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Date	2016/07/26	**SR#**	1-2514963194
Category	■FAQ □SOP	**Related OS**	N/A
Abstract	APAX-5070, Data format of streaming function		
Keyword	Streaming, Data stream, Data format, Utility		
Related Product	APAX-5070		

■ Problem Description:

Like ADAM-6000, ADAM-6200 and ADAM-5000/TCP series, APAX-5070 also support the data stream function so that APAX-5070 could automatically send its Modbus data to remote host by defined period.

In this document, we will describe how to test the data stream function via utility and data format of streaming packet.

■ **Answer:**

First you need to make sure you already enable the data stream function with appropriate interval and correct IP address as *Figure 1*.

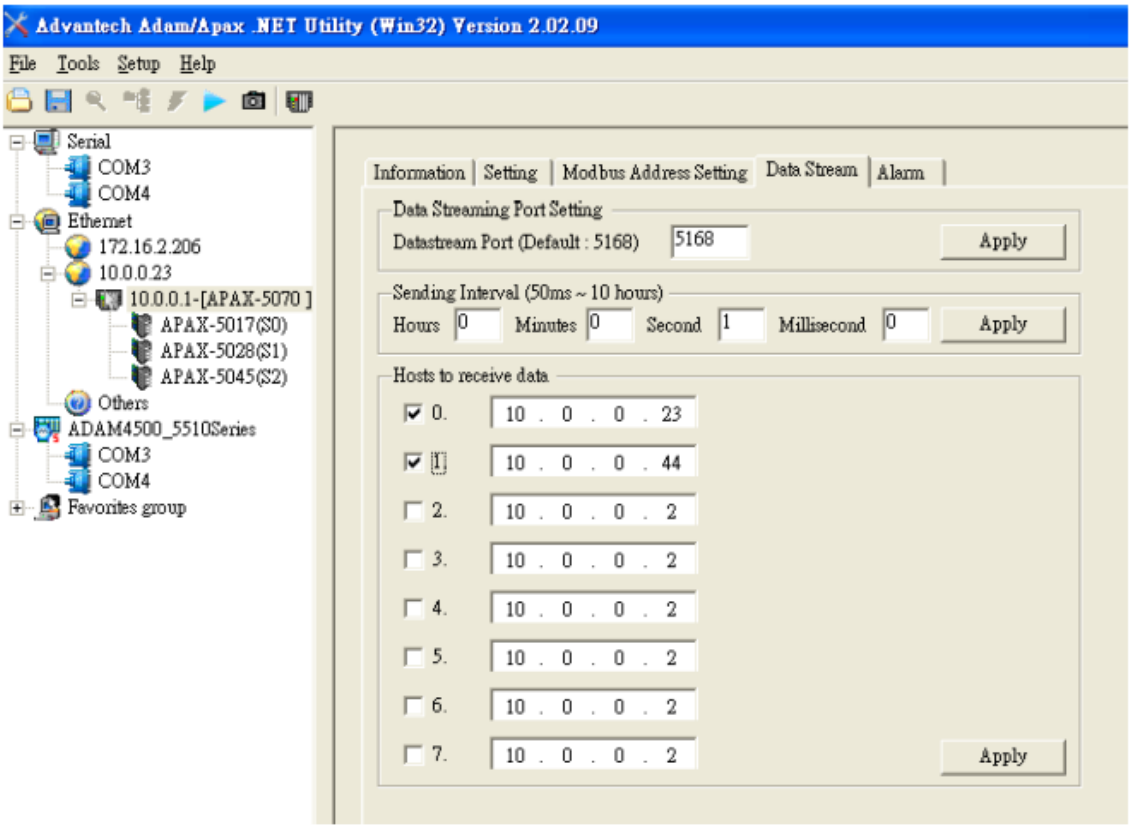

Figure 1

Once finished the related setting, user could use utility to monitor the stream data.

User could find it at Tools → Monitor Stream/Event Data (*Figure 2*)

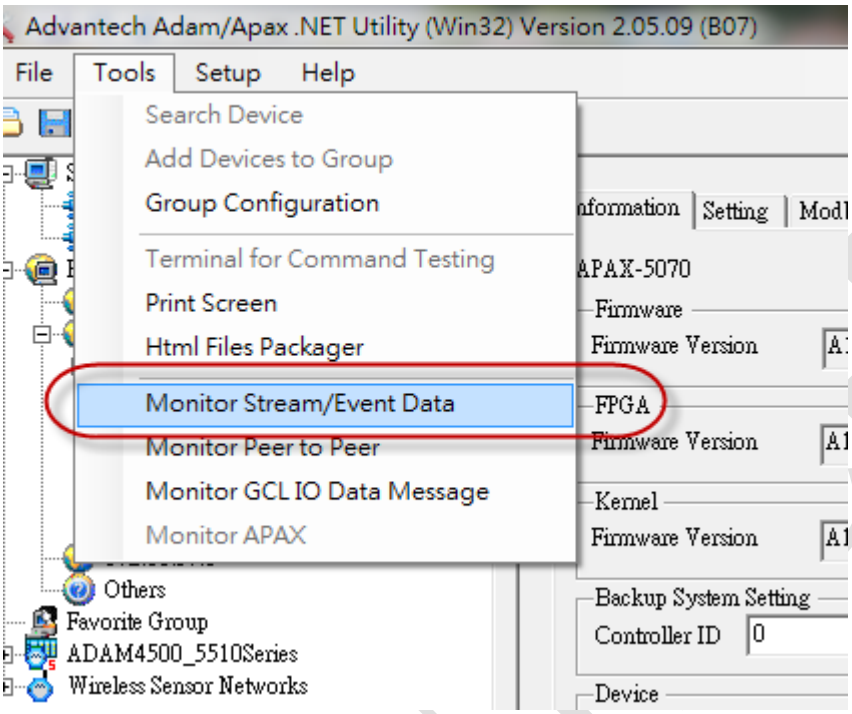

Figure 2

As shown in the *Figure 3*, user could use this test tool to check module name and corresponding data.

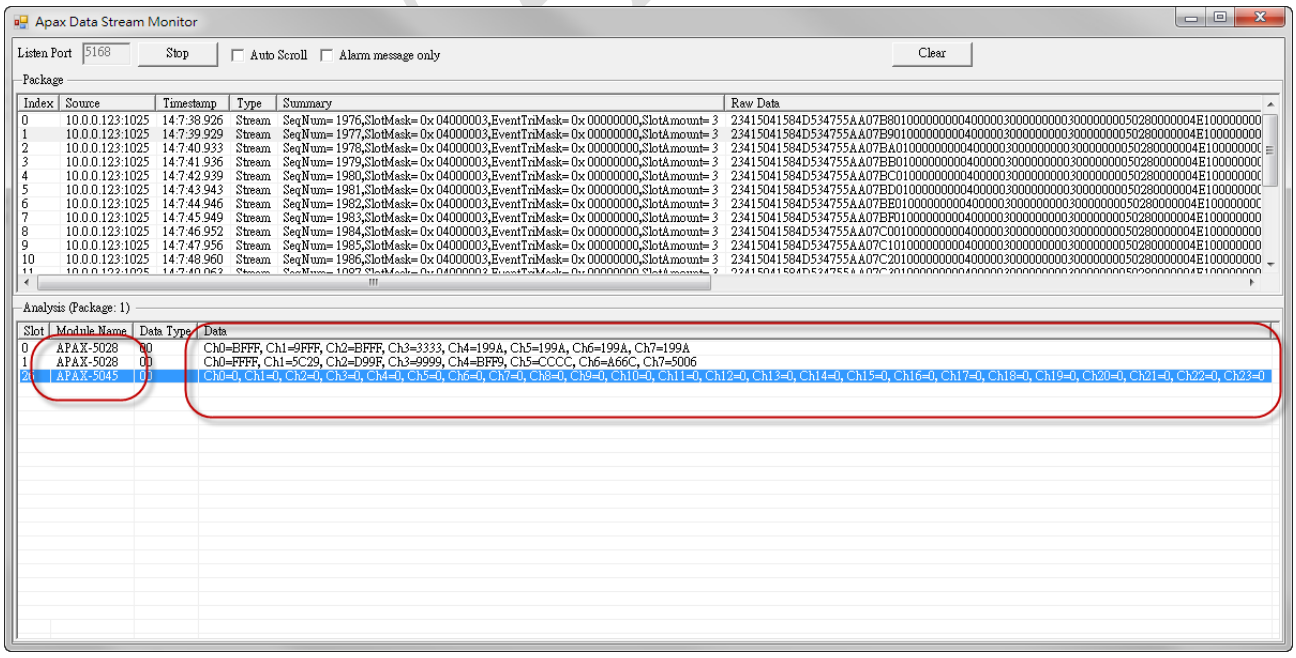

Figure 3

Here's the data format of data stream function of APAX-5070, as shown from *Table 1*, data stream structure is composed of **header**, **module information** and **module data**.

Please refer to *Table 2* and *Table 3* for more information about the content of header and module information and its corresponding data length.

Data stream structure
Header #APAXMSG(55aa)
Header Info
Module Info0
Module Info1
Module Info2
…
Module Data0
Module Data1
Module Data2
…

Table 1

Header Info	*Byte Length*
Sequence Number	2
MessageCode	1
Reserved1	4
SlotDataStreamMask	4
SlotDataEventTriggerMask	4
Slot amount	1
PlatformAlarmFalgs	2
Reserved3	1
Reserved4	1

Table 2

Module Info	*Byte Length*
DeviceName	2
StartDataIndex	2
Data Length	1
DataType	1
Reserved(P2Pmask)	8

Table 3

As shown in *Table 4*, we give an example where four modules are installed on APAX-5070, user could refer to this example for more detail information.

Byte Order	Byte Length	ITEMS	EXAMPLES	REMARKS
0	1	Header	0x23 ('#')	
1	1	Header	0x41 ('A')	
2	1	Header	0x50 ('P')	
3	1	Header	0x41 ('A')	
4	1	Header	0x58 ('X')	
5	1	Header	0x4d ('M')	
6	1	Header	0x53 ('S')	
7	1	Header	0x47 ('G')	
8	1	Header	0x55	
9	1	Header	0xaa	
10	2	Sequence Number	0x0001	
12	1	MessageCode	0x01	
13	4	Reserved1		Reserved for future
17	4	SlotDataStreamMask	0x00000113	(S0, S1, S4, S8)
21	4	SlotDataEventTriggerMask	0x00000000	32 Slots
25	1	Slot amount	0x04	Max: 32 Slots
26	2	PlatformAlarmFalgs	0x0000	
28	1	Reserved3		Reserved for future
29	1	Reserved4		Reserved for future
30	4	DeviceName S0	0x50170000	S0: AI
34	2	StartDataIndex S0	94	
36	1	Data Length S0	0x18	12Ch * 2(bytes)
37	1	DataType S0	0x00	
38	8	Reserved S0		
46	4	DeviceName S1	0x50400000	S1: DI
50	2	StartDataIndex S1	118	
52	1	Data Length S1	0x03	24Ch / 8(bits)
53	1	DataType S1	0x00	
54	8	Reserved S1		
62	4	DeviceName S4	0x50600000	S4: DO
66	2	StartDataIndex S4	121	
68	1	Data Length S4	0x02	12Ch / 8(bits)
69	1	DataType S4	0x00	
70	8	Reserved S4		
78	4	DeviceName S8	0x50280000	S0: AO
82	2	StartDataIndex S8	123	
84	1	Data Length S8	0x10	8Ch * 2(bytes)
85	1	DataType S8	0x00	
86	8	Reserved S8		
94	24	Data S0		[AIO]Ch0:0x(51,52) ; Ch1:0x(53,54)
118	3	Data S1		[DIO] Ch7~0:0x(75) ; Ch15~9:0x(76)
121	2	Data S4		
123	16	Data S8		

Table 4