

## Advantech AE Technical Share Document

Date	2015 / 08 / 15	SR#	1-2187750911
Category	■ FAQ □ SOP	Related OS	WinCE
Abstract	How to get the Modbus slave information in Advantech KW		
Keyword	Modbus slave, connection status		
Related Product	KW Multiprog		

### [Problem]

How to get the Modbus slave information in Advantech KW?



### [Solution]

Advantech provides the Modbus TCP & RTU slave information

1. The Modbus slave status(word) is defined as

Bit7					Bit 2	Bit 1	Bit 0
					Modbus exception error 0: no exception error 1: there is an exception error happened	Time out error 0: no time out error 1: there is a time out error happened	Connection state 0: disconnected 1: connected
Bit15					Bit 10	Bit 9	Bit 8
Exception error code							
Error code		Error definition					
1		Illegal Function					
2		Illegal Data Address					
3		Illegal Data Value					
4		Slave Device Failure					
5		Slave Device ACK					
6		Slave Device Busy					
7		Slave Device ACK Err					
8		Slave Device Mem Err					

2. The Modbus TCP slave information can be obtained by the mapping address

TCP(slave id = 1~128), 4x55001~4x55200		
Slave id	Modbus address	Slave device status
1	4x55001	
2	4x55002	
...		
128	4x55128	

3. The Modbus RTU slave information can be obtained by the mapping address

COM1		
RTU (slave id = 1~128), 4x55201~4x55400		
Slave id	Modbus address	Connection state
1	4x55201	
2	4x55202	
...		
128	4x55328	

COM2		
RTU (slave id = 1~128) , 4x55401~4x55600		
Slave id	Modbus address	Connection state
1	4x55401	
2	4x55402	
...		
128	4x55528	

COM3		
RTU (slave id = 1~128) , 4x55601~4x55800		
COM4		
RTU (slave id = 1~128) , 4x55801~4x56000		
COM5		
RTU (slave id = 1~128) , 4x56001~4x56200		
COM6		
RTU (slave id = 1~128) , 4x56201~4x56400		
COM7		
RTU (slave id = 1~128) , 4x56401~4x56600		
COM8		
RTU (slave id = 1~128) , 4x56601~4x56800		
COM9		

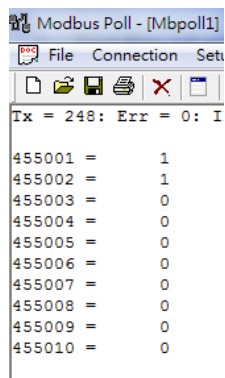
RTU (slave id = 1~128) , 4x56801~4x57000
COM10
RTU (slave id = 1~128) , 4x57001~4x57200
COM11
RTU (slave id = 1~128) , 4x57201~4x57400
COM12
RTU (slave id = 1~128) , 4x57401~4x57600
COM13
RTU (slave id = 1~128) , 4x57601~4x57800
COM14
RTU (slave id = 1~128) , 4x57801~4x58000
COM15
RTU (slave id = 1~128) , 4x58001~4x58200
COM16
RTU (slave id = 1~128) , 4x58201~4x58400
COM17
RTU (slave id = 1~128) , 4x58401~4x58600
COM18
RTU (slave id = 1~128) , 4x58601~4x58800
COM19
RTU (slave id = 1~128) , 4x58801~4x59000
COM20
RTU (slave id = 1~128) , 4x59001~4x59200

#### 4. The Modbus TCP slave information example

##### Modbus TCP client

Slave ID	Slave IP	Command	Modbus address	No of points
1	172.18.3.64	Holding register(R)	1	3
2	172.18.3.64	Holding register(W)	17	4

##### Success Case

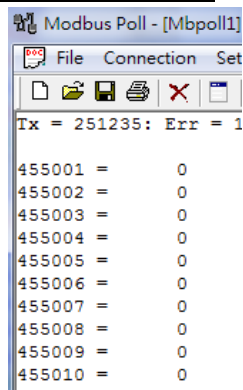


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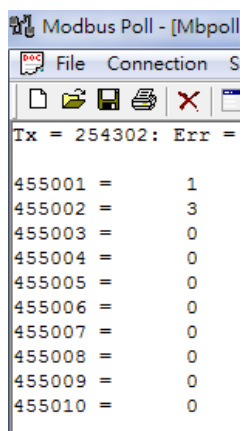
Modbus Poll - [Mbpoll1]
File Connection Set
Tx = 248: Err = 0: I
455001 = 1
455002 = 1
455003 = 0
455004 = 0
455005 = 0
455006 = 0
455007 = 0
455008 = 0
455009 = 0
455010 = 0

```

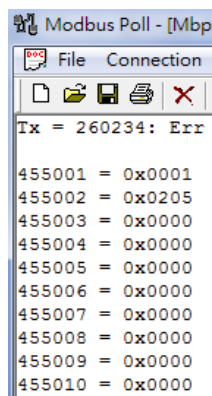
### Slave does not exist



### Slave id=2 does not exist



### Slave id=2 exists but only support 4x0001~4x0017(exception)

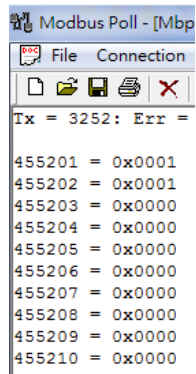


## 5. The Modbus RTU slave information example

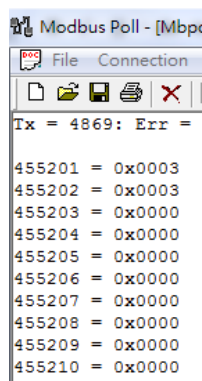
### Modbus RTU client

Slave ID	COM	Command	Modbus address	No of points
1	COM1	Holding register(R)	1	3
2	COM1	Holding register(W)	17	4

## Success Case



## Slave does not exist



## Slave id=2 exists but only support 4x0001~4x0017(exception)

