CONTROL TECHNOLOGY INC.

5734 Middlebrook Pike, Knoxville, TN 37921
www.controltechnology.com

Phone 865.584.0440
FAX 865.584.5720

March 8, 2023

TECHNICAL ADVISORY – Function Blocks and Online Change in Janus Processors and Coprocessors

Janus processors employ an online change facility which allows many types of application changes to be made while the program is running. For more information on online change, you can refer to the document Using Online Change in Janus Processors on our website.

It has been reported from the field and confirmed at CTI that the online change facility does not properly preserve the internal values kept by function blocks after an online change. This can cause unexpected results because the internal states of the function block are reset. For example, a TON timer that is actively performing a timing function would get reset.

Until this problem is resolved, you should ensure that resetting of function blocks like this will not cause a process problem before doing an online change, and that you can maintain a safe state in your process through the online change. If you're unsure, CTI recommends that you not use an online change, and instead use the "Stop Application and Download New Version" option when reconnecting to the PLC after a program change.

This problem affects all Janus processors with Firmware 1.24 and below. A list of affected function blocks is included on the following page. With the exception of four function blocks marked by "*", this problem is resolved on the 2500P-JACP Janus Application Coprocessor.

We're presently working on a solution and will update this Technical Advisory when a fix is available.

Robert Peck
Senior Vice-President
Control Technology Inc.

Function Blocks Affected by this Technical Advisory

(Function Blocks marked by * are also affected on 2500P-JACP)

ALARM_A	MBSLAVERTUEXD	UNPACK16
ALARM_M	MBSLAVEUDP	UNPACK32
AVERAGE	MBSLAVEUPDEX	UNPACK8
AVERAGE_L	MQTTCONNECT	
BLINK	MQTTPUBSTRING	
BLINKA	MQTTPUBTXB	
CMP	MQTTREADSTRING	
CTD	MQTTREADTXB	
CDTR	MQTTSTATUS*	
CTU	MQTTSUBSCRIBE	
CTUD	MQTTUNSUBSCRIBE	
CTUDR	PID	
CTUR	PLS	
CURVELIN	PWM	
DERIVATE	R_TRIG	
DTAT	RAMP	
DTCURDATETIME	RS	
FTEVERY	SEMA	
EIPADAPTER	SERIO	
EIPREADATTR	SERIO_B	
EIPWRITEATTR	SIG_GEN	
FTRIG	SIGPLAY	
FIFO*	SR	
FILTERORDER1	STACKINT	
FLIPFLOP	SURFLIN	
HYSTER	TMD	
HYSTERACC	TMU	
INTEGRAL	TMUSEC	
LIFO*	TOF	
LIM_ALRM	TOFR	
LOGFILESCSV	TON	
MBSLAVELASTREQ	TP	
MBSLAVERTU	TPR	
MBSLAVERTUEX	TXBMANAGER*	