





This application note describes how to measure Jitter and to use statistics on Jitter values.



1. <u>Create a Protocol Filter file from template "lan_auto_rtp_analog.acf"</u>

To protocol stack is initialized as follow:

Physical interface - SL/DL Protoco	l stacks		
Physical interface: C X21 switched C X21 leased	C ISDN S0/T0 C ISDN T1 C ISDN E1 C ISDN U	C V24 € Ethernet/802.3 C ATM C PSTN	OK Cancel
SL protocol stack:	DL protocol s	tack:	
- Not used -	-D1- Ethern -D2- MAC I -D3- Autor -D4- Autor -D5- Autor -D6- Autor Analo -D7- Autor -D8- Autor -D8- Autor	net/802.3 A	<u>H</u> elp

If recording of wav file is not required, change settings in the Analog Measurement tab to remove recording option. Recording of the file could reduce performance in case of traffic generation, and this creates a lot of wav files if several RTP ports are active. The "Mode" must be "One-Time" or "Continuous", PSQM and PESQ not selected.

General	Event dis	play	Event record
Delays	TTCN	Ar	alog Measurement
Received Voice)		
Codeo	: G711 A Law, 8	kHz, 8 bps, 1	ch 💌
Jitter F	Suffer Size : 200		
-Output file-		1113	
Name			
		111 401	
Codec	. Juzzi i Linear, a	KHZ, 16 DPS,	i ch
Quality Measure	ement	Mode : Co	ntinus 🔻
-Reference	j resų file		J Synchio
Marca			
Codec	G711 Linear, 8	kHz, 16 bps,	1 ch 🔽
Dalay Kabura	on Moon · 10		Reset Value



2. <u>Apply this Protocol filter Off-Line or On-Line</u>

2.1 Off-Line: run the Protocol filter with a recorded Event file

😽 Clarinet - Protocol Fi	lter Exec		
<u>File H</u> elp			
<u>N?</u>			
Sources Files:	Filter Files:		
UA2UA_RTP.ACE	Lan_auto_rtp_analog.acf	Result File:	
		UA2UA_Result.ACE	
1		Apply	

The result is written in file UA2UA_Result.ace. The RTP Measurement events, that can be filtered using Display action, are displayed as follow:

GS UA2UA_RESULT.ACE - Lan_auto_rtp_analo	g - Clarinet - Protocol Event Editor	
Eile Edit <u>V</u> iew <u>H</u> elp		
	# m, □/ №	
11:26:51/010.9 2- D6 _D6 MEASUJ Туре: Qua IP UDP	RE	
Frame meas Jitter 11:26:51/010.9 2- D6 D6 MEASU Type: Qua IP S UDP S	ure : : 0.1 ms RE- ality of Service over RTP S:192.168.2.232 D:192.168.2.231 S:08888 D:08888	
Average re: Sa num jitter loss :	sult : b : 82240 (10.28 sec.) : min/var/max -1.8/0.5/3.8 0.0%	
<		>
Ready		11.



2.2 <u>On-Line: select the Filter name in the Profile Editor "General" tab</u>

This Filter will be applied when recording events On-Line:

85 Lan_mon.acp - Clarinet Profile	Editor	
<u>Eile H</u> elp		
General Clarinet 1 No clarinet No d	clarinet No clarinet No clarinet	No clarinet No clarinet
LAN Monitor PH=10/100BT	Record	
Length=All	Protocol file:	Statistics file:
0.4	Lan_mon.ace	Lan_mon.ase
	Recording mode:	Recording mode:
For each inc	Overwrite 💌	Overwrite 💌
Execution	File max size:	File max size:
Min duration: sec.	Ko	Ko
Execution number:	Filters	
Next profile:	Protocol filter:	Statistics filter:



3. <u>Create a Statisticl Filter file from template "lan_ip.asf"</u>

The protocol stack must be initialized as the Protocol Filter stack:

Physical interface - SL/DL Prote	ocol stacks		
Physical interface: O X21 switche O X21 leased	d C ISDN S0/T0 C ISDN T1 C ISDN E1 C ISDN U	C V24 C Ethernet/802.3 C ATM C PSTN	OK Cancel
SL protocol stack:	DL protocol s	tack:	
- Not used -	eplace Insert Delete Del	net/802.3 Contraction Contract	Help

Then counters must be defined to count Jitter events in different value ranges:



Quality of Service Value		×		
	min.	max.	[OK
F PSQM	0	0		Cancel
🔽 Jitter	2	2	(ms)	



For example, counters can be initialized for the following values:

- 0 < jitter < 1
- 1 < jitter < 5
- ...
- 20 < jitter < 999

A counter can also be used to count the total number of Jitter events:

Quality of Service Decoding 💦 🔀				
	ОК			
None	Cancel			
	<u>H</u> elp			
Error	🔲 Start			
🔽 Frame	🔲 Stop			
☐ Average				