Advantech AE Technical Share Document

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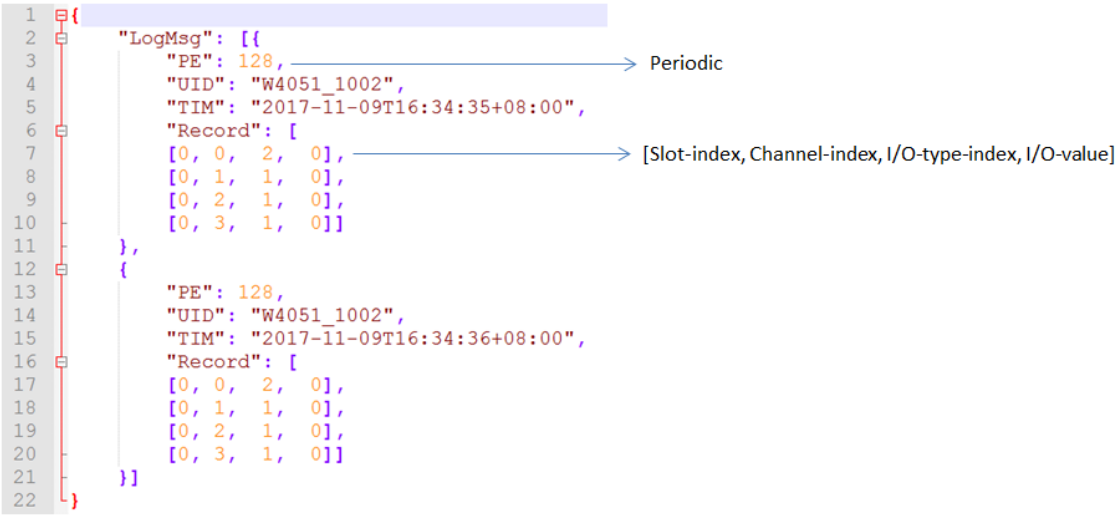
Category	■FAQ □SOP	**Related OS**	N/A
Abstract	What is Definition of IO Log of WISE-4000?		
Keyword	WISE, JSON format, data log, IO log, push notification		
Related Product	WISE-2000, WISE-4000, WISE-4200, WISE-4400, WISE-4600		

■ Problem Description:

This document shows that how to check the JSON format of I/O data. What is the format of the variables?

■ Brief Solution - Step by Step:

JSON file can be opened by notepad or any software with JSON viewer plugin, which is shown as figure 1. The resource value definition is shown in table 1.




```
{
    "LogMsg": [{
        "PE": 128,
        "UID": "W4051_1002",
        "TIM": "2017-11-09T16:34:35+08:00",
        "Record": [
        [0, 0,  2,  0],
        [0, 1,  1,  0],
        [0, 2,  1,  0],
        [0, 3,  1,  0]]
    },
    {
        "PE": 128,
        "UID": "W4051_1002",
        "TIM": "2017-11-09T16:34:36+08:00",
        "Record": [
        [0, 0,  2,  0],
        [0, 1,  1,  0],
        [0, 2,  1,  0],
        [0, 3,  1,  0]]
    }]
}
```

Figure 1. Open JSON file by notepad with JSON viewer plugin.

Table 1. Resource value definitions :

Field	Abbreviation	Data Type	Property	Description
Periodic / Event	PE	Number	R	Recording mode of the storage 1 — Event from — DI 2 — Event from — DO 4 — Event from — AI 8 — Event from — AO 16 — Event from — Others: WDT, RTU Regesiter deviation, RTU Coil Change Of State, Position Change Of State 32 — Event from — Sensor deviation 64 — Event from — Sensor alarm 128 — Periodic
Timestamp (optional)	TIM	String	R	Timestamp of the storage ✓ Coordinated Universal Time (UTC) **Ex. "1415757750"** corresponds to November 12, 2014, 2:02:30 am, Standard Time. (meanwhile, 2014, 10:02:30 am, Taipei Time.) ✓ Local Date/Time according GMT time zone (ISO 8601) **Ex. "1994-11-05T08:15:30-05:00"** corresponds to November 5, 1994, 8:15:30 am, US Eastern Standard Time.
UUID	UID	String	R	Universally Unique Identifier (UUID) Max. 32 characters
MAC ID (optional)	MAC	String	R	MAC address. (12+5) characters, ex, "00-D0-C9-F0-63-F7"
Recording message	Record	Array	R	* The information in array is as follows. **[Slot-index, Channel-index, I/O-type-index, I/O-value]** * The data type in array is as follows. [Number, Number, Number, Number] Notice: When the I/O-type-index is engineering type (12, 13, 14, 18), the I/O value is 1/1000 scale (umit: mV or mA), and support native value

Index	Recording I/O-type of the storage
0	Invalid
1	DI Logic Status
2	DI Counter value
3	DI Frequency value

4	DO Logic Status
5	DO Absolute Pulse Output value
6	DO Incremental Pulse Output Value
7	AI value
8	Historical Maximum AI value
9	Historical Minimum AI value
10	AI value after scaling
11	AI status flags
12	AI engineering value
13	Historical Maximum AI engineering value
14	Historical Minimum AI engineering value
15	AO value
16	AO value after scaling
17	AO status flags
18	AO engineering value
19	AI physical value
20	AI engineering value (floating type)
21	Historical Maximum AI engineering value (floating type)
22	Historical Minimum AI engineering value (floating type)
23	AI physical value (floating type)
24	DI period (counter mode)
25	DI low-to-high trigger tick
25~29	Reserved for I/O
30	Expansion bit data
31	Expansion bit error code
32	Expansion word data
33	Expansion word error code
34~39	Reserved for expansion
40	Sensor engineering value
41	Sensor maximum engineering value
42	Sensor minimum engineering value
43	Sensor status
44	Sensor alarm status
45	Velocity RMS value
46	Acceleration Peak value
47	Acceleration RMS value
48	Kurtosis

49	Creast factor
50	Skewness
51	Standard deviation
52~59	Reserved for sensor
60	Longitude coordinate of the location
61	Latitude coordinate of the location
62	Altitude of the location
63	Ground speed in kilometers per hour
64	Number of Satellites