

## Advantech AE Technical Share Document

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Category	■FAQ □SOP	Related OS	N/A
Abstract	ADAM-6XXX_The counter value shown in the Utility return to the last saved value.		
Keyword	counter, system restart		
Related Product	ADAM-6000 series, ADAM-6200 series		

### ■ Problem Description:

Customer encountered a problem that the counter value decreased unreasonably even they enabled the “keep last value when power off” function.

### ■ Answer:

Customers’ DI modules set in counter mode and the value decreased after a system restart. As we can see in *Figure 1.*, all of the counter value on these two modules decrease.

	Module1		Module2	
DI	Before	After	Before	After
0	70,720	46,220	7,649	5,791
1	21,520	14,686	14,551	12,146
2	29,371	20,664	46,750	39,178
3	5,694	5,325	1,810	1,465
4	1,321	1,131	16,057	13,005
5	3,424	3,306	45,429	44,827
6	28,474	24,381	1,828	1,810
7	17,107	15,199	18,808	18,591
8	14,327	12,641	48,330	40,265
9	41,796	37,970	1,722	1,427
10	19,007	17,039	17,085	14,297

*Figure 1.* DI counter value table (channel0~channel10)

The reason of this phenomenon is about our data storage mechanism. “Keep last value when power off” (*Figure 2.*), this function will store the counter value into a data space when

power off. If users press system restart button(Figure 3.), the value store in the appointed Modbus address go back to the value stored at the last power cycle, not the value at that moment you press the button. Simply speaking, keep-last-value only is active when there is an unexpected power outage. That's why the function says "keep last value when power off". However, the system restart function in Utility is active by user manually, not the case of unexpected power outage. That's why customer saw the counter value decrease after press system restart button.

ADAM-6250 DI[0] setting:

DI mode:	Counter	Apply to all	Apply mode
Setting:	<input type="checkbox"/> Invert signal	Apply to all	Apply this
<input checked="" type="checkbox"/> Keep last value when power off			
<input type="checkbox"/> Enable digital filter			
Minimum low signal width ( 1 ~ 65535 )		1	0.1 ms
Minimum high signal width ( 1 ~ 65535 )		1	0.1 ms
Counter value:	0 times	Stop	Clear

Figure 2. "Keep last value when power off" function

Information	Network	Stream/Trap	Administration	Firmware	P2P/Event	Access Control	Modbus Address	Cloud
Password Setting								
Old password:				Apply change				
New password:				Reset password				
Verify password:								
Reset to Factory Defaults								
Apply								
System Restart								
Apply								

Figure 3. System restart button in the Utility