

# Advantech AE Technical Share Document

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Category	■ FAQ □ SOP	Related OS	Microsoft Windows7
Abstract	WebAccess monitors ADAM-6060 AuxFlag (internal tag)		
Keyword	ADAM-6060, AuxFlag		
Related Product	N/A		

## ■ Problem Description:

ADAM-6060 is 6-channel DI and 6-channel Relay module. However, it also has 16 AuxFlags. This example will show user how to use WebAccess to monitor AuxFlag

## ■ Brief Solution - Step by Step:

1. Based on ADAM-6000 User Manual, ADAM-6000 module has 16 Internal Flag (AuxFlag).

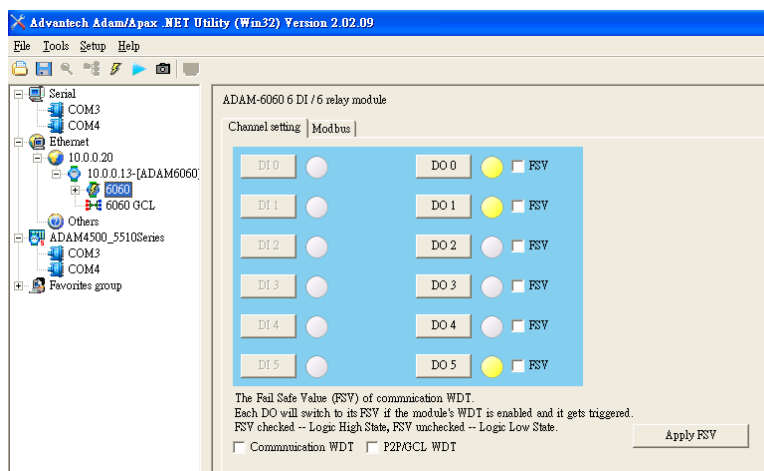
### Internal Flag (AuxFlag)

There are 16 internal flags on one ADAM-6000 module. The data type of internal flag is digital, meaning its value is either logic **True** or logic **False**. You can read the internal flag value and use it as input condition. After you choose **AuxFlag** as input mode, select appropriate internal flag by the **Index** combo box. (From flag 0 to flag 15) Then you can define the condition by the **Condition** combo box.

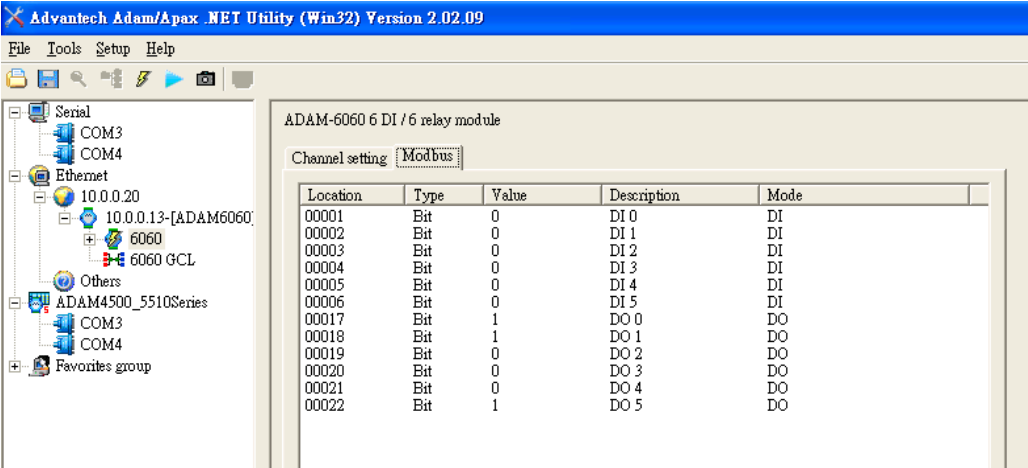
Also, user may get AuxFlag value in Modbus Address 40305.

Start (1)	Stop (0)	Write	Read	DI Value	DO Value	R/W
00042	Clear Counter(1)	Write	40301	All	DI Value	Read
00043	Clear Overflow <sup>3</sup>	Read	40303	All	DO Value	R/W
00044	DI Latch Status <sup>4</sup>	R/W	40305	0~15	GCL Internal Flag Value <sup>8</sup>	R/W
00045	Counter Start(1)/Stop(0)	R/W				

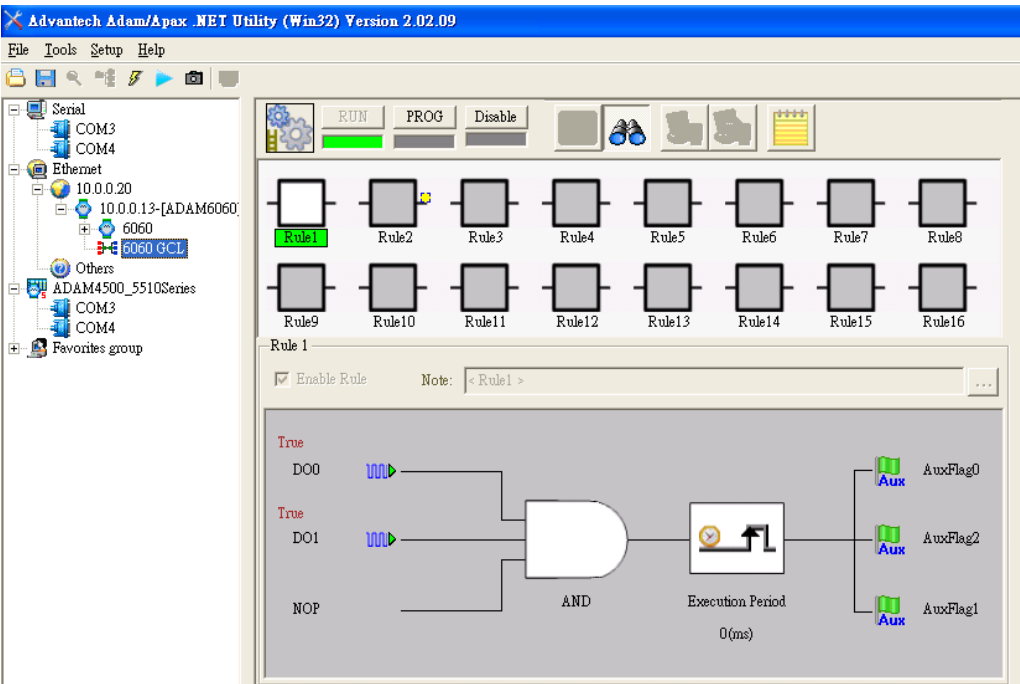
2. First, use ADAM/APAX .Net Utility to detect the ADAM-6060



3. User may also monitor DI and DO values.



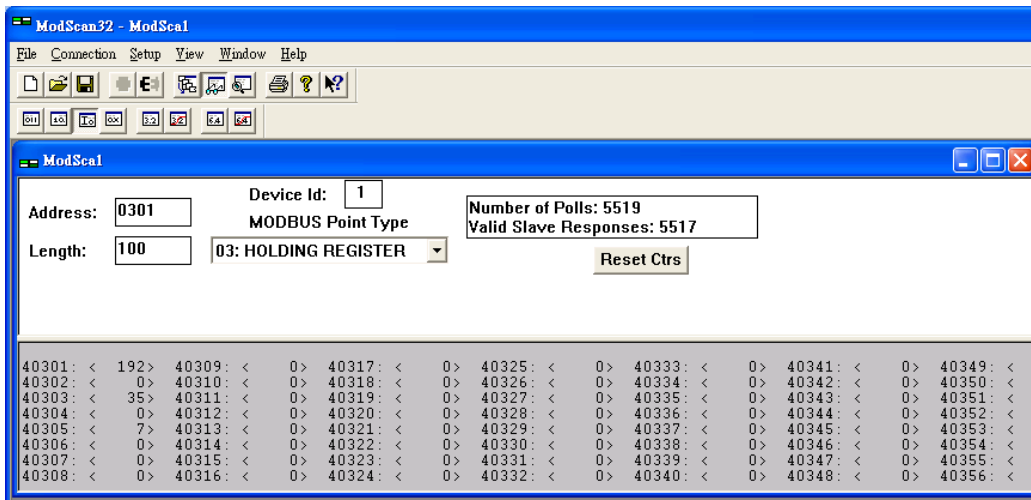
4. In 6060 GCL, we may program a simple Logic to control and monitor AuxFlag 0 to AuxFlag 2.



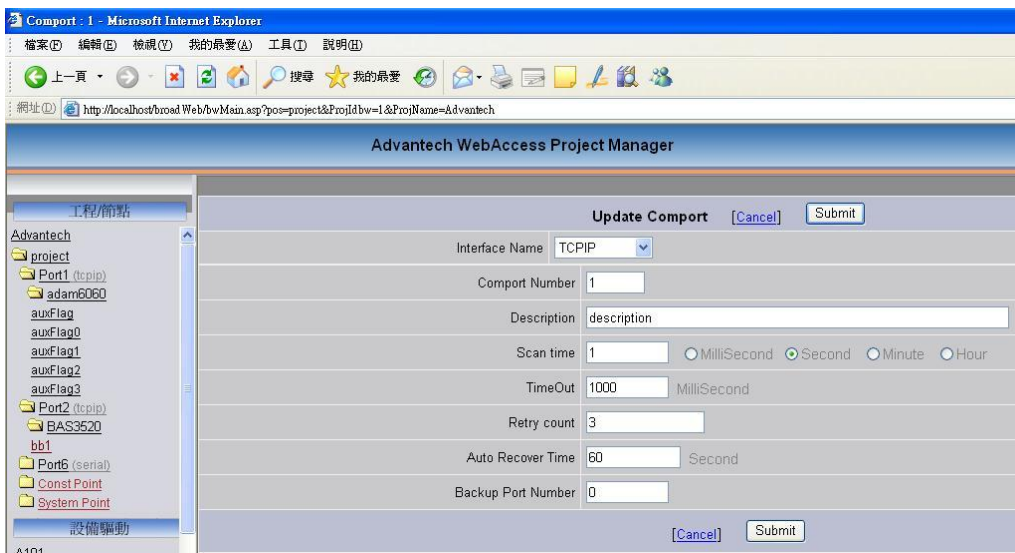
5. Based on previous image, we can tell AugFlag0 to AuxFlag 2 are triggered.  
To read Modbus Address 40305 value, user may use ModScan to read.

6.	AuxFlag channe l	7.	0	8.	1	9.	2	10.	3	11.	4	12.	5	13.	6	14.	...	15.	15
16.	Value	17.	1	18.	2	19.	4	20.	8	21.	16	22.	32	23.	64	24.	...	25.	

On previous example, AugFlag 0 to AuxFlag 2 are triggered. It means value of 7 (1+2+4=7) will be written in Modbus address 40305



26. To read Modbus Address 40305 in WebAccess  
In Communication Port, create a “TCP/IP” port



27. In Device, setup “Modicon”  
IP Address: 10.0.0.13 (based on user’s ADAM-6060 module)  
Port Number: 502  
Device Address: 1

The screenshot shows the Advantech WebAccess Project Manager interface. On the left, a tree view shows the project structure: Advantech > project > Port1 (tcpip) > adam6060. The main area displays the 'Device Property' configuration for 'adam6060'. The configuration includes fields for Device Name, Description, Unit Number, Device Type (Modicon), Primary/Secondary settings with IP Address, Port Number, and Device Address, Use UDP, Digital block size, Packet Delay (ms), and Analog block size. Buttons for 'Cancel' and 'Submit' are present.

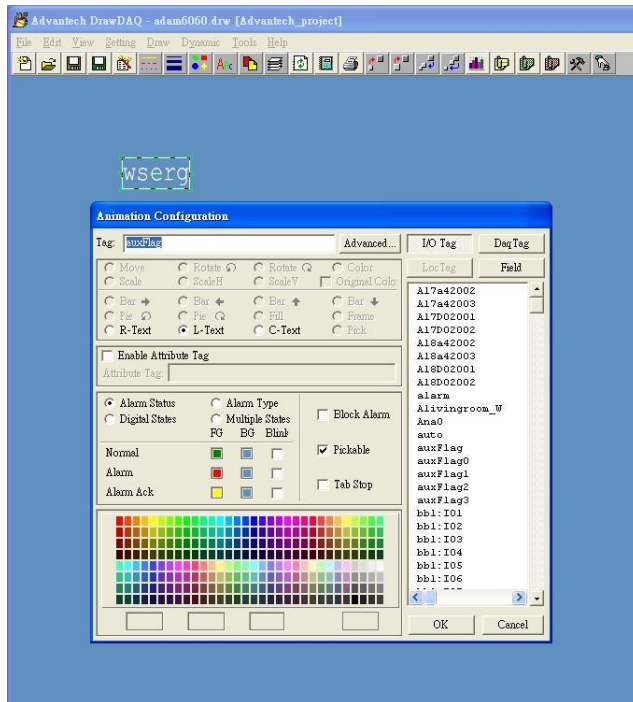
Device Name		adam6060	
Description			
Unit Number		0	
Device Type		Modicon	
Primary	IP Address	10.0.0.13	
	Port Number	502	
	Device Address	1 if other than Unit Number	
Secondary	IP Address		
	Port Number		
	Device Address		
Use UDP	0	Packet Delay (ms)	0
Digital block size	512	Analog block size	64

## 28. Create a Analog Tag and Address is 40305

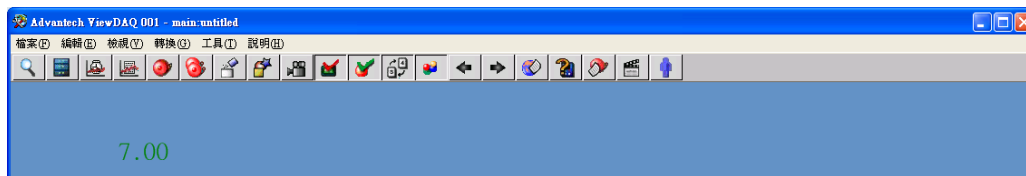
The screenshot shows the Advantech WebAccess Project Manager interface. On the left, a tree view shows the project structure: Advantech > project > Port1 (tcpip) > adam6060 > auxFlag. The main area displays the 'Update Tag' configuration for 'auxFlag'. The configuration includes fields for Tag Type (Point), Alarm (No Alarm), Tag Name (auxFlag), Description (Analog Input), Scan Type (Constant Scan), Address (40305), Conversion Code (Unsigned Integer), Start bit (0), Length (16), Signal Reverse (No), Scaling Type (No Scale), Scaling factor 1 (0), Scaling factor 2 (0), Log Data (No), Data Log Dead Band (3 %), Write Action Log (No), Read Only (No), Keep Previous Value (No), Initial Value (0), Security area (0), Security level (0), Span high (1000), Span low (0), Value Clamp (Clamp to Span High, Clamp to Span Low, Clamp to Zero), Output High Limit (1000), Output Low Limit (0), Eng Unit, Display digits(integer) (4), Display digits(fraction) (2), and Log To ODBC Frequency (0). Buttons for 'Cancel' and 'Submit' are present.

Tag Type Point (analog)	
Alarm No Alarm	
Tag Name auxFlag	
Description Analog Input	
Scan Type Constant Scan	
Address 40305	
Conversion Code Unsigned Integer	
Start bit 0	
Length 16	
Signal Reverse No	
Scaling Type No Scale	
Scaling factor 1 0	
Scaling factor 2 0	
Log Data No	
Data Log Dead Band 3 %	
Write Action Log No	
Read Only No	
Keep Previous Value No	
Initial Value 0	
Security area 0	
Security level 0	
Span high 1000	
Span low 0	
Value Clamp <input type="checkbox"/> Clamp to Span High <input type="checkbox"/> Clamp to Span Low <input type="checkbox"/> Clamp to Zero	
Output High Limit 1000	
Output Low Limit 0	
Eng Unit	
Display digits(integer) 4	
Display digits(fraction) 2	
Log To ODBC Frequency 0	

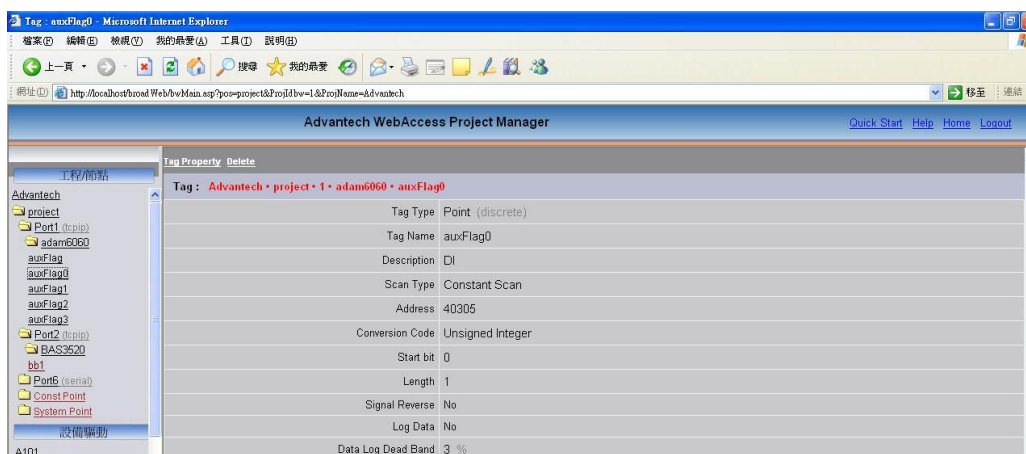
## 29. Draw a TEXT field to display Modbus 40305 Address.



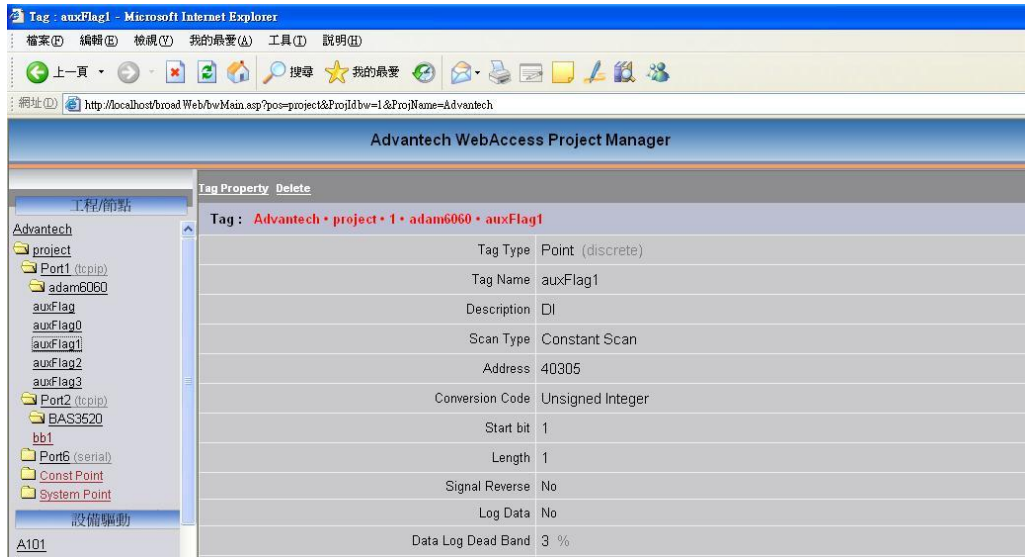
30. Result: it displays 7 in the ViewDAQ.



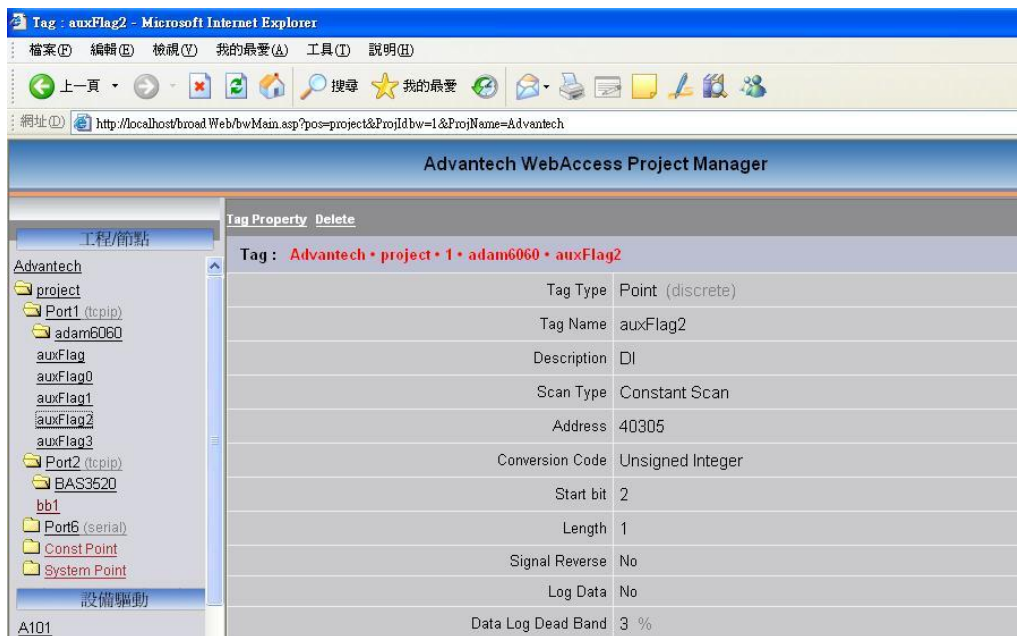
31. To display AuxFlag0, AuxFlag1 and AuxFlag2 separately.  
AuxFlag0 Modbus address is 40305, and Start Bit is 0



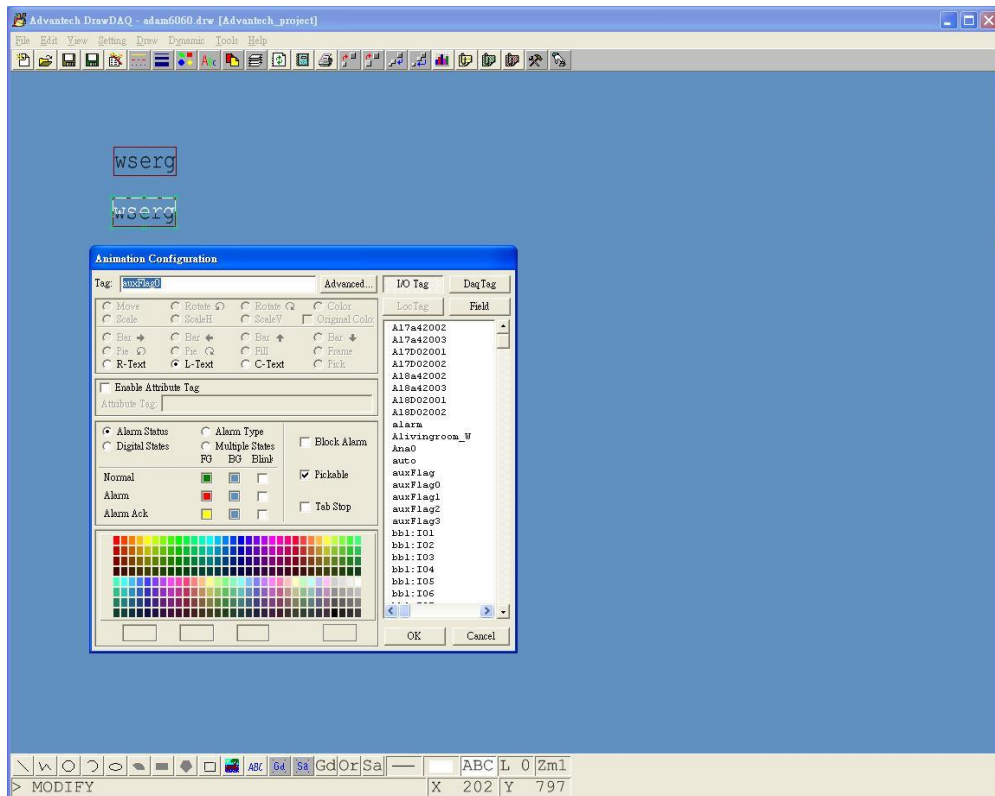
AuxFlag1 Modbus address is 40305, and Start Bit is 1



AuxFlag2 Modbus address is 40305, and Start Bit 2



32. In DrawDAQ Setup, create AuxFlag0, AuxFlag1 and AuxFlag2 for display their values.



### 33. In ViewDAQ

