PROGRAM PLC\_PRG

VAR

CODE : Code ; //instance of function Code

IN1 : LREAL ;

IN2 : LREAL ;

END\_VAR

IN1 := 5 ;

IN2 := 5 ;

CODE(In1 := IN1 , In2 := IN2) ;

FUNCTION\_BLOCK Code

VAR\_INPUT

In1: LREAL;

In2: LREAL;

END\_VAR

VAR\_OUTPUT

Out1: LREAL;

END\_VAR

VAR

Inputs\_Average : LREAL ;

Array1 : ARRAY [1..100] OF LREAL ;

Inputs\_Average\_dint : DINT ;

fbTimer : TON ; //instance of TON timer

TOTAL\_Time : TIME;

END\_VAR

(\* Outputs for Atomic SubSystem: '<Root>/Code 2' \*)

(\* Sum: '<S1>/Sum3' \*)

Inputs\_Average := ((In1) + (In2))/2 ;

Inputs\_Average\_dint := LREAL\_TO\_DINT (Inputs\_Average);

Array1[Inputs\_Average\_dint] := In1 \* In2 ;

TOTAL\_Time := LREAL\_TO\_TIME (Inputs\_Average) ;

fbTimer (IN := TRUE, PT := TOTAL\_Time) ; //will return true after timer off

IF fbTimer.Q THEN

Out1 := In1 + In2;

(\* Saturate: '<S1>/Sat Block (Psig)' \*)

END\_IF ;

IF Out1 >= 3.6 THEN

Out1 := 3.6;

ELSIF Out1 <= -8.4 THEN

Out1 := -8.4;

END\_IF;

(\* End of Saturate: '<S1>/Sat Block (Psig)' \*)

(\* Gain: '<S1>/Heat input Valve' \*)

Out1 := 0.1667 \* Out1;

(\* Saturate: '<S1>/Valve Limits' \*)

IF Out1 <= -1.4 THEN

(\* Outport: '<Root>/Out1' \*)

Out1 := -1.4;

END\_IF;

(\* End of Saturate: '<S1>/Valve Limits' \*)

(\* End of Outputs for SubSystem: '<Root>/Code 2' \*)