FUNCTION\_BLOCK INTEGRAL

VAR\_INPUT

RUN : BOOL ; (\* 1 = integrate, 0 = hold \*)

R1 : BOOL ; (\* Overriding reset \*)

XIN : REAL ; (\* Input variable \*)

X0 : REAL ; (\* Initial value \*)

CYCLE : TIME ; (\* Sampling period \*)

END\_VAR

VAR\_OUTPUT

Q : BOOL ; (\* NOT R1 \*)

XOUT : REAL ; (\* Integrated output \*)

END\_VAR

Q := NOT R1 ;

IF R1 THEN XOUT := X0 ;

ELSIF RUN THEN XOUT := XOUT + XIN \* TIME\_TO\_REAL(CYCLE);

END\_IF ;

END\_FUNCTION\_BLOCK