV_RP_PUMPED;
0158	ELSIF NOT (ES_REQUEST = PV_PUMP_REQ) THEN
0159	ES_STATE := PV_ISOLATING;
0160	ELSIF (NOT PE211_PSL_MIDLO) THEN
0161	ES_STATE := PV_RP_PUMPING;
0162	ELSIF (TP211_OK) THEN
0163	(* First isolate, then go to TP_STARTING *)
0164	ES_STATE := PV_ISOLATING;
0165	END_IF
0166	
0167	PV_TP_PUMPING:
0168	V204_CLS_REQ_ES := TRUE;
0169	LLV211_CLS_REQ_ES := TRUE;
0170	RPV211_OPN_REQ_ES := FALSE;
0171	RP211_ON_REQ_ES := TRUE; (* Leave on in case MIDLO false *)
0172	VPV211_SLOW_OPN_REQ_ES := FALSE;
0173	VPV211_FAST_OPN_REQ_ES := FALSE;
0174	TPV211_OPN_REQ_ES := TRUE;
0175	TP211_ON_REQ_ES := TRUE;
0176	
0177	IF (ES_REQUEST = PV_NONE_REQ) THEN
0178	ES_STATE := PV_TP_PUMPING;
0179	ELSIF NOT (ES_REQUEST = PV_PUMP_REQ) THEN
0180	ES_STATE := PV_ISOLATING;
0181	ELSIF (NOT PE211_PSL_MIDLO) THEN
0182	ES_STATE := PV_RP_PUMPING;
0183	ELSIF (PE211_PSL_LO) THEN
0184	ES_STATE := PV_PUMPED;
0185	END_IF
0186	
0187	PV_PUMPED:
0188	V204_CLS_REQ_ES := FALSE;
0189	LLV211_CLS_REQ_ES := FALSE; (* LLV211 can be opened when both ES211 and LL211 are pumped *)
0190	RPV211_OPN_REQ_ES := FALSE;
0191	RP211_ON_REQ_ES := FALSE;
0192	VPV211_SLOW_OPN_REQ_ES := FALSE;
0193	VPV211_FAST_OPN_REQ_ES := FALSE;
0194	TPV211_OPN_REQ_ES := TRUE;
0195	TP211_ON_REQ_ES := TRUE;
0196	
0197	IF (ES_REQUEST = PV_NONE_REQ) THEN

0198	ES_STATE := PV_PUMPED;
0199	ELSIF NOT (ES_REQUEST = PV_PUMP_REQ) THEN
0200	ES_STATE := PV_ISOLATING;
0201	ELSIF (NOT PE211_PSL_MIDLO) THEN
0202	(* return to PV_RP_PUMPING via PV_ISOLATING *)
0203	ES_STATE := PV_ISOLATING;
0204	ELSIF (PE211_PSL_LO) THEN
0205	ES_STATE := PV_PUMPED;
0206	END_IF
0207	
0208	ELSE
0209	(* Invalid State, should never get here *)
0210	ES_STATE := PV_ERROR;
0211	
0212	END_CASE
0213	

Fault\_Logic (ST)

0001	(* Latched interlocks *)
0002	
0003	LL_ACTUATOR_OK := ACTUATOR_OK AND (LL_ACTUATOR_OK OR RESET_REQ);
0004	LL_PE101_PSL_LO := PE101_PSL_LO AND (LL_PE101_PSL_LO OR RESET_REQ);
0005	LL_PE201_PSL_LO := PE201_PSL_LO AND (LL_PE201_PSL_LO OR RESET_REQ);
0006	LL_V202_OPN := V202_OPN AND (LL_V202_OPN OR RESET_REQ);
0007	LL_PE202_PSL_LO := PE202_PSL_LO AND (LL_PE202_PSL_LO OR RESET_REQ);
0008	LL_PE203_PSL_LO := PE203_PSL_LO AND (LL_PE203_PSL_LO OR RESET_REQ);
0009	
0010	LL_ES_CONFIG_OK := ES_CONFIG_OK AND (LL_ES_CONFIG_OK OR RESET_REQ);
0011	LL_LL_CONFIG_OK := LL_CONFIG_OK AND (LL_LL_CONFIG_OK OR RESET_REQ);
0012	
0013	LL_PE203_PIIY_OK := PE203_PIIY_OK AND (LL_PE203_PIIY_OK OR RESET_REQ);
0014	LL_PE211_PIIY_OK := PE211_PIIY_OK AND (LL_PE211_PIIY_OK OR RESET_REQ);
0015	LL_PE212_PIIY_OK := PE212_PIIY_OK AND (LL_PE212_PIIY_OK OR RESET_REQ);
0016	
0017	LL_BP211_ON := BP211_ON AND (LL_BP211_ON OR RESET_REQ);
0018	
0019	LL_TP201_OK := TP201_OK AND (LL_TP201_OK OR RESET_REQ);
0020	LL_TP211_OK := TP211_OK AND (LL_TP211_OK OR RESET_REQ);
0021	LL_TP212_OK := TP212_OK AND (LL_TP212_OK OR RESET_REQ);
0022	
0023	Reset_Required := (ACTUATOR_OK AND NOT LL_ACTUATOR_OK) OR
0024	(PE101_PSL_LO AND NOT LL_PE101_PSL_LO) OR
0025	(PE201_PSL_LO AND NOT LL_PE201_PSL_LO) OR
0026	(V202_OPN AND NOT LL_V202_OPN) OR
0027	(PE202_PSL_LO AND NOT LL_PE202_PSL_LO) OR
0028	(PE203_PSL_LO AND NOT LL_PE203_PSL_LO) OR
0029	(ES_CONFIG_OK AND NOT LL_ES_CONFIG_OK) OR
0030	(LL_CONFIG_OK AND NOT LL_LL_CONFIG_OK) OR
0031	(PE203_PIIY_OK AND NOT LL_PE203_PIIY_OK) OR
0032	(PE211_PIIY_OK AND NOT LL_PE211_PIIY_OK) OR
0033	(PE212_PIIY_OK AND NOT LL_PE212_PIIY_OK) OR
0034	(BP211_ON AND NOT LL_BP211_ON) OR
0035	(TP201_OK AND NOT LL_TP201_OK) OR
0036	(TP211_OK AND NOT LL_TP211_OK) OR
0037	(TP212_OK AND NOT LL_TP212_OK);
0038	

LL\_SM (ST)

0001	(* LL211 Pump/Vent State Machine *)
0002	
0003	(* Always test for PV_ERROR first *)
0004	IF NOT (LL_PE212_PIIY_OK AND LL_LL_CONFIG_OK) THEN
0005	LL_STATE := PV_ERROR;
0006	END_IF
0007	
0008	CASE LL_STATE OF
0009	
0010	PV_ERROR:
0011	LLV211_CLS_REQ_LL := TRUE;
0012	RPV212_OPN_REQ_LL := FALSE;
0013	RP211_ON_REQ_LL := FALSE;
0014	VPV212_SLOW_OPN_REQ_LL := FALSE;
0015	VPV212_FAST_OPN_REQ_LL := FALSE;
0016	TPV212_OPN_REQ_LL := FALSE;

0017	TP212_ON_REQ_LL := FALSE;
0018	
0019	IF LL_PE212_Piy_OK THEN
0020	LL_STATE := PV_ISOLATING;
0021	END_IF
0022	
0023	PV_ISOLATING:
0024	LLV211_CLS_REQ_LL := TRUE;
0025	RPV212_OPN_REQ_LL := FALSE;
0026	RP211_ON_REQ_LL := FALSE;
0027	VPV212_SLOW_OPN_REQ_LL := FALSE;
0028	VPV212_FAST_OPN_REQ_LL := FALSE;
0029	TPV212_OPN_REQ_LL := FALSE;
0030	TP212_ON_REQ_LL := FALSE;
0031	
0032	IF LLV211_CSD AND RPV212_CSD THEN
0033	LL_STATE := PV_ISOLATED;
0034	END_IF
0035	
0036	PV_ISOLATED:
0037	LLV211_CLS_REQ_LL := TRUE;
0038	RPV212_OPN_REQ_LL := FALSE;
0039	RP211_ON_REQ_LL := FALSE;
0040	VPV212_SLOW_OPN_REQ_LL := FALSE;
0041	VPV212_FAST_OPN_REQ_LL := FALSE;
0042	TPV212_OPN_REQ_LL := FALSE;
0043	TP212_ON_REQ_LL := FALSE;
0044	
0045	IF (LL_REQUEST = PV_VENT_REQ) THEN
0046	LL_STATE := PV_SLOW_VENTING;
0047	ELSIF (LL_REQUEST = PV_PUMP_REQ) AND PE212_PSL_MIDLO AND TP212_OK THEN
0048	LL_STATE := PV_TP_PUMPING;
0049	ELSIF (LL_REQUEST = PV_PUMP_REQ) THEN
0050	LL_STATE := PV_RP_STARTING;
0051	END_IF
0052	
0053	PV_SLOW_VENTING:
0054	LLV211_CLS_REQ_LL := TRUE;
0055	RPV212_OPN_REQ_LL := FALSE;
0056	RP211_ON_REQ_LL := FALSE;
0057	VPV212_SLOW_OPN_REQ_LL := TRUE;
0058	VPV212_FAST_OPN_REQ_LL := FALSE;
0059	TPV212_OPN_REQ_LL := FALSE;
0060	TP212_ON_REQ_LL := FALSE;
0061	
0062	IF (LL_REQUEST = PV_NONE_REQ) THEN
0063	LL_STATE := PV_SLOW_VENTING;
0064	ELSIF NOT (LL_REQUEST = PV_VENT_REQ) THEN
0065	LL_STATE := PV_ISOLATING;
0066	ELSIF (PE212_PSH_MIDHI) THEN
0067	LL_STATE := PV_FAST_VENTING;
0068	END_IF
0069	
0070	PV_FAST_VENTING:
0071	LLV211_CLS_REQ_LL := TRUE;
0072	RPV212_OPN_REQ_LL := FALSE;
0073	RP211_ON_REQ_LL := FALSE;
0074	VPV212_SLOW_OPN_REQ_LL := TRUE;
0075	VPV212_FAST_OPN_REQ_LL := TRUE;
0076	TPV212_OPN_REQ_LL := FALSE;
0077	TP212_ON_REQ_LL := FALSE;
0078	
0079	IF (LL_REQUEST = PV_NONE_REQ) THEN
0080	LL_STATE := PV_FAST_VENTING;
0081	ELSIF NOT (LL_REQUEST = PV_VENT_REQ) THEN
0082	LL_STATE := PV_ISOLATING;
0083	ELSIF (PE212_PSH_HI) THEN
0084	LL_STATE := PV_VENTED;
0085	END_IF
0086	
0087	PV_VENTED:
0088	LLV211_CLS_REQ_LL := FALSE; (* LLV211 can be opened when both ES211 and LL211 are vented *)
0089	RPV212_OPN_REQ_LL := FALSE;

0090	RP211_ON_REQ_LL := FALSE;
0091	VPV212_SLOW_OPN_REQ_LL := FALSE;
0092	VPV212_FAST_OPN_REQ_LL := FALSE;
0093	TPV212_OPN_REQ_LL := FALSE;
0094	TP212_ON_REQ_LL := FALSE;
0095	
0096	IF (LL_REQUEST = PV_NONE_REQ) THEN
0097	LL_STATE := PV_VENTED;
0098	ELSIF NOT (LL_REQUEST = PV_VENT_REQ) THEN
0099	LL_STATE := PV_ISOLATING;
0100	ELSIF (NOT PE212_PSH_HI) THEN
0101	LL_STATE := PV_FAST_VENTING;
0102	END_IF
0103	
0104	PV_RP_STARTING:
0105	LLV211_CLS_REQ_ES := TRUE;
0106	RPV212_OPN_REQ_LL := FALSE;
0107	RP211_ON_REQ_LL := TRUE;
0108	VPV212_SLOW_OPN_REQ_LL := FALSE;
0109	VPV212_FAST_OPN_REQ_LL := FALSE;
0110	TPV212_OPN_REQ_LL := FALSE;
0111	TP212_ON_REQ_LL := FALSE;
0112	
0113	IF (LL_REQUEST = PV_NONE_REQ) THEN
0114	LL_STATE := PV_RP_STARTING;
0115	ELSIF NOT (LL_REQUEST = PV_PUMP_REQ) THEN
0116	LL_STATE := PV_ISOLATING;
0117	ELSIF (RP211_ON) THEN
0118	(* ignore RP211_PSL *)
0119	LL_STATE := PV_RP_PUMPING;
0120	END_IF
0121	
0122	PV_RP_PUMPING:
0123	LLV211_CLS_REQ_LL := TRUE;
0124	RPV212_OPN_REQ_LL := TRUE;
0125	RP211_ON_REQ_LL := TRUE;
0126	VPV212_SLOW_OPN_REQ_LL := FALSE;
0127	VPV212_FAST_OPN_REQ_LL := FALSE;
0128	TPV212_OPN_REQ_LL := FALSE;
0129	TP212_ON_REQ_LL := FALSE;
0130	
0131	IF (LL_REQUEST = PV_NONE_REQ) THEN
0132	LL_STATE := PV_RP_PUMPING;
0133	ELSIF NOT (LL_REQUEST = PV_PUMP_REQ) THEN
0134	LL_STATE := PV_ISOLATING;
0135	ELSIF (PE212_PSL_MIDLO) THEN
0136	LL_STATE := PV_RP_PUMPED;
0137	END_IF
0138	
0139	PV_RP_PUMPED:
0140	LLV211_CLS_REQ_LL := TRUE;
0141	RPV212_OPN_REQ_LL := TRUE;
0142	RP211_ON_REQ_LL := TRUE;
0143	VPV212_SLOW_OPN_REQ_LL := FALSE;
0144	VPV212_FAST_OPN_REQ_LL := FALSE;
0145	TPV212_OPN_REQ_LL := FALSE;
0146	TP212_ON_REQ_LL := FALSE;
0147	
0148	IF (LL_REQUEST = PV_NONE_REQ) THEN
0149	LL_STATE := PV_RP_PUMPED;
0150	ELSIF NOT (LL_REQUEST = PV_PUMP_REQ) THEN
0151	LL_STATE := PV_ISOLATING;
0152	ELSIF (NOT PE212_PSL_MIDLO) THEN
0153	LL_STATE := PV_RP_PUMPING;
0154	ELSIF (TP212_OK) THEN
0155	(* First isolate, then go to TP_STARTING *)
0156	LL_STATE := PV_ISOLATING;
0157	END_IF
0158	
0159	PV_TP_PUMPING:
0160	LLV211_CLS_REQ_LL := TRUE;
0161	RPV212_OPN_REQ_LL := FALSE;
0162	RP211_ON_REQ_LL := TRUE; (* Leave on in case MIDLO false *)

0163	VPV212_SLOW_OPN_REQ_LL := FALSE;
0164	VPV212_FAST_OPN_REQ_LL := FALSE;
0165	TPV212_OPN_REQ_LL := TRUE;
0166	TP212_ON_REQ_LL := TRUE;
0167	
0168	IF (LL_REQUEST = PV_NONE_REQ) THEN
0169	LL_STATE := PV_TP_PUMPING;
0170	ELSIF NOT (LL_REQUEST = PV_PUMP_REQ) THEN
0171	LL_STATE := PV_ISOLATING;
0172	ELSIF (NOT PE212_PSL_MIDLO) THEN
0173	LL_STATE := PV_RP_PUMPING;
0174	ELSIF (PE212_PSL_LO) THEN
0175	LL_STATE := PV_PUMPED;
0176	END_IF
0177	
0178	PV_PUMPED:
0179	LLV211_CLS_REQ_LL := FALSE; (* LLV211 can be opened when both ES211 and LL211 are pumped *)
0180	RPV212_OPN_REQ_LL := FALSE;
0181	RP211_ON_REQ_LL := FALSE;
0182	VPV212_SLOW_OPN_REQ_LL := FALSE;
0183	VPV212_FAST_OPN_REQ_LL := FALSE;
0184	TPV212_OPN_REQ_LL := TRUE;
0185	TP212_ON_REQ_LL := TRUE;
0186	
0187	IF (LL_REQUEST = PV_NONE_REQ) THEN
0188	LL_STATE := PV_PUMPED;
0189	ELSIF NOT (LL_REQUEST = PV_PUMP_REQ) THEN
0190	LL_STATE := PV_ISOLATING;
0191	ELSIF (NOT PE212_PSL_MIDLO) THEN
0192	(* return to PV_RP_PUMPING via PV_ISOLATING *)
0193	LL_STATE := PV_ISOLATING;
0194	ELSIF (PE212_PSL_LO) THEN
0195	LL_STATE := PV_PUMPED;
0196	END_IF
0197	
0198	ELSE
0199	(* Invalid State, should never get here *)
0200	LL_STATE := PV_ERROR;
0201	
0202	END_CASE

Process\_Inputs (ST)

0001	(*=== Processed Inputs *)
0002	(* DISCRETE IN *)
0003	PE101_PSL_LO := DI_PE101_PSL_LO;
0004	PE201_PSL_LO := DI_PE201_PSL_LO;
0005	PE202_PSL_LO := DI_PE202_PSL_LO;
0006	
0007	RP211_ON := DI_RP2110_ON;
0008	BP211_ON := DI_RP2111_ON;
0009	RP211_PSL := DI_PE2110_PSL;
0010	BP211_PSL := DI_PE2111_PSL;
0011	
0012	PE203_PIIY_OK := DI_PE203_PIIY_OK;
0013	PE203_PSH_HI := DI_PE203_PIIY_OK AND NOT DI_PE203_PSL_HI;
0014	PE203_PSH_MIDHI := DI_PE203_PIIY_OK AND NOT DI_PE203_PSL_MIDHI;
0015	PE203_PSL_MIDLO := DI_PE203_PSL_MIDLO;
0016	PE203_PSL_LO := DI_PE203_PSL_LO;
0017	
0018	PE211_PIIY_OK := DI_PE211_PIIY_OK;
0019	PE211_PSH_HI := DI_PE211_PIIY_OK AND NOT DI_PE211_PSL_HI;
0020	PE211_PSH_MIDHI := DI_PE211_PIIY_OK AND NOT DI_PE211_PSL_MIDHI;
0021	PE211_PSL_MIDLO := DI_PE211_PSL_MIDLO;
0022	PE211_PSL_LO := DI_PE211_PSL_LO;
0023	
0024	PE212_PIIY_OK := DI_PE212_PIIY_OK;
0025	PE212_PSH_HI := DI_PE212_PIIY_OK AND NOT DI_PE212_PSL_HI;
0026	PE212_PSH_MIDHI := DI_PE212_PIIY_OK AND NOT DI_PE212_PSL_MIDHI;
0027	PE212_PSL_MIDLO := DI_PE212_PSL_MIDLO;
0028	PE212_PSL_LO := DI_PE212_PSL_LO;
0029	
0030	V100_OPN := DI_V100_OPEN;
0031	V100_CSD := DI_V100_CLOSED;
0032	



0033	V101_OPN := DI_V101_OPEN AND DO_V101_OPEN_CMD;
0034	V101_CSD := DI_V101_CLOSED AND NOT DO_V101_OPEN_CMD;
0035	
0036	V201_OPN := DI_V201_OPEN AND DO_V201_OPEN_CMD;
0037	V201_CSD := DI_V201_CLOSED AND NOT DO_V201_OPEN_CMD;
0038	
0039	V202_OPN := DI_V202_OPEN;
0040	V202_CSD := DI_V202_CLOSED;
0041	
0042	V203_OPN := DI_V203_OPEN AND DO_V203_OPEN_CMD;
0043	V203_CSD := DI_V203_CLOSED AND NOT DO_V203_OPEN_CMD;
0044	
0045	V204_OPN := DI_V204_OPEN AND DO_V204_OPEN_CMD;
0046	V204_CSD := DI_V204_CLOSED AND NOT DO_V204_OPEN_CMD;
0047	
0048	TP201_OK := DI_TP201_TURBO_OK;
0049	TP201_ON := TP201_OK AND DO_TP201_ON_CMD;
0050	TP201_READY := TP201_ON AND DI_TP201_AT_SPEED;
0051	
0052	VPV211_OPN := DO_VENT211_SLOW_CMD OR DO_VENT211_FAST_CMD;
0053	VPV211_CSD := NOT VPV211_OPN;
0054	
0055	RPV211_OPN := DI_RPV211_OPEN AND DO_RPV211_OPEN_CMD;
0056	RPV211_CSD := DI_RPV211_CLOSED AND NOT DO_RPV211_OPEN_CMD;
0057	
0058	TPV211_OPN := DI_TPV211_OPEN AND DO_TPV211_OPEN_CMD;
0059	TPV211_CSD := DI_TPV211_CLOSED AND NOT DO_TPV211_OPEN_CMD;
0060	
0061	TP211_OK := DI_TP211_TURBO_OK;
0062	TP211_READY := DI_TP211_AT_SPEED AND DO_TP211_ON_CMD;
0063	
0064	VPV212_OPN := DO_VENT212_SLOW_CMD OR DO_VENT212_FAST_CMD;
0065	VPV212_CSD := NOT VPV212_OPN;
0066	
0067	RPV212_OPN := DI_RPV212_OPEN AND DO_RPV212_OPEN_CMD;
0068	RPV212_CSD := DI_RPV212_CLOSED AND NOT DO_RPV212_OPEN_CMD;
0069	
0070	TPV212_OPN := DI_TPV212_OPEN AND DO_TPV212_OPEN_CMD;
0071	TPV212_CSD := DI_TPV212_CLOSED AND NOT DO_TPV212_OPEN_CMD;
0072	
0073	TP212_OK := DI_TP212_TURBO_OK;
0074	TP212_READY := DI_TP212_AT_SPEED AND DO_TP212_ON_CMD;
0075	
0076	LLV211_OPN := DI_SLOTV211_OPEN;
0077	LLV211_CSD := DI_SLOTV211_CLOSED;
0078	
0079	LL211_LID_CLOSED := DI_LL211_LID_CLOSED;
0080	LL211_ARM_RETRACTED := DI_LL211_ARM_RETRACTED;

Process\_Outputs (ST)

0001	(* Process Outputs *)
0002	
0003	DO_RP2110_ON_CMD := RP211.on_cmd;
0004	DO_RP2111_ON_CMD := BP211_ON_CMD;
0005	DO_V101_OPEN_CMD := V101.open_cmd;
0006	DO_V201_OPEN_CMD := V201.open_cmd;
0007	DO_V203_OPEN_CMD := V203.open_cmd;
0008	DO_V204_OPEN_CMD := V204.open_cmd;
0009	DO_TP201_ON_CMD := TP201.on_cmd;
0010	DO_TP201_VENT_ENABLE_CMD := VPV201.open_cmd;
0011	
0012	DO_TP211_ON_CMD := TP211.on_cmd;
0013	DO_TPV211_OPEN_CMD := TPV211.open_cmd;
0014	DO_RPV211_OPEN_CMD := RPV211.open_cmd;
0015	DO_VENT211_SLOW_CMD := VPV211_SLOW.open_cmd;
0016	DO_VENT211_FAST_CMD := VPV211_FAST.open_cmd;
0017	
0018	DO_SLOTV211_OPEN_CMD := LLV211.open_cmd;
0019	DO_SLOTV211_CLOSE_CMD := LLV211.close_cmd;
0020	
0021	DO_TP212_ON_CMD := TP212.on_cmd;
0022	DO_TPV212_OPEN_CMD := TPV212.open_cmd;
0023	DO_RPV212_OPEN_CMD := RPV212.open_cmd;
0024	DO_VENT212_SLOW_CMD := VPV212_SLOW.open_cmd;

0025	DO_VENT212_FAST_CMD := VPV212_FAST.open_cmd;
Pumps (ST)	
0001	(* Pump Control Logic *)
0002	
0003	(* BP211 *)
0004	BP211_ON_CMD := TRUE; (* always on *)
0005	
0006	(* RP211 *)
0007	RP211.on_ena := TRUE;
0008	RP211.off_ena := RPV211_CSD AND RPV212_CSD;
0009	RP211.on_req := RP211_ON_REQ_ES OR RP211_ON_REQ_LL;
0010	RP211.off_req := NOT RP211.on_req;
0011	RP211();
0012	
0013	(* TP201 *)
0014	TP201.on_intlk := LL_PE203_PIIY_OK;
0015	TP201.on_ena := TRUE;
0016	TP201.off_ena := V203_CSD AND V204_CSD;
0017	TP201.on_req := TP201_ON_REQ_SC;
0018	TP201.off_req := TP201_OFF_REQ_SC;
0019	TP201();
0020	
0021	(* TP211 *)
0022	TP211.on_intlk := LL_BP211_ON;
0023	TP211.on_ena := TPV211_CSD;
0024	TP211.off_ena := TPV211_CSD;
0025	TP211.on_req := TP211_ON_REQ_ES;
0026	TP211.off_req := NOT TP211.on_req;
0027	TP211();
0028	
0029	(* TP212 *)
0030	TP212.on_intlk := LL_BP211_ON;
0031	TP212.on_ena := TPV212_CSD;
0032	TP212.off_ena := TPV212_CSD;
0033	TP212.on_req := TP212_ON_REQ_LL;
0034	TP212.off_req := NOT TP212.on_req;
0035	TP212();
SC_Inputs (ST)	
0001	(* Supervisory Control Inputs *)
0002	RESET_REQ := SC_RESET_REQ;
0003	
0004	(* Level-Triggered signals *)
0005	
0006	(* Edge-Triggered signals *)
0007	V101_OPN_REQ_SC := SC_V101_OPN_REQ;
0008	V101_CLS_REQ_SC := SC_V101_CLS_REQ;
0009	V201_OPN_REQ_SC := SC_V201_OPN_REQ;
0010	V201_CLS_REQ_SC := SC_V201_CLS_REQ;
0011	V203_OPN_REQ_SC := SC_V203_OPN_REQ;
0012	V203_CLS_REQ_SC := SC_V203_CLS_REQ;
0013	V204_OPN_REQ_SC := SC_V204_OPN_REQ;
0014	V204_CLS_REQ_SC := SC_V204_CLS_REQ;
0015	TP201_ON_REQ_SC := SC_TP201_ON_REQ;
0016	TP201_OFF_REQ_SC := SC_TP201_OFF_REQ;
0017	TP201_VENT_ENABLE_REQ_SC := SC_TP201_VENT_ENABLE_REQ;
0018	TP201_VENT_DISABLE_REQ_SC := SC_TP201_VENT_DISABLE_REQ;
0019	LLV211_OPN_REQ_SC := SC_SLOTV211_OPN_REQ;
0020	LLV211_CLS_REQ_SC := SC_SLOTV211_CLS_REQ;
0021	
0022	(* BR_REQ *)
0023	CASE SC_BR_CMD_REQ OF
0024	0:
0025	BR_REQUEST := BR_NONE_REQ;
0026	1:
0027	BR_REQUEST := BR_SINS1_REQ;
0028	2:
0029	BR_REQUEST := BR_SINS2_REQ;
0030	3:
0031	BR_REQUEST := BR_SINS3_REQ;
0032	4:
0033	BR_REQUEST := BR_YAG_REQ;
0034	ELSE

0035	BR_REQUEST := BR_NONE_REQ;
0036	END_CASE;
0037	
0038	(* ES_REQ *)
0039	CASE SC_ES_CMD_REQ OF
0040	0:
0041	ES_REQUEST := PV_NONE_REQ;
0042	1:
0043	ES_REQUEST := PV_ISOLATE_REQ;
0044	2:
0045	ES_REQUEST := PV_PUMP_REQ;
0046	3:
0047	ES_REQUEST := PV_VENT_REQ;
0048	ELSE
0049	ES_REQUEST := PV_NONE_REQ;
0050	END_CASE;
0051	
0052	
0053	(* LL_REQ *)
0054	CASE SC_LL_CMD_REQ OF
0055	0:
0056	LL_REQUEST := PV_NONE_REQ;
0057	1:
0058	LL_REQUEST := PV_ISOLATE_REQ;
0059	2:
0060	LL_REQUEST := PV_PUMP_REQ;
0061	3:
0062	LL_REQUEST := PV_VENT_REQ;
0063	ELSE
0064	LL_REQUEST := PV_NONE_REQ;
0065	END_CASE;
0066	
0067	
0068	
0069	
SC_Outputs (ST)	
0001	(* Supervisory Control Outputs *)
0002	SC_RESET_REQUIRED := Reset_Required;
0003	SC_ATB := TRUE;
0004	SC_AFB := FALSE;
0005	
0006	(* Inputs *)
0007	SC_PE101_PSL := PE101_PSL_LO;
0008	SC_PE201_PSL := PE201_PSL_LO;
0009	SC_PE202_PSL := PE202_PSL_LO;
0010	
0011	SC_RP2110_AT_SPEED := DI_RP2110_ON;
0012	SC_RP2111_AT_SPEED := DI_RP2111_ON;
0013	SC_PE2110_PSL := DI_PE2110_PSL;
0014	SC_PE2111_PSL := DI_PE2111_PSL;
0015	
0016	SC_PE203_OK := DI_PE203_PIIY_OK;
0017	SC_PE203_PSL_HI := DI_PE203_PSL_HI;
0018	SC_PE203_PSL_MIDHI := DI_PE203_PSL_MIDHI;
0019	SC_PE203_PSL_MIDLO := DI_PE203_PSL_MIDLO;
0020	SC_PE203_PSL_LO := DI_PE203_PSL_LO;
0021	
0022	SC_PE211_OK := DI_PE211_PIIY_OK;
0023	SC_PE211_PSL_HI := DI_PE211_PSL_HI;
0024	SC_PE211_PSL_MIDHI := DI_PE211_PSL_MIDHI;
0025	SC_PE211_PSL_MIDLO := DI_PE211_PSL_MIDLO;
0026	SC_PE211_PSL_LO := DI_PE211_PSL_LO;
0027	
0028	SC_PE212_OK := DI_PE212_PIIY_OK;
0029	SC_PE212_PSL_HI := DI_PE212_PSL_HI;
0030	SC_PE212_PSL_MIDHI := DI_PE212_PSL_MIDHI;
0031	SC_PE212_PSL_MIDLO := DI_PE212_PSL_MIDLO;
0032	SC_PE212_PSL_LO := DI_PE212_PSL_LO;
0033	
0034	SC_LL211_LID_CLOSED := DI_LL211_LID_CLOSED;
0035	SC_LL211_ARM_RETRACTED := DI_LL211_ARM_RETRACTED;
0036	
0037	SC_V100_OPEN := V100_OPN;

0038	SC_V100_CLOSED := V100_CSD;
0039	
0040	SC_V101_BEAM_PASS := (NOT V100_CSD) AND (NOT V101_CSD) AND (BR_STATE = BR_SINS1_READY);
0041	SC_V101_OPEN := V101_OPN;
0042	SC_V101_CLOSED := V101_CSD;
0043	SC_V101_OPEN_PERMIT := V101.open_ena;
0044	SC_V101_CLOSE_PERMIT := V101.close_ena;
0045	SC_V101_OPEN_CMD := V101.open_cmd;
0046	SC_V101_NOT_SYMBOL := V101.not_symbol;
0047	
0048	SC_V201_BEAM_PASS := (NOT V100_CSD) AND (NOT V201_CSD) AND (BR_STATE = BR_SINS2_READY);
0049	SC_V201_OPEN := V201_OPN;
0050	SC_V201_CLOSED := V201_CSD;
0051	SC_V201_OPEN_PERMIT := V201.open_ena;
0052	SC_V201_CLOSE_PERMIT := V201.close_ena;
0053	SC_V201_OPEN_CMD := V201.open_cmd;
0054	SC_V201_NOT_SYMBOL := V201.not_symbol;
0055	
0056	SC_V202_OPEN := V202_OPN;
0057	SC_V202_CLOSED := V202_CSD;
0058	SC_V202_BEAM_PASS := SC_V201_BEAM_PASS AND (NOT V202_CSD);
0059	
0060	SC_V203_BEAM_PASS := SC_V202_BEAM_PASS AND (NOT V203_CSD);
0061	SC_V203_OPEN := V203_OPN;
0062	SC_V203_CLOSED := V203_CSD;
0063	SC_V203_OPEN_PERMIT := V203.open_ena;
0064	SC_V203_CLOSE_PERMIT := V203.close_ena;
0065	SC_V203_OPEN_CMD := V203.open_cmd;
0066	SC_V203_NOT_SYMBOL := V203.not_symbol;
0067	
0068	SC_V204_BEAM_PASS := SC_V203_BEAM_PASS AND (NOT V204_CSD);
0069	SC_V204_OPEN := V204_OPN;
0070	SC_V204_CLOSED := V204_CSD;
0071	SC_V204_OPEN_PERMIT := V204.open_ena;
0072	SC_V204_CLOSE_PERMIT := V204.close_ena;
0073	SC_V204_OPEN_CMD := V204.open_cmd;
0074	SC_V204_NOT_SYMBOL := V204.not_symbol;
0075	
0076	SC_RPV211_OPEN := RPV211_OPN;
0077	SC_RPV211_CLOSED := RPV211_CSD;
0078	SC_RPV211_OPEN_CMD := RPV211.open_cmd;
0079	
0080	SC_VENT211_SLOW_CMD := VPV211_SLOW.open_cmd;
0081	SC_VENT211_FAST_CMD := VPV211_FAST.open_cmd;
0082	
0083	SC_TPV211_OPEN := TPV211_OPN;
0084	SC_TPV211_CLOSED := TPV211_CSD;
0085	SC_TPV211_OPEN_CMD := TPV211.open_cmd;
0086	
0087	SC_SLOTV211_OPEN := LLV211_OPN;
0088	SC_SLOTV211_CLOSED := LLV211_CSD;
0089	SC_SLOTV211_OPEN_PERMIT := LLV211.open_ena;
0090	SC_SLOTV211_CLOSE_PERMIT := LLV211.close_ena;
0091	SC_SLOTV211_OPEN_CMD := LLV211.open_cmd;
0092	SC_SLOTV211_CLOSE_CMD := LLV211.close_cmd;
0093	SC_SLOTV211_NOT_SYMBOL := LLV211.not_symbol;
0094	
0095	SC_RPV212_OPEN := RPV212_OPN;
0096	SC_RPV212_CLOSED := RPV212_CSD;
0097	SC_RPV212_OPEN_CMD := RPV212.open_cmd;
0098	
0099	SC_VENT212_SLOW_CMD := VPV212_SLOW.open_cmd;
0100	SC_VENT212_FAST_CMD := VPV212_FAST.open_cmd;
0101	
0102	SC_TPV212_OPEN := TPV212_OPN;
0103	SC_TPV212_CLOSED := TPV212_CSD;
0104	SC_TPV212_OPEN_CMD := TPV212.open_cmd;
0105	
0106	SC_RP2110_ON := RP211_ON;
0107	SC_RP2110_ON_CMD := RP211.on_cmd;
0108	
0109	SC_RP2111_ON := BP211_ON;
0110	SC_RP2111_ON_CMD := BP211_ON_CMD;

0111	
0112	SC_TP201_VENT_ENABLE_CMD := VPV201.open_cmd;
0113	SC_TP201_VENT_NOT_SYMBOL := VPV201.not_symbol;
0114	
0115	SC_TP201_OK := TP201_OK;
0116	SC_TP201_ON := TP201_ON;
0117	SC_TP201_OFF := NOT TP201.on_cmd;
0118	SC_TP201_ON_PERMIT := TP201.on_ena;
0119	SC_TP201_OFF_PERMIT := TP201.off_ena;
0120	SC_TP201_ON_CMD := TP201.on_cmd;
0121	SC_TP201_NOT_SYMBOL := TP201.not_symbol;
0122	
0123	SC_TP211_OK := TP211_OK;
0124	SC_TP211_ON := TP211_READY;
0125	SC_TP211_OFF := NOT TP211.on_cmd;
0126	
0127	SC_TP212_OK := TP212_OK;
0128	SC_TP212_ON := TP212_READY;
0129	SC_TP212_OFF := NOT TP212.on_cmd;
0130	
0131	
0132	(* INTERLOCKS *)
0133	SC_LL_ACTUATOR_OK := LL_ACTUATOR_OK;
0134	SC_LL_PE101_PSL := LL_PE101_PSL_LO;
0135	SC_LL_PE201_PSL := LL_PE201_PSL_LO;
0136	SC_LL_V202_OPN := LL_V202_OPN;
0137	SC_LL_PE202_PSL := LL_PE202_PSL_LO;
0138	SC_LL_PE203_OK := LL_PE203_PIIY_OK;
0139	SC_LL_PE203_PSL_LO := LL_PE203_PSL_LO;
0140	SC_LL_TP201_OK := LL_TP201_OK;
0141	
0142	SC_LL_ES_CONFIG_OK := LL_ES_CONFIG_OK;
0143	SC_LL_LL_CONFIG_OK := LL_LL_CONFIG_OK;
0144	SC_LL_PE211_OK := LL_PE211_PIIY_OK;
0145	SC_LL_PE212_OK := LL_PE212_PIIY_OK;
0146	SC_LL_RP2111_ON := LL_BP211_ON;
0147	SC_LL_PE2111_PSL := BP211_PSL; (* This is just in case LabView needs it *)
0148	SC_LL_TP211_TURBO_OK := LL_TP211_OK;
0149	SC_LL_TP212_TURBO_OK := LL_TP212_OK;
0150	
0151	
0152	(* PLC_OUT REGISTERS *)
0153	
0154	
0155	(* Version Numbers *)
0156	SC_VERSION_MAJOR := cVERSION_MAJOR;
0157	SC_VERSION_MINOR := cVERSION_MINOR;
0158	
0159	(* Analog vacuum pressure *)
0160	SC_PE101_PIIY := AI_PE101_PIIY;
0161	SC_PE201_PIIY := AI_PE201_PIIY;
0162	SC_PE202_PIIY := AI_PE202_PIIY;
0163	SC_PE203_HI_PIIY := AI_PE203_HI_PIIY;
0164	SC_PE203_LO_PIIY := AI_PE203_LO_PIIY;
0165	SC_PE211_HI_PIIY := AI_PE211_HI_PIIY;
0166	SC_PE211_LO_PIIY := AI_PE211_LO_PIIY;
0167	SC_PE212_HI_PIIY := AI_PE212_HI_PIIY;
0168	SC_PE212_LO_PIIY := AI_PE212_LO_PIIY;
0169	
0170	(* Current BR_REQ *)
0171	CASE BR_REQUEST OF
0172	BR_NONE_REQ:
0173	SC_BR_CMD_VAL := 0;
0174	BR_SINS1_REQ:
0175	SC_BR_CMD_VAL := 1;
0176	BR_SINS2_REQ:
0177	SC_BR_CMD_VAL := 2;
0178	BR_SINS3_REQ:
0179	SC_BR_CMD_VAL := 3;
0180	BR_YAG_REQ:
0181	SC_BR_CMD_VAL := 4;
0182	ELSE
0183	(* should never get here *)

0184	SC_BR_CMD_VAL := 0;
0185	END_CASE;
0186	
0187	(* Current ES_REQ *)
0188	CASE ES_REQUEST OF
0189	PV_NONE_REQ:
0190	SC_ES_CMD_VAL := 0;
0191	PV_ISOLATE_REQ:
0192	SC_ES_CMD_VAL := 1;
0193	PV_PUMP_REQ:
0194	SC_ES_CMD_VAL := 2;
0195	PV_VENT_REQ:
0196	SC_ES_CMD_VAL := 3;
0197	ELSE
0198	(* should never get here *)
0199	SC_ES_CMD_VAL := 0;
0200	END_CASE;
0201	
0202	(* Current LL_REQ *)
0203	CASE LL_REQUEST OF
0204	PV_NONE_REQ:
0205	SC_LL_CMD_VAL := 0;
0206	PV_ISOLATE_REQ:
0207	SC_LL_CMD_VAL := 1;
0208	PV_PUMP_REQ:
0209	SC_LL_CMD_VAL := 2;
0210	PV_VENT_REQ:
0211	SC_LL_CMD_VAL := 3;
0212	ELSE
0213	(* should never get here *)
0214	SC_LL_CMD_VAL := 0;
0215	END_CASE;
0216	
0217	
0218	(* Current BR_STATE *)
0219	CASE BR_STATE OF
0220	BR_ERROR:
0221	SC_BR_STATE := 0;
0222	BR_SINS1_READY:
0223	(* SINS.1 *)
0224	SC_BR_STATE := 1;
0225	BR_SINS2_READY:
0226	(* SINS.2 *)
0227	SC_BR_STATE := 2;
0228	BR_SINS3_READY:
0229	(* SINS.3 *)
0230	SC_BR_STATE := 3;
0231	BR_YAG_READY:
0232	(* YAG *)
0233	SC_BR_STATE := 4;
0234	BR_SINS1_SELECTING, BR_SINS2_SELECTING, BR_SINS3_SELECTING, BR_YAG_SELECTING:
0235	(* BUSY *)
0236	SC_BR_STATE := 5;
0237	ELSE
0238	(* should never get here *)
0239	SC_BR_STATE := 16#FFFF;
0240	END_CASE;
0241	
0242	(* Current ES_STATE *)
0243	CASE ES_STATE OF
0244	PV_ERROR:
0245	SC_ES_STATE := 0;
0246	PV_ISOLATING:
0247	SC_ES_STATE := 1;
0248	PV_ISOLATED:
0249	SC_ES_STATE := 2;
0250	PV_SLOW_VENTING:
0251	SC_ES_STATE := 3;
0252	PV_FAST_VENTING:
0253	SC_ES_STATE := 4;
0254	PV_VENTED:
0255	SC_ES_STATE := 5;
0256	PV_RP_STARTING:

0257	SC_ES_STATE := 6;
0258	PV_RP_PUMPING:
0259	SC_ES_STATE := 7;
0260	PV_RP_PUMPED:
0261	SC_ES_STATE := 8;
0262	PV_TP_PUMPING:
0263	SC_ES_STATE := 9;
0264	PV_PUMPED:
0265	SC_ES_STATE := 10;
0266	ELSE
0267	(* should never get here *)
0268	SC_ES_STATE := 16#FFFF;
0269	END_CASE;
0270	
0271	(* Current LL_STATE *)
0272	CASE LL_STATE OF
0273	PV_ERROR:
0274	SC_LL_STATE := 0;
0275	PV_ISOLATING:
0276	SC_LL_STATE := 1;
0277	PV_ISOLATED:
0278	SC_LL_STATE := 2;
0279	PV_SLOW_VENTING:
0280	SC_LL_STATE := 3;
0281	PV_FAST_VENTING:
0282	SC_LL_STATE := 4;
0283	PV_VENTED:
0284	SC_LL_STATE := 5;
0285	PV_RP_STARTING:
0286	SC_LL_STATE := 6;
0287	PV_RP_PUMPING:
0288	SC_LL_STATE := 7;
0289	PV_RP_PUMPED:
0290	SC_LL_STATE := 8;
0291	PV_TP_PUMPING:
0292	SC_LL_STATE := 9;
0293	PV_PUMPED:
0294	SC_LL_STATE := 10;
0295	ELSE
0296	(* should never get here *)
0297	SC_LL_STATE := 16#FFFF;
0298	END_CASE;
Valves (ST)	
0001	(* Valve Control Logic *)
0002	
0003	(* V101 *)
0004	V101.open_intlk := LL_PE101_PSL_LO AND LL_PE201_PSL_LO;
0005	V101.open_ena := TRUE;
0006	V101.close_ena := TRUE;
0007	V101.open_req := V101_OPN_REQ_SC;
0008	V101.close_req := V101_CLS_REQ_SC;
0009	V101();
0010	
0011	(* V201 *)
0012	V201.open_intlk := LL_PE201_PSL_LO AND LL_V202_OPN AND LL_PE202_PSL_LO;
0013	V201.open_ena := TRUE;
0014	V201.close_ena := TRUE;
0015	V201.open_req := V201_OPN_REQ_SC;
0016	V201.close_req := V201_CLS_REQ_SC;
0017	V201();
0018	
0019	(* V203 *)
0020	V203.open_intlk := LL_PE202_PSL_LO AND LL_TP201_OK AND LL_PE203_PSL_LO;
0021	V203.open_ena := TP201_READY;
0022	V203.close_ena := TRUE;
0023	V203.open_req := V203_OPN_REQ_SC;
0024	V203.close_req := V203_CLS_REQ_SC;
0025	V203();
0026	
0027	(* VPV201 *)
0028	VPV201.open_intlk := V203_CSD AND V204_CSD AND NOT TP201_ON;
0029	VPV201.open_ena := NOT TP201.on_cmd;
0030	VPV201.close_ena := TRUE;

0031	VPV201.open_req := TP201_VENT_ENABLE_REQ_SC;
0032	VPV201.close_req := TP201_VENT_DISABLE_REQ_SC;
0033	VPV201();
0034	
0035	(* V204 *)
0036	V204.open_intlk := LL_PE203_PSL_LO AND LL_TP201_OK AND PE211_PSL_LO;
0037	V204.open_ena := (ES_STATE = PV_PUMPED) AND LLV211_CSD AND TP201_READY;
0038	V204.close_ena := TRUE;
0039	V204.open_req := V204_OPN_REQ_SC;
0040	V204.close_req := V204_CLS_REQ_SC OR V204_CLS_REQ_ES;
0041	V204();
0042	
0043	(* LLV211 *)
0044	LLV211.open_intlk := ((ES_STATE = PV_PUMPED) AND (LL_STATE = PV_PUMPED)) OR
0045	((ES_STATE = PV_VENTED) AND (LL_STATE = PV_VENTED));
0046	LLV211.open_ena := V204_CSD;
0047	LLV211.close_intlk := LL211_ARM_RETRACTED OR LLV211_CSD;
0048	LLV211.close_ena:= LL211_ARM_RETRACTED;
0049	LLV211.open_req := LLV211_OPN_REQ_SC;
0050	LLV211.close_req:= LLV211_CLS_REQ_SC OR LLV211_CLS_REQ_ES OR LLV211_CLS_REQ_LL;
0051	LLV211();
0052	
0053	(* VPV211_SLOW *)
0054	VPV211_SLOW.open_intlk := V204_CSD AND LLV211_CSD AND TPV211_CSD AND RPV211_CSD;
0055	VPV211_SLOW.open_ena:= TRUE;
0056	VPV211_SLOW.close_ena := TRUE;
0057	VPV211_SLOW.open_req:= VPV211_SLOW_OPN_REQ_ES;
0058	VPV211_SLOW.close_req := NOT VPV211_SLOW_OPN_REQ_ES;
0059	VPV211_SLOW();
0060	
0061	(* VPV211_FAST *)
0062	VPV211_FAST.open_intlk := V204_CSD AND LLV211_CSD AND TPV211_CSD AND RPV211_CSD;
0063	VPV211_FAST.open_ena:= TRUE;
0064	VPV211_FAST.close_ena := TRUE;
0065	VPV211_FAST.open_req:= VPV211_FAST_OPN_REQ_ES;
0066	VPV211_FAST.close_req := NOT VPV211_FAST_OPN_REQ_ES;
0067	VPV211_FAST();
0068	
0069	(* RPV211 *)
0070	RPV211.open_intlk := RP211_ON AND V204_CSD AND LLV211_CSD AND VPV211_CSD;
0071	RPV211.open_ena := NOT PE211_PSL_MIDLO AND RPV212_CSD;
0072	RPV211.close_ena:= TRUE;
0073	RPV211.open_req := RPV211_OPN_REQ_ES;
0074	RPV211.close_req:= NOT RPV211_OPN_REQ_ES;
0075	RPV211();
0076	
0077	(* TPV211 *)
0078	TPV211.open_intlk := PE211_PSL_MIDLO AND LL_BP211_ON AND LL_PE211_PIIY_OK AND TP211.on_cmd;
0079	TPV211.open_ena := TRUE;
0080	TPV211.close_ena:= V204_CSD AND LLV211_CSD;
0081	TPV211.open_req := TPV211_OPN_REQ_ES;
0082	TPV211.close_req:= NOT TPV211_OPN_REQ_ES;
0083	TPV211();
0084	
0085	(* VPV212_SLOW *)
0086	VPV212_SLOW.open_intlk := LLV211_CSD AND TPV212_CSD AND RPV212_CSD;
0087	VPV212_SLOW.open_ena:= TRUE;
0088	VPV212_SLOW.close_ena := TRUE;
0089	VPV212_SLOW.open_req:= VPV212_SLOW_OPN_REQ_LL;
0090	VPV212_SLOW.close_req := NOT VPV212_SLOW_OPN_REQ_LL;
0091	VPV212_SLOW();
0092	
0093	(* VPV212_FAST *)
0094	VPV212_FAST.open_intlk := LLV211_CSD AND TPV212_CSD AND RPV212_CSD;
0095	VPV212_FAST.open_ena:= TRUE;
0096	VPV212_FAST.close_ena := TRUE;
0097	VPV212_FAST.open_req:= VPV212_FAST_OPN_REQ_LL;
0098	VPV212_FAST.close_req := NOT VPV212_FAST_OPN_REQ_LL;
0099	VPV212_FAST();
0100	
0101	(* RPV212 *)
0102	RPV212.open_intlk := RP211_ON AND LLV211_CSD AND VPV212_CSD;
0103	RPV212.open_ena := NOT PE212_PSL_MIDLO AND RPV211_CSD;



0104	RPV212.close_ena:=	TRUE;
0105	RPV212.open_req	:= RPV212_OPN_REQ_LL;
0106	RPV212.close_req:=	NOT RPV212_OPN_REQ_LL;
0107	RPV212();	
0108		
0109	(* TPV212 *)	
0110	TPV212.open_intlk	:= PE212_PSL_MIDLO AND LL_BP211_ON AND LL_PE212_Piy_OK AND TP212.on_cmd;
0111	TPV212.open_ena	:= TRUE;
0112	TPV212.close_ena:=	LLV211_CSD;
0113	TPV212.open_req	:= TPV212_OPN_REQ_LL;
0114	TPV212.close_req:=	NOT TPV212_OPN_REQ_LL;
0115	TPV212();	
0116		
RP_FB (FB-ST)		
0001	(* ROUGH PUMP CONTROL *)	
0002	FUNCTION_BLOCK RP_FB	
0003	VAR_INPUT	
0004	on_ena: BOOL;	
0005	off_ena: BOOL;	
0006		
0007	on_req : BOOL;	
0008	off_req : BOOL;	
0009	END_VAR	
0010	VAR_OUTPUT	
0011	on_cmd: BOOL;	
0012	not_symbol: BOOL;	
0013	END_VAR	
0014	VAR	
0015	END_VAR	
0001	on_cmd :=	(NOT off_req OR NOT off_ena) AND
0002		((on_ena AND on_req) OR on_cmd);
0003		
0004	not_symbol :=	(on_cmd AND NOT off_ena) OR (NOT on_cmd AND NOT on_ena);
TP_FB (FB-ST)		
0001	FUNCTION_BLOCK TP_FB	
0002	VAR_INPUT	
0003	on_intlk : BOOL;	
0004	on_ena : BOOL;	
0005	off_ena : BOOL;	
0006		
0007	on_req : BOOL;	
0008	off_req : BOOL;	
0009	END_VAR	
0010	VAR_OUTPUT	
0011	on_cmd : BOOL;	
0012	not_symbol : BOOL;	
0013	END_VAR	
0014	VAR	
0015	END_VAR	
0001	on_cmd	:= on_intlk AND
0002		(NOT (off_ena AND off_req)) AND
0003		((on_ena AND on_req) OR on_cmd);
0004		
0005	not_symbol	:= (on_cmd AND NOT off_ena) OR
0006		(NOT on_cmd AND NOT (on_intlk AND on_ena));
VALVE_BI_FB (FB-ST)		
0001	FUNCTION_BLOCK VALVE_BI_FB	
0002	VAR_INPUT	
0003	open_intlk	: BOOL; (* open command interlock *)
0004	open_ena	: BOOL; (* open command enable *)
0005	close_intlk	: BOOL; (* close command interlock *)
0006	close_ena	: BOOL; (* close command enable *)
0007		
0008	open_req	: BOOL; (* open command request *)
0009	close_req	: BOOL; (* close command request *)
0010	END_VAR	
0011	VAR_OUTPUT	
0012	open_cmd	: BOOL; (* open command *)
0013	close_cmd	: BOOL; (* close command *)
0014	not_symbol	: BOOL; (* state change prohibited *)
0015	END_VAR	

0016	VAR
0017	END_VAR
0001	
0002	open_cmd:= open_intlk AND
0003	(NOT (close_ena AND close_req)) AND
0004	((open_ena AND open_req) OR open_cmd);
0005	
0006	close_cmd := close_intlk AND
0007	(NOT (open_ena AND open_req)) AND
0008	((close_ena AND close_req) OR close_cmd);
0009	
0010	not_symbol := (open_cmd AND NOT (close_intlk AND close_ena)) OR
0011	(close_cmd AND NOT (open_intlk AND open_ena));
VALVE_FB (FB-ST)	
0001	FUNCTION_BLOCK VALVE_FB
0002	VAR_INPUT
0003	open_intlk : BOOL; (* open command interlock *)
0004	open_ena : BOOL; (* open command enable *)
0005	close_ena : BOOL; (* close command enable *)
0006	
0007	open_req : BOOL; (* open command request *)
0008	close_req : BOOL; (* close command request *)
0009	END_VAR
0010	VAR_OUTPUT
0011	open_cmd : BOOL; (* open command *)
0012	not_symbol : BOOL; (* state change prohibited *)
0013	END_VAR
0014	VAR
0015	END_VAR
0001	open_cmd:= open_intlk AND
0002	(NOT (close_ena AND close_req)) AND
0003	((open_ena AND open_req) OR open_cmd);
0004	
0005	not_symbol := (open_cmd AND NOT close_ena) OR
0006	(NOT open_cmd AND NOT (open_intlk AND open_ena));
Actuator	
0001	TYPE Actuator :
0002	STRUCT
0003	awStatus: ARRAY [0..9] OF WORD; (* actuator status words, incomming*)
0004	wCommand: WORD; (* actuator control command, outgoing *)
0005	wTarget : WORD; (* actuator target position, outgoing *)
0006	
0007	oMBMaster : ETHERNET_MODBUSMASTER_TCP;
0008	tonConnect : TON; (* connection delay timer *)
0009	
0010	xConnect: BOOL; (* initiate TCP connection *)
0011	xSend : BOOL; (* Initiate MB transaction *)
0012	xBusy : BOOL; (* Transaction in progress *)
0013	xDataReady : BOOL; (* Transaction data ready *)
0014	
0015	wState : WORD := 10; (* sequencer state *)
0016	END_STRUCT
0017	END_TYPE
BR_REQ	
0001	TYPE BR_REQ :
0002	(
0003	BR_NONE_REQ := 0,
0004	BR_SINS1_REQ,
0005	BR_SINS2_REQ,
0006	BR_SINS3_REQ,
0007	BR_YAG_REQ
0008	);
0009	END_TYPE
BR_ST	
0001	TYPE BR_ST :
0002	(
0003	BR_ERROR := 0,
0004	BR_SINS1_SELECTING,
0005	BR_SINS1_READY,
0006	BR_SINS2_SELECTING,
0007	BR_SINS2_READY,

0008

BR\_SINS3\_SELECTING,

0009

BR\_SINS3\_READY,

0010

BR\_YAG\_SELECTING,

0011

BR\_YAG\_READY

0012

);

0013

END\_TYPE

PV\_REQ

0001

TYPE PV\_REQ :

0002

(

0003

PV\_NONE\_REQ := 0,

0004

PV\_ISOLATE\_REQ,

0005

PV\_PUMP\_REQ,

0006

PV\_VENT\_REQ

0007

);

0008

END\_TYPE

PV\_ST

0001

TYPE PV\_ST :

0002

(

0003

PV\_ERROR := 0,

0004

PV\_ISOLATING,

0005

PV\_ISOLATED,

0006

PV\_SLOW\_VENTING,

0007

PV\_FAST\_VENTING,

0008

PV\_VENTED,

0009

PV\_RP\_STARTING,

0010

PV\_RP\_PUMPING,

0011

PV\_RP\_PUMPED,

0012

PV\_TP\_PUMPING,

0013

PV\_PUMPED

0014

);

0015

END\_TYPE

ACTUATOR\_VISU

ACTUATORS

	Request				Readback	Position	Target
BR_SELECTOR	SINS.1	SINS.2	SINS.3	YAG	%d	%d	%d

AUTO\_VISU

AUTO STATE MACHINES

	Request					CMD	EXT_VAL	INT_VAL
BR_SELECTOR	NONE	SINS.1	SINS.2	SINS.3	YAG	%d	%d	%s
ES_PUMPVENT	NONE	ISOLATE	PUMP	VENT		%d	%d	%s
LL_PUMPVENT	NONE	ISOLATE	PUMP	VENT		%d	%d	%s

INTLKS\_VISU

Interlocks

EPS Reset

Reset

Branchline

Endstation

ACTUATOR\_OK  ES\_CONFIG\_OK

PF101 PSI  I1\_CONFIG\_OK

PE101\_PSL

PE201\_PSL

V202\_OPN

PE202\_PSL

PE203\_OK

PE203\_PSL\_LO

TP201\_OK

PE\_CONF\_OK

PE211\_OK

PE212\_OK

RP2111\_ON

TP211\_OK

TP212\_OK

PUMPS\_VISU

PUMPS

Requests

Name

PMT

ON

On Cmd

RP2110

RP2111

On

Off

TP201

TP211

TP212

SIGNALS\_VISU

Signals

BR

PE101\_PSL

PE201\_PSL

PE202\_PSL

PE203

OK

PSL\_HI

PSL\_MIDHI

PSL\_MIDLO

PSL\_LO

PE211

OK

PSL\_HI

PSL\_MIDHI

PSL\_MIDLO

PSL\_LO

PE212

OK

PSL\_HI

PSL\_MIDHI

PSL\_MIDLO

PSL\_LO

RP2110

ON

PSL

TP201

TURBO\_OK

AT\_SPEED

TP211

TURBO\_OK

AT\_SPEED

TP212

TURBO\_OK

AT\_SPEED

RP2111

ON

PSL

LL211

LID\_CLOSED

ARM\_RETRACTED

VALVES\_VISU

VALVES

Requests

Name

PMT

OPN

CSD

Commands

V100

Open

Close

V101

Open

Beam

<div>Open</div>	<div>Close</div>	V201	<div></div>	<div></div>	<div></div>	<div>Open</div>	<div></div>	Beam
		V202						Beam
<div>Open</div>	<div>Close</div>	V203	<div></div>	<div></div>	<div></div>	<div>Open</div>	<div></div>	Beam
<div>Enable</div>	<div>Disable</div>	VENT201	<div></div>			<div></div>	Enabled	
<div>Open</div>	<div>Close</div>	V204	<div></div>	<div></div>	<div></div>	<div>Open</div>	<div></div>	Beam
		VENT211				Slow		Fast
		RPV211				Open		
		TPV211				Open		
<div>Open</div>	<div>Close</div>	SLOTV211	<div></div>	<div></div>	<div></div>	<div>Open</div>	<div></div>	Close
		VENT212				Slow		Fast
		RPV212				Open		
		TPV212				Open		

Global\_Variables

0001	VAR_GLOBAL	
0002	xActuatorReady	: BOOL; (* In Position *)
0003	wActuatorStatus	: WORD; (* Current Status *)
0004	wActuatorPosition	: WORD; (* Current Position *)
0005	wActuatorAlarm	: WORD; (* Current Alarm *)
0006	END_VAR	
0007	VAR_GLOBAL RETAIN	
0008	wActuatorTarget	: WORD; (* Target Position *)
0009	END_VAR	

Variable\_Configuration

0001	VAR_CONFIG
0002	END_VAR

Global Variables 0

0001	VAR_GLOBAL
0002	END_VAR

Globale\_Variablen

0001	VAR_GLOBAL
0002	END_VAR

Version

0001	VAR_GLOBAL CONSTANT
0002	rVersion:REAL:=1.001;
0003	END_VAR

Globale\_Variablen

0001	VAR_GLOBAL CONSTANT
0002	SOCKET_INVALID:DINT:=-1;
0003	
0004	(* AddressFamily *)
0005	SOCKET_AF_UNSPEC:INT:= 0; (* unspecified *)
0006	SOCKET_AF_LOCAL:INT:= 1; (* local to host (pipes, portals) *)
0007	SOCKET_AF_UNIX:INT:=SOCKET_AF_LOCAL; (* backward compatibility *)
0008	SOCKET_AF_INET:INT:=2; (* internetwork: UDP, TCP, etc. *)
0009	SOCKET_AF_IMPLINK:INT:=3; (* arpanet imp addresses *)
0010	SOCKET_AF_PUP:INT:=4; (* pup protocols: e.g. BSP *)
0011	SOCKET_AF_CHAOS:INT:=5; (* mit CHAOS protocols *)
0012	SOCKET_AF_NS:INT:=6; (* XEROX NS protocols *)
0013	SOCKET_AF_ISO:INT:=7; (* ISO protocols *)

0014	SOCKET_AF_OSI:INT:=SOCKET_AF_ISO;	
0015	SOCKET_AF_ECMA:INT:=8;	(* european computer manufacturers *)
0016	SOCKET_AF_DATAKIT:INT:=9;	(* datakit protocols *)
0017	SOCKET_AF_CCITT:INT:=10;	(* CCITT protocols, X.25 etc *)
0018	SOCKET_AF_SNA:INT:=11;	(* IBM SNA *)
0019	SOCKET_AF_DECnet:INT:=12;	(* DECnet *)
0020	SOCKET_AF_DLI:INT:=13;	(* DEC Direct data link interface *)
0021	SOCKET_AF_LAT:INT:= 14;	(* LAT *)
0022	SOCKET_AF_HYLINK:INT:=15;	(* NSC Hyperchannel *)
0023	SOCKET_AF_APPLETALK:INT:=16;	(* Apple Talk *)
0024	SOCKET_AF_ROUTE:INT:=17;	(* Internal Routing Protocol *)
0025	SOCKET_AF_LINK:INT:=18;	(* Link layer interface *)
0026	SOCKET_pseudo_AF_XTP:INT:=19;	(* eXpress Transfer Protocol (no AF) *)
0027	SOCKET_AF_COIP:INT:=20;	(* connection-oriented IP, aka ST II *)
0028	SOCKET_AF_CNT:INT:=21;	(* Computer Network Technology *)
0029	SOCKET_pseudo_AF_RTIP:INT:=22;	(* Help Identify RTIP packets *)
0030	SOCKET_AF_IPX:INT:=23;	(* Novell Internet Protocol *)
0031	SOCKET_AF_SIP:INT:=24;	(* Simple Internet Protocol *)
0032	SOCKET_pseudo_AF_PIP:INT:=25;	(* Help Identify PIP packets *)
0033	SOCKET_AF_MAX:INT:=26;	
0034	SOCKET_AF_INET_BSD:INT:=100;	(* BSD-specific INET af *)
0035	SOCKET_AF_INET_STREAMS:INT:=101;	(* STREAMS-specific INET af *)
0036		
0037	(* Level number for (get/set)sockopt() to apply to socket itself. *)	
0038	SOCKET_SOL:WORD:=16#ffff;	
0039		
0040	(* Socket options *)	
0041	SOCKET_SO_DEBUG:DINT:=16#0001;	(* turn on debugging info recording *)
0042	SOCKET_SO_ACCEPTCONN:DINT:=16#0002;	(* socket has had listen() *)
0043	SOCKET_SO_REUSEADDR:DINT:=16#0004;	(* allow local address reuse *)
0044	SOCKET_SO_KEEPAIVE:DINT:=16#0008;	(* keep connections alive *)
0045	SOCKET_SO_DONTROUTE:DINT:=16#0010;	(* just use interface addresses *)
0046	SOCKET_SO_BROADCAST:DINT:=16#0020;	(* permit sending of broadcast msgs *)
0047	SOCKET_SO_USELOOPBACK:DINT:=16#0040;	(* bypass hardware when possible *)
0048	SOCKET_SO_LINGER:DINT:=16#0080;	(* linger on close if data present *)
0049	SOCKET_SO_OOBINLINE:DINT:=16#0100;	(* leave received OOB data in line *)
0050	SOCKET_SO_REUSEPORT:DINT:=16#0200;	(* allow local address & port reuse *)
0051	SOCKET_SO_SNDBUF:DINT:=16#1001;	(* send buffer size *)
0052	SOCKET_SO_RCVBUF:DINT:= 16#1002;	(* receive buffer size *)
0053	SOCKET_SO_SNDLOWAT:DINT:=16#1003;	(* send low-water mark *)
0054	SOCKET_SO_RCVLOWAT:DINT:=16#1004;	(* receive low-water mark *)
0055	SOCKET_SO_SNDTIMEO:DINT:=16#1005;	(* send timeout *)
0056	SOCKET_SO_RCVTIMEO:DINT:=16#1006;	(* receive timeout *)
0057	SOCKET_SO_ERROR:DINT:=16#1007;	(* get error status and clear *)
0058	SOCKET_SO_TYPE:DINT:=16#1008;	(* get socket type *)
0059	SOCKET_SO_PROTOCOL:DINT:=16#1009;	(* get/set protocol type *)
0060	(* TCP/IP socket options *)	
0061	SOCKET_TCP_NODELAY:DINT:=16#01;	(* don't delay send to coalesce packets *)
0062	SOCKET_TCP_MAXSEG:DINT:=16#02;	(* set maximum segment size *)
0063		
0064	(* Socket types *)	
0065	SOCKET_STREAM:DINT:=1;	(* stream socket *)
0066	SOCKET_DGRAM:DINT:=2;	(* datagram socket *)
0067	SOCKET_RAW:DINT:=3;	(* raw-protocol interface *)
0068	SOCKET_RDM:DINT:=4;	(* reliably-delivered message *)
0069	SOCKET_SEQPACKET:DINT:=5;	(* sequenced packet stream *)
0070		
0071	(* Inet address definitions *)	
0072	SOCKET_INADDR_ANY:UDINT:=16#00000000;	
0073	SOCKET_INADDR_LOOPBACK:UDINT:=16#7f000001;	
0074	SOCKET_INADDR_BROADCAST:UDINT:=16#ffffff;	
0075	SOCKET_INADDR_NONE:UDINT:=16#ffffff;	
0076		
0077	(* Protocols *)	
0078	SOCKET_IPPROTO_IP:DINT:=0;	(* dummy for IP *)
0079	SOCKET_IPPROTO_ICMP:DINT:=1;	(* control message protocol *)
0080	SOCKET_IPPROTO_IGMP:DINT:=2;	(* group management protocol *)
0081	SOCKET_IPPROTO_GGP:DINT:=3;	(* gateway^2 (deprecated) *)
0082	SOCKET_IPPROTO_TCP:DINT:=6;	(* tcp *)
0083	SOCKET_IPPROTO_PUP:DINT:=12;	(* pup *)
0084	SOCKET_IPPROTO_UDP:DINT:=17;	(* user datagram protocol *)
0085	SOCKET_IPPROTO_IDP:DINT:=22;	(* xns idp *)
0086	SOCKET_IPPROTO_ND:DINT:=77;	(* UNOFFICIAL net disk proto *)

0087	SOCKET_IPPROTO_RAW:DINT:=255; (* raw IP packet *)
0088	SOCKET_IPPROTO_MAX:DINT:=256;
0089	
0090	(* Flags *)
0091	SOCKET_MSG_OOB:DINT:=16#1; (* process out-of-band data *)
0092	SOCKET_MSG_PEEK:DINT:=16#2; (* peek at incoming message *)
0093	SOCKET_MSG_DONTROUTE:DINT:=16#4;(* send without using routing tables *)
0094	
0095	(* Ioctl commands *)
0096	SOCKET_FIONREAD:DINT:=1; (* get num chars available to read *)
0097	SOCKET_FIONBIO:DINT:=2; (* set to non-blocking *)
0098	
0099	(* For SysSockSelect() descriptors *)
0100	SOCKET_FD_SETSIZE :DINT := 64;
0101	MAX_SOCKET_FD_SETSIZE : DINT := 63;
0102	END_VAR

Globale\_Variablen

0001	VAR_GLOBAL
0002	END_VAR

Alarm configuration

<input type="checkbox"/>	Alarm configuration
<input type="checkbox"/>	Alarm classes
<input type="checkbox"/>	System

PLC Configuration

\*Hardware configuration (Id.: 20100000001)

Node number: -1  
Input address: %IB0  
Output address: %QB0  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1

\*K-Bus (\* WAGO 750-881 PFC ETHERNET \*) [FIX] (Id.: 11994)

Node number: 0  
Input address: %IB0  
Output address: %QB0  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1

\*0750-0459 4 AI 0-10V DC s.e.[VAR] (Id.: 2000008004)

Node number: 0  
Input address: %IB0  
Output address: %QB0  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1  
Parameter:  
  PAAssignment: PLC  
Channels:  
  AI\_PE101\_PIIY AT %IW0: WORD; (\* SINS.1 Branchline UHV pressure \*) [CHANNEL (I)]  
  AI\_PE201\_PIIY AT %IW1: WORD; (\* M201 UHV range pressure \*) [CHANNEL (I)]  
  AI\_PE202\_PIIY AT %IW2: WORD; (\* M202 UHV range pressure \*) [CHANNEL (I)]  
  AI\_SPARE04 AT %IW3: WORD; (\* Ch\_4 Input word \*) [CHANNEL (I)]

\*0750-0459 4 AI 0-10V DC s.e.[VAR] (Id.: 2000008004)

Node number: 1  
Input address: %IB1  
Output address: %QB1  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1  
Parameter:  
  PAAssignment: PLC  
Channels:  
  AI\_PE203\_HI\_PIIY AT %IW4: WORD; (\* FTR201 High range pressure \*) [CHANNEL (I)]  
  AI\_PE203\_LO\_PIIY AT %IW5: WORD; (\* FTR201 Low range pressure \*) [CHANNEL (I)]  
  AI\_PE211\_HI\_PIIY AT %IW6: WORD; (\* ES211 High range pressure \*) [CHANNEL (I)]  
  AI\_PE211\_LO\_PIIY AT %IW7: WORD; (\* ES211 Low range pressure \*) [CHANNEL (I)]

```
*0750-0459 4 AI 0-10V DC s.e.[VAR] (Id.: 2000008004)
Node number: 2
Input address: %IB2
Output address: %QB2
Diagnostic address: %MB0
Download: 1
AutoAdr: 1
Parameter:
  PAAssignment: PLC
Channels:
  AI_PE212_HI_PII AT %IW8: WORD; (* LL211 High range pressure *) [CHANNEL (I)]
  AI_PE212_LO_PII AT %IW9: WORD; (* LL211 Low range pressure *) [CHANNEL (I)]
  AI_SPARE11 AT %IW10: WORD; (* Ch_3 Input word *) [CHANNEL (I)]
  AI_SPARE12 AT %IW11: WORD; (* Ch_4 Input word *) [CHANNEL (I)]

*0750-0459 4 AI 0-10V DC s.e.[VAR] (Id.: 2000008004)
Node number: 3
Input address: %IB3
Output address: %QB3
Diagnostic address: %MB0
Download: 1
AutoAdr: 1
Parameter:
  PAAssignment: PLC
Channels:
  AI_SPARE13 AT %IW12: WORD; (* Ch_1 Input word *) [CHANNEL (I)]
  AI_SPARE14 AT %IW13: WORD; (* Ch_2 Input word *) [CHANNEL (I)]
  AI_SPARE15 AT %IW14: WORD; (* Ch_3 Input word *) [CHANNEL (I)]
  AI_SPARE16 AT %IW15: WORD; (* Ch_4 Input word *) [CHANNEL (I)]

*0750-0530 8 DO 24 V DC 0.5A[VAR] (Id.: 2000010008)
Node number: 4
Input address: %IB4
Output address: %QB4
Diagnostic address: %MB0
Download: 1
AutoAdr: 1
Parameter:
  PAAssignment: PLC
Channels:
  DO_RP2110_ON_CMD AT %QX0.0: BOOL; (* Ch_1 Digital output *) [CHANNEL (Q)]
  DO_RP2111_ON_CMD AT %QX0.1: BOOL; (* Ch_2 Digital output *) [CHANNEL (Q)]
  DO_V101_OPEN_CMD AT %QX0.2: BOOL; (* Ch_3 Digital output *) [CHANNEL (Q)]
  DO_V201_OPEN_CMD AT %QX0.3: BOOL; (* Ch_4 Digital output *) [CHANNEL (Q)]
  DO_V203_OPEN_CMD AT %QX0.4: BOOL; (* Ch_5 Digital output *) [CHANNEL (Q)]
  DO_V204_OPEN_CMD AT %QX0.5: BOOL; (* Ch_6 Digital output *) [CHANNEL (Q)]
  DO_TP201_ON_CMD AT %QX0.6: BOOL; (* Ch_7 Digital output *) [CHANNEL (Q)]
  DO_TP201_VENT_ENABLE_CMD AT %QX0.7: BOOL; (* Ch_8 Digital output *) [CHANNEL (Q)]

*0750-0530 8 DO 24 V DC 0.5A[VAR] (Id.: 2000010008)
Node number: 5
Input address: %IB5
Output address: %QB5
Diagnostic address: %MB0
Download: 1
AutoAdr: 1
Parameter:
  PAAssignment: PLC
Channels:
  DO_TP211_ON_CMD AT %QX0.8: BOOL; (* Ch_1 Digital output *) [CHANNEL (Q)]
  DO_TP211_OPEN_CMD AT %QX0.9: BOOL; (* Ch_2 Digital output *) [CHANNEL (Q)]
  DO_RPV211_OPEN_CMD AT %QX0.10: BOOL; (* Ch_3 Digital output *) [CHANNEL (Q)]
  DO_VENT211_SLOW_CMD AT %QX0.11: BOOL; (* Ch_4 Digital output *) [CHANNEL (Q)]
  DO_VENT211_FAST_CMD AT %QX0.12: BOOL; (* Ch_5 Digital output *) [CHANNEL (Q)]
  DO_SPARE_14 AT %QX0.13: BOOL; (* Ch_6 Digital output *) [CHANNEL (Q)]
  DO_SLOTV211_OPEN_CMD AT %QX0.14: BOOL; (* Ch_7 Digital output *) [CHANNEL (Q)]
  DO_SLOTV211_CLOSE_CMD AT %QX0.15: BOOL; (* Ch_8 Digital output *) [CHANNEL (Q)]

*0750-0530 8 DO 24 V DC 0.5A[VAR] (Id.: 2000010008)
Node number: 6
Input address: %IB6
Output address: %QB6
```



Diagnostic address: %MB0

Download: 1

AutoAdr: 1

Parameter:

PAAssignment: PLC

Channels:

DO\_TP212\_ON\_CMD AT %QX1.0: BOOL; (\* Ch\_1 Digital output \*) [CHANNEL (Q)]

DO\_TPV212\_OPEN\_CMD AT %QX1.1: BOOL; (\* Ch\_2 Digital output \*) [CHANNEL (Q)]

DO\_RPV212\_OPEN\_CMD AT %QX1.2: BOOL; (\* Ch\_3 Digital output \*) [CHANNEL (Q)]

DO\_VENT212\_SLOW\_CMD AT %QX1.3: BOOL; (\* Ch\_4 Digital output \*) [CHANNEL (Q)]

DO\_VENT212\_FAST\_CMD AT %QX1.4: BOOL; (\* Ch\_5 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_22 AT %QX1.5: BOOL; (\* Ch\_6 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_23 AT %QX1.6: BOOL; (\* Ch\_7 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_24 AT %QX1.7: BOOL; (\* Ch\_8 Digital output \*) [CHANNEL (Q)]

\*0750-0530 8 DO 24 V DC 0.5A[VAR] (Id.: 2000010008)

Node number: 7

Input address: %IB7

Output address: %QB7

Diagnostic address: %MB0

Download: 1

AutoAdr: 1

Parameter:

PAAssignment: PLC

Channels:

DO\_SPARE\_25 AT %QX1.8: BOOL; (\* Ch\_1 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_26 AT %QX1.9: BOOL; (\* Ch\_2 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_27 AT %QX1.10: BOOL; (\* Ch\_3 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_28 AT %QX1.11: BOOL; (\* Ch\_4 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_29 AT %QX1.12: BOOL; (\* Ch\_5 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_30 AT %QX1.13: BOOL; (\* Ch\_6 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_31 AT %QX1.14: BOOL; (\* Ch\_7 Digital output \*) [CHANNEL (Q)]

DO\_SPARE\_32 AT %QX1.15: BOOL; (\* Ch\_8 Digital output \*) [CHANNEL (Q)]

\*0750-0430 8 DI 24 V DC 3.0ms[VAR] (Id.: 2000001008)

Node number: 8

Input address: %IB8

Output address: %QB8

Diagnostic address: %MB0

Download: 1

AutoAdr: 1

Parameter:

PAAssignment: PLC

Channels:

DI\_PE101\_PSL\_LO AT %IX16.0: BOOL; (\* Ch\_1 Digital input \*) [CHANNEL (I)]

DI\_PE201\_PSL\_LO AT %IX16.1: BOOL; (\* Ch\_2 Digital input \*) [CHANNEL (I)]

DI\_PE202\_PSL\_LO AT %IX16.2: BOOL; (\* Ch\_3 Digital input \*) [CHANNEL (I)]

DI\_SPARE\_04 AT %IX16.3: BOOL; (\* Ch\_4 Digital input \*) [CHANNEL (I)]

DI\_RP2110\_ON AT %IX16.4: BOOL; (\* Ch\_5 Digital input \*) [CHANNEL (I)]

DI\_RP2111\_ON AT %IX16.5: BOOL; (\* Ch\_6 Digital input \*) [CHANNEL (I)]

DI\_PE2110\_PSL AT %IX16.6: BOOL; (\* Ch\_7 Digital input \*) [CHANNEL (I)]

DI\_PE2111\_PSL AT %IX16.7: BOOL; (\* Ch\_8 Digital input \*) [CHANNEL (I)]

\*0750-0430 8 DI 24 V DC 3.0ms[VAR] (Id.: 2000001008)

Node number: 9

Input address: %IB9

Output address: %QB9

Diagnostic address: %MB0

Download: 1

AutoAdr: 1

Parameter:

PAAssignment: PLC

Channels:

DI\_PE203\_PIIY\_OK AT %IX16.8: BOOL; (\* Ch\_1 Digital input \*) [CHANNEL (I)]

DI\_PE211\_PIIY\_OK AT %IX16.9: BOOL; (\* Ch\_2 Digital input \*) [CHANNEL (I)]

DI\_PE212\_PIIY\_OK AT %IX16.10: BOOL; (\* Ch\_3 Digital input \*) [CHANNEL (I)]

DI\_SPARE\_12 AT %IX16.11: BOOL; (\* Ch\_4 Digital input \*) [CHANNEL (I)]

DI\_PE203\_PSL\_HI AT %IX16.12: BOOL; (\* Ch\_5 Digital input \*) [CHANNEL (I)]

DI\_PE203\_PSL\_MIDHI AT %IX16.13: BOOL; (\* Ch\_6 Digital input \*) [CHANNEL (I)]

DI\_PE203\_PSL\_MIDLO AT %IX16.14: BOOL; (\* Ch\_7 Digital input \*) [CHANNEL (I)]

DI\_PE203\_PSL\_LO AT %IX16.15: BOOL; (\* Ch\_8 Digital input \*) [CHANNEL (I)]

\*0750-0430 8 DI 24 V DC 3.0ms[VAR] (Id.: 2000001008)

Node number: 10  
Input address: %IB10  
Output address: %QB10  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1  
Parameter:  
    PAAssignment: PLC

Channels:

DI\_PE211\_PSL\_HI AT %IX17.0: BOOL; (\* Ch\_1 Digital input \*) [CHANNEL (I)]  
DI\_PE211\_PSL\_MIDHI AT %IX17.1: BOOL; (\* Ch\_2 Digital input \*) [CHANNEL (I)]  
DI\_PE211\_PSL\_MIDLO AT %IX17.2: BOOL; (\* Ch\_3 Digital input \*) [CHANNEL (I)]  
DI\_PE211\_PSL\_LO AT %IX17.3: BOOL; (\* Ch\_4 Digital input \*) [CHANNEL (I)]  
DI\_PE212\_PSL\_HI AT %IX17.4: BOOL; (\* Ch\_5 Digital input \*) [CHANNEL (I)]  
DI\_PE212\_PSL\_MIDHI AT %IX17.5: BOOL; (\* Ch\_6 Digital input \*) [CHANNEL (I)]  
DI\_PE212\_PSL\_MIDLO AT %IX17.6: BOOL; (\* Ch\_7 Digital input \*) [CHANNEL (I)]  
DI\_PE212\_PSL\_LO AT %IX17.7: BOOL; (\* Ch\_8 Digital input \*) [CHANNEL (I)]

\*0750-0430 8 DI 24 V DC 3.0ms[VAR] (Id.: 2000001008)

Node number: 11  
Input address: %IB11  
Output address: %QB11  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1  
Parameter:  
    PAAssignment: PLC

Channels:

DI\_V100\_OPEN AT %IX17.8: BOOL; (\* Ch\_1 Digital input \*) [CHANNEL (I)]  
DI\_V100\_CLOSED AT %IX17.9: BOOL; (\* Ch\_2 Digital input \*) [CHANNEL (I)]  
DI\_V101\_OPEN AT %IX17.10: BOOL; (\* Ch\_3 Digital input \*) [CHANNEL (I)]  
DI\_V101\_CLOSED AT %IX17.11: BOOL; (\* Ch\_4 Digital input \*) [CHANNEL (I)]  
DI\_V201\_OPEN AT %IX17.12: BOOL; (\* Ch\_5 Digital input \*) [CHANNEL (I)]  
DI\_V201\_CLOSED AT %IX17.13: BOOL; (\* Ch\_6 Digital input \*) [CHANNEL (I)]  
DI\_V202\_OPEN AT %IX17.14: BOOL; (\* Ch\_7 Digital input \*) [CHANNEL (I)]  
DI\_V202\_CLOSED AT %IX17.15: BOOL; (\* Ch\_8 Digital input \*) [CHANNEL (I)]

\*0750-0430 8 DI 24 V DC 3.0ms[VAR] (Id.: 2000001008)

Node number: 12  
Input address: %IB12  
Output address: %QB12  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1  
Parameter:  
    PAAssignment: PLC

Channels:

DI\_V203\_OPEN AT %IX18.0: BOOL; (\* Ch\_1 Digital input \*) [CHANNEL (I)]  
DI\_V203\_CLOSED AT %IX18.1: BOOL; (\* Ch\_2 Digital input \*) [CHANNEL (I)]  
DI\_V204\_OPEN AT %IX18.2: BOOL; (\* Ch\_3 Digital input \*) [CHANNEL (I)]  
DI\_V204\_CLOSED AT %IX18.3: BOOL; (\* Ch\_4 Digital input \*) [CHANNEL (I)]  
DI\_TP201\_TURBO\_OK AT %IX18.4: BOOL; (\* Ch\_5 Digital input \*) [CHANNEL (I)]  
DI\_TP201\_AT\_SPEED AT %IX18.5: BOOL; (\* Ch\_6 Digital input \*) [CHANNEL (I)]  
DI\_RPV211\_OPEN AT %IX18.6: BOOL; (\* Ch\_7 Digital input \*) [CHANNEL (I)]  
DI\_RPV211\_CLOSED AT %IX18.7: BOOL; (\* Ch\_8 Digital input \*) [CHANNEL (I)]

\*0750-0430 8 DI 24 V DC 3.0ms[VAR] (Id.: 2000001008)

Node number: 13  
Input address: %IB13  
Output address: %QB13  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1  
Parameter:  
    PAAssignment: PLC

Channels:

DI\_TPV211\_OPEN AT %IX18.8: BOOL; (\* Ch\_1 Digital input \*) [CHANNEL (I)]  
DI\_TPV211\_CLOSED AT %IX18.9: BOOL; (\* Ch\_2 Digital input \*) [CHANNEL (I)]  
DI\_RPV212\_OPEN AT %IX18.10: BOOL; (\* Ch\_3 Digital input \*) [CHANNEL (I)]  
DI\_RPV212\_CLOSED AT %IX18.11: BOOL; (\* Ch\_4 Digital input \*) [CHANNEL (I)]  
DI\_TPV212\_OPEN AT %IX18.12: BOOL; (\* Ch\_5 Digital input \*) [CHANNEL (I)]  
DI\_TPV212\_CLOSED AT %IX18.13: BOOL; (\* Ch\_6 Digital input \*) [CHANNEL (I)]  
DI\_TP211\_AT\_SPEED AT %IX18.14: BOOL; (\* Ch\_7 Digital input \*) [CHANNEL (I)]

DI\_TP211\_TURBO\_OK AT %IX18.15: BOOL; (\* Ch\_8 Digital input \*) [CHANNEL (I)]

\*0750-0430 8 DI 24 V DC 3.0ms[VAR] (Id.: 2000001008)

Node number: 14  
Input address: %IB14  
Output address: %QB14  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1  
Parameter:  
    PAssignment: PLC

Channels:

DI\_TP212\_AT\_SPEED AT %IX19.0: BOOL; (\* Ch\_1 Digital input \*) [CHANNEL (I)]  
DI\_TP212\_TURBO\_OK AT %IX19.1: BOOL; (\* Ch\_2 Digital input \*) [CHANNEL (I)]  
DI\_SLOTV211\_OPEN AT %IX19.2: BOOL; (\* Ch\_3 Digital input \*) [CHANNEL (I)]  
DI\_SLOTV211\_CLOSED AT %IX19.3: BOOL; (\* Ch\_4 Digital input \*) [CHANNEL (I)]  
DI\_LL211\_LID\_CLOSED AT %IX19.4: BOOL; (\* Ch\_5 Digital input \*) [CHANNEL (I)]  
DI\_LL211\_ARM\_RETRACTED AT %IX19.5: BOOL; (\* Ch\_6 Digital input \*) [CHANNEL (I)]  
DI\_SPARE\_55 AT %IX19.6: BOOL; (\* Ch\_7 Digital input \*) [CHANNEL (I)]  
DI\_SPARE\_56 AT %IX19.7: BOOL; (\* Ch\_8 Digital input \*) [CHANNEL (I)]

\*0750-0430 8 DI 24 V DC 3.0ms[VAR] (Id.: 2000001008)

Node number: 15  
Input address: %IB15  
Output address: %QB15  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1  
Parameter:  
    PAssignment: PLC

Channels:

DI\_SPARE\_57 AT %IX19.8: BOOL; (\* Ch\_1 Digital input \*) [CHANNEL (I)]  
DI\_SPARE\_58 AT %IX19.9: BOOL; (\* Ch\_2 Digital input \*) [CHANNEL (I)]  
DI\_SPARE\_59 AT %IX19.10: BOOL; (\* Ch\_3 Digital input \*) [CHANNEL (I)]  
DI\_SPARE\_60 AT %IX19.11: BOOL; (\* Ch\_4 Digital input \*) [CHANNEL (I)]  
DI\_SPARE\_61 AT %IX19.12: BOOL; (\* Ch\_5 Digital input \*) [CHANNEL (I)]  
DI\_SPARE\_62 AT %IX19.13: BOOL; (\* Ch\_6 Digital input \*) [CHANNEL (I)]  
DI\_SPARE\_63 AT %IX19.14: BOOL; (\* Ch\_7 Digital input \*) [CHANNEL (I)]  
DI\_SPARE\_64 AT %IX19.15: BOOL; (\* Ch\_8 Digital input \*) [CHANNEL (I)]

\*Fieldbus variables[FIX] (Id.: 2010310001)

Node number: 1  
Input address: %IB0  
Output address: %QB0  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1

\*Flag variables[FIX] (Id.: 2010320001)

Node number: 2  
Input address: %IB0  
Output address: %QB0  
Diagnostic address: %MB0  
Download: 1  
AutoAdr: 1

Sampling Trace

No trace loaded

Task configuration

☐ Task configuration  
    ├── System events  
    ├── ☐ Main (PRIORITY := 1, INTERVAL := T#15ms  
        └── PLC\_PRG();  
    ├── ☐ IAI (PRIORITY := 3, INTERVAL := T#100ms  
        └── Actuator\_SM();

Watch- and Recipe Manager

Workspace

Parameter Manager

0001	Parameter-Manager
0002	=====

xDataReady		
ACTUATOR_SM (23)		Local Read
ACTUATOR_SM (50)		Local Read
ACTUATOR_SM (59)		Local Read
ACTUATOR_SM (67)		Local Read
ACTUATOR_SM (76)		Local Read
ACTUATOR_SM (85)		Local Read
ACTUATOR_SM (92)		Local Read
ACTUATOR_SM (105)		Local Read
ACTUATOR_SM (122)		Local Read
ACTUATOR_SM (130)		Local Read
ACTUATOR_SM.DRG1_W... (34)		Local Write
ACTUATOR_SM.DRG1_W... (38)		Local Write
ACTUATOR_SM.DRG1_W... (40)		Local Write
ACTUATOR_SM.PCMD_W... (35)		Local Write
ACTUATOR_SM.PCMD_W... (39)		Local Write
ACTUATOR_SM.PCMD_W... (41)		Local Write
ACTUATOR_SM.STATUS... (34)		Local Write
ACTUATOR_SM.STATUS... (41)		Local Write
ACTUATOR_SM.STATUS... (43)		Local Write
ACTUATORinit (11)		Local Write
xSend		
ACTUATOR_SM.CONNECT (9)		Local Write
ACTUATOR_SM.CONNECT (25)		Local Read
ACTUATOR_SM.DRG1_W... (7)		Local Write
ACTUATOR_SM.DRG1_W... (26)		Local Read
ACTUATOR_SM.DRG1_W... (36)		Local Read
ACTUATOR_SM.PCMD_W... (8)		Local Write
ACTUATOR_SM.PCMD_W... (27)		Local Read
ACTUATOR_SM.PCMD_W... (37)		Local Read
ACTUATOR_SM.STATUS... (7)		Local Write
ACTUATOR_SM.STATUS... (26)		Local Read
ACTUATOR_SM.STATUS... (36)		Local Read
ACTUATORinit (9)		Local Write
xConnect		
ACTUATOR_SM (5)		Local Write
ACTUATOR_SM (10)		Local Write
ACTUATOR_SM (145)		Local Write
ACTUATOR_SM.CONNECT (6)		Local Read
ACTUATOR_SM.CONNECT (31)		Local Write
ACTUATOR_SM.DRG1_W... (32)		Local Write
ACTUATOR_SM.PCMD_W... (33)		Local Write
ACTUATOR_SM.STATUS... (32)		Local Write
ACTUATORinit (8)		Local Write
wActuatorTarget		
ACTUATOR_SM (107)		Global Read
ACTUATOR_SM.PCMD_W... (6)		Global Read
_global_init (1)		Global Write
PLC_PRG.ACTUATOR_O... (4)		Global Write
xBusy		
ACTUATOR_SM (17)		Local Write
ACTUATOR_SM.DRG1_W... (5)		Local Read
ACTUATOR_SM.DRG1_W... (6)		Local Write
ACTUATOR_SM.DRG1_W... (33)		Local Write
ACTUATOR_SM.DRG1_W... (37)		Local Write
ACTUATOR_SM.PCMD_W... (5)		Local Read
ACTUATOR_SM.PCMD_W... (7)		Local Write
ACTUATOR_SM.PCMD_W... (34)		Local Write
ACTUATOR_SM.PCMD_W... (38)		Local Write
ACTUATOR_SM.STATUS... (5)		Local Read
ACTUATOR_SM.STATUS... (6)		Local Write
ACTUATOR_SM.STATUS... (33)		Local Write
ACTUATOR_SM.STATUS... (40)		Local Write
ACTUATORinit (10)		Local Write
wActuatorStatus		
ACTUATOR_SM.STATUS... (39)		Global Write
_global_init (2)		Global Write
PLC_PRG.ACTUATOR_I... (3)		Global Read
xActuatorReady		
ACTUATOR_SM (4)		Global Write
ACTUATOR_SM (110)		Global Write
ACTUATOR_SM (115)		Global Write

_global_init (1)	Global Write
PLC_PRG.ACTUATOR_I... (5)	Global Read
wActuatorPosition	
ACTUATOR_SM (107)	Global Read
ACTUATOR_SM.STATUS... (37)	Global Write
_global_init (3)	Global Write
PLC_PRG.ACTUATOR_I... (7)	Global Read
VPV212_OPN	
_global_init (211)	Local Write
PLC_PRG.PROCESS_IN... (64)	Local Write
PLC_PRG.PROCESS_IN... (65)	Local Read
wTarget	
ACTUATOR_SM.PCMD_W... (6)	Local Write
ACTUATOR_SM.PCMD_W... (27)	Local Read
ACTUATORinit (5)	Local Write
wActuatorAlarm	
ACTUATOR_SM.STATUS... (38)	Global Write
_global_init (4)	Global Write
VPV211_SLOW_OPN_REQ_ES	
_global_init (257)	Local Write
_global_init (258)	Local Write
PLC_PRG.ES_SM (14)	Local Write
PLC_PRG.ES_SM (28)	Local Write
PLC_PRG.ES_SM (42)	Local Write
PLC_PRG.ES_SM (60)	Local Write
PLC_PRG.ES_SM (78)	Local Write
PLC_PRG.ES_SM (96)	Local Write
PLC_PRG.ES_SM (114)	Local Write
PLC_PRG.ES_SM (133)	Local Write
PLC_PRG.ES_SM (151)	Local Write
PLC_PRG.ES_SM (172)	Local Write
PLC_PRG.ES_SM (192)	Local Write
PLC_PRG.VALVES (57)	Local Read
PLC_PRG.VALVES (58)	Local Read
V100_OPN	
_global_init (191)	Local Write
PLC_PRG.BYPASSES (12)	Local Write
PLC_PRG.PROCESS_IN... (30)	Local Write
PLC_PRG.SC_OUTPUTS (37)	Local Read
wState	
ACTUATOR_SM (3)	Local Read
ACTUATOR_SM (7)	Local Write
ACTUATOR_SM (9)	Local Read
ACTUATOR_SM (12)	Local Write
ACTUATOR_SM (14)	Local Read
ACTUATOR_SM (18)	Local Write
ACTUATOR_SM (21)	Local Read
ACTUATOR_SM (27)	Local Write
ACTUATOR_SM (31)	Local Write
ACTUATOR_SM (35)	Local Write
ACTUATOR_SM (39)	Local Write
ACTUATOR_SM (42)	Local Write
ACTUATOR_SM (46)	Local Read
ACTUATOR_SM (52)	Local Write
ACTUATOR_SM (55)	Local Read
ACTUATOR_SM (61)	Local Write
ACTUATOR_SM (64)	Local Read
ACTUATOR_SM (69)	Local Write
ACTUATOR_SM (72)	Local Read
ACTUATOR_SM (78)	Local Write
ACTUATOR_SM (81)	Local Read
ACTUATOR_SM (87)	Local Write
ACTUATOR_SM (90)	Local Read
ACTUATOR_SM (96)	Local Write
ACTUATOR_SM (99)	Local Write
ACTUATOR_SM (103)	Local Read
ACTUATOR_SM (111)	Local Write
ACTUATOR_SM (116)	Local Write
ACTUATOR_SM (120)	Local Read
ACTUATOR_SM (125)	Local Write
ACTUATOR_SM (128)	Local Read
ACTUATOR_SM (136)	Local Write
ACTUATOR_SM (140)	Local Write

ACTUATOR_SM (146)	Local Write
ACTUATOR_SM.CONNECT (32)	Local Write
ACTUATOR_SM.DRG1_W... (35)	Local Write
ACTUATOR_SM.PCMD_W... (36)	Local Write
ACTUATOR_SM.STATUS... (35)	Local Write
ACTUATORinit (12)	Local Write
VPV212_SLOW_OPN_REQ_LL	
_global_init (269)	Local Write
_global_init (270)	Local Write
PLC_PRG.LL_SM (14)	Local Write
PLC_PRG.LL_SM (27)	Local Write
PLC_PRG.LL_SM (40)	Local Write
PLC_PRG.LL_SM (57)	Local Write
PLC_PRG.LL_SM (74)	Local Write
PLC_PRG.LL_SM (91)	Local Write
PLC_PRG.LL_SM (108)	Local Write
PLC_PRG.LL_SM (126)	Local Write
PLC_PRG.LL_SM (143)	Local Write
PLC_PRG.LL_SM (163)	Local Write
PLC_PRG.LL_SM (182)	Local Write
PLC_PRG.VALVES (89)	Local Read
PLC_PRG.VALVES (90)	Local Read
VPV212_SLOW_CLS_REQ_LL	
_global_init (270)	Local Write
_global_init (271)	Local Write
VPV212_SLOW	
_global_init (303)	Local Read
_global_init (304)	Local Read
PLC_PRG.PROCESS_OU... (24)	Local Read
PLC_PRG.SC_OUTPUTS (99)	Local Read
PLC_PRG.VALVES (86)	Local Write
PLC_PRG.VALVES (87)	Local Write
PLC_PRG.VALVES (88)	Local Write
PLC_PRG.VALVES (89)	Local Write
PLC_PRG.VALVES (90)	Local Write
PLC_PRG.VALVES (91)	Local Read
VPV211_SLOW_CLS_REQ_ES	
_global_init (258)	Local Write
_global_init (259)	Local Write
SC_VERSION_MAJOR%MW1280	
_global_init (147)	Local Write
PLC_PRG.SC_OUTPUTS (156)	Local Write
SC_VENT212_SLOW_CMD%MX8.11	
_global_init (90)	Local Write
PLC_PRG.SC_OUTPUTS (99)	Local Write
uiSuccessful	
ACTUATOR_SM (134)	Local Read
ACTUATOR_SM (134)	Local Write
_global_init (7)	Local Write
SC_VENT211_SLOW_CMD%MX6.11	
_global_init (75)	Local Write
PLC_PRG.SC_OUTPUTS (80)	Local Write
SC_V203_OPN_REQ%MX641.6	
_global_init (137)	Local Write
PLC_PRG.CLEAR_REQS (11)	Local Write
PLC_PRG.SC_INPUTS (11)	Local Read
tTCP_Watchdog	
ACTUATOR_SM.CONNECT (25)	Local Read
ACTUATOR_SM.DRG1_W... (26)	Local Read
ACTUATOR_SM.PCMD_W... (27)	Local Read
ACTUATOR_SM.STATUS... (26)	Local Read
_global_init (5)	Local Write
SC_V203_OPEN_CMD%MX5.5	
_global_init (63)	Local Write
PLC_PRG.SC_OUTPUTS (65)	Local Write
wPort	
ACTUATOR_SM.CONNECT (25)	Local Read
ACTUATOR_SM.DRG1_W... (26)	Local Read
ACTUATOR_SM.PCMD_W... (27)	Local Read
ACTUATOR_SM.STATUS... (26)	Local Read
_global_init (2)	Local Write
VPV212_FAST_CLS_REQ_LL	
_global_init (272)	Local Write

_global_init (273)	Local Write
VPV212_FAST	
_global_init (304)	Local Read
_global_init (305)	Local Read
PLC_PRG.PROCESS_OU... (25)	Local Read
PLC_PRG.SC_OUTPUTS (100)	Local Read
PLC_PRG.VALVES (94)	Local Write
PLC_PRG.VALVES (95)	Local Write
PLC_PRG.VALVES (96)	Local Write
PLC_PRG.VALVES (97)	Local Write
PLC_PRG.VALVES (98)	Local Write
PLC_PRG.VALVES (99)	Local Read
VPV212_FAST_OPN_REQ_LL	
_global_init (271)	Local Write
_global_init (272)	Local Write
PLC_PRG.LL_SM (15)	Local Write
PLC_PRG.LL_SM (28)	Local Write
PLC_PRG.LL_SM (41)	Local Write
PLC_PRG.LL_SM (58)	Local Write
PLC_PRG.LL_SM (75)	Local Write
PLC_PRG.LL_SM (92)	Local Write
PLC_PRG.LL_SM (109)	Local Write
PLC_PRG.LL_SM (127)	Local Write
PLC_PRG.LL_SM (144)	Local Write
PLC_PRG.LL_SM (164)	Local Write
PLC_PRG.LL_SM (183)	Local Write
PLC_PRG.VALVES (97)	Local Read
PLC_PRG.VALVES (98)	Local Read
VPV212_CSD	
_global_init (212)	Local Write
PLC_PRG.PROCESS_IN... (65)	Local Write
PLC_PRG.VALVES (102)	Local Read
VPV211_SLOW	
_global_init (298)	Local Read
_global_init (299)	Local Read
PLC_PRG.PROCESS_OU... (15)	Local Read
PLC_PRG.SC_OUTPUTS (80)	Local Read
PLC_PRG.VALVES (54)	Local Write
PLC_PRG.VALVES (55)	Local Write
PLC_PRG.VALVES (56)	Local Write
PLC_PRG.VALVES (57)	Local Write
PLC_PRG.VALVES (58)	Local Write
PLC_PRG.VALVES (59)	Local Read
VPV211_CSD	
_global_init (204)	Local Write
PLC_PRG.PROCESS_IN... (53)	Local Write
PLC_PRG.VALVES (70)	Local Read
VPV211_OPN	
_global_init (203)	Local Write
PLC_PRG.PROCESS_IN... (52)	Local Write
PLC_PRG.PROCESS_IN... (53)	Local Read
VPV211_FAST_CLS_REQ_ES	
_global_init (260)	Local Write
_global_init (261)	Local Write
VPV211_FAST	
_global_init (299)	Local Read
_global_init (300)	Local Read
PLC_PRG.PROCESS_OU... (16)	Local Read
PLC_PRG.SC_OUTPUTS (81)	Local Read
PLC_PRG.VALVES (62)	Local Write
PLC_PRG.VALVES (63)	Local Write
PLC_PRG.VALVES (64)	Local Write
PLC_PRG.VALVES (65)	Local Write
PLC_PRG.VALVES (66)	Local Write
PLC_PRG.VALVES (67)	Local Read
VPV211_FAST_OPN_REQ_ES	
_global_init (259)	Local Write
_global_init (260)	Local Write
PLC_PRG.ES_SM (15)	Local Write
PLC_PRG.ES_SM (29)	Local Write
PLC_PRG.ES_SM (43)	Local Write
PLC_PRG.ES_SM (61)	Local Write
PLC_PRG.ES_SM (79)	Local Write

	PLC_PRG.ES_SM (97)	Local Write
	PLC_PRG.ES_SM (115)	Local Write
	PLC_PRG.ES_SM (134)	Local Write
	PLC_PRG.ES_SM (152)	Local Write
	PLC_PRG.ES_SM (173)	Local Write
	PLC_PRG.ES_SM (193)	Local Write
	PLC_PRG.VALVES (65)	Local Read
	PLC_PRG.VALVES (66)	Local Read
VPV201		
	_global_init (297)	Local Read
	_global_init (298)	Local Read
	PLC_PRG.PROCESS_OU... (10)	Local Read
	PLC_PRG.SC_OUTPUTS (112)	Local Read
	PLC_PRG.SC_OUTPUTS (113)	Local Read
	PLC_PRG.VALVES (28)	Local Write
	PLC_PRG.VALVES (29)	Local Write
	PLC_PRG.VALVES (30)	Local Write
	PLC_PRG.VALVES (31)	Local Write
	PLC_PRG.VALVES (32)	Local Write
	PLC_PRG.VALVES (33)	Local Read
V204_OPN_REQ_SC		
	_global_init (254)	Local Write
	_global_init (255)	Local Write
	PLC_PRG.SC_INPUTS (13)	Local Write
	PLC_PRG.VALVES (39)	Local Read
V204_CSD		
	_global_init (202)	Local Write
	PLC_PRG.ES_SM (33)	Local Read
	PLC_PRG.PROCESS_IN... (46)	Local Write
	PLC_PRG.PUMPS (16)	Local Read
	PLC_PRG.SC_OUTPUTS (68)	Local Read
	PLC_PRG.SC_OUTPUTS (70)	Local Read
	PLC_PRG.VALVES (28)	Local Read
	PLC_PRG.VALVES (46)	Local Read
	PLC_PRG.VALVES (54)	Local Read
	PLC_PRG.VALVES (62)	Local Read
	PLC_PRG.VALVES (70)	Local Read
	PLC_PRG.VALVES (80)	Local Read
V203_OPN_REQ_SC		
	_global_init (252)	Local Write
	_global_init (253)	Local Write
	PLC_PRG.SC_INPUTS (11)	Local Write
	PLC_PRG.VALVES (23)	Local Read
V204_OPN		
	_global_init (201)	Local Write
	PLC_PRG.PROCESS_IN... (45)	Local Write
	PLC_PRG.SC_OUTPUTS (69)	Local Read
V204_CLS_REQ_ES		
	_global_init (256)	Local Write
	_global_init (257)	Local Write
	PLC_PRG.ES_SM (10)	Local Write
	PLC_PRG.ES_SM (24)	Local Write
	PLC_PRG.ES_SM (38)	Local Write
	PLC_PRG.ES_SM (56)	Local Write
	PLC_PRG.ES_SM (74)	Local Write
	PLC_PRG.ES_SM (92)	Local Write
	PLC_PRG.ES_SM (110)	Local Write
	PLC_PRG.ES_SM (129)	Local Write
	PLC_PRG.ES_SM (147)	Local Write
	PLC_PRG.ES_SM (168)	Local Write
	PLC_PRG.ES_SM (188)	Local Write
	PLC_PRG.VALVES (40)	Local Read
V204		
	_global_init (296)	Local Read
	_global_init (297)	Local Read
	PLC_PRG.PROCESS_OU... (8)	Local Read
	PLC_PRG.SC_OUTPUTS (71)	Local Read
	PLC_PRG.SC_OUTPUTS (72)	Local Read
	PLC_PRG.SC_OUTPUTS (73)	Local Read
	PLC_PRG.SC_OUTPUTS (74)	Local Read
	PLC_PRG.VALVES (36)	Local Write
	PLC_PRG.VALVES (37)	Local Write
	PLC_PRG.VALVES (38)	Local Write



	PLC_PRG.VALVES (39)	Local Write
	PLC_PRG.VALVES (40)	Local Write
	PLC_PRG.VALVES (41)	Local Read
V204_CLS_REQ_SC		
	_global_init (255)	Local Write
	_global_init (256)	Local Write
	PLC_PRG.SC_INPUTS (14)	Local Write
	PLC_PRG.VALVES (40)	Local Read
V203_CSD		
	_global_init (200)	Local Write
	PLC_PRG.BYPASSES (25)	Local Write
	PLC_PRG.PROCESS_IN... (43)	Local Write
	PLC_PRG.PUMPS (16)	Local Read
	PLC_PRG.SC_OUTPUTS (60)	Local Read
	PLC_PRG.SC_OUTPUTS (62)	Local Read
	PLC_PRG.VALVES (28)	Local Read
V203_OPN		
	_global_init (199)	Local Write
	PLC_PRG.BYPASSES (24)	Local Write
	PLC_PRG.PROCESS_IN... (42)	Local Write
	PLC_PRG.SC_OUTPUTS (61)	Local Read
V203		
	_global_init (295)	Local Read
	_global_init (296)	Local Read
	PLC_PRG.PROCESS_OU... (7)	Local Read
	PLC_PRG.SC_OUTPUTS (63)	Local Read
	PLC_PRG.SC_OUTPUTS (64)	Local Read
	PLC_PRG.SC_OUTPUTS (65)	Local Read
	PLC_PRG.SC_OUTPUTS (66)	Local Read
	PLC_PRG.VALVES (20)	Local Write
	PLC_PRG.VALVES (21)	Local Write
	PLC_PRG.VALVES (22)	Local Write
	PLC_PRG.VALVES (23)	Local Write
	PLC_PRG.VALVES (24)	Local Write
	PLC_PRG.VALVES (25)	Local Read
V203_CLS_REQ_SC		
	_global_init (253)	Local Write
	_global_init (254)	Local Write
	PLC_PRG.SC_INPUTS (12)	Local Write
	PLC_PRG.VALVES (24)	Local Read
V202_OPN		
	_global_init (197)	Local Write
	PLC_PRG.BYPASSES (21)	Local Write
	PLC_PRG.FAULT_LOGIC (6)	Local Read
	PLC_PRG.FAULT_LOGIC (37)	Local Read
	PLC_PRG.PROCESS_IN... (39)	Local Write
	PLC_PRG.SC_OUTPUTS (56)	Local Read
V202_CSD		
	_global_init (198)	Local Write
	PLC_PRG.BYPASSES (22)	Local Write
	PLC_PRG.PROCESS_IN... (40)	Local Write
	PLC_PRG.SC_OUTPUTS (57)	Local Read
	PLC_PRG.SC_OUTPUTS (58)	Local Read
V201_OPN_REQ_SC		
	_global_init (250)	Local Write
	_global_init (251)	Local Write
	PLC_PRG.SC_INPUTS (9)	Local Write
	PLC_PRG.VALVES (15)	Local Read
V201_OPN		
	_global_init (195)	Local Write
	PLC_PRG.BYPASSES (18)	Local Write
	PLC_PRG.PROCESS_IN... (36)	Local Write
	PLC_PRG.SC_OUTPUTS (49)	Local Read
V201_CLS_REQ_SC		
	_global_init (251)	Local Write
	_global_init (252)	Local Write
	PLC_PRG.SC_INPUTS (10)	Local Write
	PLC_PRG.VALVES (16)	Local Read
V201		
	_global_init (294)	Local Read
	_global_init (295)	Local Read
	PLC_PRG.PROCESS_OU... (6)	Local Read
	PLC_PRG.SC_OUTPUTS (51)	Local Read

PLC_PRG.SC_OUTPUTS (52)	Local Read
PLC_PRG.SC_OUTPUTS (53)	Local Read
PLC_PRG.SC_OUTPUTS (54)	Local Read
PLC_PRG.VALVES (12)	Local Write
PLC_PRG.VALVES (13)	Local Write
PLC_PRG.VALVES (14)	Local Write
PLC_PRG.VALVES (15)	Local Write
PLC_PRG.VALVES (16)	Local Write
PLC_PRG.VALVES (17)	Local Read
V201_CSD	
_global_init (196)	Local Write
PLC_PRG.BYPASSES (19)	Local Write
PLC_PRG.PROCESS_IN... (37)	Local Write
PLC_PRG.SC_OUTPUTS (48)	Local Read
PLC_PRG.SC_OUTPUTS (50)	Local Read
V101_OPN_REQ_SC	
_global_init (248)	Local Write
_global_init (249)	Local Write
PLC_PRG.SC_INPUTS (7)	Local Write
PLC_PRG.VALVES (7)	Local Read
V101_OPN	
_global_init (193)	Local Write
PLC_PRG.BYPASSES (15)	Local Write
PLC_PRG.PROCESS_IN... (33)	Local Write
PLC_PRG.SC_OUTPUTS (41)	Local Read
V101_CSD	
_global_init (194)	Local Write
PLC_PRG.BYPASSES (16)	Local Write
PLC_PRG.PROCESS_IN... (34)	Local Write
PLC_PRG.SC_OUTPUTS (40)	Local Read
PLC_PRG.SC_OUTPUTS (42)	Local Read
V101	
_global_init (293)	Local Read
_global_init (294)	Local Read
PLC_PRG.PROCESS_OU... (5)	Local Read
PLC_PRG.SC_OUTPUTS (43)	Local Read
PLC_PRG.SC_OUTPUTS (44)	Local Read
PLC_PRG.SC_OUTPUTS (45)	Local Read
PLC_PRG.SC_OUTPUTS (46)	Local Read
PLC_PRG.VALVES (4)	Local Write
PLC_PRG.VALVES (5)	Local Write
PLC_PRG.VALVES (6)	Local Write
PLC_PRG.VALVES (7)	Local Write
PLC_PRG.VALVES (8)	Local Write
PLC_PRG.VALVES (9)	Local Read
V101_CLS_REQ_SC	
_global_init (249)	Local Write
_global_init (250)	Local Write
PLC_PRG.SC_INPUTS (8)	Local Write
PLC_PRG.VALVES (8)	Local Read
V100_CSD	
_global_init (192)	Local Write
PLC_PRG.BYPASSES (13)	Local Write
PLC_PRG.PROCESS_IN... (31)	Local Write
PLC_PRG.SC_OUTPUTS (38)	Local Read
PLC_PRG.SC_OUTPUTS (40)	Local Read
PLC_PRG.SC_OUTPUTS (48)	Local Read
TPV212_OPN_REQ_LL	
_global_init (275)	Local Write
_global_init (276)	Local Write
PLC_PRG.LL_SM (16)	Local Write
PLC_PRG.LL_SM (29)	Local Write
PLC_PRG.LL_SM (42)	Local Write
PLC_PRG.LL_SM (59)	Local Write
PLC_PRG.LL_SM (76)	Local Write
PLC_PRG.LL_SM (93)	Local Write
PLC_PRG.LL_SM (110)	Local Write
PLC_PRG.LL_SM (128)	Local Write
PLC_PRG.LL_SM (145)	Local Write
PLC_PRG.LL_SM (165)	Local Write
PLC_PRG.LL_SM (184)	Local Write
PLC_PRG.VALVES (113)	Local Read
PLC_PRG.VALVES (114)	Local Read

TPV212_OPN		
_global_init (215)	Local	Write
PLC_PRG.PROCESS_IN... (70)	Local	Write
PLC_PRG.SC_OUTPUTS (102)	Local	Read
TPV212_CSD		
_global_init (216)	Local	Write
PLC_PRG.PROCESS_IN... (71)	Local	Write
PLC_PRG.PUMPS (31)	Local	Read
PLC_PRG.PUMPS (32)	Local	Read
PLC_PRG.SC_OUTPUTS (103)	Local	Read
PLC_PRG.VALVES (86)	Local	Read
PLC_PRG.VALVES (94)	Local	Read
TPV212_CLS_REQ_LL		
_global_init (276)	Local	Write
_global_init (277)	Local	Write
TPV211_OPN_REQ_ES		
_global_init (263)	Local	Write
_global_init (264)	Local	Write
PLC_PRG.ES_SM (16)	Local	Write
PLC_PRG.ES_SM (30)	Local	Write
PLC_PRG.ES_SM (44)	Local	Write
PLC_PRG.ES_SM (62)	Local	Write
PLC_PRG.ES_SM (80)	Local	Write
PLC_PRG.ES_SM (98)	Local	Write
PLC_PRG.ES_SM (116)	Local	Write
PLC_PRG.ES_SM (135)	Local	Write
PLC_PRG.ES_SM (153)	Local	Write
PLC_PRG.ES_SM (174)	Local	Write
PLC_PRG.ES_SM (194)	Local	Write
PLC_PRG.VALVES (81)	Local	Read
PLC_PRG.VALVES (82)	Local	Read
TP212_OFF_REQ_LL		
_global_init (286)	Local	Write
_global_init (287)	Local	Write
TP212_READY		
_global_init (222)	Local	Write
_global_init (223)	Local	Write
PLC_PRG.PROCESS_IN... (74)	Local	Write
PLC_PRG.SC_OUTPUTS (128)	Local	Read
TP201_VENT_ENABLE_REQ_SC		
_global_init (279)	Local	Write
_global_init (280)	Local	Write
PLC_PRG.SC_INPUTS (17)	Local	Write
PLC_PRG.VALVES (31)	Local	Read
TP201_ON_REQ_SC		
_global_init (277)	Local	Write
_global_init (278)	Local	Write
PLC_PRG.PUMPS (17)	Local	Read
PLC_PRG.SC_INPUTS (15)	Local	Write
TPV211_CSD		
_global_init (208)	Local	Write
PLC_PRG.PROCESS_IN... (59)	Local	Write
PLC_PRG.PUMPS (23)	Local	Read
PLC_PRG.PUMPS (24)	Local	Read
PLC_PRG.SC_OUTPUTS (84)	Local	Read
PLC_PRG.VALVES (54)	Local	Read
PLC_PRG.VALVES (62)	Local	Read
TP201_OK		
_global_init (217)	Local	Write
PLC_PRG.FAULT_LOGIC (19)	Local	Read
PLC_PRG.FAULT_LOGIC (37)	Local	Read
PLC_PRG.PROCESS_IN... (48)	Local	Write
PLC_PRG.PROCESS_IN... (49)	Local	Read
PLC_PRG.SC_OUTPUTS (115)	Local	Read
TPV211_OPN		
_global_init (207)	Local	Write
PLC_PRG.PROCESS_IN... (58)	Local	Write
PLC_PRG.SC_OUTPUTS (83)	Local	Read
TPV211_CLS_REQ_ES		
_global_init (264)	Local	Write
_global_init (265)	Local	Write
TP212_ON_REQ_LL		
_global_init (285)	Local	Write

_global_init (286)	Local Write
PLC_PRG.LL_SM (17)	Local Write
PLC_PRG.LL_SM (30)	Local Write
PLC_PRG.LL_SM (43)	Local Write
PLC_PRG.LL_SM (60)	Local Write
PLC_PRG.LL_SM (77)	Local Write
PLC_PRG.LL_SM (94)	Local Write
PLC_PRG.LL_SM (111)	Local Write
PLC_PRG.LL_SM (129)	Local Write
PLC_PRG.LL_SM (146)	Local Write
PLC_PRG.LL_SM (166)	Local Write
PLC_PRG.LL_SM (185)	Local Write
PLC_PRG.PUMPS (33)	Local Read
TP211_ON_REQ_ES	
_global_init (283)	Local Write
_global_init (284)	Local Write
PLC_PRG.ES_SM (17)	Local Write
PLC_PRG.ES_SM (31)	Local Write
PLC_PRG.ES_SM (45)	Local Write
PLC_PRG.ES_SM (63)	Local Write
PLC_PRG.ES_SM (81)	Local Write
PLC_PRG.ES_SM (99)	Local Write
PLC_PRG.ES_SM (117)	Local Write
PLC_PRG.ES_SM (136)	Local Write
PLC_PRG.ES_SM (154)	Local Write
PLC_PRG.ES_SM (175)	Local Write
PLC_PRG.ES_SM (195)	Local Write
PLC_PRG.PUMPS (25)	Local Read
TP211_OFF_REQ_ES	
_global_init (284)	Local Write
_global_init (285)	Local Write
TP201_VENT_DISABLE_REQ_SC	
_global_init (280)	Local Write
_global_init (281)	Local Write
PLC_PRG.SC_INPUTS (18)	Local Write
PLC_PRG.VALVES (32)	Local Read
TP201_ON	
_global_init (218)	Local Write
PLC_PRG.PROCESS_IN... (49)	Local Write
PLC_PRG.PROCESS_IN... (50)	Local Read
PLC_PRG.SC_OUTPUTS (116)	Local Read
PLC_PRG.VALVES (28)	Local Read
SOCKET_SOL	
_global_init (116)	Global Write
SOCKET_SO_TYPE	
_global_init (134)	Global Write
SOCKET_SO_USELOOPBACK	
_global_init (123)	Global Write
SOCKET_SO_SNDTIMEO	
_global_init (131)	Global Write
SOCKET_SO_ACCEPTCONN	
_global_init (118)	Global Write
TP201_OFF_REQ_SC	
_global_init (278)	Local Write
_global_init (279)	Local Write
PLC_PRG.PUMPS (18)	Local Read
PLC_PRG.SC_INPUTS (16)	Local Write
SC_VERSION_MAJOR%MW1280	
_global_init (147)	Local Write
PLC_PRG.SC_OUTPUTS (156)	Local Write
SOCKET_SO_REUSEPORT	
_global_init (126)	Global Write
SC_VENT212_FAST_CMD%MX8.12	
_global_init (91)	Local Write
PLC_PRG.SC_OUTPUTS (100)	Local Write
SC_V202_OPEN%MX4.8	
_global_init (55)	Local Write
PLC_PRG.SC_OUTPUTS (56)	Local Write
SC_V201_BEAM_PASS%MX4.0	
_global_init (48)	Local Write
PLC_PRG.SC_OUTPUTS (48)	Local Write
PLC_PRG.SC_OUTPUTS (58)	Local Read
SC_V100_OPEN%MX3.0	

_global_init (39)	Local Write
PLC_PRG.SC_OUTPUTS (37)	Local Write
uiFailing	
ACTUATOR_SM.CONNECT (30)	Local Read
ACTUATOR_SM.CONNECT (30)	Local Write
ACTUATOR_SM.DRG1_W... (31)	Local Read
ACTUATOR_SM.DRG1_W... (31)	Local Write
ACTUATOR_SM.PCMD_W... (32)	Local Read
ACTUATOR_SM.PCMD_W... (32)	Local Write
ACTUATOR_SM.STATUS... (31)	Local Read
ACTUATOR_SM.STATUS... (31)	Local Write
_global_init (8)	Local Write
TP212_OK	
_global_init (221)	Local Write
_global_init (222)	Local Write
PLC_PRG.FAULT_LOGIC (21)	Local Read
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.LL_SM (47)	Local Read
PLC_PRG.LL_SM (154)	Local Read
PLC_PRG.PROCESS_IN... (73)	Local Write
PLC_PRG.SC_OUTPUTS (127)	Local Read
TP211_READY	
_global_init (220)	Local Write
_global_init (221)	Local Write
PLC_PRG.PROCESS_IN... (62)	Local Write
PLC_PRG.SC_OUTPUTS (124)	Local Read
TP211_OK	
_global_init (219)	Local Write
_global_init (220)	Local Write
PLC_PRG.ES_SM (49)	Local Read
PLC_PRG.ES_SM (162)	Local Read
PLC_PRG.FAULT_LOGIC (20)	Local Read
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.PROCESS_IN... (61)	Local Write
PLC_PRG.SC_OUTPUTS (123)	Local Read
TP201_READY	
PLC_PRG.PROCESS_IN... (50)	Local Write
_global_init (219)	Local Write
PLC_PRG.VALVES (21)	Local Read
PLC_PRG.VALVES (37)	Local Read
SC_VENT211_FAST_CMD%MX6.12	
_global_init (76)	Local Write
PLC_PRG.SC_OUTPUTS (81)	Local Write
SC_V201_OPN_REQ%MX641.2	
_global_init (135)	Local Write
PLC_PRG.CLEAR_REQS (8)	Local Write
PLC_PRG.SC_INPUTS (9)	Local Read
SC_V101_CLOSED%MX3.10	
_global_init (43)	Local Write
PLC_PRG.SC_OUTPUTS (42)	Local Write
SC_PE211_PSL_LO%MX1.12	
_global_init (31)	Local Write
PLC_PRG.SC_OUTPUTS (26)	Local Write
tTCP_Timeout	
ACTUATOR_SM.CONNECT (25)	Local Read
ACTUATOR_SM.DRG1_W... (26)	Local Read
ACTUATOR_SM.PCMD_W... (27)	Local Read
ACTUATOR_SM.STATUS... (26)	Local Read
_global_init (4)	Local Write
TPV212	
_global_init (306)	Local Read
_global_init (307)	Local Read
PLC_PRG.PROCESS_OU... (22)	Local Read
PLC_PRG.SC_OUTPUTS (104)	Local Read
PLC_PRG.VALVES (110)	Local Write
PLC_PRG.VALVES (111)	Local Write
PLC_PRG.VALVES (112)	Local Write
PLC_PRG.VALVES (113)	Local Write
PLC_PRG.VALVES (114)	Local Write
PLC_PRG.VALVES (115)	Local Read
TP211	
_global_init (310)	Local Read
_global_init (311)	Local Read

PLC_PRG.PROCESS_OU...	(12)	Local Read
PLC_PRG.PUMPS	(22)	Local Write
PLC_PRG.PUMPS	(23)	Local Write
PLC_PRG.PUMPS	(24)	Local Write
PLC_PRG.PUMPS	(25)	Local Write
PLC_PRG.PUMPS	(26)	Local Read
PLC_PRG.PUMPS	(26)	Local Write
PLC_PRG.PUMPS	(27)	Local Read
PLC_PRG.SC_OUTPUTS	(125)	Local Read
PLC_PRG.VALVES	(78)	Local Read
TPV211		
_global_init	(301)	Local Read
_global_init	(302)	Local Read
PLC_PRG.PROCESS_OU...	(13)	Local Read
PLC_PRG.SC_OUTPUTS	(85)	Local Read
PLC_PRG.VALVES	(78)	Local Write
PLC_PRG.VALVES	(79)	Local Write
PLC_PRG.VALVES	(80)	Local Write
PLC_PRG.VALVES	(81)	Local Write
PLC_PRG.VALVES	(82)	Local Write
PLC_PRG.VALVES	(83)	Local Read
TP212		
_global_init	(311)	Local Read
_global_init	(312)	Local Read
PLC_PRG.PROCESS_OU...	(21)	Local Read
PLC_PRG.PUMPS	(30)	Local Write
PLC_PRG.PUMPS	(31)	Local Write
PLC_PRG.PUMPS	(32)	Local Write
PLC_PRG.PUMPS	(33)	Local Write
PLC_PRG.PUMPS	(34)	Local Read
PLC_PRG.PUMPS	(34)	Local Write
PLC_PRG.PUMPS	(35)	Local Read
PLC_PRG.SC_OUTPUTS	(129)	Local Read
PLC_PRG.VALVES	(110)	Local Read
SOCKET_SO_DEBUG		
_global_init	(117)	Global Write
SOCKET_INVALID		
_global_init	(84)	Global Write
SOCKET_AF_SNA		
_global_init	(98)	Global Write
TP201		
_global_init	(307)	Local Read
_global_init	(308)	Local Read
PLC_PRG.PROCESS_OU...	(9)	Local Read
PLC_PRG.PUMPS	(14)	Local Write
PLC_PRG.PUMPS	(15)	Local Write
PLC_PRG.PUMPS	(16)	Local Write
PLC_PRG.PUMPS	(17)	Local Write
PLC_PRG.PUMPS	(18)	Local Write
PLC_PRG.PUMPS	(19)	Local Read
PLC_PRG.SC_OUTPUTS	(117)	Local Read
PLC_PRG.SC_OUTPUTS	(118)	Local Read
PLC_PRG.SC_OUTPUTS	(119)	Local Read
PLC_PRG.SC_OUTPUTS	(120)	Local Read
PLC_PRG.SC_OUTPUTS	(121)	Local Read
PLC_PRG.VALVES	(29)	Local Read
SOCKET_TCP_NODELAY		
CLIENT_OPENCLOSE	(20)	Global Read
CLIENT_OPENCLOSE	(71)	Global Read
_global_init	(136)	Global Write
SOCKET_SO_REUSEADDR		
_global_init	(119)	Global Write
SOCKET_SO_OOBINLINE		
_global_init	(125)	Global Write
SOCKET_SO_LINGER		
_global_init	(124)	Global Write
SOCKET_SO_DONTROUTE		
_global_init	(121)	Global Write
SOCKET_SO_BROADCAST		
_global_init	(122)	Global Write
SOCKET_SO_KEEPAIVE		
_global_init	(120)	Global Write
SOCKET_pseudo_AF_XTP		

_global_init (106)	Global Write
SOCKET_pseudo_AF_RTIP	
_global_init (109)	Global Write
SOCKET_pseudo_AF_PIP	
_global_init (112)	Global Write
SOCKET_AF_SIP	
_global_init (111)	Global Write
SOCKET_AF_ROUTE	
_global_init (104)	Global Write
SOCKET_AF_PUP	
_global_init (90)	Global Write
SOCKET_AF_OSI	
_global_init (94)	Global Write
SC_VERSION_MINOR%MW1281	
_global_init (148)	Local Write
PLC_PRG.SC_OUTPUTS (157)	Local Write
SC_V204_OPN_REQ%MX641.8	
_global_init (139)	Local Write
PLC_PRG.CLEAR_REQS (14)	Local Write
PLC_PRG.SC_INPUTS (13)	Local Read
SC_V203_OPEN%MX5.1	
_global_init (59)	Local Write
PLC_PRG.SC_OUTPUTS (61)	Local Write
SC_PE211_OK%MX1.8	
_global_init (27)	Local Write
PLC_PRG.SC_OUTPUTS (22)	Local Write
SC_PE203_PSL_HI%MX1.1	
_global_init (23)	Local Write
PLC_PRG.SC_OUTPUTS (17)	Local Write
tonConnect	
ACTUATOR_SM.CONNECT (6)	Local Write
ACTUATOR_SM.CONNECT (25)	Local Read
ACTUATOR_SM.DRG1_W... (26)	Local Read
ACTUATOR_SM.PCMD_W... (27)	Local Read
ACTUATOR_SM.STATUS... (26)	Local Read
ACTUATORinit (7)	Local Read
SOCKET_AF_UNSPEC	
_global_init (85)	Global Write
SOCKET_AF_LOCAL	
_global_init (86)	Global Write
SC_V204_OPEN_PERMIT%MX5.11	
_global_init (68)	Local Write
PLC_PRG.SC_OUTPUTS (71)	Local Write
SC_V100_CLOSED%MX3.1	
_global_init (40)	Local Write
PLC_PRG.SC_OUTPUTS (38)	Local Write
SC_PE101_PSL%MX0.8	
_global_init (15)	Local Write
PLC_PRG.SC_OUTPUTS (7)	Local Write
strAddress	
ACTUATOR_SM.CONNECT (25)	Local Read
ACTUATOR_SM.DRG1_W... (26)	Local Read
ACTUATOR_SM.PCMD_W... (27)	Local Read
ACTUATOR_SM.STATUS... (26)	Local Read
_global_init (1)	Local Write
SOCKET_TCP_MAXSEG	
_global_init (137)	Global Write
SOCKET_STREAM	
CLIENT_OPENCLOSE (11)	Global Read
_global_init (138)	Global Write
SOCKET_SO_SNDLOWAT	
_global_init (129)	Global Write
SOCKET_SO_RCVTIMEO	
_global_init (132)	Global Write
SOCKET_SO_SNDBUF	
_global_init (127)	Global Write
SOCKET_SO_RCVLOWAT	
_global_init (130)	Global Write
SOCKET_SO_ERROR	
_global_init (133)	Global Write
SOCKET_SO_RCVBUF	
_global_init (128)	Global Write
SOCKET_MSG_OOB	

_global_init (158)	Global Write
SOCKET_IPPROTO_TCP	
CLIENT_OPENCLOSE (11)	Global Read
_global_init (151)	Global Write
SOCKET_IPPROTO_PUP	
_global_init (152)	Global Write
SOCKET_IPPROTO_ND	
_global_init (155)	Global Write
SOCKET_SEQPACKET	
_global_init (142)	Global Write
SOCKET_DGRAM	
CLIENT_OPENCLOSE (43)	Global Read
ETHERNET_MODBUSMAS... (9)	Global Read
_global_init (139)	Global Write
SOCKET_SO_PROTOTYPE	
_global_init (135)	Global Write
SOCKET_RAW	
_global_init (140)	Global Write
SOCKET_IPPROTO_RAW	
_global_init (156)	Global Write
SOCKET_IPPROTO_UDP	
CLIENT_OPENCLOSE (43)	Global Read
ETHERNET_MODBUSMAS... (9)	Global Read
_global_init (153)	Global Write
SOCKET_INADDR_NONE	
_global_init (146)	Global Write
SOCKET_AF_UNIX	
_global_init (87)	Global Write
SOCKET_AF_MAX	
_global_init (113)	Global Write
SOCKET_AF_NS	
_global_init (92)	Global Write
SOCKET_AF_LINK	
_global_init (105)	Global Write
SOCKET_AF_LAT	
_global_init (101)	Global Write
SOCKET_AF_ISO	
_global_init (93)	Global Write
SOCKET_AF_IPX	
_global_init (110)	Global Write
SOCKET_AF_INET_STREAMS	
_global_init (115)	Global Write
SOCKET_AF_INET_BSD	
_global_init (114)	Global Write
SOCKET_AF_INET	
CLIENT_OPENCLOSE (11)	Global Read
CLIENT_OPENCLOSE (27)	Global Read
CLIENT_OPENCLOSE (43)	Global Read
ETHERNET_MODBUSMAS... (9)	Global Read
ETHERNET_MODBUSMAS... (12)	Global Read
_global_init (88)	Global Write
SOCKET_AF_COIP	
_global_init (107)	Global Write
SOCKET_AF_ECMA	
_global_init (95)	Global Write
SOCKET_AF_CHAOS	
_global_init (91)	Global Write
SOCKET_AF_IMPLINK	
_global_init (89)	Global Write
SOCKET_AF_HYLINK	
_global_init (102)	Global Write
SOCKET_AF_DLI	
_global_init (100)	Global Write
SOCKET_AF_DECnet	
_global_init (99)	Global Write
SOCKET_AF_DATAKIT	
_global_init (96)	Global Write
SC_VERSION_MINOR%MW1281	
_global_init (148)	Local Write
PLC_PRG.SC_OUTPUTS (157)	Local Write
SOCKET_AF_CNT	
_global_init (108)	Global Write
SC_VENT212_SLOW_CMD%MX8.11	



_global_init (90)	Local Write
PLC_PRG.SC_OUTPUTS (99)	Local Write
SC_VENT212_FAST_CMD%MX8.12	
_global_init (91)	Local Write
PLC_PRG.SC_OUTPUTS (100)	Local Write
SOCKET_AF_APPLETALK	
_global_init (103)	Global Write
SC_V204_OPEN_PERMIT%MX5.11	
_global_init (68)	Local Write
PLC_PRG.SC_OUTPUTS (71)	Local Write
SOCKET_AF_CCITT	
_global_init (97)	Global Write
SC_VENT211_FAST_CMD%MX6.12	
_global_init (76)	Local Write
PLC_PRG.SC_OUTPUTS (81)	Local Write
SC_VENT211_SLOW_CMD%MX6.11	
_global_init (75)	Local Write
PLC_PRG.SC_OUTPUTS (80)	Local Write
SC_V204_OPN_REQ%MX641.8	
_global_init (139)	Local Write
PLC_PRG.CLEAR_REQS (14)	Local Write
PLC_PRG.SC_INPUTS (13)	Local Read
SC_V204_OPEN%MX5.9	
_global_init (66)	Local Write
PLC_PRG.SC_OUTPUTS (69)	Local Write
SC_V204_OPEN_CMD%MX5.13	
_global_init (70)	Local Write
PLC_PRG.SC_OUTPUTS (73)	Local Write
SC_V204_OPEN_CMD%MX5.13	
_global_init (70)	Local Write
PLC_PRG.SC_OUTPUTS (73)	Local Write
SC_V204_NOT_SYMBOL%MX5.14	
_global_init (71)	Local Write
PLC_PRG.SC_OUTPUTS (74)	Local Write
SC_V204_CLS_REQ%MX641.9	
_global_init (140)	Local Write
PLC_PRG.CLEAR_REQS (15)	Local Write
PLC_PRG.SC_INPUTS (14)	Local Read
SC_V204_CLS_REQ%MX641.9	
_global_init (140)	Local Write
PLC_PRG.CLEAR_REQS (15)	Local Write
PLC_PRG.SC_INPUTS (14)	Local Read
SC_V204_CLOSED%MX5.10	
_global_init (67)	Local Write
PLC_PRG.SC_OUTPUTS (70)	Local Write
SC_V204_CLOSE_PERMIT%MX5.12	
_global_init (69)	Local Write
PLC_PRG.SC_OUTPUTS (72)	Local Write
SC_V204_BEAM_PASS%MX5.8	
_global_init (65)	Local Write
PLC_PRG.SC_OUTPUTS (68)	Local Write
SC_V203_OPN_REQ%MX641.6	
_global_init (137)	Local Write
PLC_PRG.CLEAR_REQS (11)	Local Write
PLC_PRG.SC_INPUTS (11)	Local Read
SC_V204_BEAM_PASS%MX5.8	
_global_init (65)	Local Write
PLC_PRG.SC_OUTPUTS (68)	Local Write
SC_V203_OPEN_PERMIT%MX5.3	
_global_init (61)	Local Write
PLC_PRG.SC_OUTPUTS (63)	Local Write
SC_V203_OPEN_PERMIT%MX5.3	
_global_init (61)	Local Write
PLC_PRG.SC_OUTPUTS (63)	Local Write
SC_V203_OPEN_CMD%MX5.5	
_global_init (63)	Local Write
PLC_PRG.SC_OUTPUTS (65)	Local Write
SC_V203_OPEN%MX5.1	
_global_init (59)	Local Write
PLC_PRG.SC_OUTPUTS (61)	Local Write
SC_V203_NOT_SYMBOL%MX5.6	
_global_init (64)	Local Write
PLC_PRG.SC_OUTPUTS (66)	Local Write

SC_V203_CLS_REQ%MX641.7		
_global_init (138)		Local Write
PLC_PRG.CLEAR_REQS (12)		Local Write
PLC_PRG.SC_INPUTS (12)		Local Read
SC_V203_CLOSED%MX5.2		
_global_init (60)		Local Write
PLC_PRG.SC_OUTPUTS (62)		Local Write
SC_V203_CLOSED%MX5.2		
_global_init (60)		Local Write
PLC_PRG.SC_OUTPUTS (62)		Local Write
SC_V203_CLOSE_PERMIT%MX5.4		
_global_init (62)		Local Write
PLC_PRG.SC_OUTPUTS (64)		Local Write
SC_V203_CLOSE_PERMIT%MX5.4		
_global_init (62)		Local Write
PLC_PRG.SC_OUTPUTS (64)		Local Write
SC_V203_BEAM_PASS%MX5.0		
_global_init (58)		Local Write
PLC_PRG.SC_OUTPUTS (60)		Local Write
PLC_PRG.SC_OUTPUTS (68)		Local Read
SC_V203_BEAM_PASS%MX5.0		
_global_init (58)		Local Write
PLC_PRG.SC_OUTPUTS (60)		Local Write
PLC_PRG.SC_OUTPUTS (68)		Local Read
SC_V202_CLOSED%MX4.9		
_global_init (56)		Local Write
PLC_PRG.SC_OUTPUTS (57)		Local Write
SC_V202_OPEN%MX4.8		
_global_init (55)		Local Write
PLC_PRG.SC_OUTPUTS (56)		Local Write
SC_V202_BEAM_PASS%MX4.10		
_global_init (57)		Local Write
PLC_PRG.SC_OUTPUTS (58)		Local Write
PLC_PRG.SC_OUTPUTS (60)		Local Read
SC_V201_OPN_REQ%MX641.2		
_global_init (135)		Local Write
PLC_PRG.CLEAR_REQS (8)		Local Write
PLC_PRG.SC_INPUTS (9)		Local Read
SC_V202_BEAM_PASS%MX4.10		
_global_init (57)		Local Write
PLC_PRG.SC_OUTPUTS (58)		Local Write
PLC_PRG.SC_OUTPUTS (60)		Local Read
SC_V201_OPEN_PERMIT%MX4.3		
_global_init (51)		Local Write
PLC_PRG.SC_OUTPUTS (51)		Local Write
SC_V202_CLOSED%MX4.9		
_global_init (56)		Local Write
PLC_PRG.SC_OUTPUTS (57)		Local Write
SC_V201_OPEN_CMD%MX4.5		
_global_init (53)		Local Write
PLC_PRG.SC_OUTPUTS (53)		Local Write
SC_V201_OPEN%MX4.1		
_global_init (49)		Local Write
PLC_PRG.SC_OUTPUTS (49)		Local Write
SC_V201_OPEN_PERMIT%MX4.3		
_global_init (51)		Local Write
PLC_PRG.SC_OUTPUTS (51)		Local Write
SC_V201_OPEN_CMD%MX4.5		
_global_init (53)		Local Write
PLC_PRG.SC_OUTPUTS (53)		Local Write
SC_V201_NOT_SYMBOL%MX4.6		
_global_init (54)		Local Write
PLC_PRG.SC_OUTPUTS (54)		Local Write
SC_V201_NOT_SYMBOL%MX4.6		
_global_init (54)		Local Write
PLC_PRG.SC_OUTPUTS (54)		Local Write
SC_V201_OPEN%MX4.1		
_global_init (49)		Local Write
PLC_PRG.SC_OUTPUTS (49)		Local Write
SC_V201_CLS_REQ%MX641.3		
_global_init (136)		Local Write
PLC_PRG.CLEAR_REQS (9)		Local Write
PLC_PRG.SC_INPUTS (10)		Local Read

SC_V201_CLOSED%MX4.2		
_global_init (50)		Local Write
PLC_PRG.SC_OUTPUTS (50)		Local Write
SC_V201_CLOSE_PERMIT%MX4.4		
_global_init (52)		Local Write
PLC_PRG.SC_OUTPUTS (52)		Local Write
SC_V201_CLOSE_PERMIT%MX4.4		
_global_init (52)		Local Write
PLC_PRG.SC_OUTPUTS (52)		Local Write
SC_V201_BEAM_PASS%MX4.0		
_global_init (48)		Local Write
PLC_PRG.SC_OUTPUTS (48)		Local Write
PLC_PRG.SC_OUTPUTS (58)		Local Read
SC_V201_CLOSED%MX4.2		
_global_init (50)		Local Write
PLC_PRG.SC_OUTPUTS (50)		Local Write
SC_V101_OPN_REQ%MX641.0		
_global_init (133)		Local Write
PLC_PRG.CLEAR_REQS (5)		Local Write
PLC_PRG.SC_INPUTS (7)		Local Read
SC_V101_OPEN_PERMIT%MX3.11		
_global_init (44)		Local Write
PLC_PRG.SC_OUTPUTS (43)		Local Write
SC_V101_OPEN_PERMIT%MX3.11		
_global_init (44)		Local Write
PLC_PRG.SC_OUTPUTS (43)		Local Write
SC_V101_OPEN_CMD%MX3.13		
_global_init (46)		Local Write
PLC_PRG.SC_OUTPUTS (45)		Local Write
SC_V101_OPEN_CMD%MX3.13		
_global_init (46)		Local Write
PLC_PRG.SC_OUTPUTS (45)		Local Write
SC_V101_CLOSE_PERMIT%MX3.12		
_global_init (45)		Local Write
PLC_PRG.SC_OUTPUTS (44)		Local Write
SC_V101_OPEN%MX3.9		
_global_init (42)		Local Write
PLC_PRG.SC_OUTPUTS (41)		Local Write
SC_V101_CLOSE_PERMIT%MX3.12		
_global_init (45)		Local Write
PLC_PRG.SC_OUTPUTS (44)		Local Write
SC_V101_OPEN%MX3.9		
_global_init (42)		Local Write
PLC_PRG.SC_OUTPUTS (41)		Local Write
SC_V101_NOT_SYMBOL%MX3.14		
_global_init (47)		Local Write
PLC_PRG.SC_OUTPUTS (46)		Local Write
SC_V101_CLS_REQ%MX641.1		
_global_init (134)		Local Write
PLC_PRG.CLEAR_REQS (6)		Local Write
PLC_PRG.SC_INPUTS (8)		Local Read
SC_V101_BEAM_PASS%MX3.8		
_global_init (41)		Local Write
PLC_PRG.SC_OUTPUTS (40)		Local Write
SC_TP212_OK%MX11.8		
_global_init (111)		Local Write
PLC_PRG.SC_OUTPUTS (127)		Local Write
SC_TP211_ON%MX11.1		
_global_init (109)		Local Write
PLC_PRG.SC_OUTPUTS (124)		Local Write
SC_V101_NOT_SYMBOL%MX3.14		
_global_init (47)		Local Write
PLC_PRG.SC_OUTPUTS (46)		Local Write
SC_V101_CLOSED%MX3.10		
_global_init (43)		Local Write
PLC_PRG.SC_OUTPUTS (42)		Local Write
SC_V100_CLOSED%MX3.1		
_global_init (40)		Local Write
PLC_PRG.SC_OUTPUTS (38)		Local Write
SC_TPV212_OPEN%MX9.1		
_global_init (92)		Local Write
PLC_PRG.SC_OUTPUTS (102)		Local Write
SC_TPV211_OPEN_CMD%MX7.5		

_global_init (79)	Local Write
PLC_PRG.SC_OUTPUTS (85)	Local Write
SC_V100_OPEN%MX3.0	
_global_init (39)	Local Write
PLC_PRG.SC_OUTPUTS (37)	Local Write
SC_TPV212_OPEN_CMD%MX9.5	
_global_init (94)	Local Write
PLC_PRG.SC_OUTPUTS (104)	Local Write
SC_TPV212_CLOSED%MX9.2	
_global_init (93)	Local Write
PLC_PRG.SC_OUTPUTS (103)	Local Write
SC_TPV211_OPEN%MX7.1	
_global_init (77)	Local Write
PLC_PRG.SC_OUTPUTS (83)	Local Write
SC_TP201_VENT_ENABLE_REQ%MX641.12	
_global_init (143)	Local Write
PLC_PRG.CLEAR_REQS (19)	Local Write
PLC_PRG.SC_INPUTS (17)	Local Read
SC_TP212_OK%MX11.8	
_global_init (111)	Local Write
PLC_PRG.SC_OUTPUTS (127)	Local Write
SC_TP201_VENT_ENABLE_CMD%MX10.5	
_global_init (99)	Local Write
PLC_PRG.SC_OUTPUTS (112)	Local Write
SC_TPV211_CLOSED%MX7.2	
_global_init (78)	Local Write
PLC_PRG.SC_OUTPUTS (84)	Local Write
SC_TP212_ON%MX11.9	
_global_init (112)	Local Write
PLC_PRG.SC_OUTPUTS (128)	Local Write
SC_TP212_OFF%MX11.10	
_global_init (113)	Local Write
PLC_PRG.SC_OUTPUTS (129)	Local Write
SC_TP211_ON%MX11.1	
_global_init (109)	Local Write
PLC_PRG.SC_OUTPUTS (124)	Local Write
SC_TP211_OFF%MX11.2	
_global_init (110)	Local Write
PLC_PRG.SC_OUTPUTS (125)	Local Write
SC_TP211_OK%MX11.0	
_global_init (108)	Local Write
PLC_PRG.SC_OUTPUTS (123)	Local Write
SC_TP201_VENT_NOT_SYMBOL%MX10.6	
_global_init (100)	Local Write
PLC_PRG.SC_OUTPUTS (113)	Local Write
SC_TP201_VENT_DISABLE_REQ%MX641.13	
_global_init (144)	Local Write
PLC_PRG.CLEAR_REQS (20)	Local Write
PLC_PRG.SC_INPUTS (18)	Local Read
SC_TP201_ON_REQ%MX641.10	
_global_init (141)	Local Write
PLC_PRG.CLEAR_REQS (17)	Local Write
PLC_PRG.SC_INPUTS (15)	Local Read
SC_TP201_ON_PERMIT%MX10.11	
_global_init (104)	Local Write
PLC_PRG.SC_OUTPUTS (118)	Local Write
SC_TP201_ON_CMD%MX10.13	
_global_init (106)	Local Write
PLC_PRG.SC_OUTPUTS (120)	Local Write
SC_TP201_ON%MX10.9	
_global_init (102)	Local Write
PLC_PRG.SC_OUTPUTS (116)	Local Write
SC_TP201_OK%MX10.8	
_global_init (101)	Local Write
PLC_PRG.SC_OUTPUTS (115)	Local Write
SC_TP201_OK%MX10.8	
_global_init (101)	Local Write
PLC_PRG.SC_OUTPUTS (115)	Local Write
SC_TP201_OFF_PERMIT%MX10.12	
_global_init (105)	Local Write
PLC_PRG.SC_OUTPUTS (119)	Local Write
SC_TP201_OFF%MX10.10	
_global_init (103)	Local Write

PLC_PRG.SC_OUTPUTS (117)	Local Write
SC_TP201_NOT_SYMBOL%MX10.14	
_global_init (107)	Local Write
PLC_PRG.SC_OUTPUTS (121)	Local Write
SC_SLOTV211_CLOSED%MX7.10	
_global_init (81)	Local Write
PLC_PRG.SC_OUTPUTS (88)	Local Write
SC_SLOTV211_CLOSE_PERMIT%MX7.12	
_global_init (83)	Local Write
PLC_PRG.SC_OUTPUTS (90)	Local Write
SC_SLOTV211_CLOSE_CMD%MX7.14	
_global_init (85)	Local Write
PLC_PRG.SC_OUTPUTS (92)	Local Write
SC_RPV212_OPEN%MX8.1	
_global_init (87)	Local Write
PLC_PRG.SC_OUTPUTS (95)	Local Write
SC_V101_BEAM_PASS%MX3.8	
_global_init (41)	Local Write
PLC_PRG.SC_OUTPUTS (40)	Local Write
SC_TPV212_OPEN_CMD%MX9.5	
_global_init (94)	Local Write
PLC_PRG.SC_OUTPUTS (104)	Local Write
SC_RP2111_AT_SPEED%MX0.13	
_global_init (19)	Local Write
PLC_PRG.SC_OUTPUTS (12)	Local Write
SC_TP212_OFF%MX11.10	
_global_init (113)	Local Write
PLC_PRG.SC_OUTPUTS (129)	Local Write
SC_RP2110_AT_SPEED%MX0.12	
_global_init (18)	Local Write
PLC_PRG.SC_OUTPUTS (11)	Local Write
SC_RPV212_OPEN_CMD%MX8.5	
_global_init (89)	Local Write
PLC_PRG.SC_OUTPUTS (97)	Local Write
SC_RESET_REQUIRED%MX0.0	
_global_init (12)	Local Write
PLC_PRG.SC_OUTPUTS (2)	Local Write
SC_PE212_PSL_MIDLO%MX2.3	
_global_init (35)	Local Write
PLC_PRG.SC_OUTPUTS (31)	Local Write
SC_PE212_PSL_HI%MX2.1	
_global_init (33)	Local Write
PLC_PRG.SC_OUTPUTS (29)	Local Write
SC_RP2111_AT_SPEED%MX0.13	
_global_init (19)	Local Write
PLC_PRG.SC_OUTPUTS (12)	Local Write
SC_PE212_OK%MX2.0	
_global_init (32)	Local Write
PLC_PRG.SC_OUTPUTS (28)	Local Write
SC_PE212_PSL_MIDLO%MX2.3	
_global_init (35)	Local Write
PLC_PRG.SC_OUTPUTS (31)	Local Write
SC_PE211_PSL_MIDHI%MX1.10	
_global_init (29)	Local Write
PLC_PRG.SC_OUTPUTS (24)	Local Write
SC_PE2110_PSL%MX0.14	
_global_init (20)	Local Write
PLC_PRG.SC_OUTPUTS (13)	Local Write
SC_RP2110_AT_SPEED%MX0.12	
_global_init (18)	Local Write
PLC_PRG.SC_OUTPUTS (11)	Local Write
SC_ATB%MX0.2	
_global_init (13)	Local Write
PLC_PRG.SC_OUTPUTS (3)	Local Write
SC_RESET_REQUIRED%MX0.0	
_global_init (12)	Local Write
PLC_PRG.SC_OUTPUTS (2)	Local Write
SC_PE211_PSL_MIDHI%MX1.10	
_global_init (29)	Local Write
PLC_PRG.SC_OUTPUTS (24)	Local Write
SC_PE203_OK%MX1.0	
_global_init (22)	Local Write
PLC_PRG.SC_OUTPUTS (16)	Local Write

SC_PE2111_PSL%MX0.15		
_global_init (21)	Local	Write
PLC_PRG.SC_OUTPUTS (14)	Local	Write
SC_PE203_PSL_MIDHI%MX1.2		
_global_init (24)	Local	Write
PLC_PRG.SC_OUTPUTS (18)	Local	Write
open_req		
VALVE_FB (3)	Local	Read
VALVE_FBinit (4)	Local	Write
PLC_PRG.VALVES (7)	Local	Write
PLC_PRG.VALVES (15)	Local	Write
PLC_PRG.VALVES (23)	Local	Write
PLC_PRG.VALVES (31)	Local	Write
PLC_PRG.VALVES (39)	Local	Write
PLC_PRG.VALVES (57)	Local	Write
PLC_PRG.VALVES (65)	Local	Write
PLC_PRG.VALVES (73)	Local	Write
PLC_PRG.VALVES (81)	Local	Write
PLC_PRG.VALVES (89)	Local	Write
PLC_PRG.VALVES (97)	Local	Write
PLC_PRG.VALVES (105)	Local	Write
PLC_PRG.VALVES (113)	Local	Write
open_intlk		
VALVE_FB (3)	Local	Read
VALVE_FB (6)	Local	Read
VALVE_FBinit (1)	Local	Write
PLC_PRG.VALVES (4)	Local	Write
PLC_PRG.VALVES (12)	Local	Write
PLC_PRG.VALVES (20)	Local	Write
PLC_PRG.VALVES (28)	Local	Write
PLC_PRG.VALVES (36)	Local	Write
PLC_PRG.VALVES (54)	Local	Write
PLC_PRG.VALVES (62)	Local	Write
PLC_PRG.VALVES (70)	Local	Write
PLC_PRG.VALVES (78)	Local	Write
PLC_PRG.VALVES (86)	Local	Write
PLC_PRG.VALVES (94)	Local	Write
PLC_PRG.VALVES (102)	Local	Write
PLC_PRG.VALVES (110)	Local	Write
open_intlk		
VALVE_BI_FB (4)	Local	Read
VALVE_BI_FB (11)	Local	Read
VALVE_BI_FBinit (1)	Local	Write
PLC_PRG.VALVES (45)	Local	Write
wCommand		
ACTUATOR_SM (48)	Local	Write
ACTUATOR_SM (57)	Local	Write
ACTUATOR_SM (65)	Local	Write
ACTUATOR_SM (74)	Local	Write
ACTUATOR_SM (83)	Local	Write
ACTUATOR_SM.DRG1_W... (26)	Local	Read
ACTUATORinit (4)	Local	Write
SOCKET_RDM		
_global_init (141)	Global	Write
SOCKET_MSG_PEEK		
_global_init (159)	Global	Write
SOCKET_MSG_DONTROUTE		
_global_init (160)	Global	Write
SOCKET_IPPROTO_MAX		
_global_init (157)	Global	Write
SOCKET_IPPROTO_IP		
_global_init (147)	Global	Write
SOCKET_IPPROTO_IGMP		
_global_init (149)	Global	Write
SOCKET_IPPROTO_IDP		
_global_init (154)	Global	Write
SOCKET_IPPROTO_ICMP		
_global_init (148)	Global	Write
SOCKET_IPPROTO_GGP		
_global_init (150)	Global	Write
SOCKET_INADDR_LOOPBACK		
_global_init (144)	Global	Write
SOCKET_INADDR_BROADCAST		

_global_init (145)	Global Write
SOCKET_FIONREAD	
_global_init (161)	Global Write
SOCKET_FIONBIO	
CLIENT_OPENCLOSE (25)	Global Read
CLIENT_OPENCLOSE (46)	Global Read
ETHERNET_MODBUSMAS... (11)	Global Read
_global_init (162)	Global Write
SOCKET_INADDR_ANY	
_global_init (143)	Global Write
SOCKET_FD_SETSIZE	
_global_init (163)	Global Write
SC_V204_OPEN%MX5.9	
_global_init (66)	Local Write
PLC_PRG.SC_OUTPUTS (69)	Local Write
SC_V204_NOT_SYMBOL%MX5.14	
_global_init (71)	Local Write
PLC_PRG.SC_OUTPUTS (74)	Local Write
SC_TPV212_OPEN%MX9.1	
_global_init (92)	Local Write
PLC_PRG.SC_OUTPUTS (102)	Local Write
SC_TPV212_CLOSED%MX9.2	
_global_init (93)	Local Write
PLC_PRG.SC_OUTPUTS (103)	Local Write
SC_V204_CLOSED%MX5.10	
_global_init (67)	Local Write
PLC_PRG.SC_OUTPUTS (70)	Local Write
SC_RPV211_OPEN_CMD%MX6.5	
_global_init (74)	Local Write
PLC_PRG.SC_OUTPUTS (78)	Local Write
SC_V204_CLOSE_PERMIT%MX5.12	
_global_init (69)	Local Write
PLC_PRG.SC_OUTPUTS (72)	Local Write
SC_TPV211_OPEN_CMD%MX7.5	
_global_init (79)	Local Write
PLC_PRG.SC_OUTPUTS (85)	Local Write
SC_TP212_ON%MX11.9	
_global_init (112)	Local Write
PLC_PRG.SC_OUTPUTS (128)	Local Write
SC_TPV211_OPEN%MX7.1	
_global_init (77)	Local Write
PLC_PRG.SC_OUTPUTS (83)	Local Write
SC_TP201_OFF_REQ%MX641.11	
_global_init (142)	Local Write
PLC_PRG.CLEAR_REQS (18)	Local Write
PLC_PRG.SC_INPUTS (16)	Local Read
SC_TP201_VENT_ENABLE_CMD%MX10.5	
_global_init (99)	Local Write
PLC_PRG.SC_OUTPUTS (112)	Local Write
SC_SLOTV211_OPEN_PERMIT%MX7.11	
_global_init (82)	Local Write
PLC_PRG.SC_OUTPUTS (89)	Local Write
SC_SLOTV211_OPEN_CMD%MX7.13	
_global_init (84)	Local Write
PLC_PRG.SC_OUTPUTS (91)	Local Write
SC_TPV211_CLOSED%MX7.2	
_global_init (78)	Local Write
PLC_PRG.SC_OUTPUTS (84)	Local Write
SC_RPV211_OPEN%MX6.1	
_global_init (72)	Local Write
PLC_PRG.SC_OUTPUTS (76)	Local Write
SC_RPV211_CLOSED%MX6.2	
_global_init (73)	Local Write
PLC_PRG.SC_OUTPUTS (77)	Local Write
SC_V203_NOT_SYMBOL%MX5.6	
_global_init (64)	Local Write
PLC_PRG.SC_OUTPUTS (66)	Local Write
SC_V203_CLS_REQ%MX641.7	
_global_init (138)	Local Write
PLC_PRG.CLEAR_REQS (12)	Local Write
PLC_PRG.SC_INPUTS (12)	Local Read
SC_V201_CLS_REQ%MX641.3	
_global_init (136)	Local Write

PLC_PRG.CLEAR_REQS (9)	Local Write
PLC_PRG.SC_INPUTS (10)	Local Read
SC_V101_CLS_REQ%MX641.1	
_global_init (134)	Local Write
PLC_PRG.CLEAR_REQS (6)	Local Write
PLC_PRG.SC_INPUTS (8)	Local Read
SC_V101_OPN_REQ%MX641.0	
_global_init (133)	Local Write
PLC_PRG.CLEAR_REQS (5)	Local Write
PLC_PRG.SC_INPUTS (7)	Local Read
SC_TP211_OK%MX11.0	
_global_init (108)	Local Write
PLC_PRG.SC_OUTPUTS (123)	Local Write
SC_TP201_VENT_ENABLE_REQ%MX641.12	
_global_init (143)	Local Write
PLC_PRG.CLEAR_REQS (19)	Local Write
PLC_PRG.SC_INPUTS (17)	Local Read
SC_TP211_OFF%MX11.2	
_global_init (110)	Local Write
PLC_PRG.SC_OUTPUTS (125)	Local Write
SC_TP201_VENT_DISABLE_REQ%MX641.13	
_global_init (144)	Local Write
PLC_PRG.CLEAR_REQS (20)	Local Write
PLC_PRG.SC_INPUTS (18)	Local Read
SC_TP201_ON%MX10.9	
_global_init (102)	Local Write
PLC_PRG.SC_OUTPUTS (116)	Local Write
SC_TP201_VENT_NOT_SYMBOL%MX10.6	
_global_init (100)	Local Write
PLC_PRG.SC_OUTPUTS (113)	Local Write
SC_TP201_ON_REQ%MX641.10	
_global_init (141)	Local Write
PLC_PRG.CLEAR_REQS (17)	Local Write
PLC_PRG.SC_INPUTS (15)	Local Read
SC_TP201_ON_PERMIT%MX10.11	
_global_init (104)	Local Write
PLC_PRG.SC_OUTPUTS (118)	Local Write
SC_TP201_OFF_REQ%MX641.11	
_global_init (142)	Local Write
PLC_PRG.CLEAR_REQS (18)	Local Write
PLC_PRG.SC_INPUTS (16)	Local Read
SC_TP201_OFF%MX10.10	
_global_init (103)	Local Write
PLC_PRG.SC_OUTPUTS (117)	Local Write
SC_TP201_ON_CMD%MX10.13	
_global_init (106)	Local Write
PLC_PRG.SC_OUTPUTS (120)	Local Write
SC_TP201_OFF_PERMIT%MX10.12	
_global_init (105)	Local Write
PLC_PRG.SC_OUTPUTS (119)	Local Write
SC_TP201_NOT_SYMBOL%MX10.14	
_global_init (107)	Local Write
PLC_PRG.SC_OUTPUTS (121)	Local Write
SC_SLOTV211_OPN_REQ%MX642.0	
_global_init (145)	Local Write
PLC_PRG.CLEAR_REQS (22)	Local Write
PLC_PRG.SC_INPUTS (19)	Local Read
SC_SLOTV211_OPN_REQ%MX642.0	
_global_init (145)	Local Write
PLC_PRG.CLEAR_REQS (22)	Local Write
PLC_PRG.SC_INPUTS (19)	Local Read
SC_SLOTV211_OPEN_CMD%MX7.13	
_global_init (84)	Local Write
PLC_PRG.SC_OUTPUTS (91)	Local Write
SC_SLOTV211_OPEN_PERMIT%MX7.11	
_global_init (82)	Local Write
PLC_PRG.SC_OUTPUTS (89)	Local Write
SC_SLOTV211_NOT_SYMBOL%MX7.15	
_global_init (86)	Local Write
PLC_PRG.SC_OUTPUTS (93)	Local Write
SC_SLOTV211_NOT_SYMBOL%MX7.15	
_global_init (86)	Local Write
PLC_PRG.SC_OUTPUTS (93)	Local Write



SC_SLOTV211_CLS_REQ%MX642.1		
_global_init (146)	Local Write	
PLC_PRG.CLEAR_REQS (23)	Local Write	
PLC_PRG.SC_INPUTS (20)	Local Read	
SC_SLOTV211_CLS_REQ%MX642.1		
_global_init (146)	Local Write	
PLC_PRG.CLEAR_REQS (23)	Local Write	
PLC_PRG.SC_INPUTS (20)	Local Read	
SC_RPV211_OPEN_CMD%MX6.5		
_global_init (74)	Local Write	
PLC_PRG.SC_OUTPUTS (78)	Local Write	
SC_SLOTV211_OPEN_CMD%MX7.9		
_global_init (80)	Local Write	
PLC_PRG.SC_OUTPUTS (87)	Local Write	
SC_SLOTV211_OPEN_CMD%MX7.9		
_global_init (80)	Local Write	
PLC_PRG.SC_OUTPUTS (87)	Local Write	
SC_SLOTV211_CLOSE_PERMIT%MX7.12		
_global_init (83)	Local Write	
PLC_PRG.SC_OUTPUTS (90)	Local Write	
SC_SLOTV211_CLOSED_CMD%MX7.10		
_global_init (81)	Local Write	
PLC_PRG.SC_OUTPUTS (88)	Local Write	
SC_SLOTV211_CLOSE_CMD%MX7.14		
_global_init (85)	Local Write	
PLC_PRG.SC_OUTPUTS (92)	Local Write	
SC_RPV212_OPEN_CMD%MX8.5		
_global_init (89)	Local Write	
PLC_PRG.SC_OUTPUTS (97)	Local Write	
SC_RPV212_CLOSED_CMD%MX8.2		
_global_init (88)	Local Write	
PLC_PRG.SC_OUTPUTS (96)	Local Write	
SC_RPV212_OPEN_CMD%MX8.1		
_global_init (87)	Local Write	
PLC_PRG.SC_OUTPUTS (95)	Local Write	
SC_RP2111_ON_CMD%MX10.0		
_global_init (97)	Local Write	
PLC_PRG.SC_OUTPUTS (109)	Local Write	
SC_RPV212_CLOSED_CMD%MX8.2		
_global_init (88)	Local Write	
PLC_PRG.SC_OUTPUTS (96)	Local Write	
SC_RPV211_OPEN_CMD%MX6.1		
_global_init (72)	Local Write	
PLC_PRG.SC_OUTPUTS (76)	Local Write	
SC_RPV211_CLOSED_CMD%MX6.2		
_global_init (73)	Local Write	
PLC_PRG.SC_OUTPUTS (77)	Local Write	
SC_RP2111_ON_CMD%MX10.1		
_global_init (98)	Local Write	
PLC_PRG.SC_OUTPUTS (110)	Local Write	
SC_RP2111_ON_CMD%MX10.1		
_global_init (98)	Local Write	
PLC_PRG.SC_OUTPUTS (110)	Local Write	
SC_RP2111_ON_CMD%MX10.0		
_global_init (97)	Local Write	
PLC_PRG.SC_OUTPUTS (109)	Local Write	
SC_RP2110_ON_CMD%MX9.9		
_global_init (96)	Local Write	
PLC_PRG.SC_OUTPUTS (107)	Local Write	
SC_RP2110_ON_CMD%MX9.9		
_global_init (96)	Local Write	
PLC_PRG.SC_OUTPUTS (107)	Local Write	
SC_RP2110_ON_CMD%MX9.8		
_global_init (95)	Local Write	
PLC_PRG.SC_OUTPUTS (106)	Local Write	
SC_RP2110_ON_CMD%MX9.8		
_global_init (95)	Local Write	
PLC_PRG.SC_OUTPUTS (106)	Local Write	
SC_RESET_REQ%MX640.0		
_global_init (132)	Local Write	
PLC_PRG.CLEAR_REQS (3)	Local Write	
PLC_PRG.SC_INPUTS (2)	Local Read	
SC_RESET_REQ%MX640.0		

_global_init (132)	Local Write
PLC_PRG.CLEAR_REQS (3)	Local Write
PLC_PRG.SC_INPUTS (2)	Local Read
SC_PE212_PSL_LO%MX2.4	
_global_init (36)	Local Write
PLC_PRG.SC_OUTPUTS (32)	Local Write
SC_PE212_PSL_MIDHI%MX2.2	
_global_init (34)	Local Write
PLC_PRG.SC_OUTPUTS (30)	Local Write
SC_PE212_PSL_LO%MX2.4	
_global_init (36)	Local Write
PLC_PRG.SC_OUTPUTS (32)	Local Write
SC_PE212_PSL_MIDHI%MX2.2	
_global_init (34)	Local Write
PLC_PRG.SC_OUTPUTS (30)	Local Write
SC_PE212_PSL_HI%MX2.1	
_global_init (33)	Local Write
PLC_PRG.SC_OUTPUTS (29)	Local Write
SC_PE212_LO_PIIY%MW1292	
_global_init (157)	Local Write
PLC_PRG.SC_OUTPUTS (168)	Local Write
SC_PE212_LO_PIIY%MW1292	
_global_init (157)	Local Write
PLC_PRG.SC_OUTPUTS (168)	Local Write
SC_PE212_OK%MX2.0	
_global_init (32)	Local Write
PLC_PRG.SC_OUTPUTS (28)	Local Write
SC_PE212_HI_PIIY%MW1291	
_global_init (156)	Local Write
PLC_PRG.SC_OUTPUTS (167)	Local Write
SC_PE212_HI_PIIY%MW1291	
_global_init (156)	Local Write
PLC_PRG.SC_OUTPUTS (167)	Local Write
SC_PE211_PSL_MIDLO%MX1.11	
_global_init (30)	Local Write
PLC_PRG.SC_OUTPUTS (25)	Local Write
SC_PE211_PSL_MIDLO%MX1.11	
_global_init (30)	Local Write
PLC_PRG.SC_OUTPUTS (25)	Local Write
SC_PE211_PSL_LO%MX1.12	
_global_init (31)	Local Write
PLC_PRG.SC_OUTPUTS (26)	Local Write
SC_PE211_OK%MX1.8	
_global_init (27)	Local Write
PLC_PRG.SC_OUTPUTS (22)	Local Write
SC_PE211_LO_PIIY%MW1290	
_global_init (155)	Local Write
PLC_PRG.SC_OUTPUTS (166)	Local Write
SC_PE211_LO_PIIY%MW1290	
_global_init (155)	Local Write
PLC_PRG.SC_OUTPUTS (166)	Local Write
SC_PE211_PSL%MX0.15	
_global_init (21)	Local Write
PLC_PRG.SC_OUTPUTS (14)	Local Write
SC_PE211_PSL_HI%MX1.9	
_global_init (28)	Local Write
PLC_PRG.SC_OUTPUTS (23)	Local Write
SC_PE211_PSL_HI%MX1.9	
_global_init (28)	Local Write
PLC_PRG.SC_OUTPUTS (23)	Local Write
SC_PE211_HI_PIIY%MW1289	
_global_init (154)	Local Write
PLC_PRG.SC_OUTPUTS (165)	Local Write
SC_PE203_PSL_MIDLO%MX1.3	
_global_init (25)	Local Write
PLC_PRG.SC_OUTPUTS (19)	Local Write
SC_PE2110_PSL%MX0.14	
_global_init (20)	Local Write
PLC_PRG.SC_OUTPUTS (13)	Local Write
SC_PE203_PSL_HI%MX1.1	
_global_init (23)	Local Write
PLC_PRG.SC_OUTPUTS (17)	Local Write
SC_PE211_HI_PIIY%MW1289	

_global_init (154)	Local Write
PLC_PRG.SC_OUTPUTS (165)	Local Write
SC_PE203_LO_Piy%MW1288	
_global_init (153)	Local Write
PLC_PRG.SC_OUTPUTS (164)	Local Write
SC_PE203_PSL_MIDHI%MX1.2	
_global_init (24)	Local Write
PLC_PRG.SC_OUTPUTS (18)	Local Write
SC_PE202_PSL%MX0.10	
_global_init (17)	Local Write
PLC_PRG.SC_OUTPUTS (9)	Local Write
SC_PE203_LO_Piy%MW1288	
_global_init (153)	Local Write
PLC_PRG.SC_OUTPUTS (164)	Local Write
SC_PE202_Piy%MW1286	
_global_init (151)	Local Write
PLC_PRG.SC_OUTPUTS (162)	Local Write
SC_PE203_PSL_LO%MX1.4	
_global_init (26)	Local Write
PLC_PRG.SC_OUTPUTS (20)	Local Write
SC_PE203_PSL_LO%MX1.4	
_global_init (26)	Local Write
PLC_PRG.SC_OUTPUTS (20)	Local Write
SC_PE203_OK%MX1.0	
_global_init (22)	Local Write
PLC_PRG.SC_OUTPUTS (16)	Local Write
SC_PE202_Piy%MW1286	
_global_init (151)	Local Write
PLC_PRG.SC_OUTPUTS (162)	Local Write
SC_PE203_HI_Piy%MW1287	
_global_init (152)	Local Write
PLC_PRG.SC_OUTPUTS (163)	Local Write
SC_PE203_HI_Piy%MW1287	
_global_init (152)	Local Write
PLC_PRG.SC_OUTPUTS (163)	Local Write
SC_PE201_Piy%MW1285	
_global_init (150)	Local Write
PLC_PRG.SC_OUTPUTS (161)	Local Write
SC_PE101_PSL%MX0.8	
_global_init (15)	Local Write
PLC_PRG.SC_OUTPUTS (7)	Local Write
SC_PE101_Piy%MW1284	
_global_init (149)	Local Write
PLC_PRG.SC_OUTPUTS (160)	Local Write
SC_LL_TP212_TURBO_OK%MX13.7	
_global_init (129)	Local Write
PLC_PRG.SC_OUTPUTS (149)	Local Write
SC_LL_TP211_TURBO_OK%MX13.6	
_global_init (128)	Local Write
PLC_PRG.SC_OUTPUTS (148)	Local Write
SC_PE203_PSL_MIDLO%MX1.3	
_global_init (25)	Local Write
PLC_PRG.SC_OUTPUTS (19)	Local Write
SC_PE201_PSL%MX0.9	
_global_init (16)	Local Write
PLC_PRG.SC_OUTPUTS (8)	Local Write
SC_LL_V202_OPN%MX12.3	
_global_init (117)	Local Write
PLC_PRG.SC_OUTPUTS (136)	Local Write
SC_LL_TP212_TURBO_OK%MX13.7	
_global_init (129)	Local Write
PLC_PRG.SC_OUTPUTS (149)	Local Write
SC_LL_TP211_TURBO_OK%MX13.6	
_global_init (128)	Local Write
PLC_PRG.SC_OUTPUTS (148)	Local Write
SC_LL_TP201_OK%MX12.7	
_global_init (121)	Local Write
PLC_PRG.SC_OUTPUTS (140)	Local Write
SC_LL_TP201_OK%MX12.7	
_global_init (121)	Local Write
PLC_PRG.SC_OUTPUTS (140)	Local Write
SC_LL_RP2111_ON%MX13.4	
_global_init (126)	Local Write

PLC_PRG.SC_OUTPUTS (146)	Local Write
SC_PE202_PSL%MX0.10	
_global_init (17)	Local Write
PLC_PRG.SC_OUTPUTS (9)	Local Write
SC_LL_PE212_OK%MX13.3	
_global_init (125)	Local Write
PLC_PRG.SC_OUTPUTS (145)	Local Write
SC_LL_PE212_OK%MX13.3	
_global_init (125)	Local Write
PLC_PRG.SC_OUTPUTS (145)	Local Write
SC_LL_PE203_OK%MX12.5	
_global_init (119)	Local Write
PLC_PRG.SC_OUTPUTS (138)	Local Write
SC_LL_V202_OPN%MX12.3	
_global_init (117)	Local Write
PLC_PRG.SC_OUTPUTS (136)	Local Write
SC_LL_STATE%MW1306	
_global_init (163)	Local Write
PLC_PRG.SC_OUTPUTS (274)	Local Write
PLC_PRG.SC_OUTPUTS (276)	Local Write
PLC_PRG.SC_OUTPUTS (278)	Local Write
PLC_PRG.SC_OUTPUTS (280)	Local Write
PLC_PRG.SC_OUTPUTS (282)	Local Write
PLC_PRG.SC_OUTPUTS (284)	Local Write
PLC_PRG.SC_OUTPUTS (286)	Local Write
PLC_PRG.SC_OUTPUTS (288)	Local Write
PLC_PRG.SC_OUTPUTS (290)	Local Write
PLC_PRG.SC_OUTPUTS (292)	Local Write
PLC_PRG.SC_OUTPUTS (294)	Local Write
PLC_PRG.SC_OUTPUTS (297)	Local Write
SC_LL_RP2111_ON%MX13.4	
_global_init (126)	Local Write
PLC_PRG.SC_OUTPUTS (146)	Local Write
SC_LL_PE211_OK%MX13.2	
_global_init (124)	Local Write
PLC_PRG.SC_OUTPUTS (144)	Local Write
SC_LL_PE211_OK%MX13.2	
_global_init (124)	Local Write
PLC_PRG.SC_OUTPUTS (144)	Local Write
SC_LL_PE2111_PSL_LL%MX13.9	
_global_init (131)	Local Write
SC_LL_PE2111_PSL_LL%MX13.9	
_global_init (131)	Local Write
SC_LL_PE2111_PSL_ES%MX13.8	
_global_init (130)	Local Write
SC_LL_PE2111_PSL_ES%MX13.8	
_global_init (130)	Local Write
SC_LL_PE2111_PSL%MX13.5	
_global_init (127)	Local Write
PLC_PRG.SC_OUTPUTS (147)	Local Write
SC_LL_PE2111_PSL%MX13.5	
_global_init (127)	Local Write
PLC_PRG.SC_OUTPUTS (147)	Local Write
SC_LL_PE202_PSL%MX12.4	
_global_init (118)	Local Write
PLC_PRG.SC_OUTPUTS (137)	Local Write
SC_LL_PE101_PSL%MX12.1	
_global_init (115)	Local Write
PLC_PRG.SC_OUTPUTS (134)	Local Write
SC_PE201_PSL%MX0.9	
_global_init (16)	Local Write
PLC_PRG.SC_OUTPUTS (8)	Local Write
SC_PE201_PII%MW1285	
_global_init (150)	Local Write
PLC_PRG.SC_OUTPUTS (161)	Local Write
SC_PE101_PII%MW1284	
_global_init (149)	Local Write
PLC_PRG.SC_OUTPUTS (160)	Local Write
SC_LL_STATE%MW1306	
_global_init (163)	Local Write
PLC_PRG.SC_OUTPUTS (274)	Local Write
PLC_PRG.SC_OUTPUTS (276)	Local Write
PLC_PRG.SC_OUTPUTS (278)	Local Write

PLC_PRG.SC_OUTPUTS (280)	Local Write
PLC_PRG.SC_OUTPUTS (282)	Local Write
PLC_PRG.SC_OUTPUTS (284)	Local Write
PLC_PRG.SC_OUTPUTS (286)	Local Write
PLC_PRG.SC_OUTPUTS (288)	Local Write
PLC_PRG.SC_OUTPUTS (290)	Local Write
PLC_PRG.SC_OUTPUTS (292)	Local Write
PLC_PRG.SC_OUTPUTS (294)	Local Write
PLC_PRG.SC_OUTPUTS (297)	Local Write
SC_LL_PE203_PSL_LO%MX12.6	
_global_init (120)	Local Write
PLC_PRG.SC_OUTPUTS (139)	Local Write
SC_LL_PE203_PSL_LO%MX12.6	
_global_init (120)	Local Write
PLC_PRG.SC_OUTPUTS (139)	Local Write
SC_LL_PE203_OK%MX12.5	
_global_init (119)	Local Write
PLC_PRG.SC_OUTPUTS (138)	Local Write
SC_LL_PE202_PSL%MX12.4	
_global_init (118)	Local Write
PLC_PRG.SC_OUTPUTS (137)	Local Write
SC_LL_PE101_PSL%MX12.1	
_global_init (115)	Local Write
PLC_PRG.SC_OUTPUTS (134)	Local Write
SC_LL_PE201_PSL%MX12.2	
_global_init (116)	Local Write
PLC_PRG.SC_OUTPUTS (135)	Local Write
SC_LL_PE201_PSL%MX12.2	
_global_init (116)	Local Write
PLC_PRG.SC_OUTPUTS (135)	Local Write
SC_LL_LL_CONFIG_OK%MX13.1	
_global_init (123)	Local Write
PLC_PRG.SC_OUTPUTS (143)	Local Write
SC_LL_LL_CONFIG_OK%MX13.1	
_global_init (123)	Local Write
PLC_PRG.SC_OUTPUTS (143)	Local Write
SC_LL_ES_CONFIG_OK%MX13.0	
_global_init (122)	Local Write
PLC_PRG.SC_OUTPUTS (142)	Local Write
SC_LL_ES_CONFIG_OK%MX13.0	
_global_init (122)	Local Write
PLC_PRG.SC_OUTPUTS (142)	Local Write
SC_LL_CMD_VAL%MW1298	
_global_init (160)	Local Write
PLC_PRG.SC_OUTPUTS (205)	Local Write
PLC_PRG.SC_OUTPUTS (207)	Local Write
PLC_PRG.SC_OUTPUTS (209)	Local Write
PLC_PRG.SC_OUTPUTS (211)	Local Write
PLC_PRG.SC_OUTPUTS (214)	Local Write
SC_LL_CMD_VAL%MW1298	
_global_init (160)	Local Write
PLC_PRG.SC_OUTPUTS (205)	Local Write
PLC_PRG.SC_OUTPUTS (207)	Local Write
PLC_PRG.SC_OUTPUTS (209)	Local Write
PLC_PRG.SC_OUTPUTS (211)	Local Write
PLC_PRG.SC_OUTPUTS (214)	Local Write
SC_LL_CMD_REQ%MW3714	
_global_init (166)	Local Write
PLC_PRG.SC_INPUTS (55)	Local Read
PLC_PRG.SC_INPUTS (57)	Local Read
PLC_PRG.SC_INPUTS (59)	Local Read
PLC_PRG.SC_INPUTS (61)	Local Read
SC_LL_ACTUATOR_OK%MX12.0	
_global_init (114)	Local Write
PLC_PRG.SC_OUTPUTS (133)	Local Write
SC_LL_CMD_REQ%MW3714	
_global_init (166)	Local Write
PLC_PRG.SC_INPUTS (55)	Local Read
PLC_PRG.SC_INPUTS (57)	Local Read
PLC_PRG.SC_INPUTS (59)	Local Read
PLC_PRG.SC_INPUTS (61)	Local Read
SC_LL211_LID_CLOSED%MX2.8	
_global_init (37)	Local Write

PLC_PRG.SC_OUTPUTS (34)	Local Write
SC_ES_STATE%MW1305	
_global_init (162)	Local Write
PLC_PRG.SC_OUTPUTS (245)	Local Write
PLC_PRG.SC_OUTPUTS (247)	Local Write
PLC_PRG.SC_OUTPUTS (249)	Local Write
PLC_PRG.SC_OUTPUTS (251)	Local Write
PLC_PRG.SC_OUTPUTS (253)	Local Write
PLC_PRG.SC_OUTPUTS (255)	Local Write
PLC_PRG.SC_OUTPUTS (257)	Local Write
PLC_PRG.SC_OUTPUTS (259)	Local Write
PLC_PRG.SC_OUTPUTS (261)	Local Write
PLC_PRG.SC_OUTPUTS (263)	Local Write
PLC_PRG.SC_OUTPUTS (265)	Local Write
PLC_PRG.SC_OUTPUTS (268)	Local Write
SC_ES_CMD_REQ%MW3713	
_global_init (165)	Local Write
PLC_PRG.SC_INPUTS (40)	Local Read
PLC_PRG.SC_INPUTS (42)	Local Read
PLC_PRG.SC_INPUTS (44)	Local Read
PLC_PRG.SC_INPUTS (46)	Local Read
RPV212_OPN_REQ_LL	
_global_init (273)	Local Write
_global_init (274)	Local Write
PLC_PRG.LL_SM (12)	Local Write
PLC_PRG.LL_SM (25)	Local Write
PLC_PRG.LL_SM (38)	Local Write
PLC_PRG.LL_SM (55)	Local Write
PLC_PRG.LL_SM (72)	Local Write
PLC_PRG.LL_SM (89)	Local Write
PLC_PRG.LL_SM (106)	Local Write
PLC_PRG.LL_SM (124)	Local Write
PLC_PRG.LL_SM (141)	Local Write
PLC_PRG.LL_SM (161)	Local Write
PLC_PRG.LL_SM (180)	Local Write
PLC_PRG.VALVES (105)	Local Read
PLC_PRG.VALVES (106)	Local Read
RPV212_CSD	
_global_init (214)	Local Write
PLC_PRG.LL_SM (32)	Local Read
PLC_PRG.PROCESS_IN... (68)	Local Write
PLC_PRG.PUMPS (8)	Local Read
PLC_PRG.SC_OUTPUTS (96)	Local Read
PLC_PRG.VALVES (71)	Local Read
PLC_PRG.VALVES (86)	Local Read
PLC_PRG.VALVES (94)	Local Read
RPV212_CLS_REQ_LL	
_global_init (274)	Local Write
_global_init (275)	Local Write
SC_LL_ACTUATOR_OK%MX12.0	
_global_init (114)	Local Write
PLC_PRG.SC_OUTPUTS (133)	Local Write
RPV211_CSD	
_global_init (206)	Local Write
PLC_PRG.ES_SM (33)	Local Read
PLC_PRG.PROCESS_IN... (56)	Local Write
PLC_PRG.PUMPS (8)	Local Read
PLC_PRG.SC_OUTPUTS (77)	Local Read
PLC_PRG.VALVES (54)	Local Read
PLC_PRG.VALVES (62)	Local Read
PLC_PRG.VALVES (103)	Local Read
SC_LL211_ARM_RETRACTED%MX2.9	
_global_init (38)	Local Write
PLC_PRG.SC_OUTPUTS (35)	Local Write
SC_LL211_ARM_RETRACTED%MX2.9	
_global_init (38)	Local Write
PLC_PRG.SC_OUTPUTS (35)	Local Write
SC_ES_CMD_VAL%MW1297	
_global_init (159)	Local Write
PLC_PRG.SC_OUTPUTS (190)	Local Write
PLC_PRG.SC_OUTPUTS (192)	Local Write
PLC_PRG.SC_OUTPUTS (194)	Local Write
PLC_PRG.SC_OUTPUTS (196)	Local Write

PLC_PRG.SC_OUTPUTS (199)	Local Write
RP211_PSL	
_global_init (189)	Local Write
PLC_PRG.PROCESS_IN... (9)	Local Write
Reset_Required	
_global_init (244)	Local Write
_global_init (245)	Local Write
PLC_PRG.FAULT_LOGIC (37)	Local Write
PLC_PRG.SC_OUTPUTS (2)	Local Read
SC_ES_STATE%MW1305	
_global_init (162)	Local Write
PLC_PRG.SC_OUTPUTS (245)	Local Write
PLC_PRG.SC_OUTPUTS (247)	Local Write
PLC_PRG.SC_OUTPUTS (249)	Local Write
PLC_PRG.SC_OUTPUTS (251)	Local Write
PLC_PRG.SC_OUTPUTS (253)	Local Write
PLC_PRG.SC_OUTPUTS (255)	Local Write
PLC_PRG.SC_OUTPUTS (257)	Local Write
PLC_PRG.SC_OUTPUTS (259)	Local Write
PLC_PRG.SC_OUTPUTS (261)	Local Write
PLC_PRG.SC_OUTPUTS (263)	Local Write
PLC_PRG.SC_OUTPUTS (265)	Local Write
PLC_PRG.SC_OUTPUTS (268)	Local Write
rVersion	
_global_init (165)	Global Write
RPV212	
_global_init (305)	Local Read
_global_init (306)	Local Read
PLC_PRG.PROCESS_OU... (23)	Local Read
PLC_PRG.SC_OUTPUTS (97)	Local Read
PLC_PRG.VALVES (102)	Local Write
PLC_PRG.VALVES (103)	Local Write
PLC_PRG.VALVES (104)	Local Write
PLC_PRG.VALVES (105)	Local Write
PLC_PRG.VALVES (106)	Local Write
PLC_PRG.VALVES (107)	Local Read
PE212_PSL_MIDL0	
_global_init (187)	Local Write
PLC_PRG.LL_SM (47)	Local Read
PLC_PRG.LL_SM (135)	Local Read
PLC_PRG.LL_SM (152)	Local Read
PLC_PRG.LL_SM (172)	Local Read
PLC_PRG.LL_SM (191)	Local Read
PLC_PRG.PROCESS_IN... (27)	Local Write
PLC_PRG.VALVES (103)	Local Read
PLC_PRG.VALVES (110)	Local Read
SC_LL211_LID_CLOSED%MX2.8	
_global_init (37)	Local Write
PLC_PRG.SC_OUTPUTS (34)	Local Write
PE212_PSH_MIDHI	
_global_init (186)	Local Write
PLC_PRG.LL_SM (66)	Local Read
PLC_PRG.PROCESS_IN... (26)	Local Write
SC_ES_CMD_VAL%MW1297	
_global_init (159)	Local Write
PLC_PRG.SC_OUTPUTS (190)	Local Write
PLC_PRG.SC_OUTPUTS (192)	Local Write
PLC_PRG.SC_OUTPUTS (194)	Local Write
PLC_PRG.SC_OUTPUTS (196)	Local Write
PLC_PRG.SC_OUTPUTS (199)	Local Write
RPV212_OPN	
_global_init (213)	Local Write
PLC_PRG.PROCESS_IN... (67)	Local Write
PLC_PRG.SC_OUTPUTS (95)	Local Read
RPV211_CLS_REQ_ES	
_global_init (262)	Local Write
_global_init (263)	Local Write
RPV211	
_global_init (300)	Local Read
_global_init (301)	Local Read
PLC_PRG.PROCESS_OU... (14)	Local Read
PLC_PRG.SC_OUTPUTS (78)	Local Read
PLC_PRG.VALVES (70)	Local Write

PLC_PRG.VALVES (71)	Local Write
PLC_PRG.VALVES (72)	Local Write
PLC_PRG.VALVES (73)	Local Write
PLC_PRG.VALVES (74)	Local Write
PLC_PRG.VALVES (75)	Local Read
PE212_PSH_HI	
_global_init (185)	Local Write
PLC_PRG.LL_SM (83)	Local Read
PLC_PRG.LL_SM (100)	Local Read
PLC_PRG.PROCESS_IN... (25)	Local Write
PE211_PSL_MIDLO	
_global_init (182)	Local Write
PLC_PRG.ES_SM (49)	Local Read
PLC_PRG.ES_SM (142)	Local Read
PLC_PRG.ES_SM (160)	Local Read
PLC_PRG.ES_SM (181)	Local Read
PLC_PRG.ES_SM (201)	Local Read
PLC_PRG.PROCESS_IN... (21)	Local Write
PLC_PRG.VALVES (71)	Local Read
PLC_PRG.VALVES (78)	Local Read
PE211_PSL_LO	
_global_init (183)	Local Write
PLC_PRG.ES_SM (183)	Local Read
PLC_PRG.ES_SM (204)	Local Read
PLC_PRG.PROCESS_IN... (22)	Local Write
PLC_PRG.VALVES (36)	Local Read
SC_ES_CMD_REQ%MW3713	
_global_init (165)	Local Write
PLC_PRG.SC_INPUTS (40)	Local Read
PLC_PRG.SC_INPUTS (42)	Local Read
PLC_PRG.SC_INPUTS (44)	Local Read
PLC_PRG.SC_INPUTS (46)	Local Read
PE211_PSH_MIDHI	
_global_init (181)	Local Write
PLC_PRG.ES_SM (69)	Local Read
PLC_PRG.PROCESS_IN... (20)	Local Write
SC_BR_STATE%MW1304	
_global_init (161)	Local Write
PLC_PRG.SC_OUTPUTS (221)	Local Write
PLC_PRG.SC_OUTPUTS (224)	Local Write
PLC_PRG.SC_OUTPUTS (227)	Local Write
PLC_PRG.SC_OUTPUTS (230)	Local Write
PLC_PRG.SC_OUTPUTS (233)	Local Write
PLC_PRG.SC_OUTPUTS (236)	Local Write
PLC_PRG.SC_OUTPUTS (239)	Local Write
SC_BR_STATE%MW1304	
_global_init (161)	Local Write
PLC_PRG.SC_OUTPUTS (221)	Local Write
PLC_PRG.SC_OUTPUTS (224)	Local Write
PLC_PRG.SC_OUTPUTS (227)	Local Write
PLC_PRG.SC_OUTPUTS (230)	Local Write
PLC_PRG.SC_OUTPUTS (233)	Local Write
PLC_PRG.SC_OUTPUTS (236)	Local Write
PLC_PRG.SC_OUTPUTS (239)	Local Write
SC_BR_CMD_VAL%MW1296	
_global_init (158)	Local Write
PLC_PRG.SC_OUTPUTS (173)	Local Write
PLC_PRG.SC_OUTPUTS (175)	Local Write
PLC_PRG.SC_OUTPUTS (177)	Local Write
PLC_PRG.SC_OUTPUTS (179)	Local Write
PLC_PRG.SC_OUTPUTS (181)	Local Write
PLC_PRG.SC_OUTPUTS (184)	Local Write
SC_BR_CMD_REQ%MW3712	
_global_init (164)	Local Write
PLC_PRG.SC_INPUTS (24)	Local Read
PLC_PRG.SC_INPUTS (26)	Local Read
PLC_PRG.SC_INPUTS (28)	Local Read
PLC_PRG.SC_INPUTS (30)	Local Read
PLC_PRG.SC_INPUTS (32)	Local Read
SC_AFB%MX0.3	
_global_init (14)	Local Write
PLC_PRG.SC_OUTPUTS (4)	Local Write
SC_ATB%MX0.2	



_global_init (13)	Local Write
PLC_PRG.SC_OUTPUTS (3)	Local Write
RPV211_OPN_REQ_ES	
_global_init (261)	Local Write
_global_init (262)	Local Write
PLC_PRG.ES_SM (12)	Local Write
PLC_PRG.ES_SM (26)	Local Write
PLC_PRG.ES_SM (40)	Local Write
PLC_PRG.ES_SM (58)	Local Write
PLC_PRG.ES_SM (76)	Local Write
PLC_PRG.ES_SM (94)	Local Write
PLC_PRG.ES_SM (112)	Local Write
PLC_PRG.ES_SM (131)	Local Write
PLC_PRG.ES_SM (149)	Local Write
PLC_PRG.ES_SM (170)	Local Write
PLC_PRG.ES_SM (190)	Local Write
PLC_PRG.VALVES (73)	Local Read
PLC_PRG.VALVES (74)	Local Read
RP211_ON_REQ_LL	
_global_init (282)	Local Write
_global_init (283)	Local Write
PLC_PRG.LL_SM (13)	Local Write
PLC_PRG.LL_SM (26)	Local Write
PLC_PRG.LL_SM (39)	Local Write
PLC_PRG.LL_SM (56)	Local Write
PLC_PRG.LL_SM (73)	Local Write
PLC_PRG.LL_SM (90)	Local Write
PLC_PRG.LL_SM (107)	Local Write
PLC_PRG.LL_SM (125)	Local Write
PLC_PRG.LL_SM (142)	Local Write
PLC_PRG.LL_SM (162)	Local Write
PLC_PRG.LL_SM (181)	Local Write
PLC_PRG.PUMPS (9)	Local Read
RP211_ON	
_global_init (223)	Local Write
_global_init (224)	Local Write
PLC_PRG.ES_SM (123)	Local Read
PLC_PRG.LL_SM (117)	Local Read
PLC_PRG.PROCESS_IN... (7)	Local Write
PLC_PRG.SC_OUTPUTS (106)	Local Read
PLC_PRG.VALVES (70)	Local Read
PLC_PRG.VALVES (102)	Local Read
RP211	
_global_init (308)	Local Read
_global_init (309)	Local Read
PLC_PRG.PROCESS_OU... (3)	Local Read
PLC_PRG.PUMPS (7)	Local Write
PLC_PRG.PUMPS (8)	Local Write
PLC_PRG.PUMPS (9)	Local Write
PLC_PRG.PUMPS (10)	Local Read
PLC_PRG.PUMPS (10)	Local Write
PLC_PRG.PUMPS (11)	Local Read
PLC_PRG.SC_OUTPUTS (107)	Local Read
PE212_PSL_LO	
_global_init (188)	Local Write
PLC_PRG.LL_SM (174)	Local Read
PLC_PRG.LL_SM (194)	Local Read
PLC_PRG.PROCESS_IN... (28)	Local Write
PE212_PIIY_OK	
_global_init (184)	Local Write
PLC_PRG.FAULT_LOGIC (15)	Local Read
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.PROCESS_IN... (24)	Local Write
PE211_PSH_HI	
_global_init (180)	Local Write
PLC_PRG.ES_SM (87)	Local Read
PLC_PRG.ES_SM (105)	Local Read
PLC_PRG.PROCESS_IN... (19)	Local Write
PE211_PIIY_OK	
_global_init (179)	Local Write
PLC_PRG.FAULT_LOGIC (14)	Local Read
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.PROCESS_IN... (18)	Local Write

PE203_PSL_MIDLO		
_global_init (177)		Local Write
PLC_PRG.PROCESS_IN... (15)		Local Write
PE203_PSL_LO		
_global_init (178)		Local Write
PLC_PRG.FAULT_LOGIC (8)		Local Read
PLC_PRG.FAULT_LOGIC (37)		Local Read
PLC_PRG.PROCESS_IN... (16)		Local Write
PE203_PSH_HI		
_global_init (175)		Local Write
PLC_PRG.PROCESS_IN... (13)		Local Write
SC_BR_CMD_VAL%MW1296		
_global_init (158)		Local Write
PLC_PRG.SC_OUTPUTS (173)		Local Write
PLC_PRG.SC_OUTPUTS (175)		Local Write
PLC_PRG.SC_OUTPUTS (177)		Local Write
PLC_PRG.SC_OUTPUTS (179)		Local Write
PLC_PRG.SC_OUTPUTS (181)		Local Write
PLC_PRG.SC_OUTPUTS (184)		Local Write
PE203_PLY_OK		
_global_init (174)		Local Write
PLC_PRG.FAULT_LOGIC (13)		Local Read
PLC_PRG.FAULT_LOGIC (37)		Local Read
PLC_PRG.PROCESS_IN... (12)		Local Write
SC_BR_CMD_REQ%MW3712		
_global_init (164)		Local Write
PLC_PRG.SC_INPUTS (24)		Local Read
PLC_PRG.SC_INPUTS (26)		Local Read
PLC_PRG.SC_INPUTS (28)		Local Read
PLC_PRG.SC_INPUTS (30)		Local Read
PLC_PRG.SC_INPUTS (32)		Local Read
RPV211_OPN		
_global_init (205)		Local Write
PLC_PRG.PROCESS_IN... (55)		Local Write
PLC_PRG.SC_OUTPUTS (76)		Local Read
PE202_PSL_LO		
_global_init (173)		Local Write
PLC_PRG.BYPASSES (10)		Local Write
PLC_PRG.FAULT_LOGIC (7)		Local Read
PLC_PRG.FAULT_LOGIC (37)		Local Read
PLC_PRG.PROCESS_IN... (5)		Local Write
PLC_PRG.SC_OUTPUTS (9)		Local Read
RESET_REQ		
_global_init (170)		Local Write
PLC_PRG.FAULT_LOGIC (3)		Local Read
PLC_PRG.FAULT_LOGIC (4)		Local Read
PLC_PRG.FAULT_LOGIC (5)		Local Read
PLC_PRG.FAULT_LOGIC (6)		Local Read
PLC_PRG.FAULT_LOGIC (7)		Local Read
PLC_PRG.FAULT_LOGIC (8)		Local Read
PLC_PRG.FAULT_LOGIC (10)		Local Read
PLC_PRG.FAULT_LOGIC (11)		Local Read
PLC_PRG.FAULT_LOGIC (13)		Local Read
PLC_PRG.FAULT_LOGIC (14)		Local Read
PLC_PRG.FAULT_LOGIC (15)		Local Read
PLC_PRG.FAULT_LOGIC (17)		Local Read
PLC_PRG.FAULT_LOGIC (19)		Local Read
PLC_PRG.FAULT_LOGIC (20)		Local Read
PLC_PRG.FAULT_LOGIC (21)		Local Read
PLC_PRG.SC_INPUTS (2)		Local Write
PE201_PSL_LO		
_global_init (172)		Local Write
PLC_PRG.BYPASSES (9)		Local Write
PLC_PRG.FAULT_LOGIC (5)		Local Read
PLC_PRG.FAULT_LOGIC (37)		Local Read
PLC_PRG.PROCESS_IN... (4)		Local Write
PLC_PRG.SC_OUTPUTS (8)		Local Read
PE101_PSL_LO		
_global_init (171)		Local Write
PLC_PRG.BYPASSES (8)		Local Write
PLC_PRG.FAULT_LOGIC (4)		Local Read
PLC_PRG.FAULT_LOGIC (37)		Local Read
PLC_PRG.PROCESS_IN... (3)		Local Write

PLC_PRG.SC_OUTPUTS (7)	Local Read
SC_AFB%MX0.3	
_global_init (14)	Local Write
PLC_PRG.SC_OUTPUTS (4)	Local Write
RP211_ON_REQ_ES	
_global_init (281)	Local Write
_global_init (282)	Local Write
PLC_PRG.ES_SM (13)	Local Write
PLC_PRG.ES_SM (27)	Local Write
PLC_PRG.ES_SM (41)	Local Write
PLC_PRG.ES_SM (59)	Local Write
PLC_PRG.ES_SM (77)	Local Write
PLC_PRG.ES_SM (95)	Local Write
PLC_PRG.ES_SM (113)	Local Write
PLC_PRG.ES_SM (132)	Local Write
PLC_PRG.ES_SM (150)	Local Write
PLC_PRG.ES_SM (171)	Local Write
PLC_PRG.ES_SM (191)	Local Write
PLC_PRG.PUMPS (9)	Local Read
PE203_PSH_MIDHI	
_global_init (176)	Local Write
PLC_PRG.PROCESS_IN... (14)	Local Write
open_req	
VALVE_BI_FB (4)	Local Read
VALVE_BI_FB (8)	Local Read
VALVE_BI_FBinit (5)	Local Write
PLC_PRG.VALVES (49)	Local Write
open_ena	
VALVE_FB (3)	Local Read
VALVE_FB (6)	Local Read
VALVE_FBinit (2)	Local Write
PLC_PRG.SC_OUTPUTS (43)	Local Read
PLC_PRG.SC_OUTPUTS (51)	Local Read
PLC_PRG.SC_OUTPUTS (63)	Local Read
PLC_PRG.SC_OUTPUTS (71)	Local Read
PLC_PRG.VALVES (5)	Local Write
PLC_PRG.VALVES (13)	Local Write
PLC_PRG.VALVES (21)	Local Write
PLC_PRG.VALVES (29)	Local Write
PLC_PRG.VALVES (37)	Local Write
PLC_PRG.VALVES (55)	Local Write
PLC_PRG.VALVES (63)	Local Write
PLC_PRG.VALVES (71)	Local Write
PLC_PRG.VALVES (79)	Local Write
PLC_PRG.VALVES (87)	Local Write
PLC_PRG.VALVES (95)	Local Write
PLC_PRG.VALVES (103)	Local Write
PLC_PRG.VALVES (111)	Local Write
open_ena	
VALVE_BI_FB (4)	Local Read
VALVE_BI_FB (8)	Local Read
VALVE_BI_FB (11)	Local Read
VALVE_BI_FBinit (2)	Local Write
PLC_PRG.SC_OUTPUTS (89)	Local Read
PLC_PRG.VALVES (46)	Local Write
open_cmd	
VALVE_FB (3)	Local Read
VALVE_FB (3)	Local Write
VALVE_FB (6)	Local Read
VALVE_FBinit (6)	Local Write
PLC_PRG.PROCESS_OU... (5)	Local Read
PLC_PRG.PROCESS_OU... (6)	Local Read
PLC_PRG.PROCESS_OU... (7)	Local Read
PLC_PRG.PROCESS_OU... (8)	Local Read
PLC_PRG.PROCESS_OU... (10)	Local Read
PLC_PRG.PROCESS_OU... (13)	Local Read
PLC_PRG.PROCESS_OU... (14)	Local Read
PLC_PRG.PROCESS_OU... (15)	Local Read
PLC_PRG.PROCESS_OU... (16)	Local Read
PLC_PRG.PROCESS_OU... (22)	Local Read
PLC_PRG.PROCESS_OU... (23)	Local Read
PLC_PRG.PROCESS_OU... (24)	Local Read
PLC_PRG.PROCESS_OU... (25)	Local Read

PLC_PRG.SC_OUTPUTS (45)	Local Read
PLC_PRG.SC_OUTPUTS (53)	Local Read
PLC_PRG.SC_OUTPUTS (65)	Local Read
PLC_PRG.SC_OUTPUTS (73)	Local Read
PLC_PRG.SC_OUTPUTS (78)	Local Read
PLC_PRG.SC_OUTPUTS (80)	Local Read
PLC_PRG.SC_OUTPUTS (81)	Local Read
PLC_PRG.SC_OUTPUTS (85)	Local Read
PLC_PRG.SC_OUTPUTS (97)	Local Read
PLC_PRG.SC_OUTPUTS (99)	Local Read
PLC_PRG.SC_OUTPUTS (100)	Local Read
PLC_PRG.SC_OUTPUTS (104)	Local Read
PLC_PRG.SC_OUTPUTS (112)	Local Read
on_req	
TP_FB (3)	Local Read
TP_FBinit (4)	Local Write
PLC_PRG.PUMPS (17)	Local Write
PLC_PRG.PUMPS (25)	Local Write
PLC_PRG.PUMPS (26)	Local Read
PLC_PRG.PUMPS (33)	Local Write
PLC_PRG.PUMPS (34)	Local Read
on_req	
RP_FB (2)	Local Read
RP_FBinit (3)	Local Write
PLC_PRG.PUMPS (9)	Local Write
PLC_PRG.PUMPS (10)	Local Read
open_cmd	
VALVE_BI_FB (4)	Local Read
VALVE_BI_FB (4)	Local Write
VALVE_BI_FB (11)	Local Read
VALVE_BI_FBinit (7)	Local Write
PLC_PRG.PROCESS_OU... (18)	Local Read
PLC_PRG.SC_OUTPUTS (91)	Local Read
on_intlk	
TP_FB (3)	Local Read
TP_FB (6)	Local Read
TP_FBinit (1)	Local Write
PLC_PRG.PUMPS (14)	Local Write
PLC_PRG.PUMPS (22)	Local Write
PLC_PRG.PUMPS (30)	Local Write
LL_TP201_OK	
_global_init (236)	Local Write
_global_init (237)	Local Write
PLC_PRG.FAULT_LOGIC (19)	Local Read
PLC_PRG.FAULT_LOGIC (19)	Local Write
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.SC_OUTPUTS (140)	Local Read
PLC_PRG.VALVES (20)	Local Read
PLC_PRG.VALVES (36)	Local Read
LL_PE212_PIIY_OK	
_global_init (240)	Local Write
_global_init (241)	Local Write
PLC_PRG.FAULT_LOGIC (15)	Local Read
PLC_PRG.FAULT_LOGIC (15)	Local Write
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.LL_SM (4)	Local Read
PLC_PRG.LL_SM (19)	Local Read
PLC_PRG.SC_OUTPUTS (145)	Local Read
PLC_PRG.VALVES (110)	Local Read
on_ena	
TP_FB (3)	Local Read
TP_FB (6)	Local Read
TP_FBinit (2)	Local Write
PLC_PRG.PUMPS (15)	Local Write
PLC_PRG.PUMPS (23)	Local Write
PLC_PRG.PUMPS (31)	Local Write
PLC_PRG.SC_OUTPUTS (118)	Local Read
LL_PE203_PSL_LO	
_global_init (235)	Local Write
_global_init (236)	Local Write
PLC_PRG.FAULT_LOGIC (8)	Local Read
PLC_PRG.FAULT_LOGIC (8)	Local Write
PLC_PRG.FAULT_LOGIC (37)	Local Read

PLC_PRG.SC_OUTPUTS (139)	Local Read
PLC_PRG.VALVES (20)	Local Read
PLC_PRG.VALVES (36)	Local Read
on_ena	
RP_FB (2)	Local Read
RP_FB (4)	Local Read
RP_FBinit (1)	Local Write
PLC_PRG.PUMPS (7)	Local Write
LLV211_OPN_REQ_SC	
_global_init (265)	Local Write
_global_init (266)	Local Write
PLC_PRG.SC_INPUTS (19)	Local Write
PLC_PRG.VALVES (49)	Local Read
LLV211_CLS_REQ_LL	
_global_init (268)	Local Write
_global_init (269)	Local Write
PLC_PRG.LL_SM (11)	Local Write
PLC_PRG.LL_SM (24)	Local Write
PLC_PRG.LL_SM (37)	Local Write
PLC_PRG.LL_SM (54)	Local Write
PLC_PRG.LL_SM (71)	Local Write
PLC_PRG.LL_SM (88)	Local Write
PLC_PRG.LL_SM (123)	Local Write
PLC_PRG.LL_SM (140)	Local Write
PLC_PRG.LL_SM (160)	Local Write
PLC_PRG.LL_SM (179)	Local Write
PLC_PRG.VALVES (50)	Local Read
LLV211	
_global_init (302)	Local Read
_global_init (303)	Local Read
PLC_PRG.PROCESS_OU... (18)	Local Read
PLC_PRG.PROCESS_OU... (19)	Local Read
PLC_PRG.SC_OUTPUTS (89)	Local Read
PLC_PRG.SC_OUTPUTS (90)	Local Read
PLC_PRG.SC_OUTPUTS (91)	Local Read
PLC_PRG.SC_OUTPUTS (92)	Local Read
PLC_PRG.SC_OUTPUTS (93)	Local Read
PLC_PRG.VALVES (45)	Local Write
PLC_PRG.VALVES (46)	Local Write
PLC_PRG.VALVES (47)	Local Write
PLC_PRG.VALVES (48)	Local Write
PLC_PRG.VALVES (49)	Local Write
PLC_PRG.VALVES (50)	Local Write
PLC_PRG.VALVES (51)	Local Read
DO_VENT212_SLOW_CMD%QX1.3	
_global_init (24)	Global Write
PLC_PRG.PROCESS_IN... (64)	Global Read
PLC_PRG.PROCESS_OU... (24)	Global Write
DO_VENT212_FAST_CMD%QX1.4	
_global_init (25)	Global Write
PLC_PRG.PROCESS_IN... (64)	Global Read
PLC_PRG.PROCESS_OU... (25)	Global Write
LLV211_CLS_REQ_SC	
_global_init (266)	Local Write
_global_init (267)	Local Write
PLC_PRG.SC_INPUTS (20)	Local Write
PLC_PRG.VALVES (50)	Local Read
DO_V203_OPEN_CMD%QX0.4	
_global_init (9)	Global Write
PLC_PRG.PROCESS_IN... (42)	Global Read
PLC_PRG.PROCESS_IN... (43)	Global Read
PLC_PRG.PROCESS_OU... (7)	Global Write
LL_STATE	
_global_init (291)	Local Write
_global_init (292)	Local Write
PLC_PRG.LL_SM (5)	Local Write
PLC_PRG.LL_SM (10)	Local Read
PLC_PRG.LL_SM (20)	Local Write
PLC_PRG.LL_SM (23)	Local Read
PLC_PRG.LL_SM (33)	Local Write
PLC_PRG.LL_SM (36)	Local Read
PLC_PRG.LL_SM (46)	Local Write
PLC_PRG.LL_SM (48)	Local Write

PLC_PRG.LL_SM (50)	Local Write
PLC_PRG.LL_SM (53)	Local Read
PLC_PRG.LL_SM (63)	Local Write
PLC_PRG.LL_SM (65)	Local Write
PLC_PRG.LL_SM (67)	Local Write
PLC_PRG.LL_SM (70)	Local Read
PLC_PRG.LL_SM (80)	Local Write
PLC_PRG.LL_SM (82)	Local Write
PLC_PRG.LL_SM (84)	Local Write
PLC_PRG.LL_SM (87)	Local Read
PLC_PRG.LL_SM (97)	Local Write
PLC_PRG.LL_SM (99)	Local Write
PLC_PRG.LL_SM (101)	Local Write
PLC_PRG.LL_SM (104)	Local Read
PLC_PRG.LL_SM (114)	Local Write
PLC_PRG.LL_SM (116)	Local Write
PLC_PRG.LL_SM (119)	Local Write
PLC_PRG.LL_SM (122)	Local Read
PLC_PRG.LL_SM (132)	Local Write
PLC_PRG.LL_SM (134)	Local Write
PLC_PRG.LL_SM (136)	Local Write
PLC_PRG.LL_SM (139)	Local Read
PLC_PRG.LL_SM (149)	Local Write
PLC_PRG.LL_SM (151)	Local Write
PLC_PRG.LL_SM (153)	Local Write
PLC_PRG.LL_SM (156)	Local Write
PLC_PRG.LL_SM (159)	Local Read
PLC_PRG.LL_SM (169)	Local Write
PLC_PRG.LL_SM (171)	Local Write
PLC_PRG.LL_SM (173)	Local Write
PLC_PRG.LL_SM (175)	Local Write
PLC_PRG.LL_SM (178)	Local Read
PLC_PRG.LL_SM (188)	Local Write
PLC_PRG.LL_SM (190)	Local Write
PLC_PRG.LL_SM (193)	Local Write
PLC_PRG.LL_SM (195)	Local Write
PLC_PRG.LL_SM (200)	Local Write
PLC_PRG.SC_OUTPUTS (273)	Local Read
PLC_PRG.SC_OUTPUTS (275)	Local Read
PLC_PRG.SC_OUTPUTS (277)	Local Read
PLC_PRG.SC_OUTPUTS (279)	Local Read
PLC_PRG.SC_OUTPUTS (281)	Local Read
PLC_PRG.SC_OUTPUTS (283)	Local Read
PLC_PRG.SC_OUTPUTS (285)	Local Read
PLC_PRG.SC_OUTPUTS (287)	Local Read
PLC_PRG.SC_OUTPUTS (289)	Local Read
PLC_PRG.SC_OUTPUTS (291)	Local Read
PLC_PRG.SC_OUTPUTS (293)	Local Read
PLC_PRG.VALVES (45)	Local Read
DO_V201_OPEN_CMD%QX0.3	
_global_init (8)	Global Write
PLC_PRG.PROCESS_IN... (36)	Global Read
PLC_PRG.PROCESS_IN... (37)	Global Read
PLC_PRG.PROCESS_OU... (6)	Global Write
DO_SPARE_32%QX1.15	
_global_init (36)	Global Write
LL_REQUEST	
_global_init (292)	Local Write
_global_init (293)	Local Write
PLC_PRG.LL_SM (45)	Local Read
PLC_PRG.LL_SM (47)	Local Read
PLC_PRG.LL_SM (49)	Local Read
PLC_PRG.LL_SM (62)	Local Read
PLC_PRG.LL_SM (64)	Local Read
PLC_PRG.LL_SM (79)	Local Read
PLC_PRG.LL_SM (81)	Local Read
PLC_PRG.LL_SM (96)	Local Read
PLC_PRG.LL_SM (98)	Local Read
PLC_PRG.LL_SM (113)	Local Read
PLC_PRG.LL_SM (115)	Local Read
PLC_PRG.LL_SM (131)	Local Read
PLC_PRG.LL_SM (133)	Local Read
PLC_PRG.LL_SM (148)	Local Read

PLC_PRG.LL_SM (150)	Local Read
PLC_PRG.LL_SM (168)	Local Read
PLC_PRG.LL_SM (170)	Local Read
PLC_PRG.LL_SM (187)	Local Read
PLC_PRG.LL_SM (189)	Local Read
PLC_PRG.SC_INPUTS (56)	Local Write
PLC_PRG.SC_INPUTS (58)	Local Write
PLC_PRG.SC_INPUTS (60)	Local Write
PLC_PRG.SC_INPUTS (62)	Local Write
PLC_PRG.SC_INPUTS (64)	Local Write
PLC_PRG.SC_OUTPUTS (204)	Local Read
PLC_PRG.SC_OUTPUTS (206)	Local Read
PLC_PRG.SC_OUTPUTS (208)	Local Read
PLC_PRG.SC_OUTPUTS (210)	Local Read
DO_TP211_ON_CMD%QX0.8	
_global_init (13)	Global Write
PLC_PRG.PROCESS_IN... (62)	Global Read
PLC_PRG.PROCESS_OU... (12)	Global Write
DO_SPARE_32%QX1.15	
_global_init (36)	Global Write
DO_SPARE_31%QX1.14	
_global_init (35)	Global Write
DO_SPARE_31%QX1.14	
_global_init (35)	Global Write
LLV211_CLS_REQ_ES	
_global_init (267)	Local Write
_global_init (268)	Local Write
PLC_PRG.ES_SM (11)	Local Write
PLC_PRG.ES_SM (25)	Local Write
PLC_PRG.ES_SM (39)	Local Write
PLC_PRG.ES_SM (57)	Local Write
PLC_PRG.ES_SM (75)	Local Write
PLC_PRG.ES_SM (93)	Local Write
PLC_PRG.ES_SM (111)	Local Write
PLC_PRG.ES_SM (130)	Local Write
PLC_PRG.ES_SM (148)	Local Write
PLC_PRG.ES_SM (169)	Local Write
PLC_PRG.ES_SM (189)	Local Write
PLC_PRG.LL_SM (105)	Local Write
PLC_PRG.VALVES (50)	Local Read
DO_VENT211_FAST_CMD%QX0.12	
_global_init (17)	Global Write
PLC_PRG.PROCESS_IN... (52)	Global Read
PLC_PRG.PROCESS_OU... (16)	Global Write
DO_SPARE_30%QX1.13	
_global_init (34)	Global Write
LL_PE203_PIY_OK	
_global_init (234)	Local Write
_global_init (235)	Local Write
PLC_PRG.FAULT_LOGIC (13)	Local Read
PLC_PRG.FAULT_LOGIC (13)	Local Write
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.PUMPS (14)	Local Read
PLC_PRG.SC_OUTPUTS (138)	Local Read
DO_TP212_ON_CMD%QX1.0	
_global_init (21)	Global Write
PLC_PRG.PROCESS_IN... (74)	Global Read
PLC_PRG.PROCESS_OU... (21)	Global Write
DO_SPARE_29%QX1.12	
_global_init (33)	Global Write
LL_V202_OPN	
_global_init (232)	Local Write
_global_init (233)	Local Write
PLC_PRG.FAULT_LOGIC (6)	Local Read
PLC_PRG.FAULT_LOGIC (6)	Local Write
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.SC_OUTPUTS (136)	Local Read
PLC_PRG.VALVES (12)	Local Read
DO_TPV212_OPEN_CMD%QX1.1	
_global_init (22)	Global Write
PLC_PRG.PROCESS_IN... (70)	Global Read
PLC_PRG.PROCESS_IN... (71)	Global Read
PLC_PRG.PROCESS_OU... (22)	Global Write

DO_SPARE_29%QX1.12		
_global_init (33)		Global Write
DO_SPARE_28%QX1.11		
_global_init (32)		Global Write
LL_PE202_PSL_LO		
_global_init (233)		Local Write
_global_init (234)		Local Write
PLC_PRG.FAULT_LOGIC (7)		Local Read
PLC_PRG.FAULT_LOGIC (7)		Local Write
PLC_PRG.FAULT_LOGIC (37)		Local Read
PLC_PRG.SC_OUTPUTS (137)		Local Read
PLC_PRG.VALVES (12)		Local Read
PLC_PRG.VALVES (20)		Local Read
DO_SPARE_27%QX1.10		
_global_init (31)		Global Write
LL_PE101_PSL_LO		
_global_init (230)		Local Write
_global_init (231)		Local Write
PLC_PRG.FAULT_LOGIC (4)		Local Read
PLC_PRG.FAULT_LOGIC (4)		Local Write
PLC_PRG.FAULT_LOGIC (37)		Local Read
PLC_PRG.SC_OUTPUTS (134)		Local Read
PLC_PRG.VALVES (4)		Local Read
DO_VENT211_SLOW_CMD%QX0.11		
_global_init (16)		Global Write
PLC_PRG.PROCESS_IN... (52)		Global Read
PLC_PRG.PROCESS_OU... (15)		Global Write
DO_SPARE_26%QX1.9		
_global_init (30)		Global Write
LL_LL_CONFIG_OK		
_global_init (238)		Local Write
_global_init (239)		Local Write
PLC_PRG.FAULT_LOGIC (11)		Local Read
PLC_PRG.FAULT_LOGIC (11)		Local Write
PLC_PRG.FAULT_LOGIC (37)		Local Read
PLC_PRG.LL_SM (4)		Local Read
PLC_PRG.SC_OUTPUTS (143)		Local Read
DO_V204_OPEN_CMD%QX0.5		
_global_init (10)		Global Write
PLC_PRG.PROCESS_IN... (45)		Global Read
PLC_PRG.PROCESS_IN... (46)		Global Read
PLC_PRG.PROCESS_OU... (8)		Global Write
DO_SPARE_28%QX1.11		
_global_init (32)		Global Write
DO_SPARE_27%QX1.10		
_global_init (31)		Global Write
DO_V101_OPEN_CMD%QX0.2		
_global_init (7)		Global Write
PLC_PRG.PROCESS_IN... (33)		Global Read
PLC_PRG.PROCESS_IN... (34)		Global Read
PLC_PRG.PROCESS_OU... (5)		Global Write
DO_SPARE_25%QX1.8		
_global_init (29)		Global Write
DO_SPARE_24%QX1.7		
_global_init (28)		Global Write
DO_TPV211_OPEN_CMD%QX0.9		
_global_init (14)		Global Write
PLC_PRG.PROCESS_IN... (58)		Global Read
PLC_PRG.PROCESS_IN... (59)		Global Read
PLC_PRG.PROCESS_OU... (13)		Global Write
DO_SPARE_23%QX1.6		
_global_init (27)		Global Write
DO_SPARE_22%QX1.5		
_global_init (26)		Global Write
DO_TP201_VENT_ENABLE_CMD%QX0.7		
_global_init (12)		Global Write
PLC_PRG.PROCESS_OU... (10)		Global Write
DO_SLOTV211_OPEN_CMD%QX0.14		
_global_init (19)		Global Write
PLC_PRG.PROCESS_OU... (18)		Global Write
DO_SLOTV211_CLOSE_CMD%QX0.15		
_global_init (20)		Global Write
PLC_PRG.PROCESS_OU... (19)		Global Write



DI_V204_OPEN%IX18.2		
PLC_PRG.PROCESS_IN...	(45)	Global Read
DI_V204_OPEN%IX18.2		
PLC_PRG.PROCESS_IN...	(45)	Global Read
DI_V204_CLOSED%IX18.3		
PLC_PRG.PROCESS_IN...	(46)	Global Read
DI_V204_CLOSED%IX18.3		
PLC_PRG.PROCESS_IN...	(46)	Global Read
DI_V203_OPEN%IX18.0		
PLC_PRG.PROCESS_IN...	(42)	Global Read
DI_V203_CLOSED%IX18.1		
PLC_PRG.PROCESS_IN...	(43)	Global Read
DI_V203_CLOSED%IX18.1		
PLC_PRG.PROCESS_IN...	(43)	Global Read
DI_V202_OPEN%IX17.14		
PLC_PRG.PROCESS_IN...	(39)	Global Read
DO_SPARE_24%QX1.7		
_global_init	(28)	Global Write
DI_V202_CLOSED%IX17.15		
PLC_PRG.PROCESS_IN...	(40)	Global Read
DI_V202_CLOSED%IX17.15		
PLC_PRG.PROCESS_IN...	(40)	Global Read
DI_V201_OPEN%IX17.12		
PLC_PRG.PROCESS_IN...	(36)	Global Read
DI_V101_OPEN%IX17.10		
PLC_PRG.PROCESS_IN...	(33)	Global Read
DI_V101_CLOSED%IX17.11		
PLC_PRG.PROCESS_IN...	(34)	Global Read
LL_ES_CONFIG_OK		
_global_init	(237)	Local Write
_global_init	(238)	Local Write
PLC_PRG.ES_SM	(4)	Local Read
PLC_PRG.FAULT_LOGIC	(10)	Local Read
PLC_PRG.FAULT_LOGIC	(10)	Local Write
PLC_PRG.FAULT_LOGIC	(37)	Local Read
PLC_PRG.SC_OUTPUTS	(142)	Local Read
DI_V100_CLOSED%IX17.9		
PLC_PRG.PROCESS_IN...	(31)	Global Read
DO_SPARE_23%QX1.6		
_global_init	(27)	Global Write
DO_RPV212_OPEN_CMD%QX1.2		
_global_init	(23)	Global Write
PLC_PRG.PROCESS_IN...	(67)	Global Read
PLC_PRG.PROCESS_IN...	(68)	Global Read
PLC_PRG.PROCESS_OU...	(23)	Global Write
DO_RP2111_ON_CMD%QX0.1		
_global_init	(6)	Global Write
PLC_PRG.PROCESS_OU...	(4)	Global Write
DO_RP2110_ON_CMD%QX0.0		
_global_init	(5)	Global Write
PLC_PRG.PROCESS_OU...	(3)	Global Write
DI_V202_OPEN%IX17.14		
PLC_PRG.PROCESS_IN...	(39)	Global Read
DI_V101_OPEN%IX17.10		
PLC_PRG.PROCESS_IN...	(33)	Global Read
DI_V101_CLOSED%IX17.11		
PLC_PRG.PROCESS_IN...	(34)	Global Read
DI_TPV212_OPEN%IX18.12		
PLC_PRG.PROCESS_IN...	(70)	Global Read
DI_V201_OPEN%IX17.12		
PLC_PRG.PROCESS_IN...	(36)	Global Read
DI_TPV211_CLOSED%IX18.9		
PLC_PRG.PROCESS_IN...	(59)	Global Read
DI_V201_CLOSED%IX17.13		
PLC_PRG.PROCESS_IN...	(37)	Global Read
DI_V201_CLOSED%IX17.13		
PLC_PRG.PROCESS_IN...	(37)	Global Read
DI_V100_OPEN%IX17.8		
PLC_PRG.PROCESS_IN...	(30)	Global Read
DI_TP212_AT_SPEED%IX19.0		
PLC_PRG.PROCESS_IN...	(74)	Global Read
DI_V100_CLOSED%IX17.9		
PLC_PRG.PROCESS_IN...	(31)	Global Read

DI_TP211_TURBO_OK%IX18.15		
PLC_PRG.PROCESS_IN...	(61)	Global Read
DI_TPV212_CLOSED%IX18.13		
PLC_PRG.PROCESS_IN...	(71)	Global Read
DI_TP211_AT_SPEED%IX18.14		
PLC_PRG.PROCESS_IN...	(62)	Global Read
DI_TPV211_OPEN%IX18.8		
PLC_PRG.PROCESS_IN...	(58)	Global Read
DI_TP201_TURBO_OK%IX18.4		
PLC_PRG.PROCESS_IN...	(48)	Global Read
DI_TP212_TURBO_OK%IX19.1		
PLC_PRG.PROCESS_IN...	(73)	Global Read
DI_TPV212_OPEN%IX18.12		
PLC_PRG.PROCESS_IN...	(70)	Global Read
DI_TPV211_CLOSED%IX18.9		
PLC_PRG.PROCESS_IN...	(59)	Global Read
DI_TP212_TURBO_OK%IX19.1		
PLC_PRG.PROCESS_IN...	(73)	Global Read
DI_TP211_TURBO_OK%IX18.15		
PLC_PRG.PROCESS_IN...	(61)	Global Read
DI_TPV212_CLOSED%IX18.13		
PLC_PRG.PROCESS_IN...	(71)	Global Read
DI_TP211_AT_SPEED%IX18.14		
PLC_PRG.PROCESS_IN...	(62)	Global Read
DI_TP201_AT_SPEED%IX18.5		
PLC_PRG.PROCESS_IN...	(50)	Global Read
DI_SLOTV211_OPEN%IX19.2		
PLC_PRG.PROCESS_IN...	(76)	Global Read
DI_SLOTV211_CLOSED%IX19.3		
PLC_PRG.PROCESS_IN...	(77)	Global Read
DI_SLOTV211_CLOSED%IX19.3		
PLC_PRG.PROCESS_IN...	(77)	Global Read
DI_TP201_AT_SPEED%IX18.5		
PLC_PRG.PROCESS_IN...	(50)	Global Read
DI_RPV212_OPEN%IX18.10		
PLC_PRG.PROCESS_IN...	(67)	Global Read
DI_RPV212_OPEN%IX18.10		
PLC_PRG.PROCESS_IN...	(67)	Global Read
DI_RPV212_CLOSED%IX18.11		
PLC_PRG.PROCESS_IN...	(68)	Global Read
DI_RPV212_CLOSED%IX18.11		
PLC_PRG.PROCESS_IN...	(68)	Global Read
DI_RPV211_OPEN%IX18.6		
PLC_PRG.PROCESS_IN...	(55)	Global Read
DI_RPV211_OPEN%IX18.6		
PLC_PRG.PROCESS_IN...	(55)	Global Read
DI_RPV211_CLOSED%IX18.7		
PLC_PRG.PROCESS_IN...	(56)	Global Read
DI_RPV211_CLOSED%IX18.7		
PLC_PRG.PROCESS_IN...	(56)	Global Read
DI_RP2110_ON%IX16.4		
PLC_PRG.PROCESS_IN...	(7)	Global Read
PLC_PRG.SC_OUTPUTS	(11)	Global Read
DI_PE212_PSL_MIDLO%IX17.6		
PLC_PRG.PROCESS_IN...	(27)	Global Read
PLC_PRG.SC_OUTPUTS	(31)	Global Read
DI_PE212_PSL_MIDLO%IX17.6		
PLC_PRG.PROCESS_IN...	(27)	Global Read
PLC_PRG.SC_OUTPUTS	(31)	Global Read
DO_VENT212_SLOW_CMD%QX1.3		
_global_init	(24)	Global Write
PLC_PRG.PROCESS_IN...	(64)	Global Read
PLC_PRG.PROCESS_OU...	(24)	Global Write
DI_PE212_PSL_MIDHI%IX17.5		
PLC_PRG.PROCESS_IN...	(26)	Global Read
PLC_PRG.SC_OUTPUTS	(30)	Global Read
DI_PE212_PSL_LO%IX17.7		
PLC_PRG.PROCESS_IN...	(28)	Global Read
PLC_PRG.SC_OUTPUTS	(32)	Global Read
DI_PE212_PSL_HI%IX17.4		
PLC_PRG.PROCESS_IN...	(25)	Global Read
PLC_PRG.SC_OUTPUTS	(29)	Global Read
DI_PE212_PSL_LO%IX17.7		

PLC_PRG.PROCESS_IN... (28)	Global Read
PLC_PRG.SC_OUTPUTS (32)	Global Read
DI_PE212_PIIY_OK%IX16.10	
PLC_PRG.PROCESS_IN... (24)	Global Read
PLC_PRG.PROCESS_IN... (25)	Global Read
PLC_PRG.PROCESS_IN... (26)	Global Read
PLC_PRG.SC_OUTPUTS (28)	Global Read
DI_PE211_PSL_MIDLO%IX17.2	
PLC_PRG.PROCESS_IN... (21)	Global Read
PLC_PRG.SC_OUTPUTS (25)	Global Read
DI_PE211_PSL_MIDLO%IX17.2	
PLC_PRG.PROCESS_IN... (21)	Global Read
PLC_PRG.SC_OUTPUTS (25)	Global Read
DI_PE212_PIIY_OK%IX16.10	
PLC_PRG.PROCESS_IN... (24)	Global Read
PLC_PRG.PROCESS_IN... (25)	Global Read
PLC_PRG.PROCESS_IN... (26)	Global Read
PLC_PRG.SC_OUTPUTS (28)	Global Read
DI_PE211_PSL_MIDHI%IX17.1	
PLC_PRG.PROCESS_IN... (20)	Global Read
PLC_PRG.SC_OUTPUTS (24)	Global Read
DI_PE211_PSL_MIDHI%IX17.1	
PLC_PRG.PROCESS_IN... (20)	Global Read
PLC_PRG.SC_OUTPUTS (24)	Global Read
DI_PE211_PSL_LO%IX17.3	
PLC_PRG.PROCESS_IN... (22)	Global Read
PLC_PRG.SC_OUTPUTS (26)	Global Read
DI_PE211_PSL_LO%IX17.3	
PLC_PRG.PROCESS_IN... (22)	Global Read
PLC_PRG.SC_OUTPUTS (26)	Global Read
DO_SPARE_22%QX1.5	
_global_init (26)	Global Write
DI_PE211_PIIY_OK%IX16.9	
PLC_PRG.PROCESS_IN... (18)	Global Read
PLC_PRG.PROCESS_IN... (19)	Global Read
PLC_PRG.PROCESS_IN... (20)	Global Read
PLC_PRG.SC_OUTPUTS (22)	Global Read
DI_PE211_PIIY_OK%IX16.9	
PLC_PRG.PROCESS_IN... (18)	Global Read
PLC_PRG.PROCESS_IN... (19)	Global Read
PLC_PRG.PROCESS_IN... (20)	Global Read
PLC_PRG.SC_OUTPUTS (22)	Global Read
DI_PE211_PSL%IX16.7	
PLC_PRG.PROCESS_IN... (10)	Global Read
PLC_PRG.SC_OUTPUTS (14)	Global Read
DI_PE203_PSL_MIDLO%IX16.14	
PLC_PRG.PROCESS_IN... (15)	Global Read
PLC_PRG.SC_OUTPUTS (19)	Global Read
DI_PE203_PSL_MIDLO%IX16.14	
PLC_PRG.PROCESS_IN... (15)	Global Read
PLC_PRG.SC_OUTPUTS (19)	Global Read
DI_RP2111_ON%IX16.5	
PLC_PRG.PROCESS_IN... (8)	Global Read
PLC_PRG.SC_OUTPUTS (12)	Global Read
DI_PE203_PSL_MIDHI%IX16.13	
PLC_PRG.PROCESS_IN... (14)	Global Read
PLC_PRG.SC_OUTPUTS (18)	Global Read
DI_PE203_PSL_LO%IX16.15	
PLC_PRG.PROCESS_IN... (16)	Global Read
PLC_PRG.SC_OUTPUTS (20)	Global Read
DI_PE2110_PSL%IX16.6	
PLC_PRG.PROCESS_IN... (9)	Global Read
PLC_PRG.SC_OUTPUTS (13)	Global Read
DI_PE203_PSL_HI%IX16.12	
PLC_PRG.PROCESS_IN... (13)	Global Read
PLC_PRG.SC_OUTPUTS (17)	Global Read
DO_TP212_OPEN_CMD%QX1.1	
_global_init (22)	Global Write
PLC_PRG.PROCESS_IN... (70)	Global Read
PLC_PRG.PROCESS_IN... (71)	Global Read
PLC_PRG.PROCESS_OU... (22)	Global Write
DI_PE202_PSL_LO%IX16.2	
PLC_PRG.PROCESS_IN... (5)	Global Read

DO_RPV212_OPEN_CMD%QX1.2		
_global_init (23)		Global Write
PLC_PRG.PROCESS_IN... (67)		Global Read
PLC_PRG.PROCESS_IN... (68)		Global Read
PLC_PRG.PROCESS_OU... (23)		Global Write
DI_PE201_PSL_LO%IX16.1		
PLC_PRG.PROCESS_IN... (4)		Global Read
DI_LL211_ARM_RETRACTED%IX19.5		
PLC_PRG.PROCESS_IN... (80)		Global Read
PLC_PRG.SC_OUTPUTS (35)		Global Read
on_cmd		
TP_FB (3)		Local Read
TP_FB (3)		Local Write
TP_FB (6)		Local Read
TP_FBinit (6)		Local Write
PLC_PRG.PROCESS_OU... (9)		Local Read
PLC_PRG.PROCESS_OU... (12)		Local Read
PLC_PRG.PROCESS_OU... (21)		Local Read
PLC_PRG.SC_OUTPUTS (117)		Local Read
PLC_PRG.SC_OUTPUTS (120)		Local Read
PLC_PRG.SC_OUTPUTS (125)		Local Read
PLC_PRG.SC_OUTPUTS (129)		Local Read
PLC_PRG.VALVES (29)		Local Read
PLC_PRG.VALVES (78)		Local Read
PLC_PRG.VALVES (110)		Local Read
cACTUATOR_TARGET		
_global_init (8)		Local Write
_global_init (9)		Local Write
_global_init (10)		Local Write
_global_init (11)		Local Write
_global_init (8)		Local Write
_global_init (9)		Local Write
_global_init (10)		Local Write
_global_init (11)		Local Write
_global_init (8)		Local Write
_global_init (9)		Local Write
_global_init (10)		Local Write
_global_init (11)		Local Write
_global_init (8)		Local Write
_global_init (9)		Local Write
_global_init (10)		Local Write
_global_init (11)		Local Write
_global_init (8)		Local Write
_global_init (9)		Local Write
_global_init (10)		Local Write
_global_init (11)		Local Write
_global_init (8)		Local Write
_global_init (9)		Local Write
_global_init (10)		Local Write
_global_init (11)		Local Write
_global_init (8)		Local Write
_global_init (9)		Local Write
_global_init (10)		Local Write
_global_init (11)		Local Write
PLC_PRG.ACTUATOR_I... (7)		Local Read
PLC_PRG.ACTUATOR_O... (4)		Local Read
on_cmd		
RP_FB (2)		Local Read
RP_FB (2)		Local Write
RP_FB (4)		Local Read
RP_FBinit (5)		Local Write
PLC_PRG.PROCESS_OU... (3)		Local Read
PLC_PRG.SC_OUTPUTS (107)		Local Read
bID		
ACTUATOR_SM.CONNECT (25)		Local Read
ACTUATOR_SM.DRG1_W... (26)		Local Read
ACTUATOR_SM.PCMD_W... (27)		Local Read
ACTUATOR_SM.STATUS... (26)		Local Read
_global_init (3)		Local Write
oMBMaster		
ACTUATOR_SM (16)		Local Read
ACTUATOR_SM.CONNECT (25)		Local Write
ACTUATOR_SM.CONNECT (28)		Local Read

ACTUATOR_SM.DRG1_W...	(26)	Local Write
ACTUATOR_SM.DRG1_W...	(29)	Local Read
ACTUATOR_SM.PCMD_W...	(27)	Local Write
ACTUATOR_SM.PCMD_W...	(30)	Local Read
ACTUATOR_SM.STATUS...	(26)	Local Write
ACTUATOR_SM.STATUS...	(29)	Local Read
ACTUATORinit	(6)	Local Read
off_req		
TP_FB	(3)	Local Read
TP_FBinit	(5)	Local Write
PLC_PRG.PUMPS	(18)	Local Write
PLC_PRG.PUMPS	(26)	Local Write
PLC_PRG.PUMPS	(34)	Local Write
LL_TP212_OK		
_global_init	(243)	Local Write
_global_init	(244)	Local Write
PLC_PRG.FAULT_LOGIC	(21)	Local Read
PLC_PRG.FAULT_LOGIC	(21)	Local Write
PLC_PRG.FAULT_LOGIC	(37)	Local Read
PLC_PRG.SC_OUTPUTS	(149)	Local Read
off_req		
RP_FB	(2)	Local Read
RP_FBinit	(4)	Local Write
PLC_PRG.PUMPS	(10)	Local Write
LL_TP211_OK		
_global_init	(242)	Local Write
_global_init	(243)	Local Write
PLC_PRG.FAULT_LOGIC	(20)	Local Read
PLC_PRG.FAULT_LOGIC	(20)	Local Write
PLC_PRG.FAULT_LOGIC	(37)	Local Read
PLC_PRG.SC_OUTPUTS	(148)	Local Read
off_ena		
TP_FB	(3)	Local Read
TP_FB	(6)	Local Read
TP_FBinit	(3)	Local Write
PLC_PRG.PUMPS	(16)	Local Write
PLC_PRG.PUMPS	(24)	Local Write
PLC_PRG.PUMPS	(32)	Local Write
PLC_PRG.SC_OUTPUTS	(119)	Local Read
MAX_SOCKET_FD_SETSIZE		
_global_init	(164)	Global Write
LL_PE201_PSL_LO		
_global_init	(231)	Local Write
_global_init	(232)	Local Write
PLC_PRG.FAULT_LOGIC	(5)	Local Read
PLC_PRG.FAULT_LOGIC	(5)	Local Write
PLC_PRG.FAULT_LOGIC	(37)	Local Read
PLC_PRG.SC_OUTPUTS	(135)	Local Read
PLC_PRG.VALVES	(4)	Local Read
PLC_PRG.VALVES	(12)	Local Read
not_symbol		
VALVE_FB	(6)	Local Write
VALVE_FBinit	(7)	Local Write
PLC_PRG.SC_OUTPUTS	(46)	Local Read
PLC_PRG.SC_OUTPUTS	(54)	Local Read
PLC_PRG.SC_OUTPUTS	(66)	Local Read
PLC_PRG.SC_OUTPUTS	(74)	Local Read
PLC_PRG.SC_OUTPUTS	(113)	Local Read
LL_CONFIG_OK		
_global_init	(228)	Local Write
_global_init	(229)	Local Write
PLC_PRG.BYPASSES	(5)	Local Write
PLC_PRG.FAULT_LOGIC	(11)	Local Read
PLC_PRG.FAULT_LOGIC	(37)	Local Read
LL_ACTUATOR_OK		
_global_init	(229)	Local Write
_global_init	(230)	Local Write
PLC_PRG.BR_SM	(4)	Local Read
PLC_PRG.BR_SM	(13)	Local Read
PLC_PRG.FAULT_LOGIC	(3)	Local Read
PLC_PRG.FAULT_LOGIC	(3)	Local Write
PLC_PRG.FAULT_LOGIC	(37)	Local Read
PLC_PRG.SC_OUTPUTS	(133)	Local Read

LL211_ARM_RETRACTED		
_global_init (226)	Local	Write
_global_init (227)	Local	Write
PLC_PRG.PROCESS_IN... (80)	Local	Write
PLC_PRG.VALVES (47)	Local	Read
PLC_PRG.VALVES (48)	Local	Read
ES_STATE		
_global_init (289)	Local	Write
_global_init (290)	Local	Write
PLC_PRG.ES_SM (5)	Local	Write
PLC_PRG.ES_SM (9)	Local	Read
PLC_PRG.ES_SM (20)	Local	Write
PLC_PRG.ES_SM (23)	Local	Read
PLC_PRG.ES_SM (34)	Local	Write
PLC_PRG.ES_SM (37)	Local	Read
PLC_PRG.ES_SM (48)	Local	Write
PLC_PRG.ES_SM (50)	Local	Write
PLC_PRG.ES_SM (52)	Local	Write
PLC_PRG.ES_SM (55)	Local	Read
PLC_PRG.ES_SM (66)	Local	Write
PLC_PRG.ES_SM (68)	Local	Write
PLC_PRG.ES_SM (70)	Local	Write
PLC_PRG.ES_SM (73)	Local	Read
PLC_PRG.ES_SM (84)	Local	Write
PLC_PRG.ES_SM (86)	Local	Write
PLC_PRG.ES_SM (88)	Local	Write
PLC_PRG.ES_SM (91)	Local	Read
PLC_PRG.ES_SM (102)	Local	Write
PLC_PRG.ES_SM (104)	Local	Write
PLC_PRG.ES_SM (106)	Local	Write
PLC_PRG.ES_SM (109)	Local	Read
PLC_PRG.ES_SM (120)	Local	Write
PLC_PRG.ES_SM (122)	Local	Write
PLC_PRG.ES_SM (125)	Local	Write
PLC_PRG.ES_SM (128)	Local	Read
PLC_PRG.ES_SM (139)	Local	Write
PLC_PRG.ES_SM (141)	Local	Write
PLC_PRG.ES_SM (143)	Local	Write
PLC_PRG.ES_SM (146)	Local	Read
PLC_PRG.ES_SM (157)	Local	Write
PLC_PRG.ES_SM (159)	Local	Write
PLC_PRG.ES_SM (161)	Local	Write
PLC_PRG.ES_SM (164)	Local	Write
PLC_PRG.ES_SM (167)	Local	Read
PLC_PRG.ES_SM (178)	Local	Write
PLC_PRG.ES_SM (180)	Local	Write
PLC_PRG.ES_SM (182)	Local	Write
PLC_PRG.ES_SM (184)	Local	Write
PLC_PRG.ES_SM (187)	Local	Read
PLC_PRG.ES_SM (198)	Local	Write
PLC_PRG.ES_SM (200)	Local	Write
PLC_PRG.ES_SM (203)	Local	Write
PLC_PRG.ES_SM (205)	Local	Write
PLC_PRG.ES_SM (210)	Local	Write
PLC_PRG.SC_OUTPUTS (244)	Local	Read
PLC_PRG.SC_OUTPUTS (246)	Local	Read
PLC_PRG.SC_OUTPUTS (248)	Local	Read
PLC_PRG.SC_OUTPUTS (250)	Local	Read
PLC_PRG.SC_OUTPUTS (252)	Local	Read
PLC_PRG.SC_OUTPUTS (254)	Local	Read
PLC_PRG.SC_OUTPUTS (256)	Local	Read
PLC_PRG.SC_OUTPUTS (258)	Local	Read
PLC_PRG.SC_OUTPUTS (260)	Local	Read
PLC_PRG.SC_OUTPUTS (262)	Local	Read
PLC_PRG.SC_OUTPUTS (264)	Local	Read
PLC_PRG.VALVES (37)	Local	Read
PLC_PRG.VALVES (45)	Local	Read
DO_VENT211_SLOW_CMD%QX0.11		
_global_init (16)	Global	Write
PLC_PRG.PROCESS_IN... (52)	Global	Read
PLC_PRG.PROCESS_OU... (15)	Global	Write
DO_VENT211_FAST_CMD%QX0.12		
_global_init (17)	Global	Write

PLC_PRG.PROCESS_IN... (52)	Global Read
PLC_PRG.PROCESS_OU... (16)	Global Write
ES_REQUEST	
_global_init (290)	Local Write
_global_init (291)	Local Write
PLC_PRG.ES_SM (47)	Local Read
PLC_PRG.ES_SM (49)	Local Read
PLC_PRG.ES_SM (51)	Local Read
PLC_PRG.ES_SM (65)	Local Read
PLC_PRG.ES_SM (67)	Local Read
PLC_PRG.ES_SM (83)	Local Read
PLC_PRG.ES_SM (85)	Local Read
PLC_PRG.ES_SM (101)	Local Read
PLC_PRG.ES_SM (103)	Local Read
PLC_PRG.ES_SM (119)	Local Read
PLC_PRG.ES_SM (121)	Local Read
PLC_PRG.ES_SM (138)	Local Read
PLC_PRG.ES_SM (140)	Local Read
PLC_PRG.ES_SM (156)	Local Read
PLC_PRG.ES_SM (158)	Local Read
PLC_PRG.ES_SM (177)	Local Read
PLC_PRG.ES_SM (179)	Local Read
PLC_PRG.ES_SM (197)	Local Read
PLC_PRG.ES_SM (199)	Local Read
PLC_PRG.SC_INPUTS (41)	Local Write
PLC_PRG.SC_INPUTS (43)	Local Write
PLC_PRG.SC_INPUTS (45)	Local Write
PLC_PRG.SC_INPUTS (47)	Local Write
PLC_PRG.SC_INPUTS (49)	Local Write
PLC_PRG.SC_OUTPUTS (189)	Local Read
PLC_PRG.SC_OUTPUTS (191)	Local Read
PLC_PRG.SC_OUTPUTS (193)	Local Read
PLC_PRG.SC_OUTPUTS (195)	Local Read
DO_VENT212_FAST_CMD%QX1.4	
_global_init (25)	Global Write
PLC_PRG.PROCESS_IN... (64)	Global Read
PLC_PRG.PROCESS_OU... (25)	Global Write
DO_V204_OPEN_CMD%QX0.5	
_global_init (10)	Global Write
PLC_PRG.PROCESS_IN... (45)	Global Read
PLC_PRG.PROCESS_IN... (46)	Global Read
PLC_PRG.PROCESS_OU... (8)	Global Write
DO_TPV211_OPEN_CMD%QX0.9	
_global_init (14)	Global Write
PLC_PRG.PROCESS_IN... (58)	Global Read
PLC_PRG.PROCESS_IN... (59)	Global Read
PLC_PRG.PROCESS_OU... (13)	Global Write
ES_CONFIG_OK	
_global_init (227)	Local Write
_global_init (228)	Local Write
PLC_PRG.BYPASSES (4)	Local Write
PLC_PRG.FAULT_LOGIC (10)	Local Read
PLC_PRG.FAULT_LOGIC (37)	Local Read
DO_TP201_VENT_ENABLE_CMD%QX0.7	
_global_init (12)	Global Write
PLC_PRG.PROCESS_OU... (10)	Global Write
DO_V203_OPEN_CMD%QX0.4	
_global_init (9)	Global Write
PLC_PRG.PROCESS_IN... (42)	Global Read
PLC_PRG.PROCESS_IN... (43)	Global Read
PLC_PRG.PROCESS_OU... (7)	Global Write
DO_SPARE_14%QX0.13	
_global_init (18)	Global Write
DO_SLOTV211_OPEN_CMD%QX0.14	
_global_init (19)	Global Write
PLC_PRG.PROCESS_OU... (18)	Global Write
DO_SLOTV211_CLOSE_CMD%QX0.15	
_global_init (20)	Global Write
PLC_PRG.PROCESS_OU... (19)	Global Write
DO_TP201_ON_CMD%QX0.6	
_global_init (11)	Global Write
PLC_PRG.PROCESS_IN... (49)	Global Read
PLC_PRG.PROCESS_OU... (9)	Global Write

DO_TP201_ON_CMD%QX0.6		
_global_init (11)		Global Write
PLC_PRG.PROCESS_IN... (49)		Global Read
PLC_PRG.PROCESS_OU... (9)		Global Write
DI_TP201_TURBO_OK%IX18.4		
PLC_PRG.PROCESS_IN... (48)		Global Read
DI_SLOTV211_OPEN%IX19.2		
PLC_PRG.PROCESS_IN... (76)		Global Read
DI_RP2111_ON%IX16.5		
PLC_PRG.PROCESS_IN... (8)		Global Read
PLC_PRG.SC_OUTPUTS (12)		Global Read
DI_PE211_PSL_HI%IX17.0		
PLC_PRG.PROCESS_IN... (19)		Global Read
PLC_PRG.SC_OUTPUTS (23)		Global Read
DI_PE203_PSL_LO%IX16.15		
PLC_PRG.PROCESS_IN... (16)		Global Read
PLC_PRG.SC_OUTPUTS (20)		Global Read
DO_RPV211_OPEN_CMD%QX0.10		
_global_init (15)		Global Write
PLC_PRG.PROCESS_IN... (55)		Global Read
PLC_PRG.PROCESS_IN... (56)		Global Read
PLC_PRG.PROCESS_OU... (14)		Global Write
DI_PE203_PSL_HI%IX16.12		
PLC_PRG.PROCESS_IN... (13)		Global Read
PLC_PRG.SC_OUTPUTS (17)		Global Read
DI_RP2110_ON%IX16.4		
PLC_PRG.PROCESS_IN... (7)		Global Read
PLC_PRG.SC_OUTPUTS (11)		Global Read
DI_PE212_PSL_MIDHI%IX17.5		
PLC_PRG.PROCESS_IN... (26)		Global Read
PLC_PRG.SC_OUTPUTS (30)		Global Read
DI_PE203_PIIY_OK%IX16.8		
PLC_PRG.PROCESS_IN... (12)		Global Read
PLC_PRG.PROCESS_IN... (13)		Global Read
PLC_PRG.PROCESS_IN... (14)		Global Read
PLC_PRG.SC_OUTPUTS (16)		Global Read
DI_PE212_PSL_HI%IX17.4		
PLC_PRG.PROCESS_IN... (25)		Global Read
PLC_PRG.SC_OUTPUTS (29)		Global Read
DI_LL211_LID_CLOSED%IX19.4		
PLC_PRG.PROCESS_IN... (79)		Global Read
PLC_PRG.SC_OUTPUTS (34)		Global Read
off_ena		
RP_FB (2)		Local Read
RP_FB (4)		Local Read
RP_FBinit (2)		Local Write
PLC_PRG.PUMPS (8)		Local Write
close_req		
VALVE_FB (3)		Local Read
VALVE_FBinit (5)		Local Write
PLC_PRG.VALVES (8)		Local Write
PLC_PRG.VALVES (16)		Local Write
PLC_PRG.VALVES (24)		Local Write
PLC_PRG.VALVES (32)		Local Write
PLC_PRG.VALVES (40)		Local Write
PLC_PRG.VALVES (58)		Local Write
PLC_PRG.VALVES (66)		Local Write
PLC_PRG.VALVES (74)		Local Write
PLC_PRG.VALVES (82)		Local Write
PLC_PRG.VALVES (90)		Local Write
PLC_PRG.VALVES (98)		Local Write
PLC_PRG.VALVES (106)		Local Write
PLC_PRG.VALVES (114)		Local Write
oActuator		
ACTUATOR_SM (3)		Local Read
ACTUATOR_SM (5)		Local Write
ACTUATOR_SM (7)		Local Write
ACTUATOR_SM (9)		Local Read
ACTUATOR_SM (10)		Local Write
ACTUATOR_SM (12)		Local Write
ACTUATOR_SM (14)		Local Read
ACTUATOR_SM (16)		Local Read
ACTUATOR_SM (17)		Local Write



ACTUATOR_SM (18)	Local Write
ACTUATOR_SM (21)	Local Read
ACTUATOR_SM (23)	Local Read
ACTUATOR_SM (25)	Local Read
ACTUATOR_SM (27)	Local Write
ACTUATOR_SM (29)	Local Read
ACTUATOR_SM (31)	Local Write
ACTUATOR_SM (33)	Local Read
ACTUATOR_SM (35)	Local Write
ACTUATOR_SM (37)	Local Read
ACTUATOR_SM (39)	Local Write
ACTUATOR_SM (42)	Local Write
ACTUATOR_SM (46)	Local Read
ACTUATOR_SM (48)	Local Write
ACTUATOR_SM (50)	Local Read
ACTUATOR_SM (52)	Local Write
ACTUATOR_SM (55)	Local Read
ACTUATOR_SM (57)	Local Write
ACTUATOR_SM (59)	Local Read
ACTUATOR_SM (61)	Local Write
ACTUATOR_SM (64)	Local Read
ACTUATOR_SM (65)	Local Write
ACTUATOR_SM (67)	Local Read
ACTUATOR_SM (69)	Local Write
ACTUATOR_SM (72)	Local Read
ACTUATOR_SM (74)	Local Write
ACTUATOR_SM (76)	Local Read
ACTUATOR_SM (78)	Local Write
ACTUATOR_SM (81)	Local Read
ACTUATOR_SM (83)	Local Write
ACTUATOR_SM (85)	Local Read
ACTUATOR_SM (87)	Local Write
ACTUATOR_SM (90)	Local Read
ACTUATOR_SM (92)	Local Read
ACTUATOR_SM (94)	Local Read
ACTUATOR_SM (96)	Local Write
ACTUATOR_SM (99)	Local Write
ACTUATOR_SM (103)	Local Read
ACTUATOR_SM (105)	Local Read
ACTUATOR_SM (111)	Local Write
ACTUATOR_SM (116)	Local Write
ACTUATOR_SM (120)	Local Read
ACTUATOR_SM (122)	Local Read
ACTUATOR_SM (125)	Local Write
ACTUATOR_SM (128)	Local Read
ACTUATOR_SM (130)	Local Read
ACTUATOR_SM (132)	Local Read
ACTUATOR_SM (136)	Local Write
ACTUATOR_SM (140)	Local Write
ACTUATOR_SM (145)	Local Write
ACTUATOR_SM (146)	Local Write
ACTUATOR_SM.CONNECT (6)	Local Read
ACTUATOR_SM.CONNECT (6)	Local Write
ACTUATOR_SM.CONNECT (9)	Local Write
ACTUATOR_SM.CONNECT (25)	Local Write
ACTUATOR_SM.CONNECT (25)	Local Read
ACTUATOR_SM.CONNECT (25)	Local Write
ACTUATOR_SM.CONNECT (25)	Local Read
ACTUATOR_SM.CONNECT (25)	Local Write
ACTUATOR_SM.CONNECT (25)	Local Read
ACTUATOR_SM.CONNECT (25)	Local Write
ACTUATOR_SM.CONNECT (28)	Local Read
ACTUATOR_SM.CONNECT (31)	Local Write
ACTUATOR_SM.CONNECT (32)	Local Write
ACTUATOR_SM.DRG1_W... (5)	Local Read
ACTUATOR_SM.DRG1_W... (6)	Local Write
ACTUATOR_SM.DRG1_W... (7)	Local Write
ACTUATOR_SM.DRG1_W... (26)	Local Write
ACTUATOR_SM.DRG1_W... (26)	Local Read
ACTUATOR_SM.DRG1_W... (26)	Local Write
ACTUATOR_SM.DRG1_W... (26)	Local Read
ACTUATOR_SM.DRG1_W... (26)	Local Write
ACTUATOR_SM.DRG1_W... (26)	Local Read

ACTUATOR_SM.DRG1_W...	(26)	Local Write
ACTUATOR_SM.DRG1_W...	(29)	Local Read
ACTUATOR_SM.DRG1_W...	(32)	Local Write
ACTUATOR_SM.DRG1_W...	(33)	Local Write
ACTUATOR_SM.DRG1_W...	(34)	Local Write
ACTUATOR_SM.DRG1_W...	(35)	Local Write
ACTUATOR_SM.DRG1_W...	(36)	Local Read
ACTUATOR_SM.DRG1_W...	(37)	Local Write
ACTUATOR_SM.DRG1_W...	(38)	Local Write
ACTUATOR_SM.DRG1_W...	(40)	Local Write
ACTUATOR_SM.PCMD_W...	(5)	Local Read
ACTUATOR_SM.PCMD_W...	(6)	Local Write
ACTUATOR_SM.PCMD_W...	(7)	Local Write
ACTUATOR_SM.PCMD_W...	(8)	Local Write
ACTUATOR_SM.PCMD_W...	(27)	Local Write
ACTUATOR_SM.PCMD_W...	(27)	Local Read
ACTUATOR_SM.PCMD_W...	(27)	Local Write
ACTUATOR_SM.PCMD_W...	(27)	Local Read
ACTUATOR_SM.PCMD_W...	(27)	Local Read
ACTUATOR_SM.PCMD_W...	(27)	Local Write
ACTUATOR_SM.PCMD_W...	(30)	Local Read
ACTUATOR_SM.PCMD_W...	(33)	Local Write
ACTUATOR_SM.PCMD_W...	(34)	Local Write
ACTUATOR_SM.PCMD_W...	(35)	Local Write
ACTUATOR_SM.PCMD_W...	(36)	Local Write
ACTUATOR_SM.PCMD_W...	(37)	Local Read
ACTUATOR_SM.PCMD_W...	(38)	Local Write
ACTUATOR_SM.PCMD_W...	(39)	Local Write
ACTUATOR_SM.PCMD_W...	(41)	Local Write
ACTUATOR_SM.STATUS...	(5)	Local Read
ACTUATOR_SM.STATUS...	(6)	Local Write
ACTUATOR_SM.STATUS...	(7)	Local Write
ACTUATOR_SM.STATUS...	(26)	Local Write
ACTUATOR_SM.STATUS...	(26)	Local Read
ACTUATOR_SM.STATUS...	(26)	Local Write
ACTUATOR_SM.STATUS...	(26)	Local Read
ACTUATOR_SM.STATUS...	(26)	Local Write
ACTUATOR_SM.STATUS...	(26)	Local Read
ACTUATOR_SM.STATUS...	(26)	Local Write
ACTUATOR_SM.STATUS...	(29)	Local Read
ACTUATOR_SM.STATUS...	(32)	Local Write
ACTUATOR_SM.STATUS...	(33)	Local Write
ACTUATOR_SM.STATUS...	(34)	Local Write
ACTUATOR_SM.STATUS...	(35)	Local Write
ACTUATOR_SM.STATUS...	(36)	Local Read
ACTUATOR_SM.STATUS...	(37)	Local Read
ACTUATOR_SM.STATUS...	(38)	Local Read
ACTUATOR_SM.STATUS...	(39)	Local Read
ACTUATOR_SM.STATUS...	(40)	Local Write
ACTUATOR_SM.STATUS...	(41)	Local Write
ACTUATOR_SM.STATUS...	(43)	Local Write
_global_init	(6)	Local Read
LLV211_CSD		
_global_init	(210)	Local Write
PLC_PRG.ES_SM	(33)	Local Read
PLC_PRG.LL_SM	(32)	Local Read
PLC_PRG.PROCESS_IN...	(77)	Local Write
PLC_PRG.SC_OUTPUTS	(88)	Local Read
PLC_PRG.VALVES	(37)	Local Read
PLC_PRG.VALVES	(47)	Local Read
PLC_PRG.VALVES	(54)	Local Read
PLC_PRG.VALVES	(62)	Local Read
PLC_PRG.VALVES	(70)	Local Read
PLC_PRG.VALVES	(80)	Local Read
PLC_PRG.VALVES	(86)	Local Read
PLC_PRG.VALVES	(94)	Local Read
PLC_PRG.VALVES	(102)	Local Read
PLC_PRG.VALVES	(112)	Local Read
DO_V201_OPEN_CMD%QX0.3		
_global_init	(8)	Global Write
PLC_PRG.PROCESS_IN...	(36)	Global Read
PLC_PRG.PROCESS_IN...	(37)	Global Read

PLC_PRG.PROCESS_OU... (6)	Global Write
LL_BP211_ON	
_global_init (241)	Local Write
_global_init (242)	Local Write
PLC_PRG.FAULT_LOGIC (17)	Local Read
PLC_PRG.FAULT_LOGIC (17)	Local Write
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.PUMPS (22)	Local Read
PLC_PRG.PUMPS (30)	Local Read
PLC_PRG.SC_OUTPUTS (146)	Local Read
PLC_PRG.VALVES (78)	Local Read
PLC_PRG.VALVES (110)	Local Read
DO_V101_OPEN_CMD%QX0.2	
_global_init (7)	Global Write
PLC_PRG.PROCESS_IN... (33)	Global Read
PLC_PRG.PROCESS_IN... (34)	Global Read
PLC_PRG.PROCESS_OU... (5)	Global Write
DI_TPV211_OPEN%IX18.8	
PLC_PRG.PROCESS_IN... (58)	Global Read
DI_PE2111_PSL%IX16.7	
PLC_PRG.PROCESS_IN... (10)	Global Read
PLC_PRG.SC_OUTPUTS (14)	Global Read
DI_PE2110_PSL%IX16.6	
PLC_PRG.PROCESS_IN... (9)	Global Read
PLC_PRG.SC_OUTPUTS (13)	Global Read
not_symbol	
VALVE_BI_FB (11)	Local Write
VALVE_BI_FBinit (9)	Local Write
PLC_PRG.SC_OUTPUTS (93)	Local Read
cYAG	
_global_init (6)	Local Write
PLC_PRG.BR_SM (125)	Local Read
PLC_PRG.BR_SM (143)	Local Read
not_symbol	
TP_FB (6)	Local Write
TP_FBinit (7)	Local Write
PLC_PRG.SC_OUTPUTS (121)	Local Read
DO_TP211_ON_CMD%QX0.8	
_global_init (13)	Global Write
PLC_PRG.PROCESS_IN... (62)	Global Read
PLC_PRG.PROCESS_OU... (12)	Global Write
LL211_LID_CLOSED	
_global_init (225)	Local Write
_global_init (226)	Local Write
PLC_PRG.PROCESS_IN... (79)	Local Write
DO_SPARE_30%QX1.13	
_global_init (34)	Global Write
DO_RP2111_ON_CMD%QX0.1	
_global_init (6)	Global Write
PLC_PRG.PROCESS_OU... (4)	Global Write
LLV211_OPN	
_global_init (209)	Local Write
PLC_PRG.PROCESS_IN... (76)	Local Write
PLC_PRG.SC_OUTPUTS (87)	Local Read
DO_SPARE_26%QX1.9	
_global_init (30)	Global Write
DO_RP2110_ON_CMD%QX0.0	
_global_init (5)	Global Write
PLC_PRG.PROCESS_OU... (3)	Global Write
LL_PE211_PIY_OK	
_global_init (239)	Local Write
_global_init (240)	Local Write
PLC_PRG.ES_SM (4)	Local Read
PLC_PRG.ES_SM (19)	Local Read
PLC_PRG.FAULT_LOGIC (14)	Local Read
PLC_PRG.FAULT_LOGIC (14)	Local Write
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.SC_OUTPUTS (144)	Local Read
PLC_PRG.VALVES (78)	Local Read
DO_SPARE_25%QX1.8	
_global_init (29)	Global Write
DO_SPARE_14%QX0.13	
_global_init (18)	Global Write

DI_PE203_PIIY_OK%IX16.8		
PLC_PRG.PROCESS_IN... (12)	Global	Read
PLC_PRG.PROCESS_IN... (13)	Global	Read
PLC_PRG.PROCESS_IN... (14)	Global	Read
PLC_PRG.SC_OUTPUTS (16)	Global	Read
DO_TP212_ON_CMD%QX1.0		
_global_init (21)	Global	Write
PLC_PRG.PROCESS_IN... (74)	Global	Read
PLC_PRG.PROCESS_OU... (21)	Global	Write
DO_RPV211_OPEN_CMD%QX0.10		
_global_init (15)	Global	Write
PLC_PRG.PROCESS_IN... (55)	Global	Read
PLC_PRG.PROCESS_IN... (56)	Global	Read
PLC_PRG.PROCESS_OU... (14)	Global	Write
DI_PE211_PSL_HI%IX17.0		
PLC_PRG.PROCESS_IN... (19)	Global	Read
PLC_PRG.SC_OUTPUTS (23)	Global	Read
DI_PE202_PSL_LO%IX16.2		
PLC_PRG.PROCESS_IN... (5)	Global	Read
DI_PE101_PSL_LO%IX16.0		
PLC_PRG.PROCESS_IN... (3)	Global	Read
cSINS02		
_global_init (4)	Local	Write
PLC_PRG.BR_SM (53)	Local	Read
PLC_PRG.BR_SM (71)	Local	Read
cVERSION_MINOR		
_global_init (2)	Local	Write
PLC_PRG.SC_OUTPUTS (157)	Local	Read
close_intlk		
VALVE_BI_FB (8)	Local	Read
VALVE_BI_FB (11)	Local	Read
VALVE_BI_FBinit (3)	Local	Write
PLC_PRG.VALVES (47)	Local	Write
not_symbol		
RP_FB (4)	Local	Write
RP_FBinit (6)	Local	Write
DI_V203_OPEN%IX18.0		
PLC_PRG.PROCESS_IN... (42)	Global	Read
DI_V100_OPEN%IX17.8		
PLC_PRG.PROCESS_IN... (30)	Global	Read
DI_TP212_AT_SPEED%IX19.0		
PLC_PRG.PROCESS_IN... (74)	Global	Read
DI_PE203_PSL_MIDHI%IX16.13		
PLC_PRG.PROCESS_IN... (14)	Global	Read
PLC_PRG.SC_OUTPUTS (18)	Global	Read
DI_PE201_PSL_LO%IX16.1		
PLC_PRG.PROCESS_IN... (4)	Global	Read
DI_PE101_PSL_LO%IX16.0		
PLC_PRG.PROCESS_IN... (3)	Global	Read
DI_LL211_LID_CLOSED%IX19.4		
PLC_PRG.PROCESS_IN... (79)	Global	Read
PLC_PRG.SC_OUTPUTS (34)	Global	Read
DI_LL211_ARM_RETRACTED%IX19.5		
PLC_PRG.PROCESS_IN... (80)	Global	Read
PLC_PRG.SC_OUTPUTS (35)	Global	Read
cVERSION_MAJOR		
_global_init (1)	Local	Write
PLC_PRG.SC_OUTPUTS (156)	Local	Read
cSINS03		
_global_init (5)	Local	Write
PLC_PRG.BR_SM (89)	Local	Read
PLC_PRG.BR_SM (107)	Local	Read
count2		
_global_init (168)	Local	Write
PLC_PRG.ACTUATOR_I... (6)	Local	Write
PLC_PRG.ACTUATOR_I... (6)	Local	Read
PLC_PRG.ACTUATOR_I... (7)	Local	Read
PLC_PRG.ACTUATOR_I... (8)	Local	Read
PLC_PRG.ACTUATOR_I... (11)	Local	Read
PLC_PRG.ACTUATOR_I... (11)	Local	Write
count		
_global_init (167)	Local	Write
cSINS01		

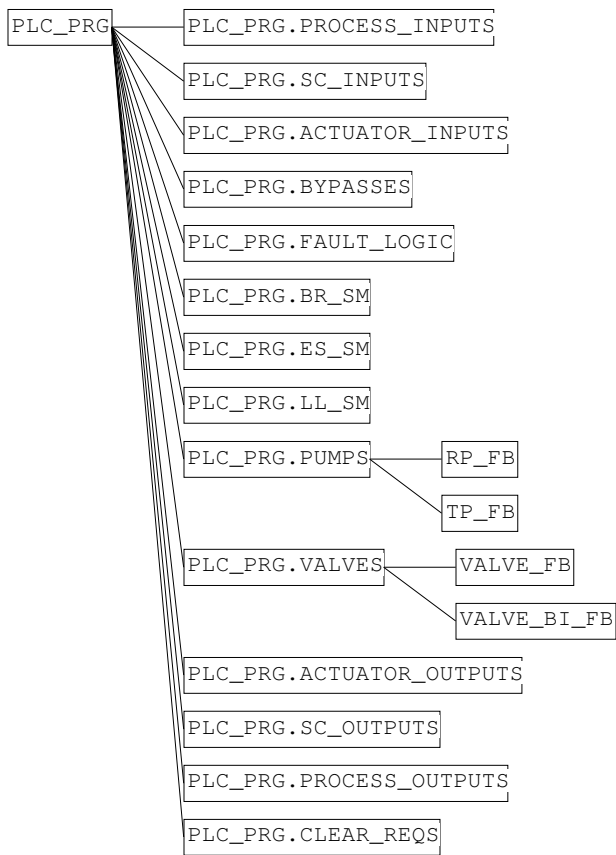
_global_init (3)	Local Write
PLC_PRG.BR_SM (19)	Local Read
PLC_PRG.BR_SM (36)	Local Read
close_req	
VALVE_BI_FB (4)	Local Read
VALVE_BI_FB (8)	Local Read
VALVE_BI_FBinit (6)	Local Write
PLC_PRG.VALVES (50)	Local Write
close_ena	
VALVE_FB (3)	Local Read
VALVE_FB (6)	Local Read
VALVE_FBinit (3)	Local Write
PLC_PRG.SC_OUTPUTS (44)	Local Read
PLC_PRG.SC_OUTPUTS (52)	Local Read
PLC_PRG.SC_OUTPUTS (64)	Local Read
PLC_PRG.SC_OUTPUTS (72)	Local Read
PLC_PRG.VALVES (6)	Local Write
PLC_PRG.VALVES (14)	Local Write
PLC_PRG.VALVES (22)	Local Write
PLC_PRG.VALVES (30)	Local Write
PLC_PRG.VALVES (38)	Local Write
PLC_PRG.VALVES (56)	Local Write
PLC_PRG.VALVES (64)	Local Write
PLC_PRG.VALVES (72)	Local Write
PLC_PRG.VALVES (80)	Local Write
PLC_PRG.VALVES (88)	Local Write
PLC_PRG.VALVES (96)	Local Write
PLC_PRG.VALVES (104)	Local Write
PLC_PRG.VALVES (112)	Local Write
close_ena	
VALVE_BI_FB (4)	Local Read
VALVE_BI_FB (8)	Local Read
VALVE_BI_FB (11)	Local Read
VALVE_BI_FBinit (4)	Local Write
PLC_PRG.SC_OUTPUTS (90)	Local Read
PLC_PRG.VALVES (48)	Local Write
cBR_SELECTOR_UL	
_global_init (7)	Local Write
AI_PE212_LO_PIIY%IW9	
PLC_PRG.SC_OUTPUTS (168)	Global Read
AI_PE212_LO_PIIY%IW9	
PLC_PRG.SC_OUTPUTS (168)	Global Read
close_cmd	
VALVE_BI_FB (8)	Local Read
VALVE_BI_FB (8)	Local Write
VALVE_BI_FB (11)	Local Read
VALVE_BI_FBinit (8)	Local Write
PLC_PRG.PROCESS_OU... (19)	Local Read
PLC_PRG.SC_OUTPUTS (92)	Local Read
AI_PE212_HI_PIIY%IW8	
PLC_PRG.SC_OUTPUTS (167)	Global Read
AI_PE212_HI_PIIY%IW8	
PLC_PRG.SC_OUTPUTS (167)	Global Read
BR_STATE	
_global_init (287)	Local Write
_global_init (288)	Local Write
PLC_PRG.BR_SM (5)	Local Write
PLC_PRG.BR_SM (9)	Local Read
PLC_PRG.BR_SM (14)	Local Write
PLC_PRG.BR_SM (17)	Local Read
PLC_PRG.BR_SM (23)	Local Write
PLC_PRG.BR_SM (25)	Local Write
PLC_PRG.BR_SM (27)	Local Write
PLC_PRG.BR_SM (29)	Local Write
PLC_PRG.BR_SM (31)	Local Write
PLC_PRG.BR_SM (34)	Local Read
PLC_PRG.BR_SM (40)	Local Write
PLC_PRG.BR_SM (42)	Local Write
PLC_PRG.BR_SM (44)	Local Write
PLC_PRG.BR_SM (46)	Local Write
PLC_PRG.BR_SM (48)	Local Write
PLC_PRG.BR_SM (51)	Local Read
PLC_PRG.BR_SM (57)	Local Write

PLC_PRG.BR_SM (60)	Local Write
PLC_PRG.BR_SM (62)	Local Write
PLC_PRG.BR_SM (64)	Local Write
PLC_PRG.BR_SM (66)	Local Write
PLC_PRG.BR_SM (69)	Local Read
PLC_PRG.BR_SM (75)	Local Write
PLC_PRG.BR_SM (77)	Local Write
PLC_PRG.BR_SM (79)	Local Write
PLC_PRG.BR_SM (81)	Local Write
PLC_PRG.BR_SM (83)	Local Write
PLC_PRG.BR_SM (87)	Local Read
PLC_PRG.BR_SM (93)	Local Write
PLC_PRG.BR_SM (96)	Local Write
PLC_PRG.BR_SM (98)	Local Write
PLC_PRG.BR_SM (100)	Local Write
PLC_PRG.BR_SM (102)	Local Write
PLC_PRG.BR_SM (105)	Local Read
PLC_PRG.BR_SM (111)	Local Write
PLC_PRG.BR_SM (113)	Local Write
PLC_PRG.BR_SM (115)	Local Write
PLC_PRG.BR_SM (117)	Local Write
PLC_PRG.BR_SM (119)	Local Write
PLC_PRG.BR_SM (123)	Local Read
PLC_PRG.BR_SM (129)	Local Write
PLC_PRG.BR_SM (132)	Local Write
PLC_PRG.BR_SM (134)	Local Write
PLC_PRG.BR_SM (136)	Local Write
PLC_PRG.BR_SM (138)	Local Write
PLC_PRG.BR_SM (141)	Local Read
PLC_PRG.BR_SM (147)	Local Write
PLC_PRG.BR_SM (149)	Local Write
PLC_PRG.BR_SM (151)	Local Write
PLC_PRG.BR_SM (153)	Local Write
PLC_PRG.BR_SM (155)	Local Write
PLC_PRG.BR_SM (159)	Local Write
PLC_PRG.SC_OUTPUTS (40)	Local Read
PLC_PRG.SC_OUTPUTS (48)	Local Read
PLC_PRG.SC_OUTPUTS (220)	Local Read
PLC_PRG.SC_OUTPUTS (222)	Local Read
PLC_PRG.SC_OUTPUTS (225)	Local Read
PLC_PRG.SC_OUTPUTS (228)	Local Read
PLC_PRG.SC_OUTPUTS (231)	Local Read
PLC_PRG.SC_OUTPUTS (234)	Local Read
AI_PE211_LO_PII%IW7	
PLC_PRG.SC_OUTPUTS (166)	Global Read
AI_PE211_LO_PII%IW7	
PLC_PRG.SC_OUTPUTS (166)	Global Read
AI_PE211_HI_PII%IW6	
PLC_PRG.SC_OUTPUTS (165)	Global Read
BP211_ON_CMD	
_global_init (309)	Local Write
_global_init (310)	Local Write
PLC_PRG.PROCESS_OU... (4)	Local Read
PLC_PRG.PUMPS (4)	Local Write
PLC_PRG.SC_OUTPUTS (110)	Local Read
AI_PE211_HI_PII%IW6	
PLC_PRG.SC_OUTPUTS (165)	Global Read
AI_PE203_LO_PII%IW5	
PLC_PRG.SC_OUTPUTS (164)	Global Read
AI_PE203_LO_PII%IW5	
PLC_PRG.SC_OUTPUTS (164)	Global Read
AI_PE203_HI_PII%IW4	
PLC_PRG.SC_OUTPUTS (163)	Global Read
AI_PE203_HI_PII%IW4	
PLC_PRG.SC_OUTPUTS (163)	Global Read
BR_REQUEST	
_global_init (288)	Local Write
_global_init (289)	Local Write
PLC_PRG.BR_SM (24)	Local Read
PLC_PRG.BR_SM (26)	Local Read
PLC_PRG.BR_SM (28)	Local Read
PLC_PRG.BR_SM (30)	Local Read
PLC_PRG.BR_SM (39)	Local Read

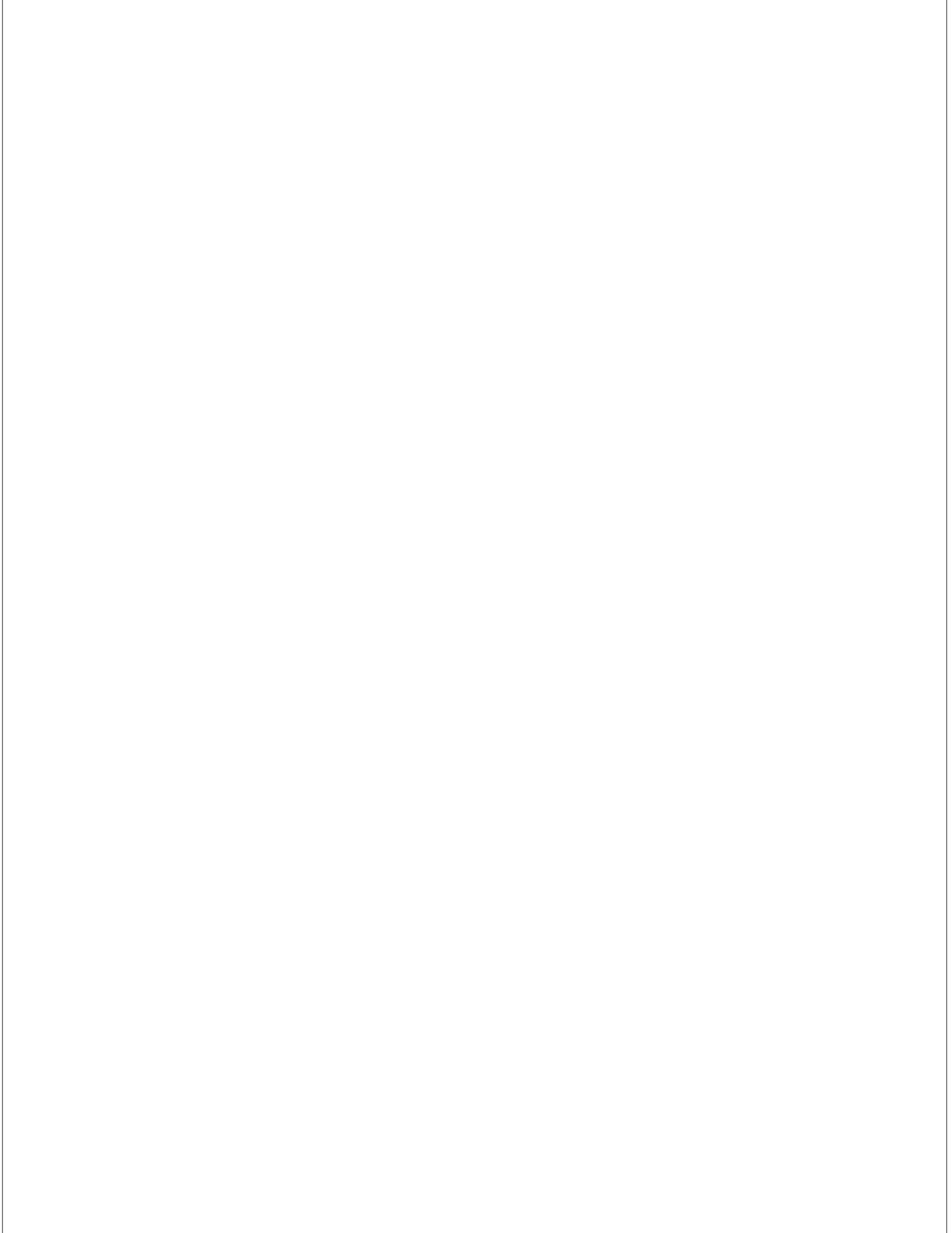
PLC_PRG.BR_SM (41)	Local Read
PLC_PRG.BR_SM (43)	Local Read
PLC_PRG.BR_SM (45)	Local Read
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PLC_PRG.BR_SM (59)	Local Read
PLC_PRG.BR_SM (61)	Local Read
PLC_PRG.BR_SM (63)	Local Read
PLC_PRG.BR_SM (65)	Local Read
PLC_PRG.BR_SM (74)	Local Read
PLC_PRG.BR_SM (76)	Local Read
PLC_PRG.BR_SM (78)	Local Read
PLC_PRG.BR_SM (80)	Local Read
PLC_PRG.BR_SM (82)	Local Read
PLC_PRG.BR_SM (95)	Local Read
PLC_PRG.BR_SM (97)	Local Read
PLC_PRG.BR_SM (99)	Local Read
PLC_PRG.BR_SM (101)	Local Read
PLC_PRG.BR_SM (110)	Local Read
PLC_PRG.BR_SM (112)	Local Read
PLC_PRG.BR_SM (114)	Local Read
PLC_PRG.BR_SM (116)	Local Read
PLC_PRG.BR_SM (118)	Local Read
PLC_PRG.BR_SM (131)	Local Read
PLC_PRG.BR_SM (133)	Local Read
PLC_PRG.BR_SM (135)	Local Read
PLC_PRG.BR_SM (137)	Local Read
PLC_PRG.BR_SM (146)	Local Read
PLC_PRG.BR_SM (148)	Local Read
PLC_PRG.BR_SM (150)	Local Read
PLC_PRG.BR_SM (152)	Local Read
PLC_PRG.BR_SM (154)	Local Read
PLC_PRG.SC_INPUTS (25)	Local Write
PLC_PRG.SC_INPUTS (27)	Local Write
PLC_PRG.SC_INPUTS (29)	Local Write
PLC_PRG.SC_INPUTS (31)	Local Write
PLC_PRG.SC_INPUTS (33)	Local Write
PLC_PRG.SC_INPUTS (35)	Local Write
PLC_PRG.SC_OUTPUTS (172)	Local Read
PLC_PRG.SC_OUTPUTS (174)	Local Read
PLC_PRG.SC_OUTPUTS (176)	Local Read
PLC_PRG.SC_OUTPUTS (178)	Local Read
PLC_PRG.SC_OUTPUTS (180)	Local Read
AI_PE202_PII%IW2	
PLC_PRG.SC_OUTPUTS (162)	Global Read
AI_PE202_PII%IW2	
PLC_PRG.SC_OUTPUTS (162)	Global Read
AI_PE201_PII%IW1	
PLC_PRG.SC_OUTPUTS (161)	Global Read
AI_PE201_PII%IW1	
PLC_PRG.SC_OUTPUTS (161)	Global Read
BP211_ON	
_global_init (224)	Local Write
_global_init (225)	Local Write
PLC_PRG.FAULT_LOGIC (17)	Local Read
PLC_PRG.FAULT_LOGIC (37)	Local Read
PLC_PRG.PROCESS_IN... (8)	Local Write
PLC_PRG.SC_OUTPUTS (109)	Local Read
AI_PE101_PII%IW0	
PLC_PRG.SC_OUTPUTS (160)	Global Read
AI_PE101_PII%IW0	
PLC_PRG.SC_OUTPUTS (160)	Global Read
BP211_PSL	
_global_init (190)	Local Write
PLC_PRG.PROCESS_IN... (10)	Local Write
PLC_PRG.SC_OUTPUTS (147)	Local Read
ACTUATOR_OK	
_global_init (247)	Local Write
_global_init (248)	Local Write
PLC_PRG.ACTUATOR_I... (3)	Local Write
PLC_PRG.BYPASSES (3)	Local Write
PLC_PRG.FAULT_LOGIC (3)	Local Read
PLC_PRG.FAULT_LOGIC (37)	Local Read
awStatus	

ACTUATOR_SM (25)	Local Read
ACTUATOR_SM (29)	Local Read
ACTUATOR_SM (33)	Local Read
ACTUATOR_SM (37)	Local Read
ACTUATOR_SM (94)	Local Read
ACTUATOR_SM (132)	Local Read
ACTUATOR_SM.CONNECT (25)	Local Read
ACTUATOR_SM.STATUS... (26)	Local Read
ACTUATOR_SM.STATUS... (37)	Local Read
ACTUATOR_SM.STATUS... (38)	Local Read
ACTUATOR_SM.STATUS... (39)	Local Read
ACTUATORinit (2)	Local Write
ACTUATOR_CMD	
_global_init (246)	Local Write
_global_init (247)	Local Write
PLC_PRG.ACTUATOR_O... (3)	Local Read
PLC_PRG.ACTUATOR_O... (4)	Local Read
PLC_PRG.BR_SM (11)	Local Write
PLC_PRG.BR_SM (19)	Local Write
PLC_PRG.BR_SM (22)	Local Read
PLC_PRG.BR_SM (36)	Local Write
PLC_PRG.BR_SM (53)	Local Write
PLC_PRG.BR_SM (56)	Local Read
PLC_PRG.BR_SM (71)	Local Write
PLC_PRG.BR_SM (89)	Local Write
PLC_PRG.BR_SM (92)	Local Read
PLC_PRG.BR_SM (107)	Local Write
PLC_PRG.BR_SM (125)	Local Write
PLC_PRG.BR_SM (128)	Local Read
PLC_PRG.BR_SM (143)	Local Write
ACTUATOR_AT_TARGET	
_global_init (245)	Local Write
_global_init (246)	Local Write
PLC_PRG.ACTUATOR_I... (8)	Local Write
PLC_PRG.ACTUATOR_I... (13)	Local Write
PLC_PRG.BR_SM (22)	Local Read
PLC_PRG.BR_SM (56)	Local Read
PLC_PRG.BR_SM (92)	Local Read
PLC_PRG.BR_SM (128)	Local Read
a_num	
_global_init (169)	Local Write

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