Sky Recorder User Manual

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1. Introduction

1.1 Overview

Sky Recorder is a tool to record and replay binary or text data.

) Sky Recorder e View Help	– 🗆 X
Start Stop Hex Text AFTN ASTERIX	Ś
Status Input [File] [Name: 20200406_20.reb] [Datagrams: 19] [Bytes: : Output No output selected Status Stopped	
Data 15 00 51 C3 1F FB 5B C1 A3 00 00 01 01 08 0F 43 37 52 E4 DE B9 E8 A7 C1 4D 90 69 02 01 3C 34 BD 90 68 BD 1E 6F 61 86 07 AC 53 F5 15 C0 12 0A D1 01 F4 00 00 52 03 9F 20 48 90 69 02 3B 5E 79 C3 68 20 01 07 B1 B3 81 D8 05 24 05 05 00 05 05 61 24	Info [11:43:45] Sky Recorder initilizing [11:43:45] Platform: windows [11:43:45] Runtime: Qt 5.7.0 [11:43:45] Runtime: libastfile 1.0.0 [11:43:45] Runtime: libasterix 1.3.0 [11:43:45] Version: Sky Recorder 3.0.0 [11:43:45] Location: C:/Dev/aerosys/ skyrecorder/bin/skyrecorder.exe [11:43:45] Working Dir: C:/Dev/aerosys/ skyrecorder/bin 1580

Sky Recorder supports different type of input and output interfaces, including serial, LAN, and files.

Sky Recorder is general purpose data recording and playback tool, it works with both binary and text data.

Sky Recorder has a set of data decoding functions, and can decode live data in different formats.

1.2 Input Interfaces

Sky Recorder supports the next types of input interfaces.

- UDP Multicast
- UDP Unicast

- UDP Broadcast
- TCP Client
- Serial Async (RS232)
- Serial Sync (HDLC)
- Recording Files

Note: Serial interface need relative hardware.

🎄 Settings - Sky Recorder		\times
← Input → Output	General UDP TCP File Serial O UDP Multicast	
	 UDP Unicast or Broadcast TCP Client File Serial (RS232) 	
Load Save	OK Cancel	

1.3 Output Interfaces

Sky Recorder supports the next types of output interfaces.

- UDP Multicast
- UDP Unicast
- UDP Broadcast
- Serial Async (RS232)
- Serial Sync (HDLC)
- Recording Files

Note: Serial interface need relative hardware.

🏟 Settings - Sky Recorder		\times
- Input	General UDP Multicast UDP Unicast/Broadcast File Serial	
Output	<pre>UDP Multicast UDP Unicast or Broadcast File Serial (RS232)</pre>	
Load Save	OK Cance	L

2. Trouble Shooting

2.1 Multicast on Windows

There is a <u>known issue</u> that when receiving UDP multicast on a windows PC with multiple LAN interfaces, sometimes even interface has been specified in config, it still cannot receive multicast input.

This is because IGMP message is not correctly sent to selected interface.

To solve this problem, we need to manually add relative routing.

For example, we want to receive multicast 224.0.1.5 on a interface with IP 192.168.0.100, we need to use command route add 224.0.1.5 mask 255.255.255.255 192.168.0.100 to manually add route. And use command route print to verify.

Then we will be able to receive UDP multicast from desired interface.

Administrator: C:\Windows\System32\cmd.exe			
C:\Windows\system32>route add 224.0.1.0 mask 255.255.255.0 192.168.0.; OK!	100		
C:\Windows\system32>route print			
Interface List 2402 00 4c 4f 4f 50Npcap Loopback Adapter			
1918 60 24 a2 16 10Intel(R) Ethernet Connection (2) I219-L 1718 60 24 a2 16 11Intel(R) I210 Gigabit Network Connection	M		
16b4 96 91 30 f9 b3Intel(R) Ethernet Server Adapter I350-T 15b4 96 91 30 f9 b2Intel(R) Ethernet Server Adapter I350-T 13b4 96 91 30 f9 b1Intel(R) Ethernet Server Adapter I350-T	4 #4		
11b4 96 91 30 f9 b0Intel(R) Ethernet Server Adapter I350-T4			
1			
2100 00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #3 2200 00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #4			
1800 00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #5 2000 00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #6			
2300 00 00 00 00 00 00 e0 Microsoft ISATAP Adapter #7 2500 00 00 00 00 00 00 e0 Microsoft 6to4 Adapter			
IPv4 Route Table			
Active Routes:			
Network Destination Netmask Gateway Interface 0.0.0.0 0.0.0 192.168.50.111 192.168.50.125 127.0.0.0 255.0.0.0 0n-link 127.0.0.1	Metric 266 306		
127.0.0.1 255.255.255 0n-link 127.0.0.1 127.255.255.255 255.255.255.255 0n-link 127.0.0.1	306 306		
169.254.0.0 255.255.0.0 On-link 169.254.236.172 169.254.236.172 255.255.255 On-link 169.254.236.172	286 286		
169.254.255.255 255.255.255.255.255 On-link 169.254.236.172 172.11.80.0 255.255.255.0 On-link 172.11.80.125 172.11.80.125 255.255.255.255 On-link 172.11.80.125	286 266 266		
172.11.80.125 255.255.255 On-link 172.11.80.125 172.11.80.255 255.255.255 On-link 172.11.80.125 192.168.0.0 255.255.255.0 On-link 192.168.0.100	266 266		
192.168.0.100 255.255.255 On-link 192.168.0.100 192.168.0.255 255.255.255.255 On-link 192.168.0.100	266 266		
192.168.1.0 255.255.255.0 On-link 192.168.1.100 192.168.1.100 255.255.255.255 On-link 192.168.1.100	266 266		
192.168.1.255 255.255.255.255 On-link 192.168.1.100 192.168.50.0 255.255.255.0 On-link 192.168.50.125 192.168.50.125 255.255.255.0 On-link 192.168.50.125 192.168.50.125 255.255.255.255 On-link 192.168.50.125	266 266 266		
192.168.50.255 255.255.255 0n-link 192.168.50.125 224.0.0.0 240.0.0 0n-link 127.0.0.1	266 ≡ 306		
224.0.0.0 240.0.0 0n-link 169.254.236.172 224.0.0.0 240.0.0 0n-link 172.11.80.125	286 266		
224.0.0.0 240.0.0.0 On-link 192.168.50.125 224.0.0.0 240.0.0.0 On-link 192.168.0.100 224.0.0.0 240.0.0.0 On-link 192.168.1.100 224.0.0.0 240.0.0.0 On-link 192.168.1.100	266 266 266		
224.0.1.0 255.255.0 0n-link 192.168.0.100 255.255.255.255 255.255.255.255 0n-link 127.0.0.1	11 306		
255.255.255.255.255.255.255.255.255 255.255.	286 266		
255.255.255.255 255.255.255 0n-link 192.168.50.125 255.255.255.255 255.255.255 0n-link 192.168.0.100 255.255.255.255 255.255.255 0n-link 192.168.0.100 255.255.255 255.255.255 0n-link 192.168.1.100	266 266 266		
Persistent Routes:			
Network Address Netmask Gateway Address Metric 0.0.0.0 0.0.0.0 192.168.50.111 Default			