Spirent TestCenter

2 层数据统计结果分析参考

编号 版本	修改时间	说明
11000102- 1.00.00	02/18/2009	温明

拓扑示意图

0 文档需求

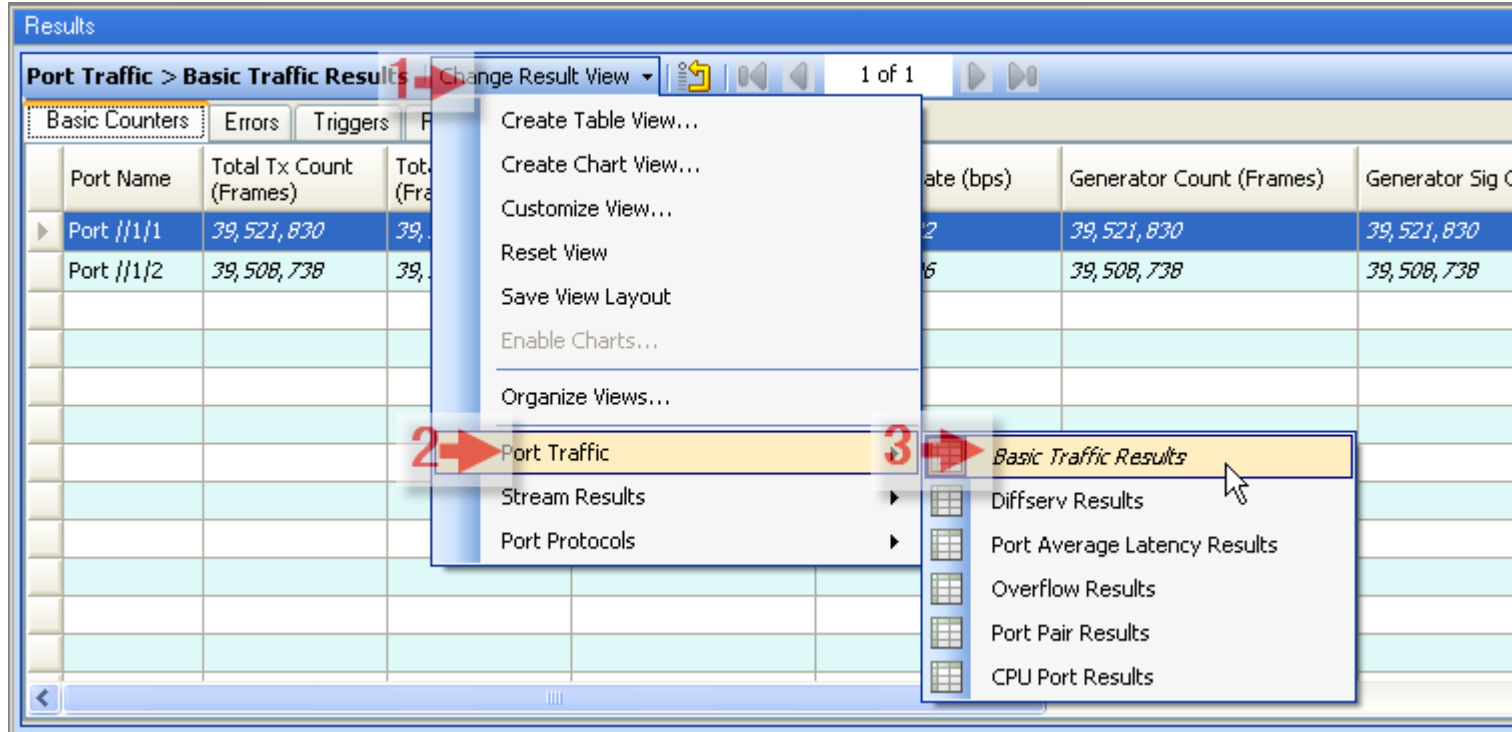| 序号	阅读本文前须参考如下文档
01	STC-11000101 -cs010001 用 Bound 方式建立数据流

10 运行测试，查看和分析测试结果

10a 点击 Start traffic on all ports 使端口 1 和端口 2 开始发送数据。
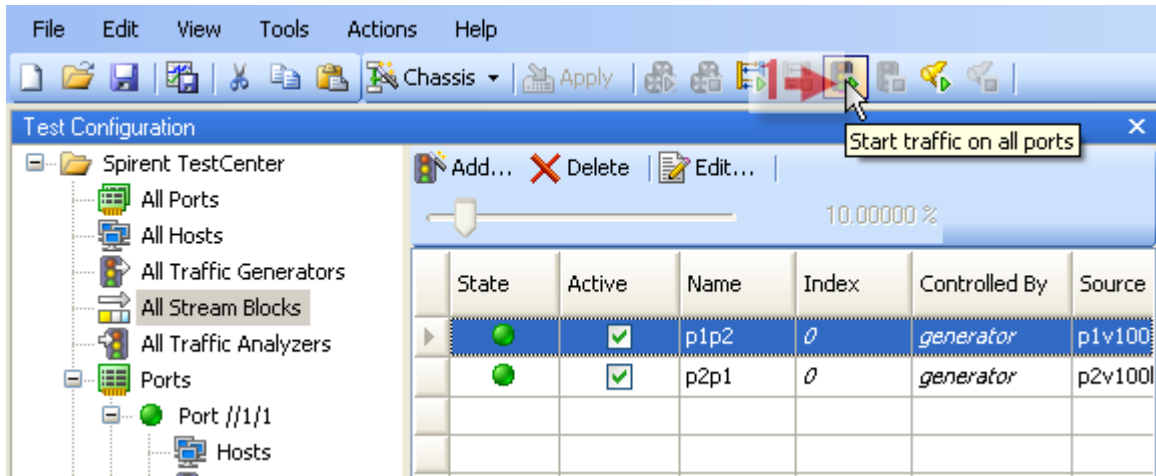
10b 按端口统计所有收发报文数量和速率，以及 **STC** 本身发送和接收的带签名字段的报文数量和速率。

10b1 选择按端口进行结果分析。

10b2 按端口结果分析-收发报文总数和带签名字段报文总数统计-截图 1。

10b3 按端口结果分析-截图 2。

Port Name	al Tx Rate	Total Rx Rate (fps)	Generator Rate (fps)	Generator Rate (Bps)	Generator Rate (bps)	Generator Sig Rate (fps)	Rx Sig Rate (fps)
Port //1/1	459	84,463	84,459	10,810,803	86,486,424	84,459	84,459
Port //1/2	459	84,463	84,459	10,810,865	86,486,920	84,459	84,459

Results Validation Errors Log - 635 messages

10c 按流统计收发报文数量和速率，以及时延、丢包数、重包数等。

10c1 选择按详细流结果进行分析
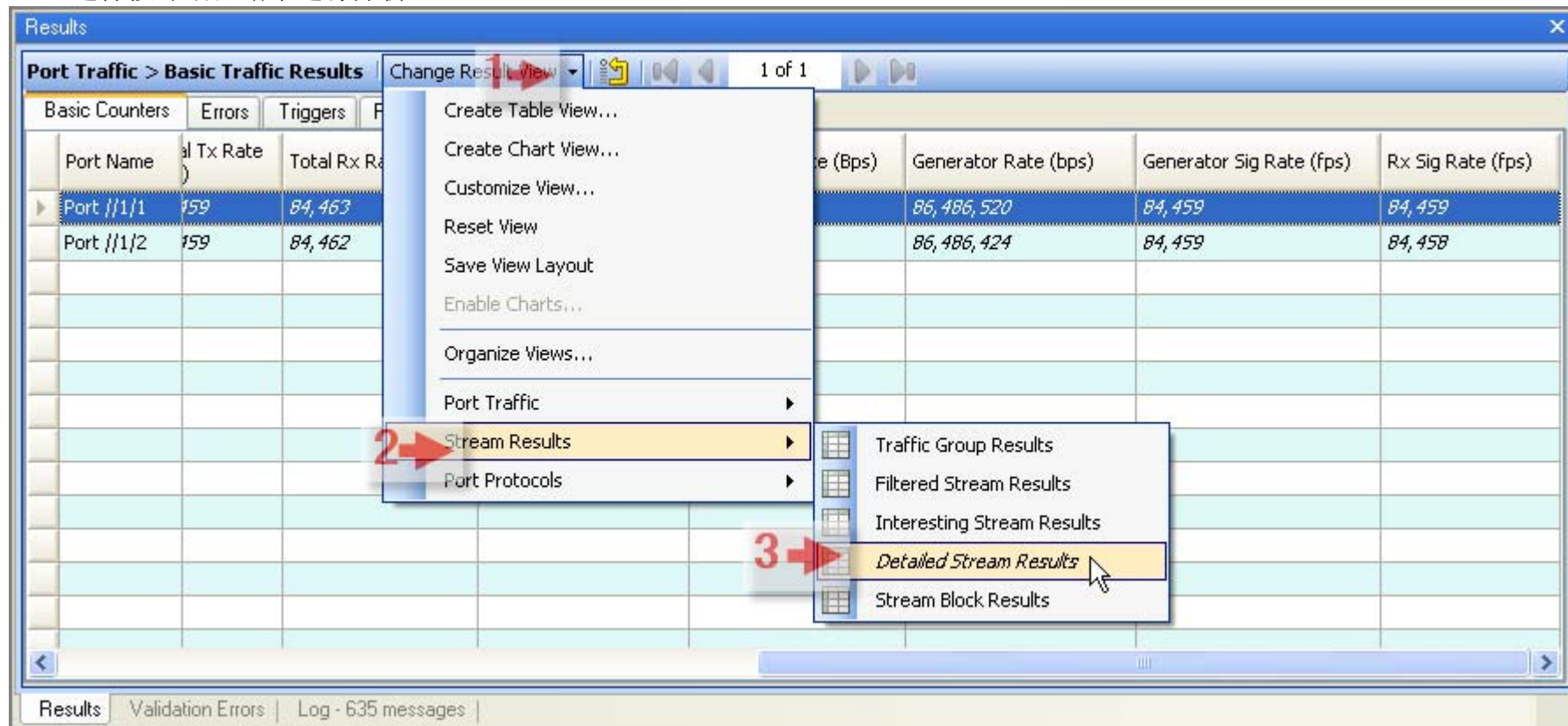
10c2 按流结果分析-收发报文数量和速率－截图 1。

10c3 按流结果分析－时延-截图 2。

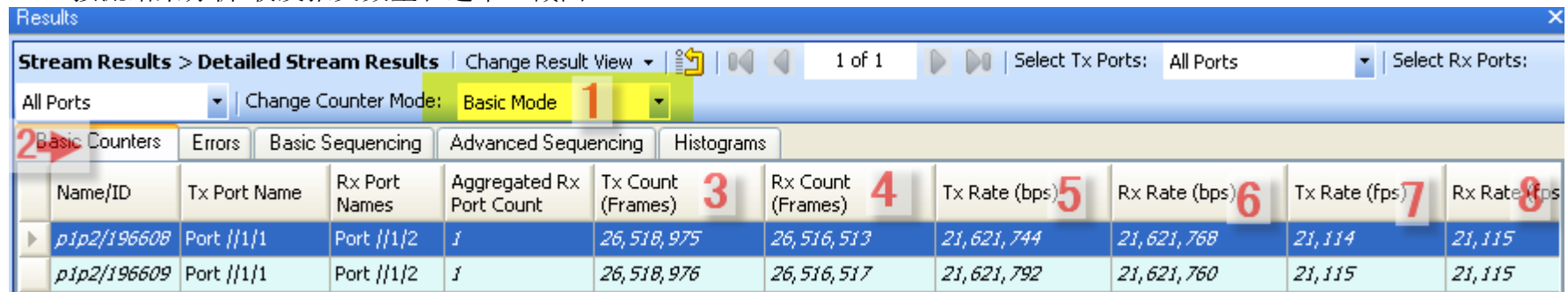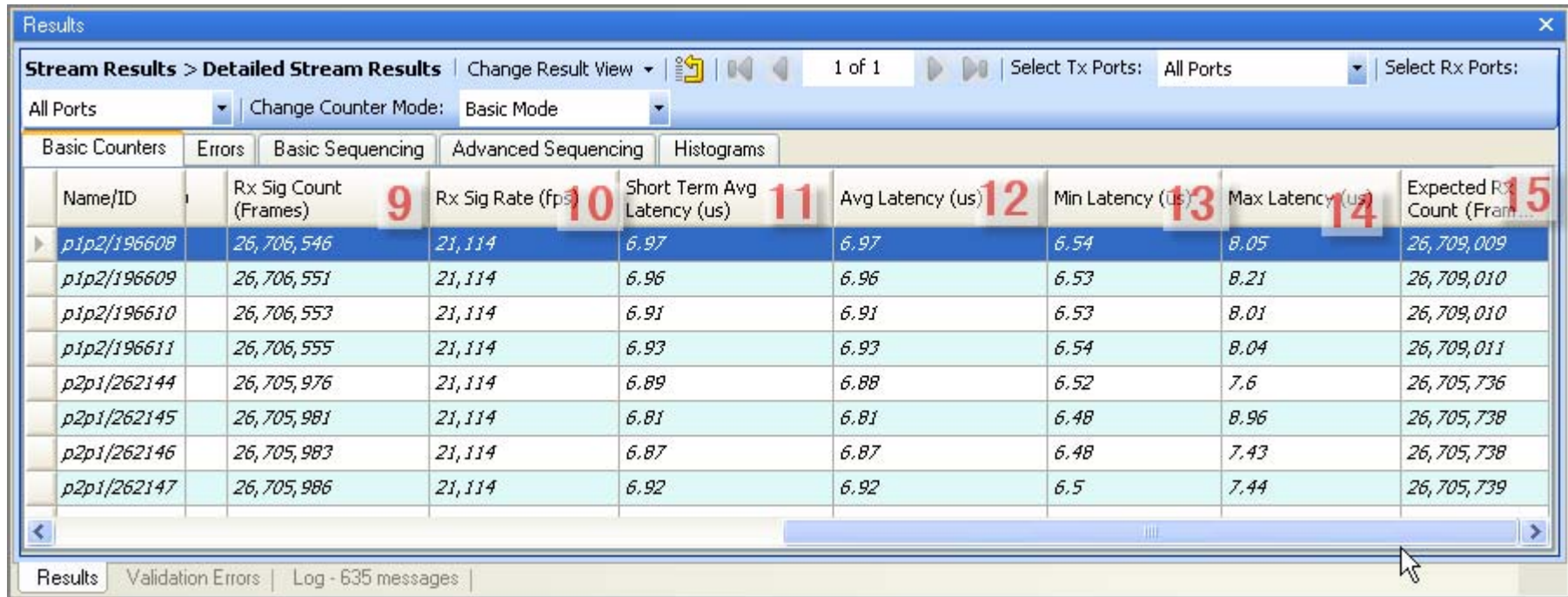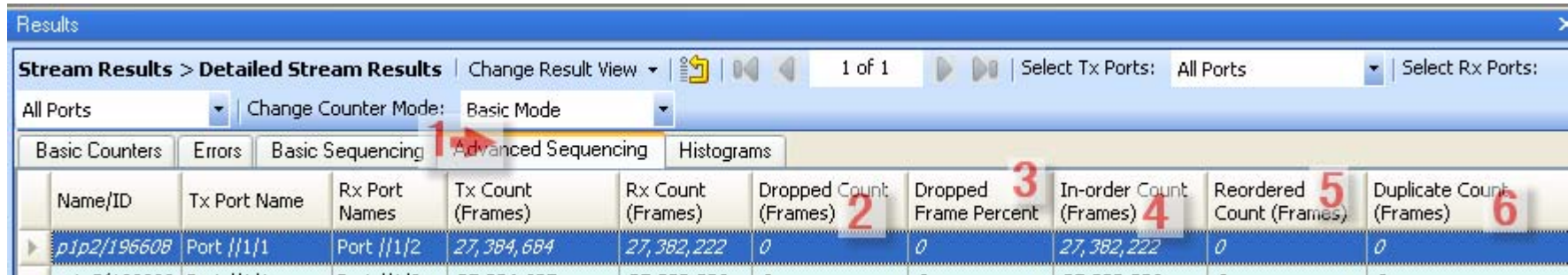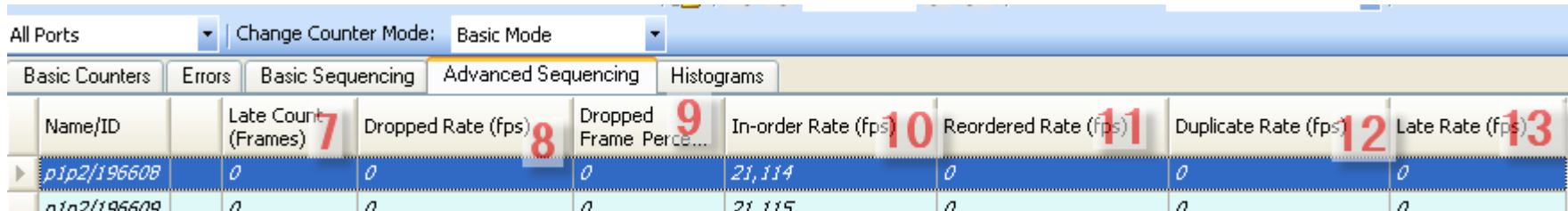| Name/ID	Rx Sig Count (Frames)	Rx Sig Rate (fps)	Short Term Avg Latency (us)	Avg Latency (us)	Min Latency (us)	Max Latency (us)	Expected Rx Count (Frames)
p1p2/196608	26,706,546	21,114	6.97	6.97	6.54	8.05	26,709,009
p1p2/196609	26,706,551	21,114	6.96	6.96	6.53	8.21	26,709,010
p1p2/196610	26,706,553	21,114	6.91	6.91	6.53	8.01	26,709,010
p1p2/196611	26,706,555	21,114	6.93	6.93	6.54	8.04	26,709,011
p2p1/262144	26,705,976	21,114	6.89	6.88	6.52	7.6	26,705,736
p2p1/262145	26,705,981	21,114	6.81	6.81	6.48	8.96	26,705,738
p2p1/262146	26,705,983	21,114	6.87	6.87	6.48	7.43	26,705,738
p2p1/262147	26,705,986	21,114	6.92	6.92	6.5	7.44	26,705,739

Results | Validation Errors | Log - 635 messages

10c4 按流结果分析－丢包数、重包数-截图 3。

Name/ID	Tx Port Name	Rx Port Names	Tx Count (Frames)	Rx Count (Frames)	Dropped Count (Frames)	Dropped Frame Percent	In-order Count (Frames)	Reordered Count (Frames)	Duplicate Count (Frames)
p1p2/196608	Port //1/1	Port //1/2	27,384,684	27,382,222	0	0	27,382,222	0	0

10c5 按流结果分析－丢包数、重包数-截图 4。

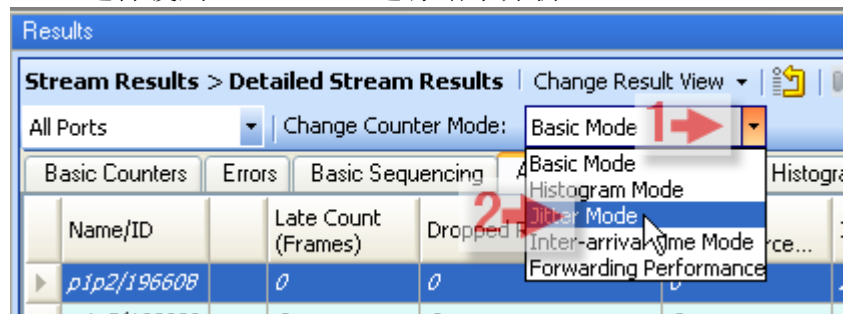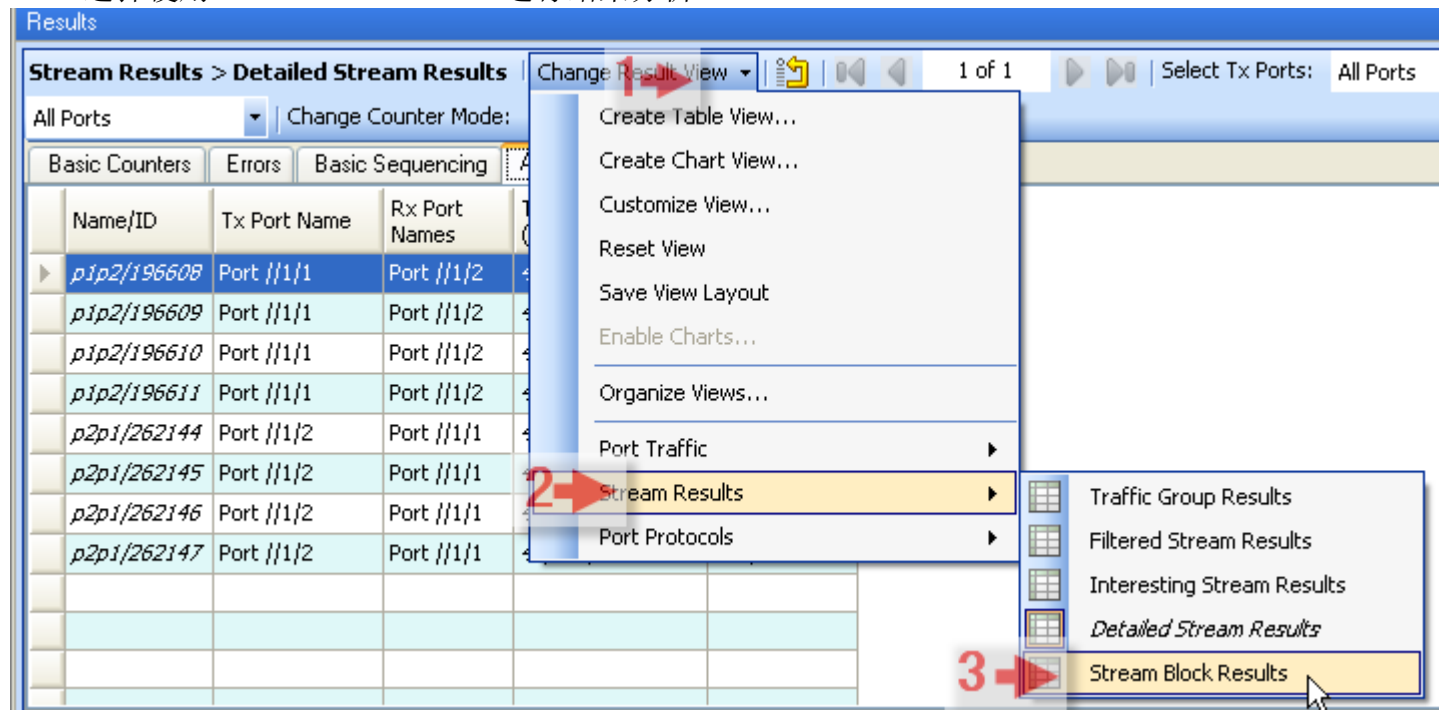| Name/ID	Late Count (Frames)	Dropped Rate (fps)	Dropped Frame Perce...	In-order Rate (fps)	Reordered Rate (fps)	Duplicate Rate (fps)	Late Rate (fps)
p1p2/196608	0	0	0	21,114	0	0	0
p1p2/196609	0	0	0	21,115	0	0	0

10d 按流块统计收发报文数量和最小最大时延及抖动等。

10d1 选择使用 Jitter Mode 进行结果分析

10d1 选择使用 Stream Block Results 进行结果分析

10d3 按流块结果分析-收发报文数量和最小、最大时延及抖动等－截图 1。

Tx Port Name	Rx Port Names	Stream Block	Tx Count (Frames)	Rx Count (Frames)	Min Latency (us)	Max Latency (us)	Avg Jitter (us)	Min Jitter (us)	Max Jitter (us)
Port //1/1	Port //1/2	p1p2	180,087,567	3,494,131	6.53	7.83	0.11	0	0.84
Port //1/2	Port //1/1	p2p1	180,087,311	3,552,524	6.48	7.48	0.12	0	0.87

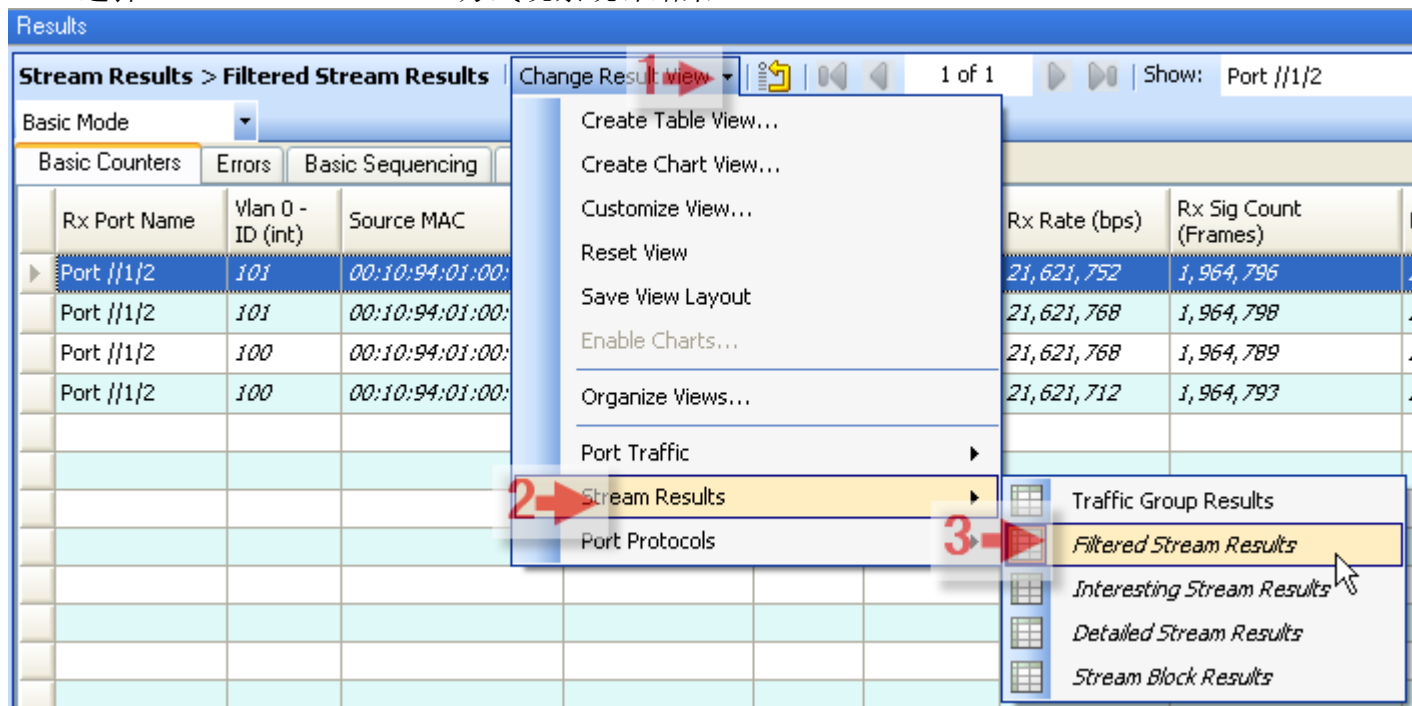**10e** 使用 **Filter** 统计报文特定字段的收发报文数量、速率、时延及抖动等。

10e1 选择使用 Traffic Analyzer 定义 Filter。增加 VLAN 字段。
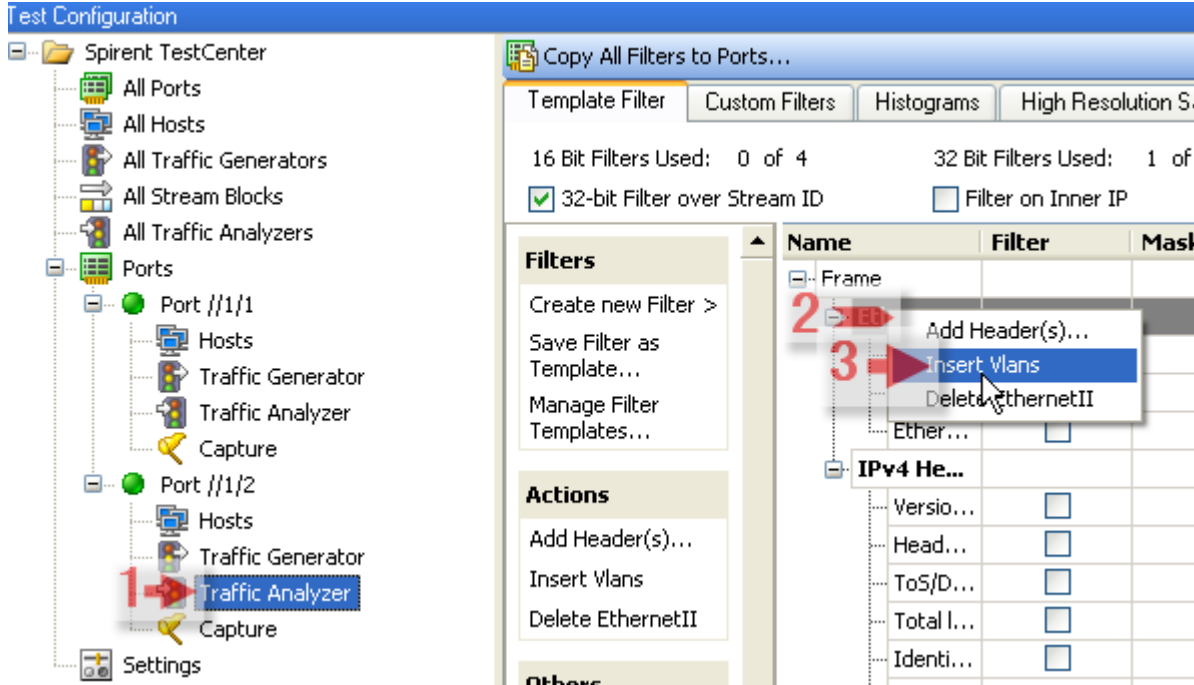
10e2 选择 Filter 所对应的字段。本例中选择了源 MAC 地址和 VLAN 号。
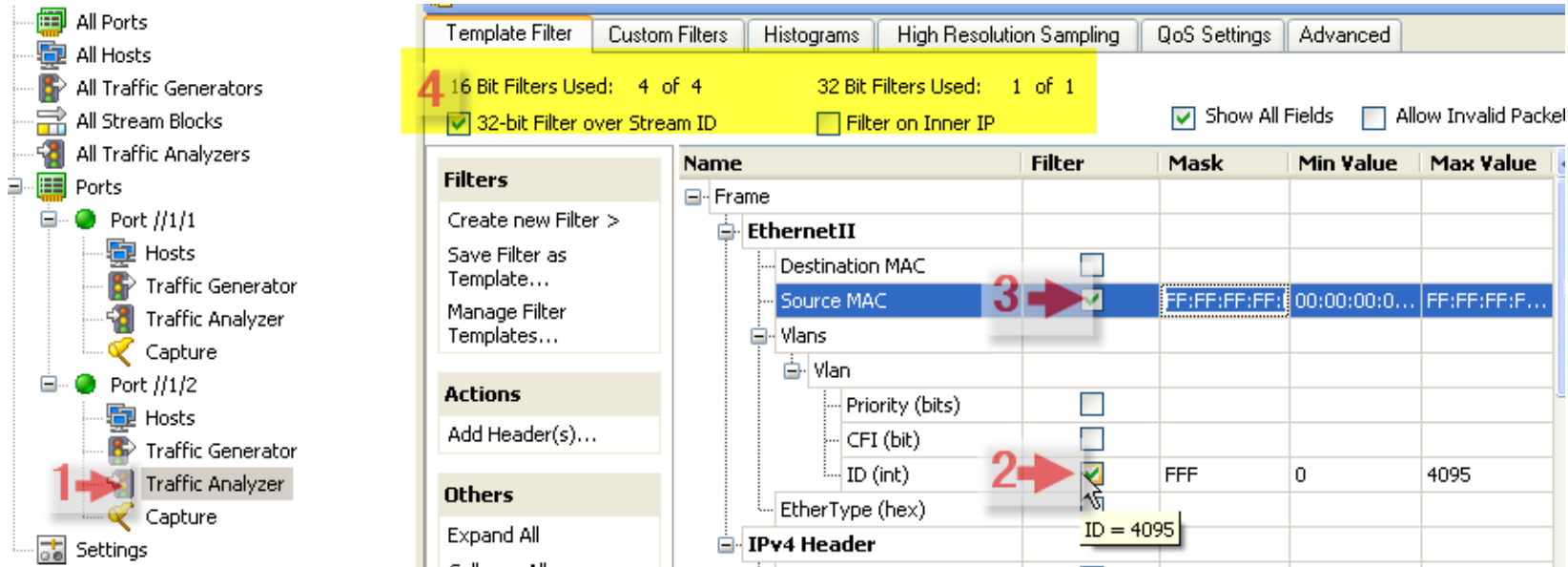
10e3 选择 Filtered Stream Results 方式观察统计结果

10e4 Filtered Stream Results 方式观察统计结果－按 VLAN 和源 MAC 地址的取值为索引统计接收报文数量和速率－截图 1

10e5 Filtered Stream Results 方式观察统计结果－时延－截图 2

Rx Port Name	Vlan 0 - ID (int)	Source MAC	Rx Stream Id	Stream Index	Rx Sig Rate (fps)	Short Term Avg Latency (us)	Avg Latency (us)	Min Latency (us)	Max Latency (us)
Port //1/2	101	00:10:94:01:00:03	196610	0	21,114	6.91	6.91	6.53	7.57
Port //1/2	101	00:10:94:01:00:04	196611	1	21,113	6.93	6.93	6.54	7.58
Port //1/2	100	00:10:94:01:00:01	196608	2	21,114	6.97	6.97	6.54	7.49
Port //1/2	100	00:10:94:01:00:02	196609	3	21,114	6.96	6.96	6.53	7.81

10e5 Filtered Stream Results 方式观察统计结果－丢包－截图 3

Rx Port Name	Vlan 0 - ID (int)	Source MAC	Rx Strea...	Stream Index	Rx Count (Frames)	Sequence Run Length	Dropped Count (Frames)	Dropped Frame Percent	In-order Count (Frames)	Reordered Count (Frames)
Port //1/2	101	00:10:94:01:00:03	196610	0	3,759,560	3,759,560	0	0	3,759,560	0
Port //1/2	101	00:10:94:01:00:04	196611	1	3,759,562	3,759,562	0	0	3,759,562	0
Port //1/2	100	00:10:94:01:00:01	196608	2	3,759,553	3,759,553	0	0	3,759,553	0
Port //1/2	100	00:10:94:01:00:02	196609	3	3,759,556	3,759,556	0	0	3,759,556	0

10e6 Filtered Stream Results 方式观察统计结果－丢包－截图 4、5

Results

Stream Results > Filtered Stream Results | Change Result View ▾ | | ◀◀ ◀ 1 of 1 ▶ ▶▶ | Show: Port //1/2 ▾ | Change Counter Mode:

Basic Mode ▾

Basic Counters | Errors | Basic Sequencing | Advanced Sequencing | Histograms (Latency)

Rx Port Name	Vlan 0 - ID (int)	Source MAC	Rx Strea...	Stream Index	Duplicate Count (Frames) **10**	Late Count (Frames) **11**	Dropped Rate (fps) **12**	Dropped Frame Percent Rate **13**	In-order Rate (fps) **14**	Reordered Rate (fps) **15**
Port //1/2	101	00:10:94:01:00:03	196610	0	0	0	0	0	21,114	0
Port //1/2	101	00:10:94:01:00:04	196611	1	0	0	0	0	21,114	0
Port //1/2	100	00:10:94:01:00:01	196608	2	0	0	0	0	21,115	0
Port //1/2	100	00:10:94:01:00:02	196609	3	0	0	0	0	21,114	0

Results | Validation Errors | Log - 676 messages

Results

Stream Results > Filtered Stream Results | Change Result View ▾ | | ◀◀ ◀ 1 of 1 ▶ ▶▶ | Show: Port //1/2 ▾ | Change Counter Mode:

Basic Mode ▾

Basic Counters | Errors | Basic Sequencing | Advanced Sequencing | Histograms (Latency)

Rx Port Name	Vlan 0 - ID (int)	Source MAC	Rx Strea...	Stream Index	opped Frame rcent Rate	In-order Rate (fps)	Reordered Rate (fps)	Duplicate Rate (fps)	Late Rate (fps)
Port //1/2	101	00:10:94:01:00:03	196610	0		21,114	0	0	0
Port //1/2	101	00:10:94:01:00:04	196611	1		21,114	0	0	0
Port //1/2	100	00:10:94:01:00:01	196608	2		21,114	0	0	0
Port //1/2	100	00:10:94:01:00:02	196609	3		21,114	0	0	0

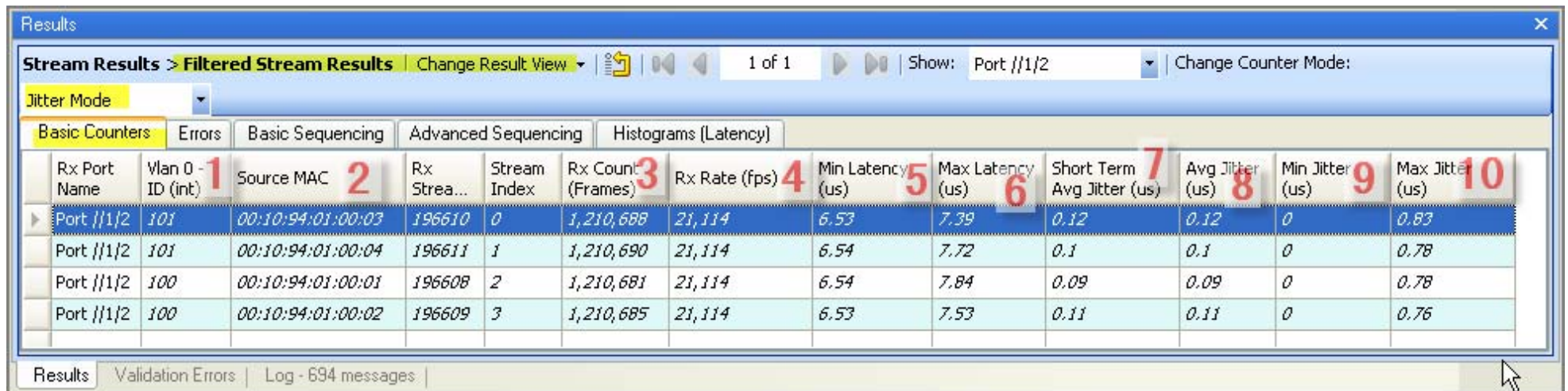Results | Validation Errors | Log - 676 messages

15

10e6 Filtered Stream Results 方式使用 Jitter 模式观察结果－截图 6
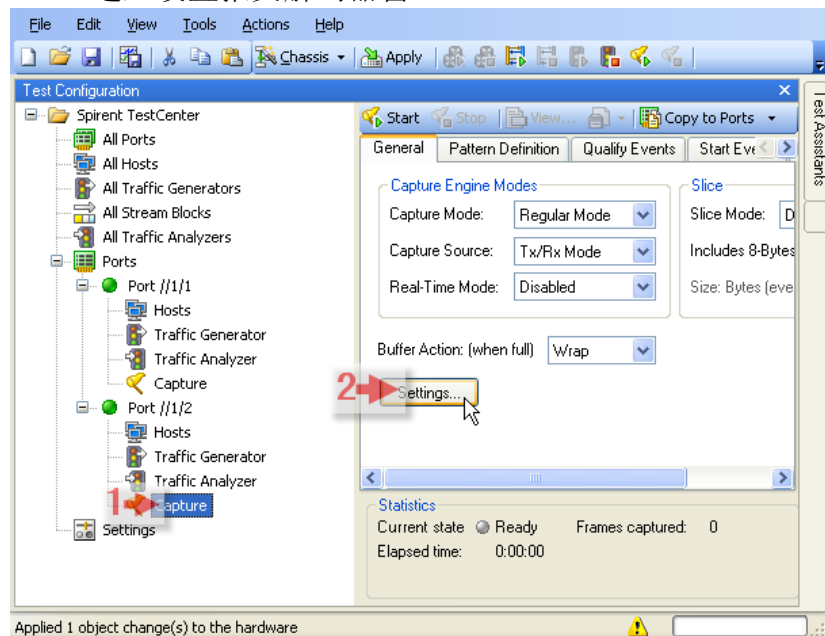

10e7 若弹出对话框则选择 OK。
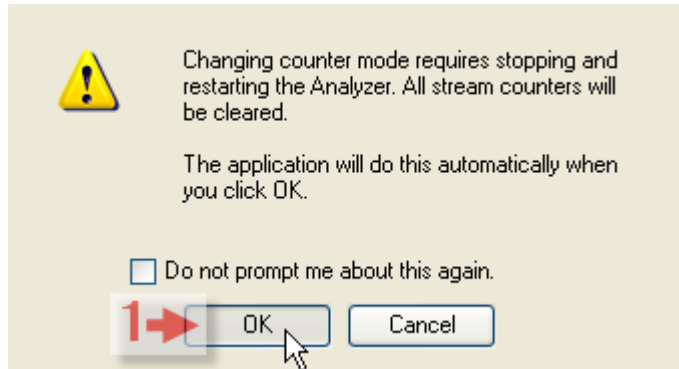
10e8 Filtered Stream Results 方式使用 Jitter 模式观察结果－抖动－截图 7
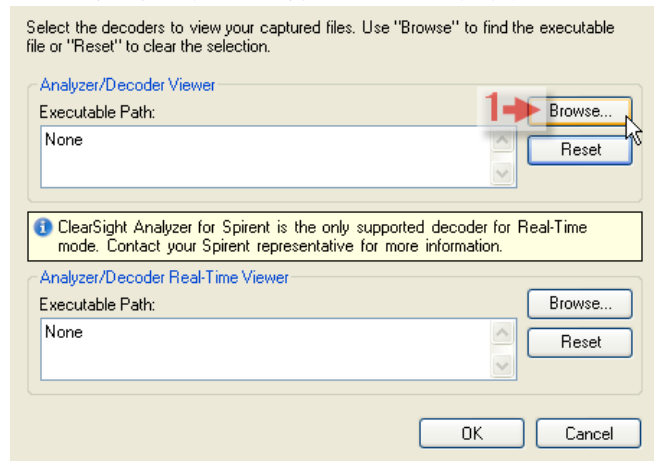
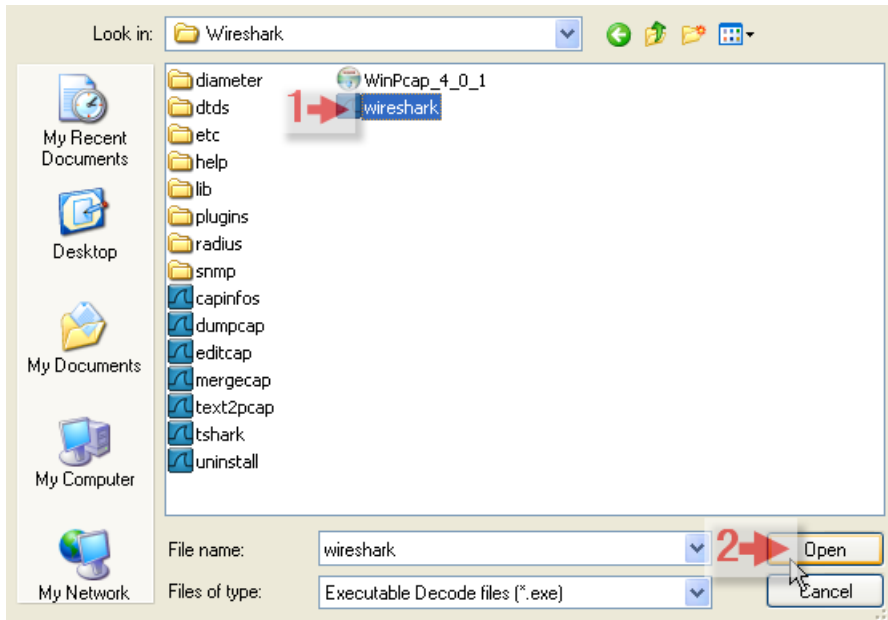**10f 使用 Capture 进行抓包分析。**

10f1 设置报文解码器。

10f1a 进入设置报文解码器窗口。

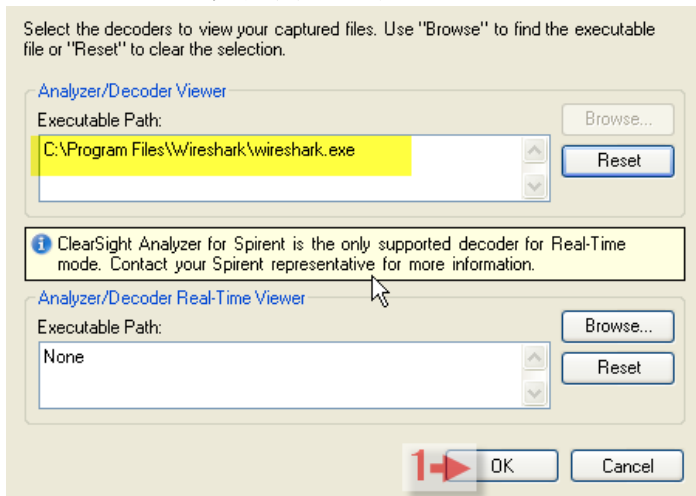10f1b 在弹出窗口选择 Browse 选定解码器

10f1c 在弹出窗口选择 Browse 选定解码器的运行文件

10f1d 点击 OK 完成解码器设置

10f2 点击 Start 开始抓包。
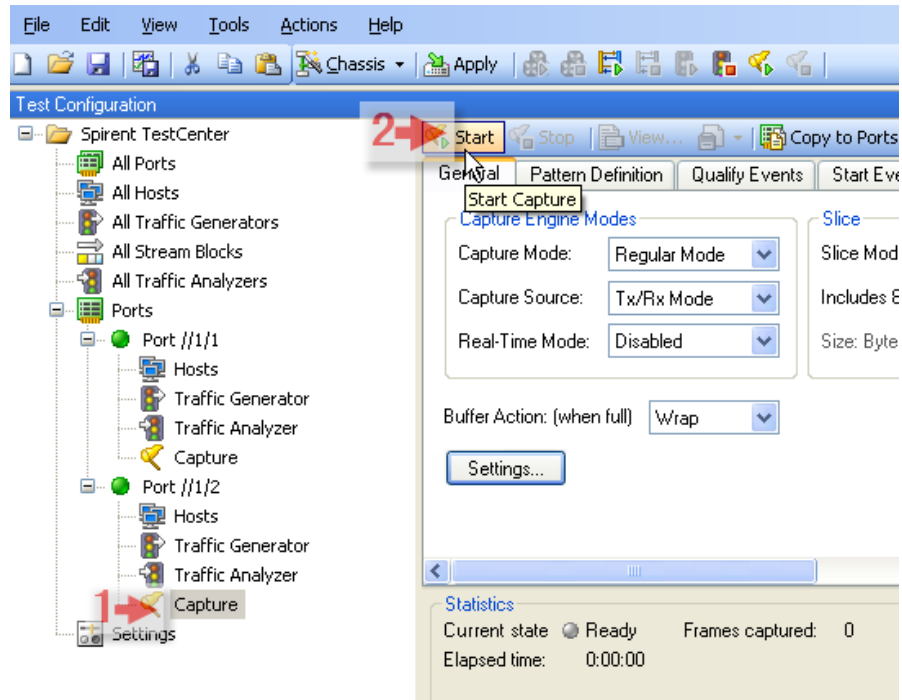
10f3 点击 View 调用解码器分析报文。

10f4 解码器分析报文截图。

11 常见问题