i4 Automation Ltd
Innovative Solutions for Industry

Application Note – Spurious alarm occurrence on power cycle

GENERAL RELEASE

Noted on Vision 570 Series and presumably applies to all Vision Series.

Symptoms

When the power to the V570 system is cycled alarms that were previously inactive suddenly register as still being inactive but require acknowledgement. The situation is rectified by acknowledging the alarms. Note that cycling the power to the CPU while leaving the IO modules powered up does not cause the issue and this may not happen to all of the alarms connected to real inputs.

Cause

This situation only occurs for alarms that are referenced directly to a real input (Ixx) **AND** the alarm occurring when the input is false (logic zero). It is caused by the IO module switching off before the CPU shuts down, the CPU therefore reads the IO module input as zero and registers the alarm, it then shuts down, when power is reapplied the CPU reports the previous alarm but notes that, as the input is now true, the alarm is no longer active.

Solution

A simple solution to this issue is to delay the offending alarm occurrence by the time it takes for the CPU to shut down, this appears to be less than 200ms. Go to alarm configuration and select the appropriate alarm, in Delay Resolution select 100ms and in Delay select 0.2 seconds. Repeat for similar alarms.

An alternative solution is to use the SB2 power up bit to trigger the 'Clear all pending alarms and rescan alarms' bit which is user defined in the alarm configuration. This forces a re-evaluation of all outstanding alarms.

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