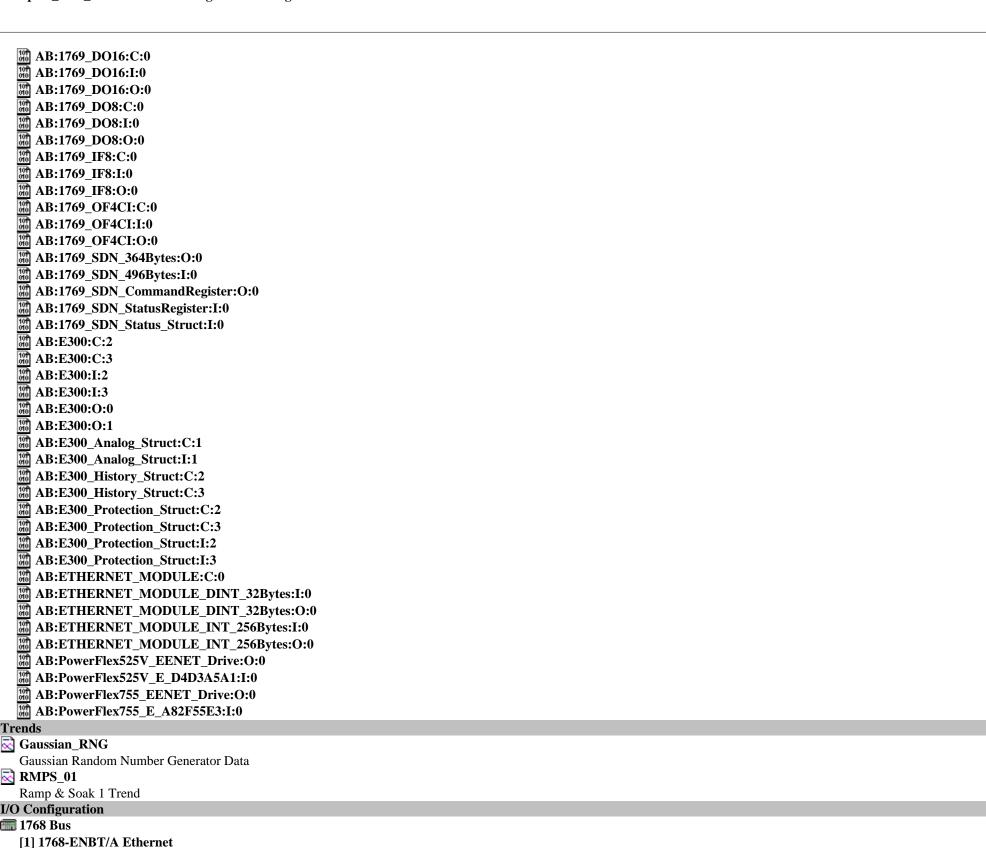**Controller Compact_AOI_Test**
Controller Fault Handler
Power-Up Handler
Tasks
AOI_Test
  P01_AOI_Test_IO_Buffer
    R001_IO_Buffer_Main
    R010_Discrete_IO
  P02_AOI_Test
    AOI Test Program
    R001_AOI_Main
      AOI Test Main Routine
    R200_Totalizer_1
      Totalizer Instruction Test Routine 1
  P03_RMPS_AOI_Test
    Ramp & Soak AOI Test Program
    R001_RMPS_Main
    R020_RMPS_PIDE_Lad
      Ramp & Soad PIDE Ladder Routine
    R030_RMPS_PIDE_FB
      Ramp & Soak PIDE Functin Block Routine
  P02_Random
    Gaussian Random Number Generator Program
    R001_Main
      Random Number Generator Main Routine
    R010_LCG
      Random Number Generator Subroutine
    R020_Gauss_RNG
      Gaussian Random Number Generator Routine
Unscheduled Programs / Phases
Motion Groups
Ungrouped Axes
Add-On Instructions
A_Gauss_RNG
  Logic
a_RMPS
  Ramp and Soak AOI
  Logic
A_Uniform_RNG
  Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi)
  Logic
Data Types
User-Defined
Strings
  STRING
  STRING_12
  STRING_16
  STRING_20
  STRING_40
Add-On-Defined
  A_Gauss_RNG
  a_RMPS
    Ramp and Soak AOI
  A_Uniform_RNG
    Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi)
Module-Defined
  AB:1769_DI16:I:0
  AB:1769_DI32:I:0

AB:1769_DO16:C:0
AB:1769_DO16:I:0
AB:1769_DO16:O:0
AB:1769_DO8:C:0
AB:1769_DO8:I:0
AB:1769_DO8:O:0
AB:1769_IF8:C:0
AB:1769_IF8:I:0
AB:1769_IF8:O:0
AB:1769_OF4CI:C:0
AB:1769_OF4CI:I:0
AB:1769_OF4CI:O:0
AB:1769_SDN_364Bytes:O:0
AB:1769_SDN_496Bytes:I:0
AB:1769_SDN_CommandRegister:O:0
AB:1769_SDN_StatusRegister:I:0
AB:1769_SDN_Status_Struct:I:0
AB:E300:C:2
AB:E300:C:3
AB:E300:I:2
AB:E300:I:3
AB:E300:O:0
AB:E300:O:1
AB:E300_Analog_Struct:C:1
AB:E300_Analog_Struct:I:1
AB:E300_History_Struct:C:2
AB:E300_History_Struct:C:3
AB:E300_Protection_Struct:C:2
AB:E300_Protection_Struct:C:3
AB:E300_Protection_Struct:I:2
AB:E300_Protection_Struct:I:3
AB:ETHERNET_MODULE:C:0
AB:ETHERNET_MODULE_DINT_32Bytes:I:0
AB:ETHERNET_MODULE_DINT_32Bytes:O:0
AB:ETHERNET_MODULE_INT_256Bytes:I:0
AB:ETHERNET_MODULE_INT_256Bytes:O:0
AB:PowerFlex525V_EENET_Drive:O:0
AB:PowerFlex525V_E_D4D3A5A1:I:0
AB:PowerFlex755_EENET_Drive:O:0
AB:PowerFlex755_E_A82F55E3:I:0

Trends
Gaussian_RNG
Gaussian Random Number Generator Data
RMPS_01
Ramp & Soak 1 Trend
I/O Configuration
1768 Bus
[1] 1768-ENBT/A Ethernet

[0] 1768-L45 Compact_AOI_Test
1769 Bus
[0] 1768-L45 Compact_AOI_Test
[1] 1769-OA16/A DO_120V_S1

Name	Value	Data Type	Scope
a_RMPS_01		a_RMPS	P03_RMPS_AOI_Test
Ramp & Soak 1 AOI:			
Constant	No		
External Access:	Read/Write		
*a_RMPS_01 - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - *1-A2(IREF,RMPS_Segs), *1-B1(IREF,RMPS_Run_Cmd), *1-B2(a_RMPS,a_RMPS_01), *1-B2(IREF,RMPS_Hold), *1-B2(IREF,RMPS_PIDE_Out), *1-B3(IREF,RMPS_Init), *1-E1(PIDE,RMPS_PIDE.SPProg)*			
a_RMPS_01.EnableIn	1	BOOL	
Ramp & Soak 1 AOI: Enable Input - System Defined Parameter			
a_RMPS_01.EnableOut	1	BOOL	
Ramp & Soak 1 AOI: Enable Output - System Defined Parameter			
a_RMPS_01.Run_Cmd	0	BOOL	
Ramp & Soak 1 AOI: AOI Run Cmd			
a_RMPS_01.PV	0.0	REAL	
Ramp & Soak 1 AOI: Scaled Analog Input (Real) to the AOI			
a_RMPS_01.Num_of_Seg	3	INT	
Ramp & Soak 1 AOI: Number of Segments (Maximum = 10)			
a_RMPS_01.Hold	0	BOOL	
Ramp & Soak 1 AOI: AOI Hold Cmd			
a_RMPS_01.Initialize	0	BOOL	
Ramp & Soak 1 AOI: Initialize AOI Cmd (Reset Segment to 0)			
a_RMPS_01.SP_Out	0.0	REAL	
Ramp & Soak 1 AOI: Setpoint Output (psig, deg F)			
a_RMPS_01.Current_Seg	0	INT	
Ramp & Soak 1 AOI: Current Segment			
a_RMPS_01.STime_Left	0.0	REAL	
Ramp & Soak 1 AOI: Current Segment Remaining Time (min)			
a_RMPS_01.STime_Expired	0.0	REAL	
Ramp & Soak 1 AOI: Current Segment Time Expired			
a_RMPS_01.Total_Cycle	0.0	REAL	
Ramp & Soak 1 AOI: Total Cycle Time (minutes)			
a_RMPS_01.Total_Run	0.0	REAL	
Ramp & Soak 1 AOI: Total Run Time (minutes)			
a_RMPS_01.Total_Hold	0.0	REAL	
Ramp & Soak 1 AOI: Total Hold Time (minutes)			
a_RMPS_01.Cycle_Hour	0	DINT	
Ramp & Soak 1 AOI: Total Cycle Time Hours			
a_RMPS_01.Cycle_Min	0.0	REAL	
Ramp & Soak 1 AOI: Total Cycle Time Minutes			
a_RMPS_01.Run_Mode	0	BOOL	
Ramp & Soak 1 AOI: in Run Mode			
a_RMPS_01.Run_Mode - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - 1(XIC), 1(XIO), 2(XIC), 3(XIC), 5(XIO)			
a_RMPS_01.Done	0	BOOL	
Ramp & Soak 1 AOI: AOI Done Bit			
a_RMPS_01.Done - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - 2(XIO)			
a_RMPS_01.Fault	0	BOOL	
Ramp & Soak 1 AOI: AOI Faulted / Invalid Data			
BNOT_01		FBD_BOOLEAN_NOT	P02_AOI_Test
Constant	No		
External Access:	Read/Write		
*BNOT_01 - P02_AOI_Test/R200_Totalizer_1 - *1-B2(BNOT,BNOT_01), *1-B3(IREF,Total_Start_1), *1-C1(TOT,TOT_01.ProgResetReq), *1-C1(TOT,TOT_01.ProgStopReq)*			
BTC_RNG_1		A_Uniform_RNG	Compact_AOI_Test
Linear Congruential Generator as a Random Number Generator #1			
Constant	No		
External Access:	Read/Write		
*BTC_RNG_1 - P02_Random/R010_LCG - *1(A_Uniform_RNG)*			
BTC_RNG_1.EnableIn	1	BOOL	
Linear Congruential Generator as a Random Number Generator #1 Enable Input - System Defined Parameter			
BTC_RNG_1.EnableOut	1	BOOL	
Linear Congruential Generator as a Random Number Generator #1 Enable Output - System Defined Parameter			
BTC_RNG_1.Seed	-1795495946	DINT	
Linear Congruential Generator as a Random Number Generator #1 LCG input seed; updated after each execution			
BTC_RNG_1.A	110351245	DINT	

BTC_RNG_1 (Continued)

    Linear Congruential Generator as a Random Number Generator #1 LCG multiplicative parameter A in (Seed(n+1) = Seed(n) * A + C) MOD Modulus; default is from glibc implementation

    BTC_RNG_1.A - P02_Random/R010_LCG - 1(A_Uniform_RNG)

BTC_RNG_1.B   12345   DINT

    Linear Congruential Generator as a Random Number Generator #1 LCG additive parameter A in Seed(n+1) = (Seed(n) * A + C) MOD Modulus; default PJC/BTC/WA value

    BTC_RNG_1.B - P02_Random/R010_LCG - 1(A_Uniform_RNG)

BTC_RNG_1.Out_lo   0.0   REAL

    Linear Congruential Generator as a Random Number Generator #1 Output value when updated seed is 0

    BTC_RNG_1.Out_lo - P02_Random/R010_LCG - 1(A_Uniform_RNG)

BTC_RNG_1.Out_hi   1.0   REAL

    Linear Congruential Generator as a Random Number Generator #1 Output value for an updated seed of 2**31 (theoretical)

    BTC_RNG_1.Out_hi - P02_Random/R010_LCG - 1(A_Uniform_RNG)

BTC_RNG_1.Output_scaled   0.3621916   REAL

    Linear Congruential Generator as a Random Number Generator #1 Actual output value at each execution

    *BTC_RNG_1.Output_scaled - P02_Random/R010_LCG - *1(A_Uniform_RNG)*

BTC_RNG_1.Seed_Out   -777800521   DINT

    Linear Congruential Generator as a Random Number Generator #1 LCG Calculation Seed Output

    *BTC_RNG_1.Seed_Out - P02_Random/R010_LCG - *1(A_Uniform_RNG), 1(A_Uniform_RNG)*

BTC_RNG_2   A_Uniform_RNG   Compact_AOI_Test

    Linear Congruential Generator as a Random Number Generator #2

    Constant   No

    External Access: Read/Write

    *BTC_RNG_2 - P02_Random/R010_LCG - *1(A_Uniform_RNG)*

BTC_RNG_2.EnableIn   1   BOOL

    Linear Congruential Generator as a Random Number Generator #2 Enable Input - System Defined Parameter

BTC_RNG_2.EnableOut   1   BOOL

    Linear Congruential Generator as a Random Number Generator #2 Enable Output - System Defined Parameter

BTC_RNG_2.Seed   -417358683   DINT

    Linear Congruential Generator as a Random Number Generator #2 LCG input seed; updated after each execution

BTC_RNG_2.A   110351245   DINT

    Linear Congruential Generator as a Random Number Generator #2 LCG multiplicative parameter A in (Seed(n+1) = Seed(n) * A + C) MOD Modulus; default is from glibc implementation

    BTC_RNG_2.A - P02_Random/R010_LCG - 1(A_Uniform_RNG)

BTC_RNG_2.B   12345   DINT

    Linear Congruential Generator as a Random Number Generator #2 LCG additive parameter A in Seed(n+1) = (Seed(n) * A + C) MOD Modulus; default PJC/BTC/WA value

    BTC_RNG_2.B - P02_Random/R010_LCG - 1(A_Uniform_RNG)

BTC_RNG_2.Out_lo   0.0   REAL

    Linear Congruential Generator as a Random Number Generator #2 Output value when updated seed is 0

    BTC_RNG_2.Out_lo - P02_Random/R010_LCG - 1(A_Uniform_RNG)

BTC_RNG_2.Out_hi   1.0   REAL

    Linear Congruential Generator as a Random Number Generator #2 Output value for an updated seed of 2**31 (theoretical)

    BTC_RNG_2.Out_hi - P02_Random/R010_LCG - 1(A_Uniform_RNG)

BTC_RNG_2.Output_scaled   0.66197324   REAL

    Linear Congruential Generator as a Random Number Generator #2 Actual output value at each execution

    *BTC_RNG_2.Output_scaled - P02_Random/R010_LCG - *1(A_Uniform_RNG)*

BTC_RNG_2.Seed_Out   -1421576678   DINT

    Linear Congruential Generator as a Random Number Generator #2 LCG Calculation Seed Output

    *BTC_RNG_2.Seed_Out - P02_Random/R010_LCG - *0(MOV), *1(A_Uniform_RNG), 1(A_Uniform_RNG)*

DI_S2_Data   0   INT   Compact_AOI_Test

    Constant   No

    External Access: Read/Write

    *DI_S2_Data - P01_AOI_Test_IO_Buffer/R010_Discrete_IO - *2(COP)*

DO_S1_Data   256   DINT   Compact_AOI_Test

    Slot #1 1769-OAD Module Buffer Tag

    Constant   No

    External Access: Read/Write

    DO_S1_Data - P01_AOI_Test_IO_Buffer/R010_Discrete_IO - 1(MOV)

False   0   BOOL   Compact_AOI_Test

    Always False Bit

    Constant   No

    External Access: Read/Write

False (Continued)
*False - P02_AOI_Test/R001_AOI_Main - *1(OTU)*

Fault_Reset_Cmd 0 BOOL Compact_AOI_Test
Fault Reset Command
Constant No
External Access: Read/Write
*Fault_Reset_Cmd - P02_AOI_Test/R001_AOI_Main - *3(OTE)*

Fault_Reset_PB 0 BOOL Compact_AOI_Test
Fault Reset Pushbutton
Constant No
External Access: Read/Write
*Fault_Reset_PB - P02_AOI_Test/R001_AOI_Main - *3(OTU), 3(XIC)*

Fault_Reset_Timer TIMER Compact_AOI_Test
Fault Reset Timer
Constant No
External Access: Read/Write
*Fault_Reset_Timer - P02_AOI_Test/R001_AOI_Main - *3(TON)*
Fault_Reset_Timer.PRE 1000 DINT
Fault Reset Timer
Fault_Reset_Timer.ACC 0 DINT
Fault Reset Timer
Fault_Reset_Timer.EN 0 BOOL
Fault Reset Timer
Fault_Reset_Timer.TT 0 BOOL
Fault Reset Timer
Fault_Reset_Timer.TT - P02_AOI_Test/R001_AOI_Main - 3(XIC)
Fault_Reset_Timer.DN 0 BOOL
Fault Reset Timer

First_Scan 1 BOOL Compact_AOI_Test
Test Program First Scan Completed
Constant No
External Access: Read/Write
*First_Scan - P03_RMPS_AOI_Test/R001_RMPS_Main - *1(OTE), 0(XIO)*
First_Scan - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - 1(XIO), 2(XIC), 3(XIO), 5(XIO)

Flash_Off 1 BOOL Compact_AOI_Test
Flash Off Bit
Constant No
External Access: Read/Write
*Flash_Off - P02_AOI_Test/R001_AOI_Main - *2(OTE)*

Flash_Off_PB 0 BOOL Compact_AOI_Test
Flash Off Pushbutton
Constant No
External Access: Read/Write
*Flash_Off_PB - P02_AOI_Test/R001_AOI_Main - *2(OTE), 2(XIO)*

Flash_On 0 BOOL Compact_AOI_Test
Flasher On Bit
Constant No
External Access: Read/Write
*Flash_On - P02_AOI_Test/R001_AOI_Main - *2(OTE), 2(XIC), 2(XIO)*

Flash_Timer TIMER Compact_AOI_Test
Flasher Timer
Constant No
External Access: Read/Write
*Flash_Timer - P02_AOI_Test/R001_AOI_Main - *2(TON)*
Flash_Timer.PRE 2000 DINT
Flasher Timer

Flash_Timer (Continued)

Flash_Timer.ACC   850   DINT
    Flasher Timer
Flash_Timer.EN   1   BOOL
    Flasher Timer
Flash_Timer.TT   1   BOOL
    Flasher Timer
Flash_Timer.DN   0   BOOL
    Flasher Timer Done Bit
    Flash_Timer.DN - P02_AOI_Test/R001_AOI_Main - 2(XIC), 2(XIO)

Gauss_RNG   A_Gauss_RNG   Compact_AOI_Test
    Gaussian Random Number Generator
    Constant   No
    External Access: Read/Write
    *Gauss_RNG - P02_Random/R020_Gauss_RNG - *1(A_Gauss_RNG)*
Gauss_RNG.EnableIn   1   BOOL
    Gaussian Random Number Generator Enable Input - System Defined Parameter
Gauss_RNG.EnableOut   1   BOOL
    Gaussian Random Number Generator Enable Output - System Defined Parameter
Gauss_RNG.GNG_Out   -1.4291869   REAL
    Gaussian Random Number Generator Gaussian-Distributed Random Number
    *Gauss_RNG.GNG_Out - P02_Random/R020_Gauss_RNG - *1(A_Gauss_RNG), 0(MOV)*

Gauss_RNG_Data   REAL[1000]   Compact_AOI_Test
    Gaussian Random Number Generator Data from CompactLogix PLC
    Constant   No
    External Access: Read/Write
    *Gauss_RNG_Data - P02_Random/R020_Gauss_RNG - *0(MOV)*
Gauss_RNG_Data[0]   -0.035985377   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[1]   1.3390797   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[2]   -0.39448842   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[3]   0.74102545   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[4]   -0.93660265   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[5]   -0.3450555   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[6]   0.6080075   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[7]   -0.9407519   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[8]   1.2191184   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[9]   0.46754768   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[10]   -0.57782114   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[11]   -1.2456499   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[12]   -1.9105818   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[13]   1.56862   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[14]   0.96315897   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[15]   0.017348586   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[16]   -0.7476017   REAL
    Gaussian Random Number Generator Data from CompactLogix PLC
Gauss_RNG_Data[17]   0.678847   REAL

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data[18]	-0.47980845	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[19]	-0.480844	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[20]	-0.13772298	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[21]	1.0245129	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[22]	-0.29012182	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[23]	0.47420457	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[24]	1.266483	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[25]	0.7998358	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[26]	-0.8807205	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[27]	0.572477	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[28]	0.62216145	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[29]	-0.48432767	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[30]	0.38861325	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[31]	1.116691	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[32]	1.8563645	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[33]	-0.13588122	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[34]	-0.13573334	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[35]	0.9569396	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[36]	0.19560222	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[37]	-0.7790747	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[38]	1.4596825	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[39]	-0.4462693	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[40]	-1.1107899	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[41]	-0.07437024	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[42]	-0.75861543	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[43]	-1.2240752	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[44]	-0.26493448	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[45]	0.77100146	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[46]	0.46815443	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[47]	0.05096904	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[48]	1.4335351	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[49]	0.105857186	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[50]	2.050967	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[51]	0.72315586	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[52]	0.44118994	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[53]	2.075737	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[54]	-1.961829	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[55]	0.1731522	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[56]	-0.9386877	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[57]	-2.6682873	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[58]	-0.81884885	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[59]	0.46441725	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[60]	0.28653178	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[61]	-0.028919075	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[62]	-0.46610966	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[63]	0.30180898	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[64]	0.70171523	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[65]	1.2479358	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[66]	-0.11576161	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[67]	0.39755479	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[68]	-0.85207504	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[69]	-0.55821866	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[70]	-0.51221514	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[71]	-1.1397206	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[72]	-0.5383751	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[73]	-0.43980548	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[74]	-0.76158047	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[75]	-0.03383184	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[76]	1.5447745	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[77]	0.5271834	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[78]	-0.52439725	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[79]	-0.26440185	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[80]	-0.99910724	REAL

Gauss_RNG_Data (Continued)
  Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data[81]	-0.5068656	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[82]	-0.7099606	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[83]	0.057107024	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[84]	-0.2515772	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[85]	-0.017708583	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[86]	0.9356689	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[87]	-1.1143135	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[88]	-2.1970062	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[89]	1.1213181	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[90]	0.08901488	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[91]	1.1760075	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[92]	1.339789	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[93]	-0.07964845	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[94]	-0.4453082	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[95]	-0.3371099	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[96]	-0.8389111	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[97]	0.87137055	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[98]	1.1149273	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[99]	-0.6811345	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[100]	1.14014547e-003	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[101]	-2.6085455	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[102]	-2.852195	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[103]	-0.6647554	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[104]	0.8202743	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[105]	1.246501	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[106]	1.4058892	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[107]	0.203534	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[108]	-0.26349384	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[109]	1.6257519	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[110]	0.8696443	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[111]	0.5771712	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Tag	Value	Type
Gauss_RNG_Data[112]	-1.1127129	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[113]	1.4887646	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[114]	-0.076285325	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[115]	0.6048775	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[116]	0.58487844	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[117]	-0.46939093	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[118]	0.44409722	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[119]	0.13255712	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[120]	-0.21096252	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[121]	1.0053971	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[122]	1.040058	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[123]	0.016741551	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[124]	0.43483087	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[125]	9.59461648e-003	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[126]	0.20593216	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[127]	-1.168494	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[128]	-1.853001	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[129]	-1.0573746	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[130]	-0.4761914	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[131]	1.5178391	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[132]	1.3267015	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[133]	-0.40253183	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[134]	0.30158377	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[135]	0.5933027	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[136]	-0.9524629	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[137]	1.0680975	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[138]	-0.7558636	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[139]	-1.4020723	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[140]	-0.6648718	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[141]	-0.0611871	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[142]	2.006384	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[143]	2.7428625	REAL

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Tag	Value	Type
Gauss_RNG_Data[144]	1.3989797	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[145]	0.2740892	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[146]	-0.9268957	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[147]	0.6436776	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[148]	1.0543944	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[149]	0.026561871	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[150]	0.5742363	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[151]	-2.9605093	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[152]	-0.22916035	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[153]	-0.51678413	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[154]	-0.99578106	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[155]	-0.012066617	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[156]	0.5922438	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[157]	0.06816203	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[158]	0.92654026	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[159]	0.55594987	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[160]	0.23643808	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[161]	0.5973262	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[162]	-0.09061496	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[163]	0.45270556	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[164]	0.3432337	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[165]	-1.0944074	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[166]	-1.1328709	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[167]	0.6553256	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[168]	1.2722349	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[169]	-1.7265284	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[170]	-0.5045381	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[171]	-0.24032512	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[172]	0.22732854	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[173]	1.1127645	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[174]	-0.6871275	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[175]	0.110123456	REAL
Gauss_RNG_Data[175]		
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[176]	-0.5213187	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[177]	-1.7395097	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[178]	-1.2566222	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[179]	-0.36491826	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[180]	-1.857618	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[181]	1.4192808	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[182]	0.8527622	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[183]	-0.21954612	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[184]	-2.1579506	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[185]	0.75503343	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[186]	0.43037972	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[187]	0.9549413	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[188]	2.0340197	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[189]	-0.8599607	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[190]	0.5208209	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[191]	-0.84758896	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[192]	1.6988384	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[193]	-0.10068855	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[194]	-0.14244121	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[195]	0.20271161	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[196]	0.1401222	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[197]	-0.56031036	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[198]	0.1580086	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[199]	1.6133175	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[200]	-0.4325014	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[201]	-0.49420533	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[202]	-0.7998489	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[203]	0.02078131	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[204]	-0.062194094	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[205]	-1.0164624	REAL
Gauss Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[206]	1.3387351	REAL

Compact_AOI_Test - Tag Listing   **Page 13**
Compact_AOI_Test (Controller)   1/4/2020 9:28:15 PM
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Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data[207]	-0.37201884	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[208]	0.45018846	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[209]	-0.479291	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[210]	1.4430971	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[211]	0.07664609	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[212]	-1.333162	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[213]	-0.21226762	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[214]	-0.57741314	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[215]	-0.6665083	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[216]	0.33381134	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[217]	-1.0891702	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[218]	0.43677476	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[219]	0.58088344	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[220]	-2.0102742	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[221]	-0.8800952	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[222]	-0.08651196	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[223]	6.15574478e-004	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[224]	1.086819	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[225]	2.5830436	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[226]	-0.7934175	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[227]	-0.93923575	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[228]	-0.7794194	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[229]	1.3286101	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[230]	0.067034036	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[231]	-1.1756991	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[232]	0.43965426	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[233]	0.5924232	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[234]	0.46177077	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[235]	-0.44711852	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[236]	-0.45694125	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[237]	0.69437057	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[238]	-1.7077134	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[239]	-2.067832	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[240]	-1.295328	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[241]	0.55677086	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[242]	0.112791196	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[243]	-1.3014833	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[244]	0.03426842	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[245]	-1.5780963	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[246]	1.0612606	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[247]	0.12186224	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[248]	-0.79540926	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[249]	0.8648424	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[250]	0.4347866	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[251]	0.6423583	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[252]	-0.47706488	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[253]	-0.45005003	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[254]	-0.20754	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[255]	-0.5425331	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[256]	-0.42951745	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[257]	0.16075984	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[258]	2.183882	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[259]	0.24738187	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[260]	0.6654207	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[261]	-0.27388418	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[262]	0.79888725	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[263]	0.60594976	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[264]	1.1409434	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[265]	-0.7959242	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[266]	-0.3667298	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[267]	0.49227628	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[268]	1.5475932	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[269]	-2.7523575	REAL

Gauss_RNG_Data (Continued)
　　Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data[270]	1.5189892	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[271]	1.8418756	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[272]	-0.33018425	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[273]	1.0928564	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[274]	1.5221573	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[275]	0.88909304	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[276]	-0.028371667	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[277]	1.2565087	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[278]	-0.012649448	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[279]	1.4802513	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[280]	0.7759589	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[281]	-0.40050682	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[282]	-0.4441118	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[283]	-0.024928363	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[284]	0.9443336	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[285]	-0.25461754	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[286]	1.0339944	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[287]	-0.6437058	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[288]	0.8684398	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[289]	0.13830367	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[290]	-0.8793776	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[291]	-0.20457947	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[292]	-1.5213305	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[293]	0.042815473	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[294]	-1.1198548	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[295]	-2.1568842	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[296]	-0.8975869	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[297]	1.0271417	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[298]	0.020672766	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[299]	-0.13327761	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[300]	1.5551381	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[301]	0.8074797	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[302]	0.46442837	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[303]	0.20210864	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[304]	-0.35845533	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[305]	0.23651356	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[306]	0.036304206	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[307]	0.4164071	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[308]	0.99968195	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[309]	0.3854536	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[310]	0.41070092	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[311]	0.32089618	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[312]	0.5261709	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[313]	0.4993461	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[314]	-0.19717915	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[315]	-0.36526176	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[316]	0.21120693	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[317]	0.08718683	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[318]	-2.738906	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[319]	0.8640423	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[320]	-1.1972513	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[321]	0.8726881	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[322]	-0.32351866	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[323]	-0.048064962	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[324]	-0.3712632	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[325]	-1.3342816	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[326]	0.6242769	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[327]	1.0783031	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[328]	1.1349409	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[329]	1.0201373	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[330]	-1.0088598	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[331]	-0.08088664	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[332]	2.0729284	REAL

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[333]	-0.3369013	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[334]	0.5714555	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[335]	0.5104131	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[336]	0.41414768	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[337]	-1.3400755	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[338]	0.75299615	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[339]	-1.156832	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[340]	0.775709	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[341]	2.3102138	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[342]	1.9377373	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[343]	-0.16994806	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[344]	0.39063972	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[345]	-0.2004986	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[346]	1.8994446	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[347]	0.34605575	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[348]	-0.04217933	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[349]	-0.08545168	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[350]	1.7111545	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[351]	-0.82993305	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[352]	0.28782624	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[353]	-0.35355055	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[354]	-0.63526076	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[355]	0.736549	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[356]	1.9771576	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[357]	-1.2404186	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[358]	1.0637668	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[359]	-1.9737325	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[360]	-0.27119273	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[361]	0.21482109	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[362]	2.5937788	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[363]	-0.16771083	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[364]	-1.5490992	REAL
Gauss_RNG_Data[364] Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[365]	0.32990897	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[366]	0.22822356	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[367]	0.7627651	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[368]	1.3071476	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[369]	-0.6302697	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[370]	-0.2522565	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[371]	-0.2177113	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[372]	-1.5804981	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[373]	0.348648	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[374]	-0.30214474	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[375]	-1.4992129	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[376]	-0.18012375	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[377]	1.2943122	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[378]	0.9821583	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[379]	-1.7210255	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[380]	-0.83392376	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[381]	-2.3642998	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[382]	-0.67670083	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[383]	1.2097564	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[384]	0.54244363	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[385]	0.23654683	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[386]	0.75347614	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[387]	0.51936525	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[388]	-0.12530546	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[389]	0.16594689	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[390]	0.3003736	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[391]	0.12761925	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[392]	1.0374618	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[393]	-1.7607933	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[394]	-0.06350077	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[395]	0.28570428	REAL

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data[396]	-0.43402988	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[397]	0.31582186	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[398]	-0.6953379	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[399]	0.53203005	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[400]	-0.77109194	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[401]	-1.3227096	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[402]	1.5552313	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[403]	-0.8673893	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[404]	-1.9961298	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[405]	-0.76236814	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[406]	-0.34068203	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[407]	1.5673342	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[408]	-0.88191587	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[409]	-0.034875285	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[410]	0.8826301	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[411]	-0.054140806	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[412]	2.7104995	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[413]	-1.503906	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[414]	0.14436024	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[415]	-0.39135155	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[416]	0.80444264	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[417]	0.5064949	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[418]	-1.351022	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[419]	0.7610904	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[420]	0.64420635	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[421]	1.482205	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[422]	-0.46778244	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[423]	0.2126571	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[424]	-0.7916561	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[425]	0.06600657	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[426]	1.0157688	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[427]	1.1316841	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[428]	-1.1460665	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[429]	-0.19908209	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[430]	1.463369	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[431]	-0.84229916	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[432]	-0.15196453	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[433]	0.7241451	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[434]	0.5111866	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[435]	-2.3842397	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[436]	0.2431664	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[437]	0.13575101	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[438]	0.32540044	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[439]	-0.67857486	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[440]	-1.7490053	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[441]	1.7132068	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[442]	0.52755874	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[443]	0.23044524	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[444]	1.4399434	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[445]	0.5017675	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[446]	-0.3828962	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[447]	-0.5660928	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[448]	-0.53671426	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[449]	0.3572459	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[450]	-0.9178707	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[451]	-2.048196	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[452]	-0.94912213	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[453]	0.21763854	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[454]	-0.7361096	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[455]	-1.0023954	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[456]	0.29111415	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[457]	-0.86209595	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[458]	1.3411399	REAL

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data[459]	-0.6529192	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[460]	-1.3506428	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[461]	-0.072153606	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[462]	0.38084906	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[463]	0.49954572	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[464]	-1.6393948	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[465]	0.4405348	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[466]	0.70117944	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[467]	-0.5951747	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[468]	-0.64942163	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[469]	-0.19021548	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[470]	-1.2240194	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[471]	-1.2062829	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[472]	0.2716748	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[473]	0.067195185	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[474]	-0.5010516	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[475]	2.7786708	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[476]	-0.10660286	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[477]	-0.42110986	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[478]	-0.33195102	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[479]	0.54753023	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[480]	0.33281925	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[481]	-0.24557096	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[482]	0.52434486	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[483]	-0.386623	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[484]	0.9419807	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[485]	1.3894545	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[486]	-1.9122306	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[487]	-1.1726298	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[488]	-0.36383316	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[489]	-0.43196136	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Tag	Value	Type
Gauss_RNG_Data[490]	-0.24850135	REAL
Gauss_RNG_Data[491]	-1.1397612	REAL
Gauss_RNG_Data[492]	1.3767054	REAL
Gauss_RNG_Data[493]	-0.8868355	REAL
Gauss_RNG_Data[494]	-0.70852786	REAL
Gauss_RNG_Data[495]	-0.671964	REAL
Gauss_RNG_Data[496]	-0.26111454	REAL
Gauss_RNG_Data[497]	1.5188514	REAL
Gauss_RNG_Data[498]	-1.1170914	REAL
Gauss_RNG_Data[499]	-0.51968265	REAL
Gauss_RNG_Data[500]	-1.5241612	REAL
Gauss_RNG_Data[501]	1.6595564	REAL
Gauss_RNG_Data[502]	0.15652257	REAL
Gauss_RNG_Data[503]	0.19543529	REAL
Gauss_RNG_Data[504]	0.51434094	REAL
Gauss_RNG_Data[505]	0.18114126	REAL
Gauss_RNG_Data[506]	-0.59631026	REAL
Gauss_RNG_Data[507]	-0.018796168	REAL
Gauss_RNG_Data[508]	-1.3367704	REAL
Gauss_RNG_Data[509]	0.85188353	REAL
Gauss_RNG_Data[510]	-1.0288551	REAL
Gauss_RNG_Data[511]	0.23051555	REAL
Gauss_RNG_Data[512]	0.6827673	REAL
Gauss_RNG_Data[513]	-0.88422304	REAL
Gauss_RNG_Data[514]	-0.12202894	REAL
Gauss_RNG_Data[515]	-1.0411419	REAL
Gauss_RNG_Data[516]	0.35135397	REAL
Gauss_RNG_Data[517]	0.36610585	REAL
Gauss_RNG_Data[518]	-0.076696455	REAL
Gauss_RNG_Data[519]	0.470175	REAL
Gauss_RNG_Data[520]	-0.12141529	REAL
Gauss_RNG_Data[521]	1.6155223	REAL

Each entry above has the description: Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Tag	Value	Type
Gauss_RNG_Data[522]	0.2844884	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[523]	0.90952915	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[524]	0.44788927	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[525]	1.3956598	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[526]	0.9591619	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[527]	0.20098358	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[528]	0.12757467	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[529]	1.0640168	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[530]	0.747258	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[531]	-1.5632287	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[532]	0.43917558	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[533]	-0.44930598	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[534]	2.706946	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[535]	-0.27452752	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[536]	-1.3221807	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[537]	1.0858567	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[538]	-0.2985953	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[539]	1.6870859	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[540]	-1.1184798	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[541]	-0.5778412	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[542]	0.4778556	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[543]	-1.1929346	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[544]	1.5664133	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[545]	-0.3133374	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[546]	-0.74206	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[547]	-0.009937178	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[548]	0.35737348	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[549]	0.56323457	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[550]	0.47947013	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[551]	-0.355018	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[552]	-0.24352717	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[553]	0.36814252	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[554]	-0.016496394	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[555]	-0.69892037	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[556]	0.095962316	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[557]	-1.3101339	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[558]	0.12228128	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[559]	1.0455655	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[560]	0.19051456	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[561]	0.9246252	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[562]	-0.09837885	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[563]	0.35830477	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[564]	-0.2672145	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[565]	1.0425361	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[566]	1.463021	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[567]	-0.91632205	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[568]	-0.9204067	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[569]	0.48445323	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[570]	0.2978138	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[571]	-1.3050002	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[572]	-0.27230868	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[573]	-0.07069241	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[574]	-0.33942685	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[575]	1.0249804	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[576]	-0.37018654	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[577]	0.5718038	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[578]	1.1471053	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[579]	2.83285	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[580]	0.5871418	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[581]	-0.26171434	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[582]	0.27815923	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[583]	-0.91243905	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[584]	0.65680784	REAL

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[585]	-0.17213075	REAL
Gauss_RNG_Data[586]	-1.0335287	REAL
Gauss_RNG_Data[587]	1.1553112	REAL
Gauss_RNG_Data[588]	0.4558086	REAL
Gauss_RNG_Data[589]	-0.44716358	REAL
Gauss_RNG_Data[590]	0.46869618	REAL
Gauss_RNG_Data[591]	2.608313	REAL
Gauss_RNG_Data[592]	-1.7424772	REAL
Gauss_RNG_Data[593]	-0.45914683	REAL
Gauss_RNG_Data[594]	-0.118133746	REAL
Gauss_RNG_Data[595]	0.45717072	REAL
Gauss_RNG_Data[596]	0.039676916	REAL
Gauss_RNG_Data[597]	-1.4133817	REAL
Gauss_RNG_Data[598]	1.0152261	REAL
Gauss_RNG_Data[599]	-1.5390533	REAL
Gauss_RNG_Data[600]	1.1360923	REAL
Gauss_RNG_Data[601]	-0.5227196	REAL
Gauss_RNG_Data[602]	0.38334322	REAL
Gauss_RNG_Data[603]	-0.39076787	REAL
Gauss_RNG_Data[604]	-0.47043103	REAL
Gauss_RNG_Data[605]	-0.123428695	REAL
Gauss_RNG_Data[606]	0.53143996	REAL
Gauss_RNG_Data[607]	0.0635661	REAL
Gauss_RNG_Data[608]	-0.74726516	REAL
Gauss_RNG_Data[609]	0.09286795	REAL
Gauss_RNG_Data[610]	-1.457301	REAL
Gauss_RNG_Data[611]	0.7383126	REAL
Gauss_RNG_Data[612]	1.6112007	REAL
Gauss_RNG_Data[613]	0.3829464	REAL
Gauss_RNG_Data[614]	-0.6779726	REAL
Gauss_RNG_Data[615]	0.13531615	REAL

Each entry is accompanied by the description: Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[616]	-0.12414286	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[617]	-0.083417684	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[618]	-0.061170805	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[619]	-0.62930936	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[620]	-0.12527554	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[621]	-1.4115363	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[622]	0.7828158	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[623]	1.3226771	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[624]	0.33477622	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[625]	-0.20878105	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[626]	0.1416032	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[627]	-0.8617581	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[628]	-0.2098682	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[629]	0.5397445	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[630]	0.9643939	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[631]	-1.2442551	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[632]	1.0351241	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[633]	0.78000164	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[634]	1.3790578	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[635]	0.37627715	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[636]	-0.105734125	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[637]	-0.57247055	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[638]	0.64327997	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[639]	2.177982	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[640]	-0.16044743	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[641]	0.5095854	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[642]	-0.7791495	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[643]	-0.010855247	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[644]	0.14358288	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[645]	-0.030210018	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[646]	-0.9542895	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[647]	-0.42571014	REAL

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data[648]	0.67487055	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[649]	0.7929532	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[650]	0.70104873	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[651]	1.5109915	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[652]	-1.1657513	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[653]	0.48953617	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[654]	-0.8405929	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[655]	0.80106014	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[656]	-1.0330467	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[657]	0.3730036	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[658]	-1.3019007	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[659]	1.4203225	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[660]	1.6614735	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[661]	-1.1742265	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[662]	0.3494676	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[663]	0.7310972	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[664]	-2.0609195	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[665]	-0.39486203	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[666]	-0.27647218	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[667]	0.08994609	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[668]	0.17069069	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[669]	0.18350855	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[670]	-0.014794127	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[671]	0.8770771	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[672]	0.38928083	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[673]	0.3462493	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[674]	-0.24930622	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[675]	0.27975118	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[676]	0.93647003	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[677]	0.9299714	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[678]	1.8535814	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[679]	-1.3234016	REAL
Gauss_RNG_Data[679]	Gaussian Random Number Generator Data from CompactLogix PLC	
Gauss_RNG_Data[680]	0.64611673	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[681]	-0.5611289	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[682]	-0.25226235	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[683]	-0.64424384	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[684]	0.23756903	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[685]	-0.026777131	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[686]	-0.5934033	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[687]	0.9720106	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[688]	-0.32508397	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[689]	-0.54586756	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[690]	-0.6831413	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[691]	1.056037	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[692]	-0.3962531	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[693]	0.3346268	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[694]	0.37814727	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[695]	1.2438037	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[696]	0.46818754	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[697]	1.960631	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[698]	0.11357484	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[699]	-0.07224307	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[700]	-0.053496078	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[701]	-0.36140817	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[702]	-0.06303825	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[703]	-0.29168656	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[704]	-0.6077861	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[705]	-0.92663103	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[706]	-0.7107317	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[707]	-0.6594989	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[708]	0.5035544	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[709]	-1.1180129	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[710]	-1.907418	REAL

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[711]	0.7786501	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[712]	-1.1749322	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[713]	-0.3157653	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[714]	0.3688085	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[715]	-0.24847235	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[716]	-0.27763122	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[717]	1.3811859	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[718]	-1.415838	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[719]	-2.586026	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[720]	-1.141935	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[721]	5.82120847e-003	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[722]	-0.073260196	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[723]	-0.07488016	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[724]	-1.5584658	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[725]	-0.2863823	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[726]	-1.9010545	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[727]	0.34894532	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[728]	-1.7927879	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[729]	-0.65805423	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[730]	1.7835397	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[731]	-1.437263	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[732]	-0.22843929	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[733]	0.24008678	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[734]	-0.09290835	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[735]	0.26933867	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[736]	0.83590984	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[737]	0.3089931	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[738]	-0.50733215	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[739]	-0.0668528	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[740]	-0.06141039	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[741]	0.9934168	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[742]	-0.45377645	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[743]	1.3938564	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[744]	0.47504082	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[745]	2.0188081	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[746]	1.0138625	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[747]	1.0022075	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[748]	0.57582587	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[749]	0.79994965	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[750]	0.6683374	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[751]	1.1194836	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[752]	-0.25932825	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[753]	1.1923419	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[754]	0.45457596	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[755]	-1.1211617	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[756]	2.21448	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[757]	-0.12639965	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[758]	-0.53822076	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[759]	-1.216784	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[760]	-0.3161664	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[761]	0.32921603	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[762]	-2.123649	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[763]	-0.30626938	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[764]	0.3885066	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[765]	-0.6776169	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[766]	0.8086602	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[767]	-0.7845325	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[768]	1.2679876	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[769]	-1.7391831	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[770]	2.624538	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[771]	-0.22256956	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[772]	-0.55834514	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[773]	-0.27234817	REAL

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data[774]	0.18636659	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[775]	-1.9442776	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[776]	-0.53212905	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[777]	0.31300062	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[778]	-0.5634455	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[779]	1.7245028	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[780]	-0.6697366	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[781]	1.6474649	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[782]	0.007551239	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[783]	-0.09952996	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[784]	0.07570789	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[785]	-1.1291028	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[786]	0.3027647	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[787]	0.35898867	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[788]	-0.6466046	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[789]	0.91536885	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[790]	-0.37926108	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[791]	-1.1088067	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[792]	1.6170458	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[793]	-1.5554172	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[794]	-1.4324716	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[795]	-0.8417703	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[796]	0.24377033	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[797]	-1.0270305	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[798]	-1.5350269	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[799]	0.3889061	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[800]	0.86737585	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[801]	-0.08793066	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[802]	-0.7054815	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[803]	-0.43313953	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[804]	0.18364029	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[805]	-0.9256649	REAL
Gauss_RNG_Data[806]	-0.09187223	REAL
Gauss_RNG_Data[806]	-0.09187223	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[807]	0.7875237	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[808]	0.5099058	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[809]	0.23761377	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[810]	0.7833659	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[811]	0.22641078	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[812]	-1.4568367	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[813]	1.1747113	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[814]	-0.74012613	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[815]	-0.30541313	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[816]	0.95954543	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[817]	0.50117934	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[818]	-1.1723367	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[819]	-0.058608223	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[820]	1.1578697	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[821]	0.6320433	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[822]	-1.1513009	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[823]	-0.18630537	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[824]	-0.3899274	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[825]	-1.1794469	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[826]	-0.16652234	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[827]	-0.016844865	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[828]	0.6608053	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[829]	-1.5257072	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[830]	0.12616992	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[831]	0.95818615	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[832]	0.5374691	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[833]	-1.4048716	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[834]	-0.60039985	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[835]	-0.20317474	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[836]	0.883909	REAL

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Gauss_RNG_Data[837]	-1.8934397	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[838]	-1.9394362	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[839]	1.3909429	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[840]	-1.2191964	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[841]	-0.020614017	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[842]	-0.7938474	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[843]	-0.7886983	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[844]	2.005817	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[845]	-0.99421555	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[846]	0.5692006	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[847]	-1.2061831	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[848]	0.27335554	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[849]	-1.191462	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[850]	-0.57195663	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[851]	0.088399485	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[852]	-2.123333	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[853]	-1.0293705	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[854]	-0.82347596	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[855]	1.3558781	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[856]	0.3933729	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[857]	-0.44295126	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[858]	-2.1266317	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[859]	1.3080726	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[860]	-1.7697374	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[861]	1.2143804	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[862]	-0.77818424	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[863]	-0.08158965	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[864]	0.30548972	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[865]	0.16805705	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[866]	0.09360943	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[867]	-1.1039428	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[868]	-0.60827255	REAL
Gauss_RNG_Data[868] Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[869]	-0.10170508	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[870]	0.41995236	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[871]	-0.26647544	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[872]	-3.5796902	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[873]	1.1910003	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[874]	1.1013396	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[875]	-0.2646655	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[876]	-1.6951326	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[877]	2.1456652	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[878]	0.91970223	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[879]	-0.31754002	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[880]	1.0112033	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[881]	-1.4155942	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[882]	-0.016951518	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[883]	0.7530112	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[884]	1.1284218	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[885]	1.0212833	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[886]	-1.1695406	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[887]	0.32401517	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[888]	1.0119281	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[889]	-2.3777916	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[890]	1.2526957	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[891]	0.19314152	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[892]	0.19445297	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[893]	-0.0650906	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[894]	0.40080267	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[895]	-0.96935636	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[896]	1.1516892	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[897]	-0.273266	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[898]	0.11426173	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[899]	-1.4506865	REAL

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[900]	-0.27583846	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[901]	-0.3654469	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[902]	-0.24332874	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[903]	-0.73534197	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[904]	0.6909965	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[905]	0.21432436	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[906]	-0.3619455	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[907]	-0.4268867	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[908]	0.9541057	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[909]	0.16890432	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[910]	-0.8162394	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[911]	-0.05474668	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[912]	-0.49109048	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[913]	-0.53322566	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[914]	-0.36667	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[915]	-1.4401289	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[916]	0.92412037	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[917]	-0.5567329	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[918]	-0.77611876	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[919]	0.8520713	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[920]	-0.33566567	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[921]	0.28637913	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[922]	0.07285374	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[923]	-1.1755728	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[924]	-0.019872602	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[925]	-1.5961404	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[926]	0.036548134	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[927]	-0.47448874	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[928]	0.2126153	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[929]	0.035548784	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[930]	-0.005119812	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[931]	-0.18536134	REAL
Gauss_RNG_Data[931] Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[932]	0.09428995	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[933]	-0.16337101	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[934]	0.15985124	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[935]	-0.298791	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[936]	1.0959653	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[937]	-1.5955362	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[938]	0.20569007	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[939]	-0.17701562	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[940]	0.8599963	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[941]	2.3582752	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[942]	0.05949318	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[943]	0.61943203	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[944]	1.7044944	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[945]	-1.1263052	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[946]	-0.16932175	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[947]	0.17924894	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[948]	0.7560371	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[949]	0.33547467	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[950]	-0.27358878	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[951]	-0.9781041	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[952]	0.75019956	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[953]	-1.259754	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[954]	-0.28705963	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[955]	-0.63541794	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[956]	0.39816636	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[957]	0.022204332	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[958]	0.8689982	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[959]	1.5377355	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[960]	0.032126438	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[961]	1.3479303	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[962]	-1.1117541	REAL

Gauss_RNG_Data (Continued)

Gaussian Random Number Generator Data from CompactLogix PLC

Tag	Value	Type
Gauss_RNG_Data[963]	-0.4855208	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[964]	-1.0345086	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[965]	-1.2974423	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[966]	-1.0242364	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[967]	-0.085197486	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[968]	0.30307186	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[969]	-1.0420302	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[970]	-0.8442528	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[971]	-0.6198842	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[972]	0.26982236	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[973]	0.025880106	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[974]	0.54012835	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[975]	-1.62362063e-003	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[976]	0.91831344	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[977]	-1.1955484	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[978]	-1.265838	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[979]	0.7493266	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[980]	-1.5035183	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[981]	-0.90649855	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[982]	-0.09399436	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[983]	0.81806177	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[984]	0.63900745	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[985]	-1.5222222	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[986]	-1.8873717	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[987]	-0.14456972	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[988]	0.78918904	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[989]	-1.1821818	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[990]	0.5981169	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[991]	-0.04385664	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[992]	0.6199109	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[993]	0.01763092	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

Gauss_RNG_Data (Continued)

Gauss_RNG_Data[994]	-0.22962342	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[995]	-1.9479302	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[996]	-1.2730063	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[997]	-0.3258922	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[998]	0.76051974	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		
Gauss_RNG_Data[999]	0.7752371	REAL
Gaussian Random Number Generator Data from CompactLogix PLC		

GRNG_Index   251   INT   Compact_AOI_Test
  Constant   No
  External Access: Read/Write
*GRNG_Index - P02_Random/R020_Gauss_RNG - *0(ADD), *0(MOV), 0(ADD), 0(GRT), 0(MOV)*

Local:1:O   AB:1769_DO16:O:0   Compact_AOI_Test
  External Access: Read/Write
  Local:1:O.Data   2#0000_0001_0000_0000   INT
*Local:1:O.Data - P01_AOI_Test_IO_Buffer/R010_Discrete_IO - *1(MOV)*

Local:2:I   AB:1769_DI16:I:0   Compact_AOI_Test
  External Access: Read/Write
  Local:2:I.Data   2#0000_0000_0000_0000   INT
Local:2:I.Data - P01_AOI_Test_IO_Buffer/R010_Discrete_IO - 2(COP)

PID_Cycle_Done   0   BOOL   Compact_AOI_Test
One PID Instruction Cycle Completed (40 PIDs / 1.0 sec)
  Constant   No
  External Access: Read/Write
*PID_Cycle_Done - P03_RMPS_AOI_Test/R001_RMPS_Main - *0(OTE)*
PID_Cycle_Done - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - 1(XIO)

PID_Cycle_Index   0   INT   Compact_AOI_Test
  Constant   No
  External Access: Read/Write
*PID_Cycle_Index - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *1(ADD), *1(MOV), 1(ADD), 1(EQU)*

PID_Enable   BOOL[32]   Compact_AOI_Test
  Constant   No
  External Access: Read/Write
  PID_Enable[1]   0   BOOL
Ramp and Soak PIDE Instruction Enable
*PID_Enable[1] - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *5(OTE)*
PID_Enable[1] - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - 1-E1(PIDE,RMPS_PIDE.EnableIn), 1-E2(IREF,PID_Enable[1])
  PID_Enable[2]   0   BOOL
PIDE Test #1 Enable Command
  PID_Enable[3]   0   BOOL
PIDE Test #2 Enable Command

PID_Index   35   INT   Compact_AOI_Test
PID Instruction Index Counter
  Constant   No
  External Access: Read/Write
*PID_Index - P03_RMPS_AOI_Test/R001_RMPS_Main - *0(ADD), *0(MOV), 0(ADD), 0(GRT)*
PID_Index - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - 5(EQU)

PIDE_ONS   BOOL[32]   P03_RMPS_AOI_Test
PIDE One Shot Bit
  Constant   No
  External Access: Read/Write

PIDE_ONS (Continued)

PIDE_ONS[0]	1	BOOL
PIDE One Shot Bit		
*PIDE_ONS[0] - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *5(ONS)*		
PIDE_ONS[1]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[2]	1	BOOL
PIDE One Shot Bit		
PIDE_ONS[3]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[4]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[5]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[6]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[7]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[8]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[9]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[10]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[11]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[12]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[13]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[14]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[15]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[16]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[17]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[18]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[19]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[20]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[21]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[22]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[23]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[24]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[25]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[26]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[27]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[28]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[29]	0	BOOL
PIDE One Shot Bit		
PIDE_ONS[30]	0	BOOL
PIDE One Shot Bit		

PIDE_ONS (Continued)

PIDE_ONS[31]	0	BOOL	
PIDE One Shot Bit			

RMPS_Auto_PB   0   BOOL   Compact_AOI_Test
Ramp and Soak 1 PIDE Auto Mode Pushbutton
Constant   No
External Access: Read/Write
*RMPS_Auto_PB - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *5(OTU), 5(XIO)*

RMPS_Done   0   BOOL   Compact_AOI_Test
Ramp & Soak 1 Sequence Done
Constant   No
External Access: Read/Write
*RMPS_Done - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *5(OTE), 5(XIC)*

RMPS_Hold   0   BOOL   Compact_AOI_Test
Ramp & Soak 1 Hold Command
Constant   No
External Access: Read/Write
*RMPS_Hold - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *3(OTE), 1(XIC), 3(XIC), 4(XIO)*
RMPS_Hold - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - 1-B2(a_RMPS,a_RMPS_01.Hold), 1-B2(IREF,RMPS_Hold)

RMPS_Init   0   BOOL   Compact_AOI_Test
Ramp & SoaK 1 Initialize Command
Constant   No
External Access: Read/Write
*RMPS_Init - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *2(OTE), 2(XIO)*
RMPS_Init - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - 1-B2(a_RMPS,a_RMPS_01.Initialize), 1-B3(IREF,RMPS_Init)

RMPS_Man_PB   0   BOOL   Compact_AOI_Test
Ramp and Soak 1 PIDE Manual Mode Pushbutton
Constant   No
External Access: Read/Write
*RMPS_Man_PB - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *5(OTU), 5(XIC)*

RMPS_PIDE   PID_ENHANCED   Compact_AOI_Test
Ramp and Soak1 PIDE Instruction
Constant   No
External Access: Read/Write
*RMPS_PIDE - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - *1-B2(a_RMPS,a_RMPS_01.SP_Out), *1-E1(PIDE,RMPS_PIDE), *1-E1(PIDE,RMPS_PIDE.CVEU), *1-E1(PIDE,RMPS_PIDE.PV), *1-E2(IREF,1), *1-E2(IREF,PID_Enable[1]), *1-E2(IREF,RMPS_PIDE_Man_Out),*
* *1-G2(OREF,RMPS_PIDE_Out)*

RMPS_PIDE.EnableIn	0	BOOL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.PV	0.0	REAL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.PVFault	0	BOOL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.PVEUMax	100.0	REAL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.PVEUMin	0.0	REAL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.SPProg	0.0	REAL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.SPOper	0.0	REAL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.SPCascade	0.0	REAL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.SPHLimit	100.0	REAL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.SPLLimit	0.0	REAL	
Ramp and Soak1 PIDE Instruction			
RMPS_PIDE.UseRatio	0	BOOL	
Ramp and Soak1 PIDE Instruction			

RMPS_PIDE (Continued)

RMPS_PIDE.RatioProg	1.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RatioOper	1.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RatioHLimit	1.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RatioLLimit	1.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVFault	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVInitReq	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVInitValue	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVProg	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVOper	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVOverride	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVPrevious	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVSetPrevious	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVManLimiting	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVEUMax	100.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVEUMin	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVHLimit	100.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVLLimit	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVROCLimit	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.FF	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.FFPrevious	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.FFSetPrevious	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.HandFB	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.HandFBFault	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.WindupHIn	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.WindupLIn	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ControlAction	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DependIndepend	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PGain	0.3	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.IGain	55.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DGain	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVEProportional	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVEDerivative	1	BOOL

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RMPS_PIDE (Continued)
Ramp and Soak1 PIDE Instruction

Tag	Value	Type
RMPS_PIDE.DSmoothing	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVTracking	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ZCDeadband	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ZCOff	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVHHLimit	3.40282347e+038	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVHLimit	3.40282347e+038	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVLLimit	-3.40282347e+038	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVLLLimit	-3.40282347e+038	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVDeadband	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVROCPosLimit	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVROCNegLimit	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVROCPeriod	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevHHLimit	3.40282347e+038	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevHLimit	3.40282347e+038	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevLLimit	3.40282347e+038	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevLLLimit	3.40282347e+038	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevDeadband	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AllowCasRat	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ManualAfterInit	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ProgProgReq	1	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ProgOperReq	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ProgCasRatReq	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ProgAutoReq	0	BOOL
Ramp and Soak1 PIDE Instruction		

*RMPS_PIDE.ProgAutoReq - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *5(OTE)*

Tag	Value	Type
RMPS_PIDE.ProgManualReq	1	BOOL
Ramp and Soak1 PIDE Instruction		

*RMPS_PIDE.ProgManualReq - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *5(OTE), 5(XIC), 5(XIO)*

Tag	Value	Type
RMPS_PIDE.ProgOverrideReq	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ProgHandReq	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.OperProgReq	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.OperOperReq	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.OperCasRatReq	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.OperAutoReq	0	BOOL
Ramp and Soak1 PIDE Instruction		

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RMPS_PIDE (Continued)

Tag	Value	Type
RMPS_PIDE.OperManualReq	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ProgValueReset	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.TimingMode	1	DINT
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.OversampleDT	1.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RTSTime	1	DINT
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RTSTimeStamp	0	DINT
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneAcquire	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneStart	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneUseGains	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneAbort	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneUnacquire	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.EnableOut	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVEU	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CV	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVInitializing	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVHAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVLAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVROCAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.SP	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.SPPercent	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.SPHAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.SPLAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVPercent	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.E	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.EPercent	0.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.InitPrimary	1	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.WindupHOut	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.WindupLOut	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.Ratio	1.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RatioHAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RatioLAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ZCDeadbandOn	0	BOOL

RMPS_PIDE (Continued)
Ramp and Soak1 PIDE Instruction

Tag	Value	Type
RMPS_PIDE.PVHHAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVHAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVLAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVLLAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVROCPosAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVROCNegAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevHHAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevHAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevLAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevLLAlarm	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ProgOper	1	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CasRat	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.Auto	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.Manual	1	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.Manual - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - 1(XIC)		
RMPS_PIDE.Override	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.Hand	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DeltaT	1.0	REAL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneReady	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneOn	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneDone	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneAborted	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneBusy	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.Status1	16#0000_0000	DINT
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.Status2	16#0000_0000	DINT
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.InstructFault	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVFaulted	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVFaulted	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.HandFBFaulted	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVSpanInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.SPProgInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.SPOperInv	0	BOOL

RMPS_PIDE (Continued)
Ramp and Soak1 PIDE Instruction

RMPS_PIDE.SPCascadeInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.SPLimitsInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RatioProgInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RatioOperInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RatioLimitsInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVProgInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVOperInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVOverrideInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVPreviousInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVEUSpanInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVLimitsInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.CVROCLimitInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.FFInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.FFPreviousInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.HandFBInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PGainInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.IGainInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DGainInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.ZCDeadbandInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVDeadbandInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.PVROCLimitsInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevHLLimitsInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DevDeadbandInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.AtuneDataInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.TimingModeInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RTSMissed	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RTSTimeInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.RTSTimeStampInv	0	BOOL
Ramp and Soak1 PIDE Instruction		
RMPS_PIDE.DeltaTInv	0	BOOL
Ramp and Soak1 PIDE Instruction		

RMPS_PIDE_Auto_Restart	0	BOOL	Compact_AOI_Test
Ramp & Soak 1 PIDE Instruction Auto Restart Command (Three Progam to Run Transitions)			
Constant	No		

RMPS_PIDE_Auto_Restart (Continued)
External Access: Read/Write
RMPS_PIDE_Auto_Restart - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *1(OTE), 3(XIO), 5(XIO)

RMPS_PIDE_Auto_Start   0   BOOL   Compact_AOI_Test
Ramp & Soak 1 PIDE Instruction Auto Mode Start Command
Constant   No
External Access: Read/Write
RMPS_PIDE_Auto_Start - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *2(OTE), 5(XIO)

RMPS_PIDE_Man_Out   0.0   REAL   Compact_AOI_Test
Ramp & Soak 1 PIDE Manual Output (percent)
Constant   No
External Access: Read/Write
RMPS_PIDE_Man_Out - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *5(MOV)
RMPS_PIDE_Man_Out - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - 1-E1(PIDE,RMPS_PIDE.CVProg), 1-E2(IREF,RMPS_PIDE_Man_Out)

RMPS_PIDE_Out   0.0   REAL   Compact_AOI_Test
Ramp & Soak 1 PIDE Output (percent)
Constant   No
External Access: Read/Write
RMPS_PIDE_Out - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - 5(MOV)
RMPS_PIDE_Out - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - *1-G2(OREF,RMPS_PIDE_Out), 1-B2(a_RMPS,a_RMPS_01.PV), 1-B2(IREF,RMPS_PIDE_Out), 1-E1(PIDE,RMPS_PIDE.CVEU)

RMPS_Run_Cmd   0   BOOL   Compact_AOI_Test
Ramp & Soak 1 Run Command
Constant   No
External Access: Read/Write
RMPS_Run_Cmd - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *2(OTE), 2(XIO)
RMPS_Run_Cmd - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - 1-B1(IREF,RMPS_Run_Cmd), 1-B2(a_RMPS,a_RMPS_01.Run_Cmd)

RMPS_Segs   3   INT   Compact_AOI_Test
Ramp & Soak 1 Number of Segment / Steps
Constant   No
External Access: Read/Write
RMPS_Segs - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - 1-A2(IREF,RMPS_Segs), 1-B2(a_RMPS,a_RMPS_01.Num_of_Seg)

RMPS_SHold_Time   REAL[11]   Compact_AOI_Test
Ramp & Soak 1 Segment Hold Times in Minutes
Constant   No
External Access: Read/Write
RMPS_SHold_Time - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - *1-B2(a_RMPS,a_RMPS_01)
RMPS_SHold_Time[0]   0.0   REAL
Segment 0 Hold Time in Minutes
RMPS_SHold_Time[1]   0.0   REAL
Segment 1 Hold Time in Minutes
RMPS_SHold_Time[2]   0.0   REAL
Segment 2 Hold Time in Minutes
RMPS_SHold_Time[3]   0.0   REAL
Segment 3 Hold Time in Minutes
RMPS_SHold_Time[4]   0.0   REAL
Segment 4 Hold Time in Minutes
RMPS_SHold_Time[5]   0.0   REAL
Segment 5 Hold Time in Minutes
RMPS_SHold_Time[6]   0.0   REAL
Segment 6 Hold Time in Minutes
RMPS_SHold_Time[7]   0.0   REAL
Segment 7 Hold Time in Minutes
RMPS_SHold_Time[8]   0.0   REAL
Segment 8 Hold Time in Minutes
RMPS_SHold_Time[9]   0.0   REAL
Segment 9 Hold Time in Minutes
RMPS_SHold_Time[10]   0.0   REAL
Segment 10 Hold Time in Minutes

RMPS_SP REAL[11] Compact_AOI_Test
    Constant No
    External Access: Read/Write
    *RMPS_SP - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - *1-B2(a_RMPS,a_RMPS_01)*

RMPS_SRun_Time REAL[11] Compact_AOI_Test
    Ramp & Soak 1 Segment Times in Minutes
    Constant No
    External Access: Read/Write
    *RMPS_SRun_Time - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - *1-B2(a_RMPS,a_RMPS_01)*
    RMPS_SRun_Time[0] 0.0 REAL
    Segment 0 Segment Time in Minutes
    RMPS_SRun_Time[1] 0.0 REAL
    Segment 1 Segment Time in Minutes
    RMPS_SRun_Time[2] 0.0 REAL
    Segment 2 Segment Time in Minutes
    RMPS_SRun_Time[3] 0.0 REAL
    Segment 3 Segment Time in Minutes
    RMPS_SRun_Time[4] 0.0 REAL
    Segment 4 Segment Time in Minutes
    RMPS_SRun_Time[5] 0.0 REAL
    Segment 5 Segment Time in Minutes
    RMPS_SRun_Time[6] 0.0 REAL
    Segment 6 Segment Time in Minutes
    RMPS_SRun_Time[7] 0.0 REAL
    Segment 7 Segment Time in Minutes
    RMPS_SRun_Time[8] 0.0 REAL
    Segment 8 Segment Time in Minutes
    RMPS_SRun_Time[9] 0.0 REAL
    Segment 9 Segment Time in Minutes
    RMPS_SRun_Time[10] 0.0 REAL
    Segment 10 Segment Time in Minutes

RMPS_STime_SP REAL[11] Compact_AOI_Test
    Constant No
    External Access: Read/Write
    *RMPS_STime_SP - P03_RMPS_AOI_Test/R030_RMPS_PIDE_FB - *1-B2(a_RMPS,a_RMPS_01)*
    RMPS_STime_SP[0] 0.0 REAL
    Segment 0 Time (min)
    RMPS_STime_SP[1] 2.0 REAL
    Segment 1 Time (min)
    RMPS_STime_SP[2] 5.0 REAL
    Segment 2 Time (min)
    RMPS_STime_SP[3] 2.0 REAL
    Segment 3 Time (min)
    RMPS_STime_SP[4] 0.0 REAL
    Segment 4 Time (min)
    RMPS_STime_SP[5] 0.0 REAL
    Segment 5 Time (min)
    RMPS_STime_SP[6] 0.0 REAL
    Segment 6 Time (min)
    RMPS_STime_SP[7] 0.0 REAL
    Segment 7 Time (min)
    RMPS_STime_SP[8] 0.0 REAL
    Segment 8 Time (min)
    RMPS_STime_SP[9] 0.0 REAL
    Segment 9 Time (min)
    RMPS_STime_SP[10] 0.0 REAL
    Segment 10 Time (min)

Toggle_1 0 BOOL Compact_AOI_Test
    Constant No
    External Access: Read/Write
    *Toggle_1 - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *2(OTU), 2(XIC)*
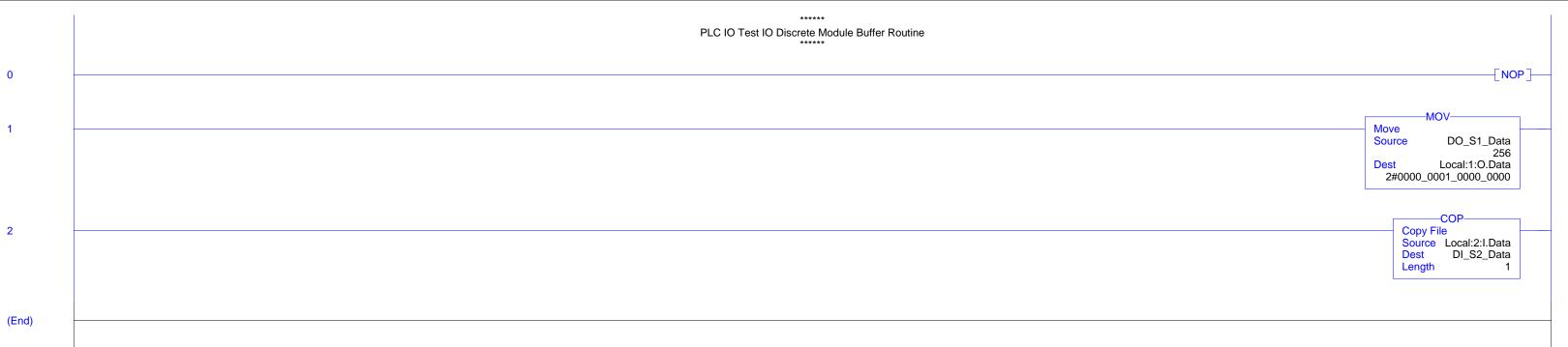
Toggle_2 0 BOOL Compact_AOI_Test
    Constant No
    External Access: Read/Write
    *Toggle_2 - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *2(OTU), 2(XIC)*

Toggle_3 0 BOOL Compact_AOI_Test
    Constant No
    External Access: Read/Write
    *Toggle_3 - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *3(OTU), 3(XIC)*

Toggle_4 0 BOOL Compact_AOI_Test
    Constant No
    External Access: Read/Write
    *Toggle_4 - P03_RMPS_AOI_Test/R020_RMPS_PIDE_Lad - *4(OTU), 3(XIO)*

TOT_01 TOTALIZER P02_AOI_Test
    Constant No
    External Access: Read/Write
    *TOT_01 - P02_AOI_Test/R200_Totalizer_1 - *1-B2(BNOT,BNOT_01.Out), *1-B2(BNOT,BNOT_01.Out), *1-B2(IREF,0.5), *1-B2(IREF,1), *1-B2(IREF,1.0), *1-B3(IREF,Total_Start_1), *1-C1(TOT,TOT_01)*

Total_Start_1 0 BOOL Compact_AOI_Test
    Constant No
    External Access: Read/Write
    Total_Start_1 - P02_AOI_Test/R200_Totalizer_1 - 1-B2(BNOT,BNOT_01.In), 1-B3(IREF,Total_Start_1), 1-C1(TOT,TOT_01.ProgStartReq)

True 1 BOOL Compact_AOI_Test
    Always True Bit
    Constant No
    External Access: Read/Write
    *True - P02_AOI_Test/R001_AOI_Main - *1(OTE)*
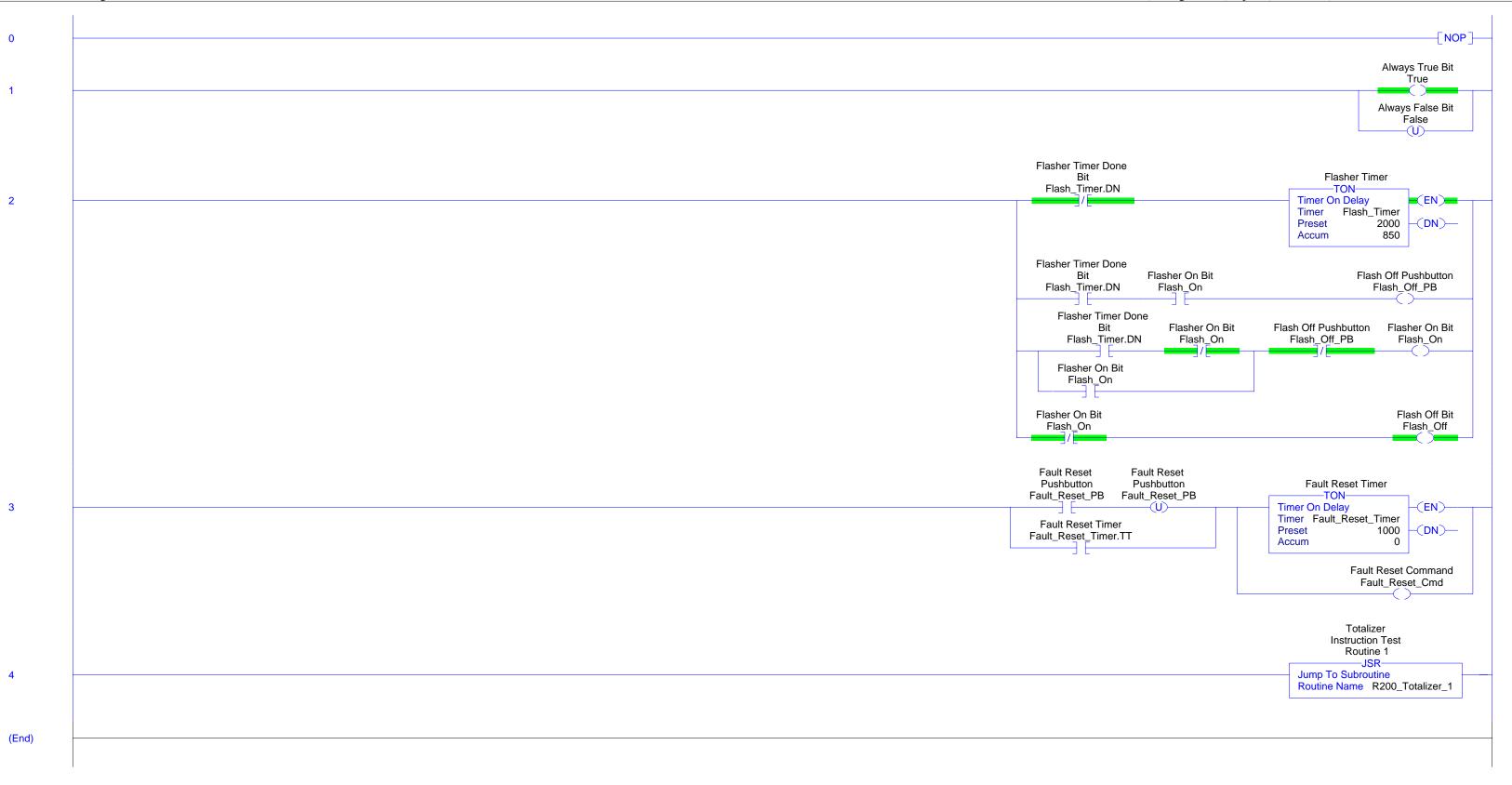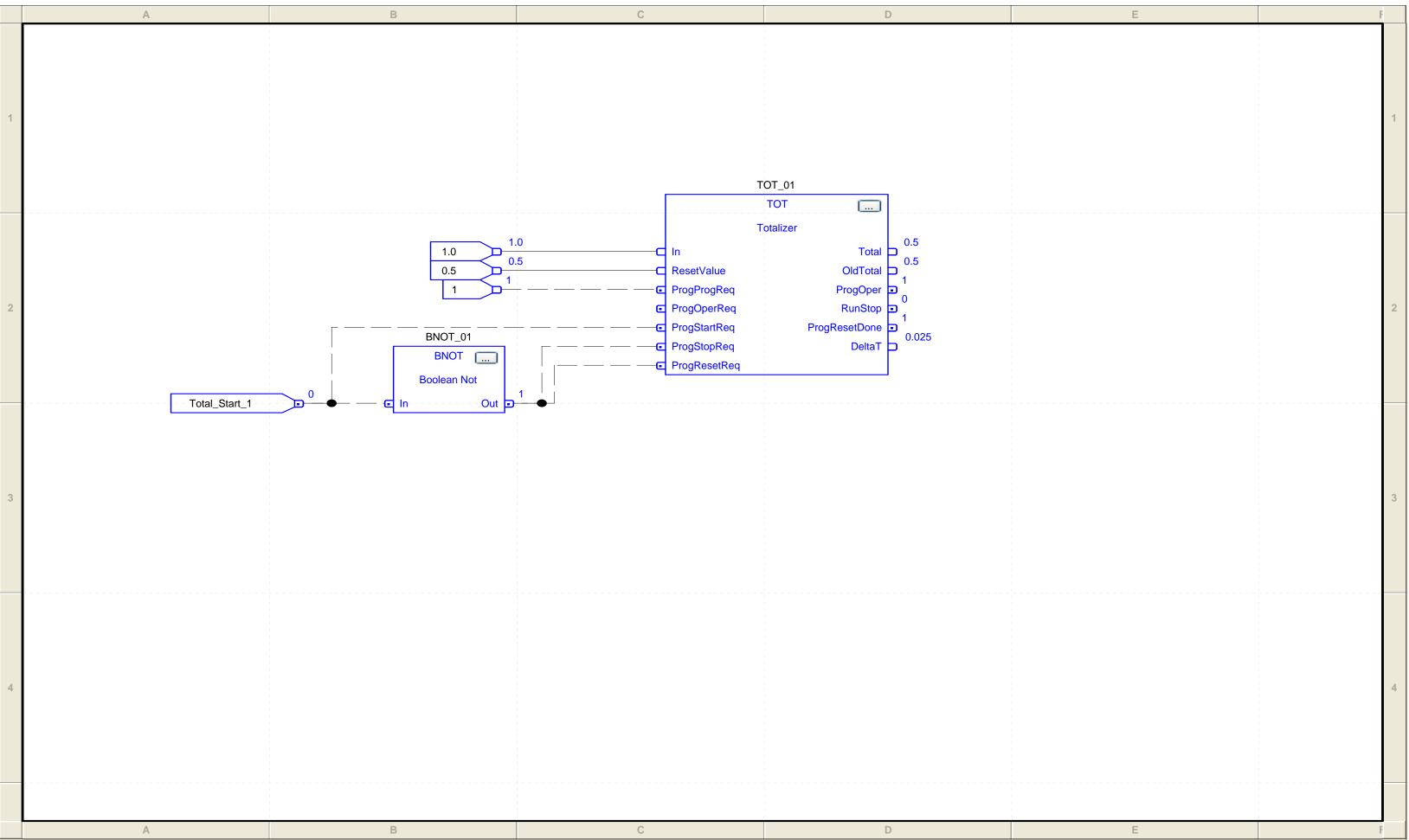
******
PLC IO Test IO Buffer Main Routine
******

0 ─[NOP]─

1 ───
                                      JSR
                                  Jump To Subroutine
                                  Routine Name   R010_Discrete_IO

(End)

```
                              ******
                     PLC IO Test IO Discrete Module Buffer Routine
                              ******

0  ─────────────────────────────────────────────────────────────────────[ NOP ]─

                                                           ──MOV──────────────────
1  ─────────────────────────────────────────────────────  Move
                                                           Source          DO_S1_Data
                                                                               256
                                                           Dest          Local:1:O.Data
                                                               2#0000_0001_0000_0000

                                                           ──COP──────────────────
2  ─────────────────────────────────────────────────────  Copy File
                                                           Source   Local:2:I.Data
                                                           Dest          DI_S2_Data
                                                           Length              1

(End) ───────────────────────────────────────────────────────────────────────────
```

0 ─[NOP]

1
Always True Bit
True
─( )─

Always False Bit
False
─(U)─

2
Flasher Timer Done
Bit
Flash_Timer.DN
─]/[─

Flasher Timer
TON
Timer On Delay ─(EN)─
Timer   Flash_Timer
Preset   2000 ─(DN)─
Accum   850

Flasher Timer Done
Bit   Flasher On Bit   Flash Off Pushbutton
Flash_Timer.DN   Flash_On   Flash_Off_PB
─] [─────────────] [─   ─( )─

Flasher Timer Done
Bit   Flasher On Bit   Flash Off Pushbutton   Flasher On Bit
Flash_Timer.DN   Flash_On   Flash_Off_PB   Flash_On
─( )─────────────]/[─────────────────]/[───────────────── ─( )─

Flasher On Bit
Flash_On
─] [─

Flasher On Bit   Flash Off Bit
Flash_On   Flash_Off
─]/[─   ─( )─

3
Fault Reset   Fault Reset
Pushbutton   Pushbutton
Fault_Reset_PB   Fault_Reset_PB
─] [───────────────(U)─

Fault Reset Timer
TON
Timer On Delay ─(EN)─
Timer   Fault_Reset_Timer
Preset   1000 ─(DN)─
Accum   0

Fault Reset Timer
Fault_Reset_Timer.TT
─] [─

Fault Reset Command
Fault_Reset_Cmd
─( )─

4
Totalizer
Instruction Test
Routine 1
JSR
Jump To Subroutine
Routine Name   R200_Totalizer_1

(End)

TOT_01

TOT

Totalizer

1.0	1.0	In
0.5	0.5	ResetValue
1	1	ProgProgReq
		ProgOperReq
		ProgStartReq
		ProgStopReq
		ProgResetReq

Total	0.5
OldTotal	0.5
ProgOper	1
RunStop	0
ProgResetDone	1
DeltaT	0.025

BNOT_01

BNOT

Boolean Not

Total_Start_1   0

In   Out   1

******
PID Index Counter Logic - The PID Index Counter (PID_Index) is Used to Control the Execution Timing of the PIDE Instruction(s) which are Configured for the Oversasmple Mode / Controlled by Programmer

PID Index Counter Cycle Time (1 to 40) = PIID Index Counter Max x AOI_Test Task Periodic Scan Time = 40 x 25 msec = 1000 msec = 1.0 sec

For a 500 msec or 0.5 sec PIDE Update period the PIDE Instruction should be executed when PID_Index = 1 & 21

For a 1000 msec PIDE Update period the PIIDE Instrtuction should be executed when PID_Index = 1
******

0

Test Program First
Scan Completed
First_Scan
─]/[─

PID Instruction
Index Counter
MOV
Move
Source   0
Dest   PID_Index
                35

PID Instruction
Index Counter
ADD
Add
Source A   PID_Index
                35
Source B   1
Dest   PID_Index
                35

PID Instruction
Index Counter
GRT
Greater Than (A>B)
Source A   PID_Index
                35
Source B   40

One PID Instruction
Cycle Completed
(40 PIDs / 1.0 sec)
PID_Cycle_Done
─( )─

PID Instruction
Index Counter
MOV
Move
Source   0
Dest   PID_Index
                35

Ramp & Soad PIDE
Ladder Routine
JSR
Jump To Subroutine
Routine Name   R020_RMPS_PIDE_Lad

Ramp & Soak PIDE
Functin Block
Routine
JSR
Jump To Subroutine
Routine Name   R030_RMPS_PIDE_FB

1

Test Program First
Scan Completed
First_Scan
─( )─

(End)

0 ──[NOP]

```
                                    ******
                          Ramp and Soak PIDE Restart Control
                                    ******
                                Test Program First
                                 Scan Completed                                              ┌─ MOV ──────────┐
                                    First_Scan                                               │ Move           │
**1** ──────────────────────────────┤ / ├──────────────────────────────────────────────────│ Source       0 │
                               Ramp & Soak 1 AOI:                                            │                │
                                 in Run Mode                                                 │ Dest  PID_Cycle_Index │
                               a_RMPS_01.RUN_MODE                                            │            0   │
                                   ──┤ ├──                                                   └────────────────┘
```

```
                                                                    One PID Instruction
                                                                     Cycle Completed
           Ramp and Soak1 PIDE   Ramp & Soak 1 Hold   Ramp & Soak 1 AOI:  (40 PIDs / 1.0 sec)      ┌─ ADD ──────────────┐
              Instruction           Command              in Run Mode       PID_Cycle_Done          │ Add                │
           RMPS_PIDE.Manual       RMPS_Hold          a_RMPS_01.RUN_MODE    PID_Cycle_Done          │ Source A  PID_Cycle_Index │
              ──┤ / ├──            ──┤ ├──              ──┤ ├──              ──┤ / ├──              │              0     │
                                                                                                   │ Source B           │
                                                                                                   │              1     │
                                                                                                   │                    │
                                                                                                   │ Dest    PID_Cycle_Index │
                                                                                                   │              0     │
                                                                                                   └────────────────────┘

                                                                                                  Ramp & Soak 1 PIDE
                                                                                                   Instruction Auto
                                                                                                   Restart Command
                                                    ┌─ EQU ────────────┐                          (Three Progam to Run
                                                    │ Equal            │                              Transitions)
                                                    │ Source A  PID_Cycle_Index │                   RMPS_PIDE_Auto_Restart
                                                    │              0   │                                  ──( )──
                                                    │ Source B      3  │
                                                    └──────────────────┘
```

```
                                                                                                  Ramp & SoaK 1
                                                                                                 Initialize Command
                                   Toggle_1                                          Toggle_1       RMPS_Init
**2** ──────────────────────────────┤ ├─────────────────────────────────────────────┤U├──────────────( )──
                                                                                                  Ramp & Soak 1 PIDE
                                                     Ramp & Soak 1 Run   Test Program First         Instruction Auto
                                                        Command         Scan Completed           Mode Start Command
                                    Toggle_2           RMPS_Run_Cmd        First_Scan            RMPS_PIDE_Auto_Start
                                   ──┤U├──              ──┤ / ├──          ──┤ ├──                   ──( )──
                          Ramp & Soak 1 AOI:   Ramp & Soak 1 AOI:    Ramp & SoaK 1            Ramp & Soak 1 Run
                            in Run Mode           AOI Done Bit     Initialize Command            Command
                          a_RMPS_01.RUN_MODE   a_RMPS_01.DONE       RMPS_Init                  RMPS_Run_Cmd
                            ──┤ ├──             ──┤ / ├──            ──┤ / ├──                   ──( )──
```

Ramp & Soak 1 PIDE
Instruction Auto
Restart Command
(Three Progam to Run
Transitions)

Ramp & Soak 1 Hold
Command
RMPS_Hold

Toggle_3   Toggle_3   Toggle_4   RMPS_PIDE_Auto_Restart

3 ─┤ ├──────────────────(U)──────┤/├───────┤/├───────────────────────────────────( )──

Test Program First
Scan Completed
First_Scan
─┤/├─

Ramp & Soak 1 Hold   Ramp & Soak 1 AOI:
Command   in Run Mode
RMPS_Hold   a_RMPS_01.RUN_MODE
─┤ ├──────────────────┤ ├─

Ramp & Soak 1 Hold
Command
RMPS_Hold   Toggle_4

4 ─┤/├──────────────────(U)──(U)──

5

Test Program First
Scan Completed
First_Scan
]/[

Ramp & Soak 1 PIDE
Manual Output
(percent)
MOV
Move
Source   RMPS_PIDE_Out
0.0
Dest   RMPS_PIDE_Man_Out
0.0

Ramp & Soak 1 AOI:
in Run Mode
a_RMPS_01.RUN_MODE
]/[

PIDE One Shot Bit
PIDE_ONS[0]
[ONS]

Ramp & Soak 1
Sequence Done
RMPS_Done

Ramp & Soak 1 PIDE
Manual Output
(percent)
MOV
Move
Source   0.0
Dest   RMPS_PIDE_Man_Out
0.0

Ramp and Soak 1 PIDE
Manual Mode
Pushbutton
RMPS_Man_PB
] [

Ramp and Soak 1 PIDE
Manual Mode
Pushbutton
RMPS_Man_PB
(U)

Ramp & Soak 1 PIDE
Instruction Auto
Mode Start Command
RMPS_PIDE_Auto_Start
] [

Ramp & Soak 1 PIDE
Instruction Auto
Restart Command
(Three Progam to Run
Transitions)
RMPS_PIDE_Auto_Restart
]/[

Ramp and Soak 1 PIDE
Auto Mode Pushbutton
RMPS_Auto_PB
]/[

Ramp and Soak1 PIDE
Instruction
RMPS_PIDE.ProgManualReq
( )

Ramp & Soak 1
Sequence Done
RMPS_Done
] [

Test Program First
Scan Completed
First_Scan
]/[

Ramp and Soak1 PIDE
Instruction
RMPS_PIDE.ProgManualReq
] [

Ramp and Soak1 PIDE
Instruction
RMPS_PIDE.ProgManualReq
]/[

Ramp and Soak 1 PIDE
Auto Mode Pushbutton
RMPS_Auto_PB
(U)

Ramp and Soak1 PIDE
Instruction
RMPS_PIDE.ProgAutoReq
( )

PID Instruction
Index Counter
EQU
Equal
Source A   PID_Index
35
Source B   1

Ramp and Soak PIDE
Instruction Enable
PID_Enable[1]
( )

(End)

```
                                    ******
                        Call Linear Congruential Generator Routine
                                    ******

                                                                    Uniform Random
                                                                  Number Generator
                                                                      Subroutine
                                                                        JSR
  0                                                               Jump To Subroutine
                                                                  Routine Name   R010_LCG


                                    ******
                     Call Gaussian Random Number Generator Routine
                                    ******

                                                                   Gaussian Random
                                                                  Number Generator
                                                                       Routine
                                                                        JSR
  1                                                               Jump To Subroutine
                                                                  Routine Name   R020_Gauss_RNG



(End)
```

0

S:FS

Linear Congruential
Generator as a
Random Number
Generator #2 LCG
Calculation Seed
Output
MOV
Move
Source 0

Dest BTC_RNG_2.Seed_Out
-1421576678

1

Linear Congruential
Generator as a
Random Number
Generator #1
A_Uniform_RNG

Random Number Generator AOIUses Linear Co...	
A_Uniform_RNG	BTC_RNG_1 ...
Seed	BTC_RNG_2.Seed_Out
	-1421576678
A	BTC_RNG_1.A
	110351245
B	BTC_RNG_1.B
	12345
Out_lo	BTC_RNG_1.Out_lo
	0.0
Out_hi	BTC_RNG_1.Out_hi
	1.0
Output_scaled	BTC_RNG_1.Output_scaled
	0.3621916
Seed_Out	BTC_RNG_1.Seed_Out
	-777800521

Linear Congruential
Generator as a
Random Number
Generator #2
A_Uniform_RNG

Random Number Generator AOIUses Linear Co...	
A_Uniform_RNG	BTC_RNG_2 ...
Seed	BTC_RNG_1.Seed_Out
	-777800521
A	BTC_RNG_2.A
	110351245
B	BTC_RNG_2.B
	12345
Out_lo	BTC_RNG_2.Out_lo
	0.0
Out_hi	BTC_RNG_2.Out_hi
	1.0
Output_scaled	BTC_RNG_2.Output_scaled
	0.66197324
Seed_Out	BTC_RNG_2.Seed_Out
	-1421576678

(End)

R020_Gauss_RNG - Ladder Diagram

Compact_AOI_Test:AOI_Test:P02_Random

Total number of rungs in routine: 2

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C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD

0

S:FS

MOV
Move
Source   0

Dest   GRNG_Index
251

ADD
Add
Source A   GRNG_Index
251
Source B   1

Dest   GRNG_Index
251

GRT
Greater Than (A>B)
Source A   GRNG_Index
251
Source B   999

MOV
Move
Source   0

Dest   GRNG_Index
251

Gaussian Random
Number Generator
Data from
CompactLogix PLC

MOV
Move
Source   Gauss_RNG.GNG_Out
-1.4291869
Dest   Gauss_RNG_Data[GRNG_Index]
0.6423583

Gaussian Random
Number Generator

1

A_Gauss_RNG

A_Gauss_RNG   Gauss_RNG ...
GNG_Out   Gauss_RNG.GNG_Out
-1.4291869

(End)

Signature Listing

A_Gauss_RNG v1.0

Available Languages

Relay Ladder

Function Block

Structured Text
A_Gauss_RNG(GNG_Out);

Parameters

Required	Name	Data Type	Usage	Description
X	A_Gauss_RNG	A_Gauss_RNG	InOut	
	EnableIn	BOOL	Input	
	EnableOut	BOOL	Output	
X	GNG_Out	REAL	Output	Gaussian-Distributed Random Number

Extended Description

Execution

Condition	Description
EnableIn is true	

Revision v1.0 Notes

Name	Default	Data Type	Scope
GNG_Out	0.0	REAL	A_Gauss_RNG

    Gaussian-Distributed Random Number

Usage:	Output Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read Only		

*GNG_Out - A_Gauss_RNG/Logic - *5(MUL)*

Name	Default	Data Type	Scope
A_URNG		A_Uniform_RNG	A_Gauss_RNG
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi)			
Usage:	Local Tag		
External Access:	None		
*A_URNG - A_Gauss_RNG/Logic - *1(A_Uniform_RNG)*			
A_URNG.EnableIn	1	BOOL	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Enable Input - System Defined Parameter			
A_URNG.EnableOut	0	BOOL	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Enable Output - System Defined Parameter			
A_URNG.Seed	0	DINT	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) LCG input seed; updated after each execution			
A_URNG.A	110351245	DINT	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) LCG multiplicative parameter A in (Seed(n+1) = Seed(n) * A + C) MOD Modulus; default is from glibc implementation			
A_URNG.A - A_Gauss_RNG/Logic - 1(A_Uniform_RNG)			
A_URNG.B	12345	DINT	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) LCG additive parameter A in Seed(n+1) = (Seed(n) * A + C) MOD Modulus; default PJC/BTC/WA value			
A_URNG.B - A_Gauss_RNG/Logic - 1(A_Uniform_RNG)			
A_URNG.Out_lo	0.0	REAL	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Output value when updated seed is 0			
A_URNG.Out_lo - A_Gauss_RNG/Logic - 1(A_Uniform_RNG)			
A_URNG.Out_hi	1.0	REAL	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Output value for an updated seed of 2**31 (theoretical)			
A_URNG.Out_hi - A_Gauss_RNG/Logic - 1(A_Uniform_RNG)			
A_URNG.Output_scaled	0.0	REAL	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Actual output value at each execution			
*A_URNG.Output_scaled - A_Gauss_RNG/Logic - *1(A_Uniform_RNG), 2(LN)*			
A_URNG.Seed_Out	0	DINT	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) LCG Calculation Seed Output			
A_URNG.Seed_Out - A_Gauss_RNG/Logic - 1(A_Uniform_RNG)			
AOI_FS	0	BOOL	A_Gauss_RNG
Gaussian Random Number Generator First Execution Done			
Usage:	Local Tag		
External Access:	None		
*AOI_FS - A_Gauss_RNG/Logic - *6(OTE), 0(XIO), 1(XIO), 2(XIO), 3(XIO), 4(XIC), 6(XIO)*			
B_URNG		A_Uniform_RNG	A_Gauss_RNG
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi)			
Usage:	Local Tag		
External Access:	None		
*B_URNG - A_Gauss_RNG/Logic - *1(A_Uniform_RNG)*			
B_URNG.EnableIn	1	BOOL	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Enable Input - System Defined Parameter			
B_URNG.EnableOut	0	BOOL	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Enable Output - System Defined Parameter			
B_URNG.Seed	0	DINT	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) LCG input seed; updated after each execution			
B_URNG.A	110351245	DINT	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) LCG multiplicative parameter A in (Seed(n+1) = Seed(n) * A + C) MOD Modulus; default is from glibc implementation			
B_URNG.A - A_Gauss_RNG/Logic - 1(A_Uniform_RNG)			
B_URNG.B	12345	DINT	
Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) LCG additive parameter A in Seed(n+1) = (Seed(n) * A + C) MOD Modulus; default PJC/BTC/WA value			
B_URNG.B - A_Gauss_RNG/Logic - 1(A_Uniform_RNG)			
B_URNG.Out_lo	0.0	REAL	

A_Gauss_RNG Instruction Definition - Local Tag Listing   **Page 65**
Compact_AOI_Test:Add-On Instructions:A_Gauss_RNG   1/4/2020 9:28:31 PM
Data Context: A_Gauss_RNG <definition>   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
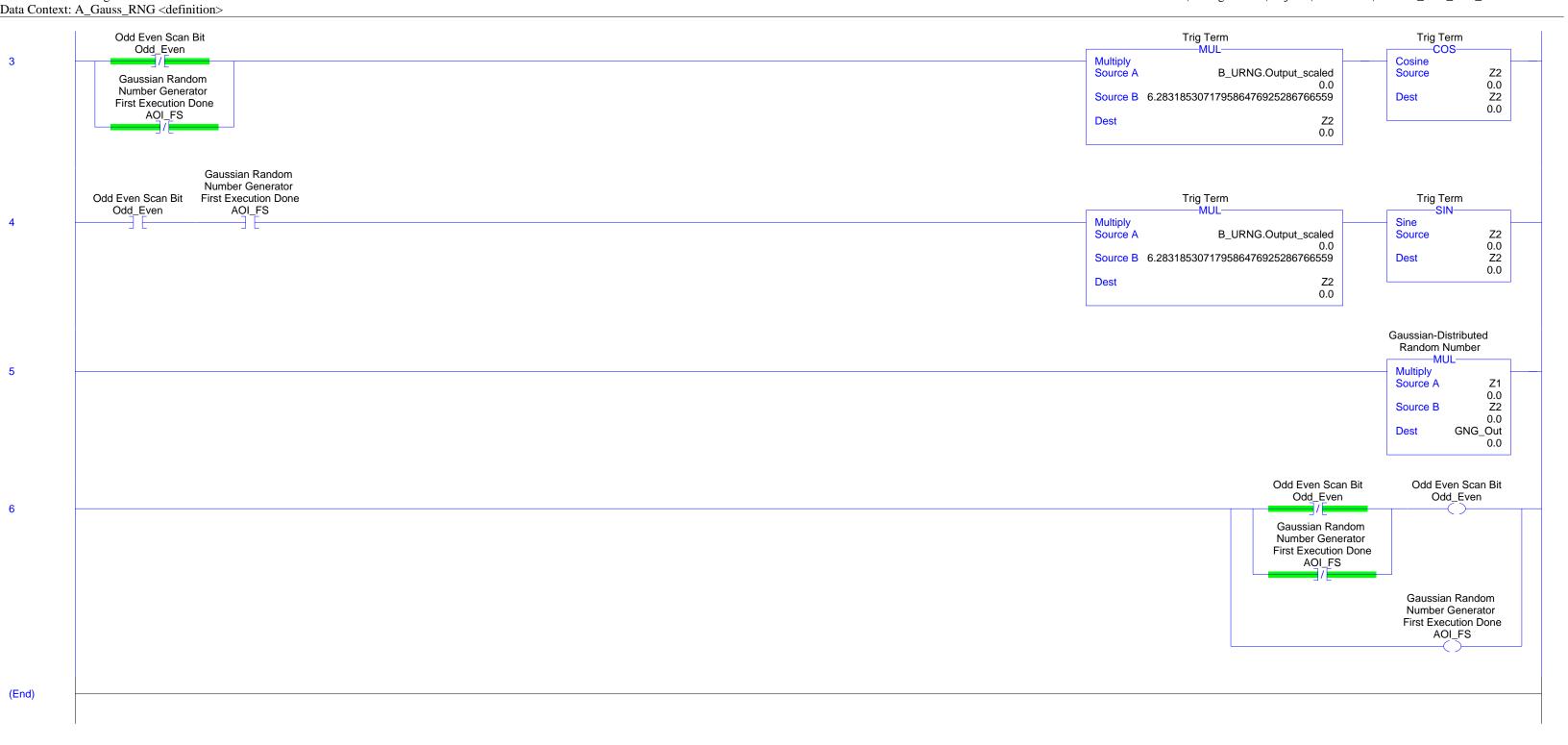
B_URNG (Continued)

Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Output value when updated seed is 0
B_URNG.Out_lo - A_Gauss_RNG/Logic - 1(A_Uniform_RNG)

B_URNG.Out_hi   1.0   REAL

Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Output value for an updated seed of 2**31 (theoretical)
B_URNG.Out_hi - A_Gauss_RNG/Logic - 1(A_Uniform_RNG)

B_URNG.Output_scaled   0.0   REAL

Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) Actual output value at each execution
*B_URNG.Output_scaled - A_Gauss_RNG/Logic - *1(A_Uniform_RNG), 3(MUL), 4(MUL)*

B_URNG.Seed_Out   0   DINT

Random Number Generator AOI Uses Linear Congruential Generator (LCG) 1) Get Seed Number from either previous execution or default 2) Generate next Seed via LCG 4) Step #4 = Scale Seed to output range [Out_lo:out_hi) LCG Calculation Seed Output
*B_URNG.Seed_Out - A_Gauss_RNG/Logic - *0(MOV), 1(A_Uniform_RNG)*

Odd_Even	0	BOOL	A_Gauss_RNG

Odd Even Scan Bit
Usage: Local Tag
External Access: None
*Odd_Even - A_Gauss_RNG/Logic - *6(OTE), 1(XIO), 2(XIO), 3(XIO), 4(XIC), 6(XIO)*

Seed_A	0	DINT	A_Gauss_RNG

Usage: Local Tag
External Access: None
*Seed_A - A_Gauss_RNG/Logic - *1(A_Uniform_RNG)*

Seed_B	0	DINT	A_Gauss_RNG

Usage: Local Tag
External Access: None
*Seed_B - A_Gauss_RNG/Logic - *1(A_Uniform_RNG)*

Z1	0.0	REAL	A_Gauss_RNG

SQR Term
Usage: Local Tag
External Access: None
*Z1 - A_Gauss_RNG/Logic - *2(LN), *2(MUL), *2(SQR), 2(MUL), 2(SQR), 5(MUL)*

Z2	0.0	REAL	A_Gauss_RNG

Trig Term
Usage: Local Tag
External Access: None
*Z2 - A_Gauss_RNG/Logic - *3(COS), *3(MUL), *4(MUL), *4(SIN), 3(COS), 4(SIN), 5(MUL)*

Rung 0

Gaussian Random
Number Generator
First Execution Done
AOI_FS

Random Number
Generator AOI
Uses Linear
Congruential
Generator (LCG)
1) Get Seed Number
from either previous
execution or default
2) Generate next
Seed via LCG
4) Step #4 = Scale
Seed to output range
[Out_lo:out_hi)
LCG Calculation
Seed Output

```
MOV
Move
Source          0

Dest   B_URNG.Seed_Out
                0
```

Rung 1

Odd Even Scan Bit
Odd_Even

Gaussian Random
Number Generator
First Execution Done
AOI_FS

Random Number
Generator AOI
Uses Linear
Congruential
Generator (LCG)
1) Get Seed Number
from either previous
execution or default
2) Generate next
Seed via LCG
4) Step #4 = Scale
Seed to output range
[Out_lo:out_hi)

```
A_Uniform_RNG
Random Number Generator AOIUses Linea...
A_Uniform_RNG                  A_URNG  ...
Seed               B_URNG.Seed_Out
                                0
A                          A_URNG.A
                          110351245
B                          A_URNG.B
                              12345
Out_lo                 A_URNG.Out_lo
                                0.0
Out_hi                 A_URNG.Out_hi
                                1.0
Output_scaled   A_URNG.Output_scaled
                                0.0
Seed_Out                     Seed_A
                                0
```

Random Number
Generator AOI
Uses Linear
Congruential
Generator (LCG)
1) Get Seed Number
from either previous
execution or default
2) Generate next
Seed via LCG
4) Step #4 = Scale
Seed to output range
[Out_lo:out_hi)

```
A_Uniform_RNG
Random Number Generator AOIUses Linea...
A_Uniform_RNG                  B_URNG  ...
Seed               A_URNG.Seed_Out
                                0
A                          B_URNG.A
                          110351245
B                          B_URNG.B
                              12345
Out_lo                 B_URNG.Out_lo
                                0.0
Out_hi                 B_URNG.Out_hi
                                1.0
Output_scaled   B_URNG.Output_scaled
                                0.0
Seed_Out                     Seed_B
                                0
```

Rung 2

Odd Even Scan Bit
Odd_Even

Gaussian Random
Number Generator
First Execution Done
AOI_FS

SQR Term
```
LN
Natural Log
Source   A_URNG.Output_scaled
                          0.0
Dest                       Z1
                          0.0
```

SQR Term
```
MUL
Multiply
Source A                   Z1
                          0.0
Source B                 -2.0

Dest                       Z1
                          0.0
```

SQR Term
```
SQR
Square Root
Source                     Z1
                          0.0
Dest                       Z1
                          0.0
```

3

Odd Even Scan Bit
Odd_Even
─┤ / ├─

Gaussian Random
Number Generator
First Execution Done
AOI_FS
─┤ / ├─

Trig Term
MUL
Multiply
Source A   B_URNG.Output_scaled
                              0.0
Source B   6.28318530717958647692528766559
Dest   Z2
                              0.0

Trig Term
COS
Cosine
Source   Z2
                              0.0
Dest   Z2
                              0.0

4

Odd Even Scan Bit
Odd_Even
─┤ ├─

Gaussian Random
Number Generator
First Execution Done
AOI_FS
─┤ ├─

Trig Term
MUL
Multiply
Source A   B_URNG.Output_scaled
                              0.0
Source B   6.28318530717958647692528766559
Dest   Z2
                              0.0

Trig Term
SIN
Sine
Source   Z2
                              0.0
Dest   Z2
                              0.0

5

Gaussian-Distributed
Random Number
MUL
Multiply
Source A   Z1
                              0.0
Source B   Z2
                              0.0
Dest   GNG_Out
                              0.0

6

Odd Even Scan Bit
Odd_Even
─┤ / ├─

Gaussian Random
Number Generator
First Execution Done
AOI_FS
─┤ / ├─

Odd Even Scan Bit
Odd_Even
─( )─

Gaussian Random
Number Generator
First Execution Done
AOI_FS
─( )─

(End)

a_RMPS v1.0

Ramp and Soak AOI

Available Languages

Relay Ladder

Function Block

Structured Text
a_RMPS(Run_Cmd, PV, Num_of_Seg, STime_SP, SP_In, SRun_Time, SHold_Time);

Parameters

Required	Name	Data Type	Usage	Description
X	a_RMPS	a_RMPS	InOut	Ramp and Soak AOI
	EnableIn	BOOL	Input	
	EnableOut	BOOL	Output	
X	Run_Cmd	BOOL	Input	AOI Run Cmd
X	PV	REAL	Input	Scaled Analog Input (Real) to the AOI

X	Num_of_Seg	INT	Input	Number of Segments (Maximum = 10)
	Hold	BOOL	Input	AOI Hold Cmd
	Initialize	BOOL	Input	Initialize AOI Cmd (Reset Segment to 0)
	SP_Out	REAL	Output	Setpoint Output (psig, deg F)
	Current_Seg	INT	Output	Current Segment
	STime_Left	REAL	Output	Current Segment Remaining Time (min)
	STime_Expired	REAL	Output	Current Segment Time Expired
	Total_Cycle	REAL	Output	Total Cycle Time (minutes)
	Total_Run	REAL	Output	Total Run Time (minutes)
	Total_Hold	REAL	Output	Total Hold Time (minutes)
	Cycle_Hour	DINT	Output	Total Cycle Time Hours
	Cycle_Min	REAL	Output	Total Cycle Time Minutes
	Run_Mode	BOOL	Output	AOI in Run Mode
	Done	BOOL	Output	AOI Done Bit
	Fault	BOOL	Output	AOI Faulted / Invalid Data
X	STime_SP	REAL	InOut	Segment Timer Preset Array (minutes)
X	SP_In	REAL	InOut	Segment Setpoint Array (psig, deg F)
X	SRun_Time	REAL	InOut	Segment Run Time Array (minutes)
X	SHold_Time	REAL	InOut	Segment Hold Time Array (minutes)

Extended Description

Execution

Condition   Description

EnableIn is true

Revision v1.0 Notes

Note: Input Arrays are Real[10] so the maximum number of segmemts is 10

Name	Default	Data Type	Scope
Current_Seg	0	INT	a_RMPS
Current Segment			
Usage:	Output Parameter		
Required:	No		
Visible:	Yes		
External Access:	None		
Current_Seg - a_RMPS/Logic - *10(MOV), *11(MOV), *12(MOV), *13(MOV), *14(MOV), *15(MOV), *4(MOV), *6(MOV), *7(MOV), *8(MOV), *9(MOV)			
Cycle_Hour	0	DINT	a_RMPS
Total Cycle Time Hours			
Usage:	Output Parameter		
Required:	No		
Visible:	No		
External Access:	Read Only		
Cycle_Hour - a_RMPS/Logic - *20(CPT)			
Cycle_Min	0.0	REAL	a_RMPS
Total Cycle Time Minutes			
Usage:	Output Parameter		
Required:	No		
Visible:	No		
External Access:	Read Only		
Cycle_Min - a_RMPS/Logic - *20(MOD), 20(CPT)			
Done	0	BOOL	a_RMPS
AOI Done Bit			
Usage:	Output Parameter		
Required:	No		
Visible:	Yes		
External Access:	Read Only		
Done - a_RMPS/Logic - *17(OTE), 1(XIC), 10(XIO), 11(XIO), 12(XIO), 13(XIO), 14(XIO), 15(XIO), 6(XIO), 7(XIO), 8(XIO), 9(XIO)			
Fault	0	BOOL	a_RMPS
AOI Faulted / Invalid Data			
Usage:	Output Parameter		
Required:	No		
Visible:	Yes		
External Access:	Read Only		
Fault - a_RMPS/Logic - *3(OTE), 5(XIO)			
Hold	0	BOOL	a_RMPS
AOI Hold Cmd			
Usage:	Input Parameter		
Required:	No		
Visible:	Yes		
External Access:	Read/Write		
Hold - a_RMPS/Logic - 10(XIO), 11(XIO), 12(XIO), 13(XIO), 14(XIO), 15(XIO), 18(XIC), 6(XIO), 7(XIO), 8(XIO), 9(XIO)			
Initialize	0	BOOL	a_RMPS
Initialize AOI Cmd (Reset Segment to 0)			
Usage:	Input Parameter		
Required:	No		
Visible:	Yes		
External Access:	Read/Write		
Initialize - a_RMPS/Logic - 1(XIC), 4(XIC)			
Num_of_Seg	0	INT	a_RMPS
Number of Segments (Maximum = 10)			
Usage:	Input Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	None		

a_RMPS Instruction Definition - Parameter Listing   **Page 71**
Compact_AOI_Test:Add-On Instructions:a_RMPS   1/4/2020 9:28:32 PM
Data Type Size: 352 byte (s)   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
Data Context: a_RMPS <definition>

Num_of_Seg (Continued)

Num_of_Seg - a_RMPS/Logic - 17(LIM), 17(MOV), 3(GRT), 3(LES)

Run_Cmd	0	BOOL	a_RMPS

AOI Run Cmd

Usage:	Input Parameter
Required:	Yes
Visible:	Yes
External Access:	Read/Write

Run_Cmd - a_RMPS/Logic - 1(XIC), 1(XIO), 4(XIO)

Run_Mode	0	BOOL	a_RMPS

AOI in Run Mode

Usage:	Output Parameter
Required:	No
Visible:	Yes
External Access:	Read Only

*Run_Mode - a_RMPS/Logic - *1(OTL), *1(OTU), 1(XIC), 1(XIO), 18(XIC), 5(XIC)*

SHold_Time		REAL[11]	a_RMPS

Segment Hold Time Array (minutes)

Usage:	InOut Parameter
Required:	Yes
Visible:	Yes
Constant	No

*SHold_Time - a_RMPS/Logic - *4(FLL)*

SHold_Time[0]	??	REAL

Step 0 Hold Time = 0 min

SHold_Time[1]	??	REAL

Step 1 Hold Time (min)

*SHold_Time[1] - a_RMPS/Logic - *18(DIV), 19(MOV)*

SHold_Time[2]	??	REAL

Step 2 Hold Time (min)

*SHold_Time[2] - a_RMPS/Logic - *18(DIV), 19(ADD)*

SHold_Time[3]	??	REAL

Step 3 Hold Time (min)

*SHold_Time[3] - a_RMPS/Logic - *18(DIV), 19(ADD)*

SHold_Time[4]	??	REAL

Step 4 Hold Time (min)

*SHold_Time[4] - a_RMPS/Logic - *18(DIV), 19(ADD)*

SHold_Time[5]	??	REAL

Step 5 Hold Time (min)

*SHold_Time[5] - a_RMPS/Logic - *18(DIV), 19(ADD)*

SHold_Time[6]	??	REAL

Step 6 Hold Time (min)

*SHold_Time[6] - a_RMPS/Logic - *18(DIV), 19(ADD)*

SHold_Time[7]	??	REAL

Step 7 Hold Time (min)

*SHold_Time[7] - a_RMPS/Logic - *18(DIV), 19(ADD)*

SHold_Time[8]	??	REAL

Step 8 Hold Time (min)

*SHold_Time[8] - a_RMPS/Logic - *18(DIV), 19(ADD)*

SHold_Time[9]	??	REAL

Step 9 Hold Time (min)

*SHold_Time[9] - a_RMPS/Logic - *18(DIV), 19(ADD)*

SHold_Time[10]	??	REAL

Step 10 Hold Time (min)

*SHold_Time[10] - a_RMPS/Logic - *18(DIV), 19(ADD)*

SP_In		REAL[11]	a_RMPS

Segment Setpoint Array (psig, deg F)

Usage:	InOut Parameter
Required:	Yes

a_RMPS Instruction Definition - Parameter Listing   **Page 72**
Compact_AOI_Test:Add-On Instructions:a_RMPS   1/4/2020 9:28:32 PM
Data Type Size: 352 byte (s)   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
Data Context: a_RMPS <definition>

SP_In (Continued)
    Visible: Yes
    Constant   No

SP_In[0]   ??   REAL
    Step 0 / Start SP
    SP_In[0] - a_RMPS/Logic - 15(CPT)

SP_In[1]   ??   REAL
    End of Step 1 SP
    SP_In[1] - a_RMPS/Logic - 14(CPT), 15(CPT)

SP_In[2]   ??   REAL
    End of Step 2 SP
    SP_In[2] - a_RMPS/Logic - 13(CPT), 14(CPT)

SP_In[3]   ??   REAL
    End of Step 3 SP
    SP_In[3] - a_RMPS/Logic - 12(CPT), 13(CPT)

SP_In[4]   ??   REAL
    End of Step 4 SP
    SP_In[4] - a_RMPS/Logic - 11(CPT), 12(CPT)

SP_In[5]   ??   REAL
    End of Step 5 SP
    SP_In[5] - a_RMPS/Logic - 10(CPT), 11(CPT)

SP_In[6]   ??   REAL
    End of Step 6 SP
    SP_In[6] - a_RMPS/Logic - 10(CPT), 9(CPT)

SP_In[7]   ??   REAL
    End of Step 7 SP
    SP_In[7] - a_RMPS/Logic - 8(CPT), 9(CPT)

SP_In[8]   ??   REAL
    End of Step 8 SP
    SP_In[8] - a_RMPS/Logic - 7(CPT), 8(CPT)

SP_In[9]   ??   REAL
    End of Step 9 SP
    SP_In[9] - a_RMPS/Logic - 6(CPT), 7(CPT)

SP_In[10]   ??   REAL
    End of Step 10 SP
    SP_In[10] - a_RMPS/Logic - 6(CPT)

SP_Out   0.0   REAL   a_RMPS
    Setpoint Output (psig, deg F)
    Usage: Output Parameter
    Required: No
    Visible: Yes
    External Access: Read/Write
    *SP_Out - a_RMPS/Logic - *10(CPT), *11(CPT), *12(CPT), *13(CPT), *14(CPT), *15(CPT), *4(MOV), *6(CPT), *7(CPT), *8(CPT), *9(CPT)*

SRun_Time   REAL[11]   a_RMPS
    Segment Run Time Array (minutes)
    Usage: InOut Parameter
    Required: Yes
    Visible: Yes
    Constant   No
    *SRun_Time - a_RMPS/Logic - *4(FLL)*

SRun_Time[0]   ??   REAL
    Step 0 Run Time = 0 min

SRun_Time[1]   ??   REAL
    Step 1 Run Time (min)
    *SRun_Time[1] - a_RMPS/Logic - *15(DIV), 16(MOV)*

SRun_Time[2]   ??   REAL
    Step 2 Run Time (min)
    *SRun_Time[2] - a_RMPS/Logic - *14(DIV), 16(ADD)*

SRun_Time[3]   ??   REAL
    Step 3 Run Time (min)
    *SRun_Time[3] - a_RMPS/Logic - *13(DIV), 16(ADD)*

a_RMPS Instruction Definition - Parameter Listing   **Page 73**
Compact_AOI_Test:Add-On Instructions:a_RMPS   1/4/2020 9:28:32 PM
Data Type Size: 352 byte (s)   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
Data Context: a_RMPS <definition>

SRun_Time (Continued)

SRun_Time[4]   ??   REAL
      Step 4 Run Time (min)
      *SRun_Time[4] - a_RMPS/Logic - *12(DIV), 16(ADD)*

SRun_Time[5]   ??   REAL
      Step 5 Run Time (min)
      *SRun_Time[5] - a_RMPS/Logic - *11(DIV), 16(ADD)*

SRun_Time[6]   ??   REAL
      Step 6 Run Time (min)
      *SRun_Time[6] - a_RMPS/Logic - *10(DIV), 16(ADD)*

SRun_Time[7]   ??   REAL
      Step 7 Run Time (min)
      *SRun_Time[7] - a_RMPS/Logic - *9(DIV), 16(ADD)*

SRun_Time[8]   ??   REAL
      Step 8 Run Time (min)
      *SRun_Time[8] - a_RMPS/Logic - *8(DIV), 16(ADD)*

SRun_Time[9]   ??   REAL
      Step 9 Run Time (min)
      *SRun_Time[9] - a_RMPS/Logic - *7(DIV), 16(ADD)*

SRun_Time[10]   ??   REAL
      Step 10 Run Time (min)
      *SRun_Time[10] - a_RMPS/Logic - *6(DIV), 16(ADD)*

STime_Expired   0.0   REAL   a_RMPS
      Current Segment Time Expired
      Usage: Output Parameter
      Required: No
      Visible: Yes
      External Access: Read Only
      *STime_Expired - a_RMPS/Logic - *10(CPT), *11(CPT), *12(CPT), *13(CPT), *14(CPT), *15(CPT), *4(MOV), *6(CPT), *7(CPT), *8(CPT), *9(CPT)*

STime_Left   0.0   REAL   a_RMPS
      Current Segment Remaining Time (min)
      Usage: Output Parameter
      Required: No
      Visible: Yes
      External Access: Read Only
      *STime_Left - a_RMPS/Logic - *10(CPT), *11(CPT), *12(CPT), *13(CPT), *14(CPT), *15(CPT), *4(MOV), *6(CPT), *7(CPT), *8(CPT), *9(CPT)*

STime_SP   REAL[11]   a_RMPS
      Segment Timer Preset Array (minutes)
      Usage: InOut Parameter
      Required: Yes
      Visible: Yes
      Constant   No
      STime_SP - a_RMPS/Logic - 2(FSC)

STime_SP[0]   ??   REAL
      Step 0 Time = 0 min

STime_SP[1]   ??   REAL
      Step 1 Time (min)
      STime_SP[1] - a_RMPS/Logic - 5(CPT)

STime_SP[2]   ??   REAL
      Step 2 Time (min)
      STime_SP[2] - a_RMPS/Logic - 5(CPT)

STime_SP[3]   ??   REAL
      Step 3 Time (min)
      STime_SP[3] - a_RMPS/Logic - 5(CPT)

STime_SP[4]   ??   REAL
      Step 4 Time (min)
      STime_SP[4] - a_RMPS/Logic - 5(CPT)

STime_SP[5]   ??   REAL
      Step 5 Time (min)
      STime_SP[5] - a_RMPS/Logic - 5(CPT)

STime_SP (Continued)
STime_SP[6]   ??   REAL
   Step 6 Time (min)
   STime_SP[6] - a_RMPS/Logic - 5(CPT)
STime_SP[7]   ??   REAL
   Step 7 Time (min)
   STime_SP[7] - a_RMPS/Logic - 5(CPT)
STime_SP[8]   ??   REAL
   Step 8 Time (min)
   STime_SP[8] - a_RMPS/Logic - 5(CPT)
STime_SP[9]   ??   REAL
   Step 9 Time (min)
   STime_SP[9] - a_RMPS/Logic - 5(CPT)
STime_SP[10]   ??   REAL
   Step 10 Time (min)
   STime_SP[10] - a_RMPS/Logic - 5(CPT)

Total_Cycle   0.0   REAL   a_RMPS
   Total Cycle Time (minutes)
   Usage: Output Parameter
   Required: No
   Visible: Yes
   External Access: Read Only
   *Total_Cycle - a_RMPS/Logic - *20(ADD), 20(CPT), 20(MOD)*

Total_Hold   0.0   REAL   a_RMPS
   Total Hold Time (minutes)
   Usage: Output Parameter
   Required: No
   Visible: Yes
   External Access: Read Only
   *Total_Hold - a_RMPS/Logic - *19(ADD), *19(MOV), 19(ADD), 20(ADD)*

Total_Run   0.0   REAL   a_RMPS
   Total Run Time (minutes)
   Usage: Output Parameter
   Required: No
   Visible: Yes
   External Access: Read Only
   *Total_Run - a_RMPS/Logic - *16(ADD), *16(MOV), 16(ADD), 20(ADD)*

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Data Context: a_RMPS <definition>   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD

Name	Default	Data Type	Scope
Cur_Seg		BOOL[32]	a_RMPS
Current Segment Boolean Array			
Usage:	Local Tag		
External Access:	None		
Cur_Seg[0]	0	BOOL	
Segment 0 Active			
*Cur_Seg[0] - a_RMPS/Logic - *15(OTU), *4(OTU), *5(OTL), 15(XIC)*			
Cur_Seg[1]	0	BOOL	
Segment 1 Active			
*Cur_Seg[1] - a_RMPS/Logic - *14(OTU), *15(OTL), *4(OTU), 14(XIC), 15(XIC), 18(XIC)*			
Cur_Seg[2]	0	BOOL	
Segment 2 Active			
*Cur_Seg[2] - a_RMPS/Logic - *13(OTU), *14(OTL), *4(OTU), 13(XIC), 14(XIC), 18(XIC)*			
Cur_Seg[3]	0	BOOL	
Segment 3 Active			
*Cur_Seg[3] - a_RMPS/Logic - *12(OTU), *13(OTL), *4(OTU), 12(XIC), 13(XIC), 18(XIC)*			
Cur_Seg[4]	0	BOOL	
Segment 4 Active			
*Cur_Seg[4] - a_RMPS/Logic - *11(OTU), *12(OTL), *4(OTU), 11(XIC), 12(XIC), 18(XIC)*			
Cur_Seg[5]	0	BOOL	
Segment 5 Active			
*Cur_Seg[5] - a_RMPS/Logic - *10(OTU), *11(OTL), *4(OTU), 10(XIC), 11(XIC), 18(XIC)*			
Cur_Seg[6]	0	BOOL	
Segment 6 Active			
*Cur_Seg[6] - a_RMPS/Logic - *10(OTL), *4(OTU), *9(OTU), 10(XIC), 18(XIC), 9(XIC)*			
Cur_Seg[7]	0	BOOL	
Segment 7 Active			
*Cur_Seg[7] - a_RMPS/Logic - *4(OTU), *8(OTU), *9(OTL), 18(XIC), 8(XIC), 9(XIC)*			
Cur_Seg[8]	0	BOOL	
Segment 8 Active			
*Cur_Seg[8] - a_RMPS/Logic - *4(OTU), *7(OTU), *8(OTL), 18(XIC), 7(XIC), 8(XIC)*			
Cur_Seg[9]	0	BOOL	
Segment 9 Active			
*Cur_Seg[9] - a_RMPS/Logic - *4(OTU), *6(OTU), *7(OTL), 18(XIC), 6(XIC), 7(XIC)*			
Cur_Seg[10]	0	BOOL	
Segment 10 Active			
*Cur_Seg[10] - a_RMPS/Logic - *4(OTU), *6(OTL), 18(XIC), 6(XIC)*			
Cur_Seg[11]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[12]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[13]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[14]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[15]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[16]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[17]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[18]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[19]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[20]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[21]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[22]	0	BOOL	
Current Segment Boolean Array			
Cur_Seg[23]	0	BOOL	

Cur_Seg (Continued)
Current Segment Boolean Array

Cur_Seg[24]	0	BOOL
Current Segment Boolean Array		
Cur_Seg[25]	0	BOOL
Current Segment Boolean Array		
Cur_Seg[26]	0	BOOL
Current Segment Boolean Array		
Cur_Seg[27]	0	BOOL
Current Segment Boolean Array		
Cur_Seg[28]	0	BOOL
Current Segment Boolean Array		
Cur_Seg[29]	0	BOOL
Current Segment Boolean Array		
Cur_Seg[30]	0	BOOL
Current Segment Boolean Array		
Cur_Seg[31]	0	BOOL
Current Segment Boolean Array		

First_Scan	0	BOOL	a_RMPS
AOI First Scan Completed			
Usage:	Local Tag		
External Access:	None		
*First_Scan - a_RMPS/Logic - *21(OTE), 1(XIC)*			

Last_Seg	0	INT	a_RMPS
Last Segment of Cycle			
Usage:	Local Tag		
External Access:	None		
*Last_Seg - a_RMPS/Logic - *17(MOV), 17(XIC)*			

ONS		BOOL[32]	a_RMPS
One Shot Bits			
Usage:	Local Tag		
External Access:	None		
ONS[0]	0	BOOL	
One Shot Bits			
ONS[1]	0	BOOL	
One Shot Bits			
ONS[2]	0	BOOL	
One Shot Bits			
ONS[3]	0	BOOL	
One Shot Bits			
ONS[4]	0	BOOL	
One Shot Bits			
ONS[5]	0	BOOL	
One Shot Bits			
ONS[6]	0	BOOL	
One Shot Bits			
ONS[7]	0	BOOL	
One Shot Bits			
ONS[8]	0	BOOL	
One Shot Bits			
ONS[9]	0	BOOL	
One Shot Bits			
ONS[10]	0	BOOL	
One Shot Bits			
ONS[11]	0	BOOL	
One Shot Bits			
ONS[12]	0	BOOL	
One Shot Bits			
ONS[13]	0	BOOL	
One Shot Bits			

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ONS (Continued)

ONS[14]	0	BOOL
One Shot Bits		
ONS[15]	0	BOOL
One Shot Bits		
ONS[16]	0	BOOL
One Shot Bits		
ONS[17]	0	BOOL
One Shot Bits		
ONS[18]	0	BOOL
One Shot Bits		
ONS[19]	0	BOOL
One Shot Bits		
ONS[20]	0	BOOL
One Shot Bits		
ONS[21]	0	BOOL
One Shot Bits		
ONS[22]	0	BOOL
One Shot Bits		
ONS[23]	0	BOOL
One Shot Bits		
ONS[24]	0	BOOL
One Shot Bits		
ONS[25]	0	BOOL
One Shot Bits		
ONS[26]	0	BOOL
One Shot Bits		
ONS[27]	0	BOOL
One Shot Bits		
ONS[28]	0	BOOL
One Shot Bits		
ONS[29]	0	BOOL
One Shot Bits		
ONS[29] - a_RMPS/Logic - *5(ONS)		
ONS[30]	0	BOOL
One Shot Bits		
ONS[31]	0	BOOL
One Shot Bits		
ONS[31] - a_RMPS/Logic - *4(ONS)		

SHold_Tmr		TIMER[11]	a_RMPS
Segment Hold Timers			
Usage:	Local Tag		
External Access:	None		
SHold_Tmr[0]		TIMER	
Segment Hold Timer 0			
SHold_Tmr[0].PRE	0	DINT	
Segment Hold Timer 0			
SHold_Tmr[0].ACC	0	DINT	
Segment Hold Timer 0			
SHold_Tmr[0].EN	0	BOOL	
Segment Hold Timer 0			
SHold_Tmr[0].TT	0	BOOL	
Segment Hold Timer 0			
SHold_Tmr[0].DN	0	BOOL	
Segment Hold Timer 0			
SHold_Tmr[1]		TIMER	
Segment Hold Timer 1			
SHold_Tmr[1] - a_RMPS/Logic - *18(RTO), *4(RES)			
SHold_Tmr[1].PRE	2147483600	DINT	
Segment Hold Timer 1			
SHold_Tmr[1].ACC	0	DINT	
Segment Hold Timer 1			

a_RMPS Instruction Definition - Local Tag Listing   **Page 78**
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SHold_Tmr (Continued)
   SHold_Tmr[1].ACC - a_RMPS/Logic - 18(DIV)

SHold_Tmr[1].EN	0	BOOL
Segment Hold Timer 1		
SHold_Tmr[1].TT	0	BOOL
Segment Hold Timer 1		
SHold_Tmr[1].DN	0	BOOL
Segment Hold Timer 1		
SHold_Tmr[2]		TIMER
Segment Hold Timer 2		
*SHold_Tmr[2] - a_RMPS/Logic - *18(RTO), *4(RES)*		
SHold_Tmr[2].PRE	2147483600	DINT
Segment Hold Timer 2		
SHold_Tmr[2].ACC	0	DINT
Segment Hold Timer 2		
SHold_Tmr[2].ACC - a_RMPS/Logic - 18(DIV)		
SHold_Tmr[2].EN	0	BOOL
Segment Hold Timer 2		
SHold_Tmr[2].TT	0	BOOL
Segment Hold Timer 2		
SHold_Tmr[2].DN	0	BOOL
Segment Hold Timer 2		
SHold_Tmr[3]		TIMER
Segment Hold Timer 3		
*SHold_Tmr[3] - a_RMPS/Logic - *18(RTO), *4(RES)*		
SHold_Tmr[3].PRE	2147483600	DINT
Segment Hold Timer 3		
SHold_Tmr[3].ACC	0	DINT
Segment Hold Timer 3		
SHold_Tmr[3].ACC - a_RMPS/Logic - 18(DIV)		
SHold_Tmr[3].EN	0	BOOL
Segment Hold Timer 3		
SHold_Tmr[3].TT	0	BOOL
Segment Hold Timer 3		
SHold_Tmr[3].DN	0	BOOL
Segment Hold Timer 3		
SHold_Tmr[4]		TIMER
Segment Hold Timer 4		
*SHold_Tmr[4] - a_RMPS/Logic - *18(RTO), *4(RES)*		
SHold_Tmr[4].PRE	2147483600	DINT
Segment Hold Timer 4		
SHold_Tmr[4].ACC	0	DINT
Segment Hold Timer 4		
SHold_Tmr[4].ACC - a_RMPS/Logic - 18(DIV)		
SHold_Tmr[4].EN	0	BOOL
Segment Hold Timer 4		
SHold_Tmr[4].TT	0	BOOL
Segment Hold Timer 4		
SHold_Tmr[4].DN	0	BOOL
Segment Hold Timer 4		
SHold_Tmr[5]		TIMER
Segment Hold Timer 5		
*SHold_Tmr[5] - a_RMPS/Logic - *18(RTO), *4(RES)*		
SHold_Tmr[5].PRE	2147483600	DINT
Segment Hold Timer 5		
SHold_Tmr[5].ACC	0	DINT
Segment Hold Timer 5		
SHold_Tmr[5].ACC - a_RMPS/Logic - 18(DIV)		
SHold_Tmr[5].EN	0	BOOL
Segment Hold Timer 5		
SHold_Tmr[5].TT	0	BOOL
Segment Hold Timer 5		
SHold_Tmr[5].DN	0	BOOL

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SHold_Tmr (Continued)
   Segment Hold Timer 5

SHold_Tmr[6]		TIMER

   Segment Hold Timer 6
   *SHold_Tmr[6] - a_RMPS/Logic - *18(RTO), *4(RES)*

SHold_Tmr[6].PRE	2147483600	DINT

   Segment Hold Timer 6

SHold_Tmr[6].ACC	0	DINT

   Segment Hold Timer 6
   SHold_Tmr[6].ACC - a_RMPS/Logic - 18(DIV)

SHold_Tmr[6].EN	0	BOOL

   Segment Hold Timer 6

SHold_Tmr[6].TT	0	BOOL

   Segment Hold Timer 6

SHold_Tmr[6].DN	0	BOOL

   Segment Hold Timer 6

SHold_Tmr[7]		TIMER

   Segment Hold Timer 7
   *SHold_Tmr[7] - a_RMPS/Logic - *18(RTO), *4(RES)*

SHold_Tmr[7].PRE	2147483600	DINT

   Segment Hold Timer 7

SHold_Tmr[7].ACC	0	DINT

   Segment Hold Timer 7
   SHold_Tmr[7].ACC - a_RMPS/Logic - 18(DIV)

SHold_Tmr[7].EN	0	BOOL

   Segment Hold Timer 7

SHold_Tmr[7].TT	0	BOOL

   Segment Hold Timer 7

SHold_Tmr[7].DN	0	BOOL

   Segment Hold Timer 7

SHold_Tmr[8]		TIMER

   Segment Hold Timer 8
   *SHold_Tmr[8] - a_RMPS/Logic - *18(RTO), *4(RES)*

SHold_Tmr[8].PRE	2147483600	DINT

   Segment Hold Timer 8

SHold_Tmr[8].ACC	0	DINT

   Segment Hold Timer 8
   SHold_Tmr[8].ACC - a_RMPS/Logic - 18(DIV)

SHold_Tmr[8].EN	0	BOOL

   Segment Hold Timer 8

SHold_Tmr[8].TT	0	BOOL

   Segment Hold Timer 8

SHold_Tmr[8].DN	0	BOOL

   Segment Hold Timer 8

SHold_Tmr[9]		TIMER

   Segment Hold Timer 9
   *SHold_Tmr[9] - a_RMPS/Logic - *18(RTO), *4(RES)*

SHold_Tmr[9].PRE	2147483600	DINT

   Segment Hold Timer 9

SHold_Tmr[9].ACC	0	DINT

   Segment Hold Timer 9
   SHold_Tmr[9].ACC - a_RMPS/Logic - 18(DIV)

SHold_Tmr[9].EN	0	BOOL

   Segment Hold Timer 9

SHold_Tmr[9].TT	0	BOOL

   Segment Hold Timer 9

SHold_Tmr[9].DN	0	BOOL

   Segment Hold Timer 9

SHold_Tmr[10]		TIMER

   Segment Hold Timer10
   *SHold_Tmr[10] - a_RMPS/Logic - *18(RTO), *4(RES)*

SHold_Tmr[10].PRE	2147483600	DINT

   Segment Hold Timer10

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Data Context: a_RMPS <definition>   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD

SHold_Tmr (Continued)

SHold_Tmr[10].ACC	0	DINT

    Segment Hold Timer10
    SHold_Tmr[10].ACC - a_RMPS/Logic - 18(DIV)

SHold_Tmr[10].EN	0	BOOL

    Segment Hold Timer10

SHold_Tmr[10].TT	0	BOOL

    Segment Hold Timer10

SHold_Tmr[10].DN	0	BOOL

    Segment Hold Timer10

SRun_Tmr	TIMER[11]	a_RMPS

    Segment Run Mode Timers
    Usage: Local Tag
    External Access: None
    SRun_Tmr - a_RMPS/Logic - 17(XIC)

SRun_Tmr[0]		TIMER

    Segment Run Mode Timer #0

SRun_Tmr[0].PRE	0	DINT

    Segment Run Mode Timer #0

SRun_Tmr[0].ACC	0	DINT

    Segment Run Mode Timer #0

SRun_Tmr[0].EN	0	BOOL

    Segment Run Mode Timer #0

SRun_Tmr[0].TT	0	BOOL

    Segment Run Mode Timer #0

SRun_Tmr[0].DN	0	BOOL

    Segment Run Mode Timer #0

SRun_Tmr[1]		TIMER

    Segment Run Mode Timer #1
    *SRun_Tmr[1] - a_RMPS/Logic - *15(RTO), *4(RES)*

SRun_Tmr[1].PRE	600000	DINT

    Segment Run Mode Timer #1
    *SRun_Tmr[1].PRE - a_RMPS/Logic - *5(CPT), 15(CPT), 15(GRT)*

SRun_Tmr[1].ACC	0	DINT

    Segment Run Mode Timer #1
    SRun_Tmr[1].ACC - a_RMPS/Logic - 15(CPT), 15(DIV)

SRun_Tmr[1].EN	0	BOOL

    Segment Run Mode Timer #1

SRun_Tmr[1].TT	0	BOOL

    Segment Run Mode Timer #1

SRun_Tmr[1].DN	0	BOOL

    Segment Run Mode Timer #1
    SRun_Tmr[1].DN - a_RMPS/Logic - 14(XIC)

SRun_Tmr[2]		TIMER

    Segment Run Mode Timer #2
    *SRun_Tmr[2] - a_RMPS/Logic - *14(RTO), *4(RES)*

SRun_Tmr[2].PRE	1200000	DINT

    Segment Run Mode Timer #2
    *SRun_Tmr[2].PRE - a_RMPS/Logic - *5(CPT), 14(CPT), 14(GRT)*

SRun_Tmr[2].ACC	0	DINT

    Segment Run Mode Timer #2
    SRun_Tmr[2].ACC - a_RMPS/Logic - 14(CPT), 14(DIV)

SRun_Tmr[2].EN	0	BOOL

    Segment Run Mode Timer #2

SRun_Tmr[2].TT	0	BOOL

    Segment Run Mode Timer #2

SRun_Tmr[2].DN	0	BOOL

    Segment Run Mode Timer #2
    SRun_Tmr[2].DN - a_RMPS/Logic - 13(XIC)

SRun_Tmr[3]		TIMER

    Segment Run Mode Timer #3
    *SRun_Tmr[3] - a_RMPS/Logic - *13(RTO), *4(RES)*

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SRun_Tmr (Continued)

Tag	Value	Type
SRun_Tmr[3].PRE	1800000	DINT
Segment Run Mode Timer #3		
*SRun_Tmr[3].PRE - a_RMPS/Logic - *5(CPT), 13(CPT), 13(GRT)*		
SRun_Tmr[3].ACC	0	DINT
Segment Run Mode Timer #3		
SRun_Tmr[3].ACC - a_RMPS/Logic - 13(CPT), 13(DIV)		
SRun_Tmr[3].EN	0	BOOL
Segment Run Mode Timer #3		
SRun_Tmr[3].TT	0	BOOL
Segment Run Mode Timer #3		
SRun_Tmr[3].DN	0	BOOL
Segment Run Mode Timer #3		
SRun_Tmr[3].DN - a_RMPS/Logic - 12(XIC)		
SRun_Tmr[4]		TIMER
Segment Run Mode Timer #4		
*SRun_Tmr[4] - a_RMPS/Logic - *12(RTO), *4(RES)*		
SRun_Tmr[4].PRE	2400000	DINT
Segment Run Mode Timer #4		
*SRun_Tmr[4].PRE - a_RMPS/Logic - *5(CPT), 12(CPT), 12(GRT)*		
SRun_Tmr[4].ACC	0	DINT
Segment Run Mode Timer #4		
SRun_Tmr[4].ACC - a_RMPS/Logic - 12(CPT), 12(DIV)		
SRun_Tmr[4].EN	0	BOOL
Segment Run Mode Timer #4		
SRun_Tmr[4].TT	0	BOOL
Segment Run Mode Timer #4		
SRun_Tmr[4].DN	0	BOOL
Segment Run Mode Timer #4		
SRun_Tmr[4].DN - a_RMPS/Logic - 11(XIC)		
SRun_Tmr[5]		TIMER
Segment Run Mode Timer #5		
*SRun_Tmr[5] - a_RMPS/Logic - *11(RTO), *4(RES)*		
SRun_Tmr[5].PRE	3000000	DINT
Segment Run Mode Timer #5		
*SRun_Tmr[5].PRE - a_RMPS/Logic - *5(CPT), 11(CPT), 11(GRT)*		
SRun_Tmr[5].ACC	0	DINT
Segment Run Mode Timer #5		
SRun_Tmr[5].ACC - a_RMPS/Logic - 11(CPT), 11(DIV)		
SRun_Tmr[5].EN	0	BOOL
Segment Run Mode Timer #5		
SRun_Tmr[5].TT	0	BOOL
Segment Run Mode Timer #5		
SRun_Tmr[5].DN	0	BOOL
Segment Run Mode Timer #5		
SRun_Tmr[5].DN - a_RMPS/Logic - 10(XIC)		
SRun_Tmr[6]		TIMER
Segment Run Mode Timer #6		
*SRun_Tmr[6] - a_RMPS/Logic - *10(RTO), *4(RES)*		
SRun_Tmr[6].PRE	3600000	DINT
Segment Run Mode Timer #6		
*SRun_Tmr[6].PRE - a_RMPS/Logic - *5(CPT), 10(CPT), 10(GRT)*		
SRun_Tmr[6].ACC	0	DINT
Segment Run Mode Timer #6		
SRun_Tmr[6].ACC - a_RMPS/Logic - 10(CPT), 10(DIV)		
SRun_Tmr[6].EN	0	BOOL
Segment Run Mode Timer #6		
SRun_Tmr[6].TT	0	BOOL
Segment Run Mode Timer #6		
SRun_Tmr[6].DN	0	BOOL
Segment Run Mode Timer #6		
SRun_Tmr[6].DN - a_RMPS/Logic - 9(XIC)		
SRun_Tmr[7]		TIMER

a_RMPS Instruction Definition - Local Tag Listing   **Page 82**
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Data Context: a_RMPS <definition>   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD

SRun_Tmr (Continued)
    Segment Run Mode Timer #7
    *SRun_Tmr[7] - a_RMPS/Logic - *4(RES), *9(RTO)*

SRun_Tmr[7].PRE	4200000	DINT

    Segment Run Mode Timer #7
    *SRun_Tmr[7].PRE - a_RMPS/Logic - *5(CPT), 9(CPT), 9(GRT)*

SRun_Tmr[7].ACC	0	DINT

    Segment Run Mode Timer #7
    SRun_Tmr[7].ACC - a_RMPS/Logic - 9(CPT), 9(DIV)

SRun_Tmr[7].EN	0	BOOL

    Segment Run Mode Timer #7

SRun_Tmr[7].TT	0	BOOL

    Segment Run Mode Timer #7

SRun_Tmr[7].DN	0	BOOL

    Segment Run Mode Timer #7
    SRun_Tmr[7].DN - a_RMPS/Logic - 8(XIC)

SRun_Tmr[8]		TIMER

    Segment Run Mode Timer #8
    *SRun_Tmr[8] - a_RMPS/Logic - *4(RES), *8(RTO)*

SRun_Tmr[8].PRE	4200000	DINT

    Segment Run Mode Timer #8
    *SRun_Tmr[8].PRE - a_RMPS/Logic - *5(CPT), 8(CPT), 8(GRT)*

SRun_Tmr[8].ACC	0	DINT

    Segment Run Mode Timer #8
    SRun_Tmr[8].ACC - a_RMPS/Logic - 8(CPT), 8(DIV)

SRun_Tmr[8].EN	0	BOOL

    Segment Run Mode Timer #8

SRun_Tmr[8].TT	0	BOOL

    Segment Run Mode Timer #8

SRun_Tmr[8].DN	0	BOOL

    Segment Run Mode Timer #8
    SRun_Tmr[8].DN - a_RMPS/Logic - 7(XIC)

SRun_Tmr[9]		TIMER

    Segment Run Mode Timer #9
    *SRun_Tmr[9] - a_RMPS/Logic - *4(RES), *7(RTO)*

SRun_Tmr[9].PRE	5400000	DINT

    Segment Run Mode Timer #9
    *SRun_Tmr[9].PRE - a_RMPS/Logic - *5(CPT), 7(CPT), 7(GRT)*

SRun_Tmr[9].ACC	0	DINT

    Segment Run Mode Timer #9
    SRun_Tmr[9].ACC - a_RMPS/Logic - 7(CPT), 7(DIV)

SRun_Tmr[9].EN	0	BOOL

    Segment Run Mode Timer #9

SRun_Tmr[9].TT	0	BOOL

    Segment Run Mode Timer #9

SRun_Tmr[9].DN	0	BOOL

    Segment Run Mode Timer #9
    SRun_Tmr[9].DN - a_RMPS/Logic - 6(XIC)

SRun_Tmr[10]		TIMER

    Segment Run Mode Timer #10
    *SRun_Tmr[10] - a_RMPS/Logic - *4(RES), *6(RTO)*

SRun_Tmr[10].PRE	6000000	DINT

    Segment Run Mode Timer #10
    *SRun_Tmr[10].PRE - a_RMPS/Logic - *5(CPT), 6(CPT), 6(GRT)*

SRun_Tmr[10].ACC	0	DINT

    Segment Run Mode Timer #10
    SRun_Tmr[10].ACC - a_RMPS/Logic - 6(CPT), 6(DIV)

SRun_Tmr[10].EN	0	BOOL

    Segment Run Mode Timer #10

SRun_Tmr[10].TT	0	BOOL

    Segment Run Mode Timer #10

SRun_Tmr[10].DN	0	BOOL

    Segment Run Mode Timer #10

a_RMPS Instruction Definition - Local Tag Listing   **Page 83**
Compact_AOI_Test:Add-On Instructions:a_RMPS   1/4/2020 9:28:33 PM
Data Context: a_RMPS <definition>   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD

ST_Check_1   CONTROL   a_RMPS
    Segment Time Input Low Limit Check
    Usage: Local Tag
    External Access: None
    *ST_Check_1 - a_RMPS/Logic - *2(FSC), *2(RES)*
ST_Check_1.LEN   11   DINT
    Segment Time Input Low Limit Check
ST_Check_1.POS   0   DINT
    Segment Time Input Low Limit Check
    ST_Check_1.POS - a_RMPS/Logic - 2(FSC)
ST_Check_1.EN   0   BOOL
    Segment Time Input Low Limit Check
ST_Check_1.EU   0   BOOL
    Segment Time Input Low Limit Check
ST_Check_1.DN   0   BOOL
    Segment Time Input Low Limit Check
ST_Check_1.EM   0   BOOL
    Segment Time Input Low Limit Check
ST_Check_1.ER   0   BOOL
    Segment Time Input Low Limit Check
ST_Check_1.UL   0   BOOL
    Segment Time Input Low Limit Check
ST_Check_1.IN   0   BOOL
    Segment Time Input Low Limit Check
ST_Check_1.FD   0   BOOL
    Segment Time Input Low Limit Check
    ST_Check_1.FD - a_RMPS/Logic - 3(XIC)

ST_Check_2   CONTROL   a_RMPS
    Segment Time Input High Limit Check
    Usage: Local Tag
    External Access: None
    *ST_Check_2 - a_RMPS/Logic - *2(FSC), *2(RES)*
ST_Check_2.LEN   11   DINT
    Segment Time Input High Limit Check
ST_Check_2.POS   0   DINT
    Segment Time Input High Limit Check
    ST_Check_2.POS - a_RMPS/Logic - 2(FSC)
ST_Check_2.EN   0   BOOL
    Segment Time Input High Limit Check
ST_Check_2.EU   0   BOOL
    Segment Time Input High Limit Check
ST_Check_2.DN   0   BOOL
    Segment Time Input High Limit Check
ST_Check_2.EM   0   BOOL
    Segment Time Input High Limit Check
ST_Check_2.ER   0   BOOL
    Segment Time Input High Limit Check
ST_Check_2.UL   0   BOOL
    Segment Time Input High Limit Check
ST_Check_2.IN   0   BOOL
    Segment Time Input High Limit Check
ST_Check_2.FD   0   BOOL
    Segment Time Input High Limit Check
    ST_Check_2.FD - a_RMPS/Logic - 3(XIC)

a_RMPS Instruction Definition - Logic Routine   **Page 84**
Compact_AOI_Test:Add-On Instructions:a_RMPS:Logic   1/4/2020 9:28:33 PM
Total number of rungs in routine: 22   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
Data Context: a_RMPS <definition>

******
Ramp and Soak Add On Instruction Logic
******

0 — [NOP]

******
AOI Run Command and Run Mode Logic
******

1

AOI First Scan Completed First_Scan

AOI Run Cmd Run_Cmd
AOI in Run Mode Run_Mode /
AOI in Run Mode Run_Mode (L)

AOI Run Cmd Run_Cmd /
AOI in Run Mode Run_Mode
AOI Done Bit Done
AOI in Run Mode Run_Mode (U)

Initialize AOI Cmd (Reset Segment to 0) Initialize

******
Check for Valid Input Data (Segment Timer Presets & Number of Segments)
******

2

Segment Time Input Low Limit Check ST_Check_1 (RES)

Segment Time Input Low Limit Check
FSC
File Search/Compare
Control   ST_Check_1
Length   11
Position   0
Mode   ALL
Expression   STime_SP[ST_Check_1.POS]<0.0
(EN) (DN) (ER)

Segment Time Input High Limit Check ST_Check_2 (RES)

Segment Time Input High Limit Check
FSC
File Search/Compare
Control   ST_Check_2
Length   11
Position   0
Mode   ALL
Expression   STime_SP[ST_Check_2.POS]>35791.0
(EN) (DN) (ER)

a_RMPS Instruction Definition - Logic Routine
Compact_AOI_Test:Add-On Instructions:a_RMPS:Logic
Total number of rungs in routine: 22
Data Context: a_RMPS <definition>

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3

Number of Segments
(Maximum = 10)
LES
Less Than (A<B)
Source A   Num_of_Seg
0
Source B   0

Number of Segments
(Maximum = 10)
GRT
Greater Than (A>B)
Source A   Num_of_Seg
0
Source B   10

Segment Time Input
Low Limit Check
ST_Check_1.FD

Segment Time Input
High Limit Check
ST_Check_2.FD

AOI Faulted /
Invalid Data
Fault

******
Initialize the AOI Timers and Reset the Current Segment to 0
******

4

Initialize AOI Cmd
(Reset Segment to 0)
Initialize

AOI Run Cmd
Run_Cmd

One Shot Bits
ONS[31]
ONS

Segment Run Mode
Timer #1
SRun_Tmr[1]
RES

Segment Run Mode
Timer #2
SRun_Tmr[2]
RES

Segment Run Mode
Timer #3
SRun_Tmr[3]
RES

Segment Run Mode
Timer #4
SRun_Tmr[4]
RES

Segment Run Mode
Timer #5
SRun_Tmr[5]
RES

Segment Run Mode
Timer #6
SRun_Tmr[6]
RES

Segment Run Mode
Timer #7
SRun_Tmr[7]
RES

Segment Run Mode
Timer #8
SRun_Tmr[8]
RES

Segment Run Mode
Timer #9
SRun_Tmr[9]
RES

Segment Run Mode
Timer #10
SRun_Tmr[10]
RES

Segment Hold Timer 1
SHold_Tmr[1]
RES

Segment Hold Timer 2
SHold_Tmr[2]
RES

Segment Hold Timer 3
SHold_Tmr[3]
RES

Segment Hold Timer 4
SHold_Tmr[4]
RES

Segment Hold Timer 5
SHold_Tmr[5]
RES

Segment Hold Timer 6
SHold_Tmr[6]
RES

Segment Hold Timer 7
SHold_Tmr[7]
RES

Segment Hold Timer 8
SHold_Tmr[8]
RES

Segment Hold Timer 9
SHold_Tmr[9]
RES

Segment Hold Timer10
SHold_Tmr[10]
RES

Segment 0 Active
Cur_Seg[0]
U

Segment 1 Active
Cur_Seg[1]
U

Segment 2 Active
Cur_Seg[2]
U

Segment 3 Active
Cur_Seg[3]
U

Segment 4 Active
Cur_Seg[4]
U

Segment 5 Active
Cur_Seg[5]
U

Segment 6 Active
Cur_Seg[6]
U

Segment 7 Active
Cur_Seg[7]
U

Segment 8 Active
Cur_Seg[8]
U

Segment 9 Active
Cur_Seg[9]
U

Segment 10 Active
Cur_Seg[10]
U

Setpoint Output
(psig, deg F)
MOV
Move
Source   0.0
Dest   SP_Out
0.0

Current Segment
MOV
Move
Source   0
Dest   Current_Seg
0

Current Segment
Remaining Time (min)
MOV
Move
Source   0.0
Dest   STime_Left
0.0

Current Segment Time
Expired
MOV
Move
Source   0.0
Dest   STime_Expired
0.0

Step 0 Hold Time = 0
min
FLL
Fill File
Source   0.0
Dest   SHold_Time[0]
Length   11

Step 0 Run Time = 0
min
FLL
Fill File
Source   0.0
Dest   SRun_Time[0]
Length   11

```
                                                          ******
                                  Calculate the Segment Timer Presets in msec from Time Array SPs in minutes and Turn Segment 0 On (Cur_Seg[0])
                                                          ******

                    AOI Faulted /                 Segment Run Mode          Segment Run Mode          Segment Run Mode
   AOI in Run Mode   One Shot Bits   Invalid Data      Timer #1                  Timer #2                  Timer #3
     Run_Mode        ONS[29]         Fault              CPT                       CPT                       CPT
5    ] [    ] [      [ ONS ]         ]/[          Compute                   Compute                   Compute
                                                  Dest                      Dest                      Dest
                                                       SRun_Tmr[1].PRE           SRun_Tmr[2].PRE           SRun_Tmr[3].PRE
                                                               600000                   1200000                   1800000
                                                  Expression  STime_SP[1]*60*1000   Expression  STime_SP[2]*60*1000   Expression  STime_SP[3]*60*1000

                                                  Segment Run Mode          Segment Run Mode          Segment Run Mode
                                                      Timer #4                  Timer #5                  Timer #6
                                                       CPT                       CPT                       CPT
                                                  Compute                   Compute                   Compute
                                                  Dest                      Dest                      Dest
                                                       SRun_Tmr[4].PRE           SRun_Tmr[5].PRE           SRun_Tmr[6].PRE
                                                              2400000                   3000000                   3600000
                                                  Expression  STime_SP[4]*60*1000   Expression  STime_SP[5]*60*1000   Expression  STime_SP[6]*60*1000

                                                                            Segment Run Mode          Segment Run Mode
                                                                                Timer #7                  Timer #8
                                                                                 CPT                       CPT
                                                                            Compute                   Compute
                                                                            Dest                      Dest
                                                                                 SRun_Tmr[7].PRE           SRun_Tmr[8].PRE
                                                                                        4200000                   4200000
                                                                            Expression  STime_SP[7]*60*1000   Expression  STime_SP[8]*60*1000

                                                                            Segment Run Mode          Segment Run Mode
                                                                                Timer #9                  Timer #10
                                                                                 CPT                       CPT
                                                                            Compute                   Compute
                                                                            Dest                      Dest
                                                                                 SRun_Tmr[9].PRE           SRun_Tmr[10].PRE
                                                                                        5400000                   6000000
                                                                            Expression  STime_SP[9]*60*1000   Expression  STime_SP[10]*60*1000

                                                                                                      Segment 0 Active
                                                                                                      Cur_Seg[0]
                                                                                                         ( L )
```

******
Segment 10 Timing and Setpoint Calculation
******

6

Segment Run Mode
Timer #9
SRun_Tmr[9].DN

Segment 9 Active
Cur_Seg[9]

AOI Done Bit
Done

Current Segment
MOV
Move
Source   10
Dest   Current_Seg
0

Segment 9 Active
Cur_Seg[9]
(U)

Segment 10 Active
Cur_Seg[10]
(L)

AOI Hold Cmd
Hold

Segment 10 Active
Cur_Seg[10]

Segment Run Mode
Timer #10
RTO
Retentive Timer On
Timer   SRun_Tmr[10]
Preset   6000000
Accum   0
(EN)
(DN)

Step 10 Run Time
(min)
DIV
Divide
Source A   SRun_Tmr[10].ACC
0
Source B   60000.0
Dest   SRun_Time[10]
??

Segment Run Mode
Timer #10
GRT
Greater Than (A>B)
Source A   SRun_Tmr[10].PRE
6000000
Source B   1000

Setpoint Output
(psig, deg F)
CPT
Compute
Dest
SP_Out
0.0
Expression   ((SP_In[10]-SP_In[9])*SRun_Tmr[10].ACC/SRun_Tmr[10].PRE)+SP_In[9]

Current Segment
Remaining Time (min)
CPT
Compute
Dest
STime_Left
0.0
Expression   (SRun_Tmr[10].PRE-SRun_Tmr[10].ACC)/60000.0

Current Segment Time
Expired
CPT
Compute
Dest
STime_Expired
0.0
Expression   SRun_Tmr[10].ACC/60000.0

******
Segment 9 Timing and Setpoint Calculation
******

7

Segment Run Mode
Timer #8 Segment 8 Active AOI Done Bit
SRun_Tmr[8].DN Cur_Seg[8] Done

Current Segment
MOV
Move
Source 9

Dest Current_Seg
0

Segment 8 Active Segment 9 Active
Cur_Seg[8] Cur_Seg[9]
(U) (L)

AOI Hold Cmd Segment 9 Active
Hold Cur_Seg[9]

Segment Run Mode
Timer #9
RTO
Retentive Timer On —(EN)—
Timer SRun_Tmr[9]
Preset 5400000 —(DN)—
Accum 0

Step 9 Run Time
(min)
DIV
Divide
Source A SRun_Tmr[9].ACC
0
Source B 60000.0

Dest SRun_Time[9]
??

Segment Run Mode
Timer #9
GRT
Greater Than (A>B)
Source A SRun_Tmr[9].PRE
5400000
Source B 1000

Setpoint Output
(psig, deg F)
CPT
Compute
Dest SP_Out
0.0
Expression (SP_In[9]-SP_In[8])*SRun_Tmr[9].ACC/SRun_Tmr[9].PRE+SP_In[8]

Current Segment
Remaining Time (min)
CPT
Compute
Dest STime_Left
0.0
Expression (SRun_Tmr[9].PRE-SRun_Tmr[9].ACC)/60000.0

Current Segment Time
Expired
CPT
Compute
Dest STime_Expired
0.0
Expression SRun_Tmr[9].ACC/60000.0

```
                                              ******
                                    Segment 8 Timing and Setpoint Calculation
                                              ******
                          Segment Run Mode
                              Timer #7        Segment 7 Active    AOI Done Bit
                          SRun_Tmr[7].DN       Cur_Seg[7]           Done                          Current Segment
                                                                                                       MOV
 8                              ] [              ] [              ]/[                                   Move
                                                                                                     Source              8

                                                                                                     Dest       Current_Seg
                                                                                                                         0

                                                                                           Segment 7 Active    Segment 8 Active
                                                                                             Cur_Seg[7]          Cur_Seg[8]
                                                                                                (U)                 (L)

                                                                    Segment Run Mode            Step 8 Run Time
                                                                        Timer #8                    (min)
                          AOI Hold Cmd   Segment 8 Active                 RTO                         DIV
                              Hold         Cur_Seg[8]        Retentive Timer On   (EN)             Divide
                               ]/[           ] [            Timer     SRun_Tmr[8]                 Source A   SRun_Tmr[8].ACC
                                                            Preset       4200000   (DN)                               0
                                                            Accum             0                   Source B          60000.0

                                                                                                 Dest        SRun_Time[8]
                                                                                                                    ??

                                              Segment Run Mode                Setpoint Output
                                                  Timer #8                    (psig, deg F)
                                                   GRT                            CPT
                                           Greater Than (A>B)              Compute
                                           Source A   SRun_Tmr[8].PRE      Dest                              SP_Out
                                                          4200000                                              0.0
                                           Source B           1000        Expression  ((SP_In[8]-SP_In[7])*SRun_Tmr[8].ACC/SRun_Tmr[8].PRE)+SP_In[7]

                                                                             Current Segment
                                                                           Remaining Time (min)
                                                                                  CPT
                                                                          Compute
                                                                          Dest                           STime_Left
                                                                                                             0.0
                                                                          Expression   (SRun_Tmr[8].PRE-SRun_Tmr[8].ACC)/60000.0

                                                                           Current Segment Time
                                                                                 Expired
                                                                                  CPT
                                                                          Compute
                                                                          Dest                         STime_Expired
                                                                                                             0.0
                                                                          Expression   SRun_Tmr[8].ACC/60000.0
```

******
Segment 7 Timing and Setpoint Calculation
******

9

Segment Run Mode
Timer #6
SRun_Tmr[6].DN

Segment 6 Active
Cur_Seg[6]

AOI Done Bit
Done

Current Segment
MOV
Move
Source   7
Dest   Current_Seg
0

Segment 6 Active
Cur_Seg[6]
U

Segment 7 Active
Cur_Seg[7]
L

AOI Hold Cmd
Hold

Segment 7 Active
Cur_Seg[7]

Segment Run Mode
Timer #7
RTO
Retentive Timer On
Timer   SRun_Tmr[7]
Preset   4200000
Accum   0
EN
DN

Step 7 Run Time
(min)
DIV
Divide
Source A   SRun_Tmr[7].ACC
0
Source B   60000.0
Dest   SRun_Time[7]
??

Segment Run Mode
Timer #7
GRT
Greater Than (A>B)
Source A   SRun_Tmr[7].PRE
4200000
Source B   1000

Setpoint Output
(psig, deg F)
CPT
Compute
Dest   SP_Out
0.0
Expression   ((SP_In[7]-SP_In[6])*SRun_Tmr[7].ACC/SRun_Tmr[7].PRE)+SP_In[6]

Current Segment
Remaining Time (min)
CPT
Compute
Dest   STime_Left
0.0
Expression   (SRun_Tmr[7].PRE-SRun_Tmr[7].ACC)/60000.0

Current Segment Time
Expired
CPT
Compute
Dest   STime_Expired
0.0
Expression   SRun_Tmr[7].ACC/60000.0

a_RMPS Instruction Definition - Logic Routine
Compact_AOI_Test:Add-On Instructions:a_RMPS:Logic
Total number of rungs in routine: 22
Data Context: a_RMPS <definition>

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```
                                        ******
                            Segment 6 Timing and Setpoint Calculation
                                        ******
                    Segment Run Mode
                        Timer #5          Segment 5 Active    AOI Done Bit                                    Current Segment
                     SRun_Tmr[5].DN        Cur_Seg[5]           Done                                              MOV
 10 ─────────────────────┤ ├──────────────────┤ ├────────────┤ / ├──────────────────────────────────────    Move
                                                                                                              Source          6
                                                                                                              Dest      Current_Seg
                                                                                                                                0

                                                                                                       Segment 5 Active   Segment 6 Active
                                                                                                         Cur_Seg[5]         Cur_Seg[6]
                                                                                                            (U)               (L)

                                                                                     Segment Run Mode               Step 6 Run Time
                    AOI Hold Cmd    Segment 6 Active                                     Timer #6                        (min)
                       Hold          Cur_Seg[6]                                           RTO                            DIV
                  ─────┤ / ├──────────────┤ ├─────────────────────────────    Retentive Timer On ─(EN)─     Divide
                                                                               Timer    SRun_Tmr[6]          Source A   SRun_Tmr[6].ACC
                                                                               Preset      3600000                                 0
                                                                               Accum            0  ─(DN)─    Source B          60000.0

                                                                                                            Dest        SRun_Time[6]
                                                                                                                                 ??

                                                 Segment Run Mode                      Setpoint Output
                                                    Timer #6                           (psig, deg F)
                                                      GRT                                  CPT
                                            Greater Than (A>B)              Compute
                                            Source A  SRun_Tmr[6].PRE       Dest
                                                           3600000                               SP_Out
                                                                                                    0.0
                                            Source B          1000        Expression   ((SP_In[6]-SP_In[5])*SRun_Tmr[6].ACC/SRun_Tmr[6].PRE)+SP_In[5]

                                                                                     Current Segment
                                                                                   Remaining Time (min)
                                                                                          CPT
                                                                          Compute
                                                                          Dest
                                                                                          STime_Left
                                                                                                0.0
                                                                          Expression   (SRun_Tmr[6].PRE-SRun_Tmr[6].ACC)/60000.0

                                                                                    Current Segment Time
                                                                                         Expired
                                                                                          CPT
                                                                          Compute
                                                                          Dest
                                                                                         STime_Expired
                                                                                                0.0
                                                                          Expression   SRun_Tmr[6].ACC/60000.0
```

```
                                              ******
                                Segment 5 Timing and Setpoint Calculation
                                              ******
                   Segment Run Mode
                      Timer #4          Segment 4 Active    AOI Done Bit                                      Current Segment
                   SRun_Tmr[4].DN        Cur_Seg[4]            Done                                               MOV
11 ───────────────────┤ ├──────────────────┤ ├───────────────┤/├──────────────────────────────────────────    Move
                                                                                                                 Source            5
                                                                                                                 Dest      Current_Seg
                                                                                                                                   0

                                                                                             Segment 4 Active    Segment 5 Active
                                                                                               Cur_Seg[4]          Cur_Seg[5]
                                                                                                  (U)                 (L)

                                                                       Segment Run Mode           Step 5 Run Time
                                                                          Timer #5                    (min)
                    AOI Hold Cmd    Segment 5 Active                         RTO                       DIV
                       Hold          Cur_Seg[5]                    Retentive Timer On             Divide
                 ──────┤/├──────────────┤ ├──────────────────────┤Timer     SRun_Tmr[5]├─(EN)─    Source A   SRun_Tmr[5].ACC
                                                                   Preset      3000000                                      0
                                                                   Accum            0 ├─(DN)─     Source B          60000.0

                                                                                                 Dest          SRun_Time[5]
                                                                                                                          ??

                                             Segment Run Mode                    Setpoint Output
                                                Timer #5                         (psig, deg F)
                                                  GRT                                 CPT
                                            Greater Than (A>B)              Compute
                                            Source A   SRun_Tmr[5].PRE      Dest                           SP_Out
                                                              3000000                                          0.0
                                            Source B           1000        Expression  ((SP_In[5]-SP_In[4])*SRun_Tmr[5].ACC/SRun_Tmr[5].PRE)+SP_In[4]

                                                                              Current Segment
                                                                          Remaining Time (min)
                                                                                   CPT
                                                                           Compute
                                                                           Dest                          STime_Left
                                                                                                               0.0
                                                                           Expression  (SRun_Tmr[5].PRE-SRun_Tmr[5].ACC)/60000.0

                                                                            Current Segment Time
                                                                                  Expired
                                                                                   CPT
                                                                           Compute
                                                                           Dest                        STime_Expired
                                                                                                               0.0
                                                                           Expression  SRun_Tmr[5].ACC/60000.0
```

```
******
Segment 4 Timing and Setpoint Calculation
******

       Segment Run Mode
          Timer #3          Segment 3 Active     AOI Done Bit                              Current Segment
        SRun_Tmr[3].DN      Cur_Seg[3]           Done                                          MOV
12 ─────────┤ ├─────────────────┤ ├──────────────┤/├────────────────────────────────────── Move
                                                                                             Source          4
                                                                                             Dest    Current_Seg
                                                                                                              0

                                                                    Segment 3 Active    Segment 4 Active
                                                                      Cur_Seg[3]           Cur_Seg[4]
                                                                        (U)                  (L)


                                                         Segment Run Mode          Step 4 Run Time
          AOI Hold Cmd    Segment 4 Active                  Timer #4                    (min)
          Hold            Cur_Seg[4]                          RTO                        DIV
          ──┤/├──────────────┤ ├──────────────────── Retentive Timer On  (EN)    Divide
                                                      Timer   SRun_Tmr[4]          Source A  SRun_Tmr[4].ACC
                                                      Preset      2400000  (DN)                           0
                                                      Accum             0          Source B        60000.0

                                                                                  Dest        SRun_Time[4]
                                                                                                        ??

                                         Segment Run Mode                 Setpoint Output
                                            Timer #4                       (psig, deg F)
                                              GRT                               CPT
                                       Greater Than (A>B)                Compute
                                       Source A  SRun_Tmr[4].PRE         Dest
                                                     2400000                              SP_Out
                                       Source B          1000                                0.0

                                                                        Expression  ((SP_In[4]-SP_In[3])*SRun_Tmr[4].ACC/SRun_Tmr[4].PRE)+SP_In[3]


                                                                          Current Segment
                                                                        Remaining Time (min)
                                                                                CPT
                                                                        Compute
                                                                        Dest
                                                                                         STime_Left
                                                                                                0.0

                                                                        Expression  (SRun_Tmr[4].PRE-SRun_Tmr[4].ACC)/60000.0


                                                                         Current Segment Time
                                                                              Expired
                                                                                CPT
                                                                        Compute
                                                                        Dest
                                                                                       STime_Expired
                                                                                                0.0

                                                                        Expression  SRun_Tmr[4].ACC/60000.0
```

```
                                    ******
                          Segment 3 Timing and Setpoint Calculation
                                    ******
            Segment Run Mode
               Timer #2          Segment 2 Active    AOI Done Bit                              Current Segment
            SRun_Tmr[2].DN         Cur_Seg[2]            Done                                       MOV
13   ─────────┤ ├─────────────────────┤ ├──────────────┤/├────────────────────────────────┐      Move
                                                                                           │      Source              3
                                                                                           │
                                                                                           │      Dest        Current_Seg
                                                                                           │                           0
                                                                                           │
                                                                                           │   Segment 2 Active   Segment 3 Active
                                                                                           │     Cur_Seg[2]         Cur_Seg[3]
                                                                                           ├───────(U)───────────────(L)───────

                                                              Segment Run Mode          Step 3 Run Time
            AOI Hold Cmd   Segment 3 Active                      Timer #3                   (min)
                Hold         Cur_Seg[3]                            RTO                       DIV
        ──────┤/├──────────────┤ ├─────────────────┬──────Retentive Timer On──(EN)──── Divide
                                                    │      Timer    SRun_Tmr[3]         Source A  SRun_Tmr[3].ACC
                                                    │      Preset      1800000                              0
                                                    │      Accum             0──(DN)─── Source B        60000.0
                                                    │
                                                    │                                   Dest      SRun_Time[3]
                                                    │                                                      ??
                                                    │
                                                    │      Segment Run Mode          Setpoint Output
                                                    │         Timer #3              (psig, deg F)
                                                    │           GRT                     CPT
                                                    ├─────Greater Than (A>B)────── Compute
                                                    │      Source A  SRun_Tmr[3].PRE Dest
                                                    │                      1800000              SP_Out
                                                    │      Source B          1000                  0.0
                                                    │                               Expression  ((SP_In[3]-SP_In[2])*SRun_Tmr[3].ACC/SRun_Tmr[3].PRE)+SP_In[2]
                                                    │
                                                    │                               Current Segment
                                                    │                             Remaining Time (min)
                                                    │                                     CPT
                                                    ├────────────────────────────── Compute
                                                    │                               Dest       STime_Left
                                                    │                                               0.0
                                                    │                               Expression  (SRun_Tmr[3].PRE-SRun_Tmr[3].ACC)/60000.0
                                                    │
                                                    │                               Current Segment Time
                                                    │                                    Expired
                                                    │                                     CPT
                                                    └────────────────────────────── Compute
                                                                                    Dest     STime_Expired
                                                                                                  0.0
                                                                                    Expression  SRun_Tmr[3].ACC/60000.0
```

a_RMPS Instruction Definition - Logic Routine   **Page 95**
Compact_AOI_Test:Add-On Instructions:a_RMPS:Logic   1/4/2020 9:28:34 PM
Total number of rungs in routine: 22   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
Data Context: a_RMPS <definition>

```
                                              ******
                                    Segment 2 Timing and Setpoint Calculation
                                              ******
                           Segment Run Mode
                               Timer #1       Segment 1 Active    AOI Done Bit                                    Current Segment
                            SRun_Tmr[1].DN      Cur_Seg[1]            Done                                            MOV
 14 ────────────────────────────┤ ├──────────────┤ ├──────────────┤ / ├──┤ ├────────────────────────────────     Move
                                                                                                                    Source          2

                                                                                                                    Dest      Current_Seg
                                                                                                                                    0

                                                                                                            Segment 1 Active    Segment 2 Active
                                                                                                               Cur_Seg[1]          Cur_Seg[2]
                                                                                                                  (U)                 (L)

                                                                              Segment Run Mode              Step 2 Run Time
                                                                                  Timer #2                       (min)
                          AOI Hold Cmd   Segment 2 Active                          RTO                            DIV
                              Hold         Cur_Seg[2]                       Retentive Timer On   (EN)          Divide
                            ──┤ / ├──────────┤ ├──────────────────────     Timer     SRun_Tmr[2]             Source A  SRun_Tmr[2].ACC
                                                                           Preset       1200000   (DN)                         0
                                                                           Accum             0                Source B       60000.0

                                                                                                             Dest        SRun_Time[2]
                                                                                                                                ??

                                       Segment Run Mode                  Setpoint Output
                                           Timer #2                       (psig, deg F)
                                             GRT                               CPT
                                      Greater Than (A>B)                  Compute
                                      Source A  SRun_Tmr[2].PRE           Dest
                                                      1200000                              SP_Out
                                                                                              0.0
                                      Source B           1000           Expression   ((SP_In[2]-SP_In[1])*SRun_Tmr[2].ACC/SRun_Tmr[2].PRE)+SP_In[1]

                                                                        Current Segment
                                                                      Remaining Time (min)
                                                                              CPT
                                                                         Compute
                                                                         Dest
                                                                                          STime_Left
                                                                                              0.0
                                                                         Expression   (SRun_Tmr[2].PRE-SRun_Tmr[2].ACC)/60000.0

                                                                       Current Segment Time
                                                                             Expired
                                                                              CPT
                                                                         Compute
                                                                         Dest
                                                                                          STime_Expired
                                                                                              0.0
                                                                         Expression   SRun_Tmr[2].ACC/60000.0
```

a_RMPS Instruction Definition - Logic Routine   **Page 96**
Compact_AOI_Test:Add-On Instructions:a_RMPS:Logic   1/4/2020 9:28:34 PM
Total number of rungs in routine: 22   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
Data Context: a_RMPS <definition>

******
Segment 1 Timing and Setpoint Calculation
******

15

Segment 0 Active
Cur_Seg[0]

AOI Done Bit
Done

Current Segment
MOV
Move
Source   1
Dest   Current_Seg
   0

Segment 0 Active
Cur_Seg[0]
(U)

Segment 1 Active
Cur_Seg[1]
(L)

AOI Hold Cmd
Hold

Segment 1 Active
Cur_Seg[1]

Segment Run Mode
Timer #1
RTO
Retentive Timer On
Timer   SRun_Tmr[1]   (EN)
Preset   600000
Accum   0   (DN)

Step 1 Run Time
(min)
DIV
Divide
Source A   SRun_Tmr[1].ACC
   0
Source B   60000.0
Dest   SRun_Time[1]
   ??

Segment Run Mode
Timer #1
GRT
Greater Than (A>B)
Source A   SRun_Tmr[1].PRE
   600000
Source B   1000

Setpoint Output
(psig, deg F)
CPT
Compute
Dest   SP_Out
   0.0
Expression   ((SP_In[1]-SP_In[0])*SRun_Tmr[1].ACC/SRun_Tmr[1].PRE)+SP_In[0]

Current Segment
Remaining Time (min)
CPT
Compute
Dest   STime_Left
   0.0
Expression   (SRun_Tmr[1].PRE-SRun_Tmr[1].ACC)/60000.0

Current Segment Time
Expired
CPT
Compute
Dest   STime_Expired
   0.0
Expression   SRun_Tmr[1].ACC/60000.0

16

Total Run Time
(minutes)
—MOV—
Move
Source   SRun_Time[1]
??
Dest   Total_Run
0.0

Total Run Time
(minutes)
—ADD—
Add
Source A   Total_Run
0.0
Source B   SRun_Time[2]
??
Dest   Total_Run
0.0

Total Run Time
(minutes)
—ADD—
Add
Source A   Total_Run
0.0
Source B   SRun_Time[3]
??
Dest   Total_Run
0.0

Total Run Time
(minutes)
—ADD—
Add
Source A   Total_Run
0.0
Source B   SRun_Time[4]
??
Dest   Total_Run
0.0

Total Run Time
(minutes)
—ADD—
Add
Source A   Total_Run
0.0
Source B   SRun_Time[5]
??
Dest   Total_Run
0.0

Total Run Time
(minutes)
—ADD—
Add
Source A   Total_Run
0.0
Source B   SRun_Time[6]
??
Dest   Total_Run
0.0

Total Run Time
(minutes)
—ADD—
Add
Source A   Total_Run
0.0
Source B   SRun_Time[7]
??
Dest   Total_Run
0.0

Total Run Time
(minutes)
—ADD—
Add
Source A   Total_Run
0.0
Source B   SRun_Time[8]
??
Dest   Total_Run
0.0

Total Run Time
(minutes)
—ADD—
Add
Source A   Total_Run
0.0
Source B   SRun_Time[9]
??
Dest   Total_Run
0.0

Total Run Time
(minutes)
—ADD—
Add
Source A   Total_Run
0.0
Source B   SRun_Time[10]
??
Dest   Total_Run
0.0

```
                    ******
           Ramp and Soak AOI Sequence Done
                    ******
```

17

Number of Segments
(Maximum = 10)
—LIM—
Limit Test (CIRC)
Low Limit   0
Test   Num_of_Seg
0
High Limit   11

Last Segment
of Cycle
—MOV—
Move
Source   Num_of_Seg
0
Dest   Last_Seg
0

Number of Segments
(Maximum = 10)
—LIM—
Limit Test (CIRC)
Low Limit   11
Test   Num_of_Seg
0
High Limit   0

Last Segment
of Cycle
—MOV—
Move
Source   1
Dest   Last_Seg
0

Segment Run Mode
Timers
SRun_Tmr[Last_Seg].DN

AOI Done Bit
Done

a_RMPS Instruction Definition - Logic Routine   **Page 98**
Compact_AOI_Test:Add-On Instructions:a_RMPS:Logic   1/4/2020 9:28:34 PM
Total number of rungs in routine: 22   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
Data Context: a_RMPS <definition>

```
                                        ******
                                   Cycle Hold Time Logic
                                        ******
                                                                                                  Step 1 Hold Time
          AOI in Run Mode   AOI Hold Cmd              Segment 1 Active      Segment Hold Timer 1        (min)
18          Run_Mode           Hold                     Cur_Seg[1]                 RTO                    DIV
            ] [                ]/[                        ] [           Retentive Timer On    (EN)    Divide
                                                                       Timer    SHold_Tmr[1]           Source A   SHold_Tmr[1].ACC
                                                                       Preset   2147483600    (DN)                        0
                                                                       Accum             0             Source B        60000.0

                                                                                                        Dest       SHold_Time[1]
                                                                                                                          ??

                                                                                                  Step 2 Hold Time
                                                         Segment 2 Active      Segment Hold Timer 2        (min)
                                                           Cur_Seg[2]                 RTO                    DIV
                                                             ] [           Retentive Timer On    (EN)    Divide
                                                                          Timer    SHold_Tmr[2]           Source A   SHold_Tmr[2].ACC
                                                                          Preset   2147483600    (DN)                        0
                                                                          Accum             0             Source B        60000.0

                                                                                                           Dest       SHold_Time[2]
                                                                                                                             ??

                                                                                                  Step 3 Hold Time
                                                         Segment 3 Active      Segment Hold Timer 3        (min)
                                                           Cur_Seg[3]                 RTO                    DIV
                                                             ] [           Retentive Timer On    (EN)    Divide
                                                                          Timer    SHold_Tmr[3]           Source A   SHold_Tmr[3].ACC
                                                                          Preset   2147483600    (DN)                        0
                                                                          Accum             0             Source B        60000.0

                                                                                                           Dest       SHold_Time[3]
                                                                                                                             ??

                                                                                                  Step 4 Hold Time
                                                         Segment 4 Active      Segment Hold Timer 4        (min)
                                                           Cur_Seg[4]                 RTO                    DIV
                                                             ] [           Retentive Timer On    (EN)    Divide
                                                                          Timer    SHold_Tmr[4]           Source A   SHold_Tmr[4].ACC
                                                                          Preset   2147483600    (DN)                        0
                                                                          Accum             0             Source B        60000.0

                                                                                                           Dest       SHold_Time[4]
                                                                                                                             ??

                                                                                                  Step 5 Hold Time
                                                         Segment 5 Active      Segment Hold Timer 5        (min)
                                                           Cur_Seg[5]                 RTO                    DIV
                                                             ] [           Retentive Timer On    (EN)    Divide
                                                                          Timer    SHold_Tmr[5]           Source A   SHold_Tmr[5].ACC
                                                                          Preset   2147483600    (DN)                        0
                                                                          Accum             0             Source B        60000.0

                                                                                                           Dest       SHold_Time[5]
                                                                                                                             ??

                                                                                                  Step 6 Hold Time
                                                         Segment 6 Active      Segment Hold Timer 6        (min)
                                                           Cur_Seg[6]                 RTO                    DIV
                                                             ] [           Retentive Timer On    (EN)    Divide
                                                                          Timer    SHold_Tmr[6]           Source A   SHold_Tmr[6].ACC
                                                                          Preset   2147483600    (DN)                        0
                                                                          Accum             0             Source B        60000.0

                                                                                                           Dest       SHold_Time[6]
                                                                                                                             ??

                                                                                                  Step 7 Hold Time
                                                         Segment 7 Active      Segment Hold Timer 7        (min)
                                                           Cur_Seg[7]                 RTO                    DIV
                                                             ] [           Retentive Timer On    (EN)    Divide
                                                                          Timer    SHold_Tmr[7]           Source A   SHold_Tmr[7].ACC
```

Timer   SHold_Tmr[7]   —(DN)—   Source A   SHold_Tmr[7].ACC
Preset   2147483600   0
Accum   0   Source B   60000.0

                                                        Dest   SHold_Time[7]
                                                                              ??

Step 8 Hold Time
                                                                              (min)
Segment 8 Active   Segment Hold Timer 8   ——DIV——
Cur_Seg[8]   ——RTO——   Divide
                    Retentive Timer On   —(EN)—   Source A   SHold_Tmr[8].ACC
                    Timer   SHold_Tmr[8]   0
                    Preset   2147483600   —(DN)—   Source B   60000.0
                    Accum   0
                                                        Dest   SHold_Time[8]
                                                                              ??

Step 9 Hold Time
                                                                              (min)
Segment 9 Active   Segment Hold Timer 9   ——DIV——
Cur_Seg[9]   ——RTO——   Divide
                    Retentive Timer On   —(EN)—   Source A   SHold_Tmr[9].ACC
                    Timer   SHold_Tmr[9]   0
                    Preset   2147483600   —(DN)—   Source B   60000.0
                    Accum   0
                                                        Dest   SHold_Time[9]
                                                                              ??

Step 10 Hold Time
                                                                              (min)
Segment 10 Active   Segment Hold Timer10   ——DIV——
Cur_Seg[10]   ——RTO——   Divide
                    Retentive Timer On   —(EN)—   Source A   SHold_Tmr[10].ACC
                    Timer   SHold_Tmr[10]   0
                    Preset   2147483600   —(DN)—   Source B   60000.0
                    Accum   0
                                                        Dest   SHold_Time[10]
                                                                              ??

a_RMPS Instruction Definition - Logic Routine   **Page 100**
Compact_AOI_Test:Add-On Instructions:a_RMPS:Logic   1/4/2020 9:28:35 PM
Total number of rungs in routine: 22   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
Data Context: a_RMPS <definition>

19

Total Hold Time
(minutes)
MOV
Move
Source   SHold_Time[1]
??
Dest   Total_Hold
0.0

Total Hold Time
(minutes)
ADD
Add
Source A   Total_Hold
0.0
Source B   SHold_Time[2]
??
Dest   Total_Hold
0.0

Total Hold Time
(minutes)
ADD
Add
Source A   Total_Hold
0.0
Source B   SHold_Time[3]
??
Dest   Total_Hold
0.0

Total Hold Time
(minutes)
ADD
Add
Source A   Total_Hold
0.0
Source B   SHold_Time[4]
??
Dest   Total_Hold
0.0

Total Hold Time
(minutes)
ADD
Add
Source A   Total_Hold
0.0
Source B   SHold_Time[5]
??
Dest   Total_Hold
0.0

Total Hold Time
(minutes)
ADD
Add
Source A   Total_Hold
0.0
Source B   SHold_Time[6]
??
Dest   Total_Hold
0.0

Total Hold Time
(minutes)
ADD
Add
Source A   Total_Hold
0.0
Source B   SHold_Time[7]
??
Dest   Total_Hold
0.0

Total Hold Time
(minutes)
ADD
Add
Source A   Total_Hold
0.0
Source B   SHold_Time[8]
??
Dest   Total_Hold
0.0

Total Hold Time
(minutes)
ADD
Add
Source A   Total_Hold
0.0
Source B   SHold_Time[9]
??
Dest   Total_Hold
0.0

Total Hold Time
(minutes)
ADD
Add
Source A   Total_Hold
0.0
Source B   SHold_Time[10]
??
Dest   Total_Hold
0.0

20

Total Cycle Time
(minutes)
ADD
Add
Source A   Total_Run
0.0
Source B   Total_Hold
0.0
Dest   Total_Cycle
0.0

Total Cycle Time
Minutes
MOD
Modulo
Source A   Total_Cycle
0.0
Source B   60
Dest   Cycle_Min
0.0

Total Cycle Time
Hours
CPT
Compute
Dest   Cycle_Hour
0
Expression   (Total_Cycle-Cycle_Min)/60

21

AOI First Scan
Completed
First_Scan
( )

(End)

A_Uniform_RNG v1.0

Random Number Generator AOI
Uses Linear Congruential Generator (LCG)
1) Get Seed Number from either previous execution or default
2) Generate next Seed via LCG
4) Step #4 = Scale Seed to output range [Out_lo:out_hi]
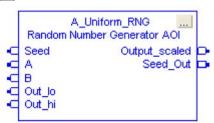
Available Languages

Relay Ladder

Function Block

Structured Text
A_Uniform_RNG(Seed, A, B, Out_lo, Out_hi, Output_scaled, Seed_Out);

Parameters

Required	Name	Data Type	Usage	Description
X	A_Uniform_RNG	A_Uniform_RNG	InOut	Random Number Generator AOI
				Uses Linear Congruential Generator (LCG)
				1) Get Seed Number from either previous execution or default
				2) Generate next Seed via LCG
				4) Step #4 = Scale Seed to output range [Out_lo:out_hi]
	EnableIn	BOOL	Input	
	EnableOut	BOOL	Output	
X	Seed	DINT	Input	LCG input seed; updated after each execution
X	A	DINT	Input	LCG multiplicative parameter A
				in (Seed(n+1) = Seed(n) * A + C) MOD Modulus; default is from glibc implementation
X	B	DINT	Input	LCG additive parameter A
				in Seed(n+1) = (Seed(n) * A + C) MOD Modulus; default PJC/BTC/WA value

X	Out_lo	REAL	Input	Output value when updated seed is 0
X	Out_hi	REAL	Input	Output value for an updated seed of 2**31 (theoretical)
X	Output_scaled	REAL	Output	Actual output value at each execution
X	Seed_Out	DINT	Output	LCG Calculation Seed Output

Extended Description

Execution

Condition   Description
EnableIn is true

Revision v1.0 Notes
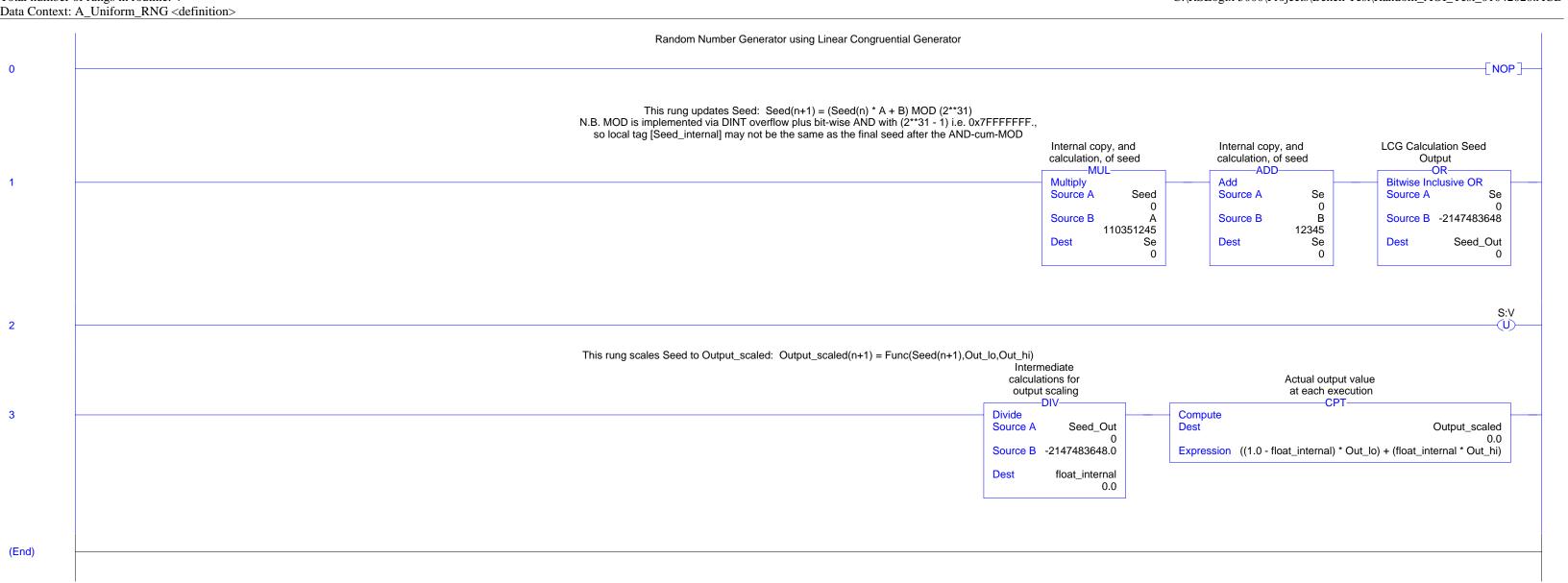
A_Uniform_RNG Instruction Definition - Parameter Listing   **Page 103**
Compact_AOI_Test:Add-On Instructions:A_Uniform_RNG   1/4/2020 9:28:35 PM
Data Type Size: 40 byte (s)   C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD
Data Context: A_Uniform_RNG <definition>

Name	Default	Data Type	Scope
A	110351245	DINT	A_Uniform_RNG
LCG multiplicative parameter A in (Seed(n+1) = Seed(n) * A + C) MOD Modulus; default is from glibc implementation			
Usage:	Input Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read/Write		
A - A_Uniform_RNG/Logic - 1(MUL)			
B	12345	DINT	A_Uniform_RNG
LCG additive parameter A in Seed(n+1) = (Seed(n) * A + C) MOD Modulus; default PJC/BTC/WA value			
Usage:	Input Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read/Write		
B - A_Uniform_RNG/Logic - 1(ADD)			
Output_scaled	0.0	REAL	A_Uniform_RNG
Actual output value at each execution			
Usage:	Output Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read Only		
*Output_scaled - A_Uniform_RNG/Logic - *3(CPT)*			
Out_hi	1.0	REAL	A_Uniform_RNG
Output value for an updated seed of 2**31 (theoretical)			
Usage:	Input Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read/Write		
Out_hi - A_Uniform_RNG/Logic - 3(CPT)			
Out_lo	0.0	REAL	A_Uniform_RNG
Output value when updated seed is 0			
Usage:	Input Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read/Write		
Out_lo - A_Uniform_RNG/Logic - 3(CPT)			
Seed	0	DINT	A_Uniform_RNG
LCG input seed; updated after each execution			
Usage:	Input Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read/Write		
Seed - A_Uniform_RNG/Logic - 1(MUL)			
Seed_Out	0	DINT	A_Uniform_RNG
LCG Calculation Seed Output			
Usage:	Output Parameter		
Required:	Yes		
Visible:	Yes		
External Access:	Read Only		
*Seed_Out - A_Uniform_RNG/Logic - *1(OR), 3(DIV)*			

Name	Default	Data Type	Scope
float_internal	0.0	REAL	A_Uniform_RNG
Intermediate calculations for output scaling			
Usage:	Local Tag		
External Access:	None		
float_internal - A_Uniform_RNG/Logic - *3(DIV), 3(CPT)			
Se	0	DINT	A_Uniform_RNG
Internal copy, and calculation, of seed			
Usage:	Local Tag		
External Access:	None		
Se - A_Uniform_RNG/Logic - *1(ADD), *1(MUL), 1(ADD), 1(OR)			

Random Number Generator using Linear Congruential Generator

0 ── [NOP]

This rung updates Seed: Seed(n+1) = (Seed(n) * A + B) MOD (2**31)
N.B. MOD is implemented via DINT overflow plus bit-wise AND with (2**31 - 1) i.e. 0x7FFFFFFF.,
so local tag [Seed_internal] may not be the same as the final seed after the AND-cum-MOD

Internal copy, and calculation, of seed	Internal copy, and calculation, of seed	LCG Calculation Seed Output

1 ──

```
          ┌─── MUL ─────────┐     ┌─── ADD ─────────┐     ┌─── OR ──────────────┐
          │ Multiply        │     │ Add             │     │ Bitwise Inclusive OR│
          │ Source A   Seed │     │ Source A     Se │     │ Source A         Se │
          │              0  │     │               0 │     │                   0 │
          │ Source B     A  │     │ Source B     B  │     │ Source B -2147483648│
          │      110351245  │     │         12345   │     │                     │
          │ Dest       Se   │     │ Dest       Se   │     │ Dest       Seed_Out │
          │             0   │     │             0   │     │                   0 │
          └─────────────────┘     └─────────────────┘     └─────────────────────┘
```

2 ── S:V
                                                                                        (U)

This rung scales Seed to Output_scaled: Output_scaled(n+1) = Func(Seed(n+1),Out_lo,Out_hi)

Intermediate calculations for output scaling	Actual output value at each execution

3 ──

```
          ┌─── DIV ──────────────────┐     ┌─── CPT ──────────────────────────────────────────┐
          │ Divide                   │     │ Compute                                          │
          │ Source A        Seed_Out │     │ Dest                             Output_scaled   │
          │                       0  │     │                                           0.0    │
          │ Source B  -2147483648.0  │     │ Expression  ((1.0 - float_internal) * Out_lo)    │
          │                          │     │               + (float_internal * Out_hi)        │
          │ Dest         float_internal│   └──────────────────────────────────────────────────┘
          │                    0.0   │
          └──────────────────────────┘
```

(End) ──

Data type Name: A_Gauss_RNG

Description:

Size: 104   byte(s)

Name	Data Type	Style	Description	External Access
EnableIn	BOOL	Decimal	Enable Input - System Defined Parameter	Read Only
EnableOut	BOOL	Decimal	Enable Output - System Defined Parameter	Read Only
GNG_Out	REAL	Float	Gaussian-Distributed Random Number	Read Only

a_RMPS - Add-On-Defined Data Type **Page 107**
Compact_AOI_Test (Controller) 1/4/2020 9:28:39 PM
C:\RSLogix 5000\Projects\Bench Test\Random_AOI_Test_01042020.ACD

Data type Name: a_RMPS

Description:
Ramp and Soak AOI

Size: 352   byte(s)

Name	Data Type	Style	Description	External Access
EnableIn	BOOL	Decimal	Enable Input - System Defined Parameter	Read Only
EnableOut	BOOL	Decimal	Enable Output - System Defined Parameter	Read Only
Run_Cmd	BOOL	Decimal	AOI Run Cmd	Read/Write
PV	REAL	Float	Scaled Analog Input (Real) to the AOI	Read/Write
Num_of_Seg	INT	Decimal	Number of Segments (Maximum = 10)	None
Hold	BOOL	Decimal	AOI Hold Cmd	Read/Write
Initialize	BOOL	Decimal	Initialize AOI Cmd (Reset Segment to 0)	Read/Write
SP_Out	REAL	Float	Setpoint Output (psig, deg F)	Read/Write
Current_Seg	INT	Decimal	Current Segment	None
STime_Left	REAL	Float	Current Segment Remaining Time (min)	Read Only
STime_Expired	REAL	Float	Current Segment Time Expired	Read Only
Total_Cycle	REAL	Float	Total Cycle Time (minutes)	Read Only
Total_Run	REAL	Float	Total Run Time (minutes)	Read Only
Total_Hold	REAL	Float	Total Hold Time (minutes)	Read Only
Cycle_Hour	DINT	Decimal	Total Cycle Time Hours	Read Only
Cycle_Min	REAL	Float	Total Cycle Time Minutes	Read Only
Run_Mode	BOOL	Decimal	AOI in Run Mode	Read Only
Done	BOOL	Decimal	AOI Done Bit	Read Only
Fault	BOOL	Decimal	AOI Faulted / Invalid Data	Read Only

Data type Name: A_Uniform_RNG

Description:
Random Number Generator AOI
Uses Linear Congruential Generator (LCG)
1) Get Seed Number from either previous execution or default
2) Generate next Seed via LCG
4) Step #4 = Scale Seed to output range [Out_lo:out_hi)

Size: 40   byte(s)

Name	Data Type	Style	Description	External Access
EnableIn	BOOL	Decimal	Enable Input - System Defined Parameter	Read Only
EnableOut	BOOL	Decimal	Enable Output - System Defined Parameter	Read Only
Seed	DINT	Decimal	LCG input seed; updated after each execution	Read/Write
A	DINT	Decimal	LCG multiplicative parameter A in (Seed(n+1) = Seed(n) * A + C) MOD Modulus; default is from glibc implementation	Read/Write
B	DINT	Decimal	LCG additive parameter A in Seed(n+1) = (Seed(n) * A + C) MOD Modulus; default PJC/BTC/WA value	Read/Write
Out_lo	REAL	Float	Output value when updated seed is 0	Read/Write
Out_hi	REAL	Float	Output value for an updated seed of 2**31 (theoretical)	Read/Write
Output_scaled	REAL	Float	Actual output value at each execution	Read Only
Seed_Out	DINT	Decimal	LCG Calculation Seed Output	Read Only

Data type Name: STRING

Description:

Size: 88   byte(s)

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

Data type Name: STRING_12

Description:

Size: 16   byte(s)

Name	Data Type	Style	Description	External Access
LEN	DINT	Decimal		Read/Write
DATA	SINT[12]	ASCII		Read/Write

Data type Name: STRING_16

Description:

Size: 20   byte(s)

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

Data type Name: STRING_20

Description:

Size: 24   byte(s)

Name	Data Type	Style	Description	External Access
LEN	DINT	Decimal		Read/Write
DATA	SINT[20]	ASCII		Read/Write

Data type Name: STRING_40

Description:

Size: 44   byte(s)

Name	Data Type	Style	Description	External Access
LEN	DINT	Decimal		Read/Write
DATA	SINT[40]	ASCII		Read/Write

1768 Bus : Local Modules

Local: [1] 1768-ENBT/A Ethernet

Type:	1768-ENBT/A 1768 10/100 Mbps Ethernet	Parent:	Local
Vendor:	Bridge, Twisted-Pair Media	Vendor ID:	1
Slot:	1	IP Address or Host Name:	192.168.1.200
Electronic Keying:	Compatible Keying	Revision:	4.5
Status:	Standby	Module Fault:	Offline
Inhibit Flag	Off		

Local: [0] 1768-L45 Compact_AOI_Test

Type:	1768-L45 CompactLogix5345 Controller	Parent:	Local
Vendor:	Allen-Bradley	Vendor ID:	1
Slot:	0	Electronic Keying:	Exact Match
Revision:	20.19	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off

1769 Bus : Local Modules

Local: [1] 1769-OA16/A DO_120V_S1

Type:	1769-OA16/A 16 Point 100V-240V AC Output	Parent:	Local
Vendor:	Allen-Bradley	Vendor ID:	1
Slot:	1	Electronic Keying:	Compatible Keying
Revision:	3.1	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
Use Unicast:	n/a		

Module Defined Configuration Tag	**Value**	**Data Type**
Local:1:C		AB:1769_DO16:C:0
.Config	2#0000_0000_0000_0000	INT
.ProgToFaultEn	0	BOOL
.ProgMode	2#0000_0000_0000_0000	INT
.ProgValue	2#0000_0000_0000_0000	INT
.FaultMode	2#0000_0000_0000_0000	INT
.FaultValue	2#0000_0000_0000_0000	INT

Local: [2] 1769-IA16/A DI_120VAC_S2

Type:	1769-IA16/A 16 Point 120V AC Input	Parent:	Local
Vendor:	Allen-Bradley	Vendor ID:	1
Slot:	2	Electronic Keying:	Compatible Keying
Revision:	1.1	Status:	Standby
Module Fault:	Offline	Inhibit Flag	Off
Use Unicast:	n/a		