

# Xgig® Analyzer Traffic Summary View Mini-Guide

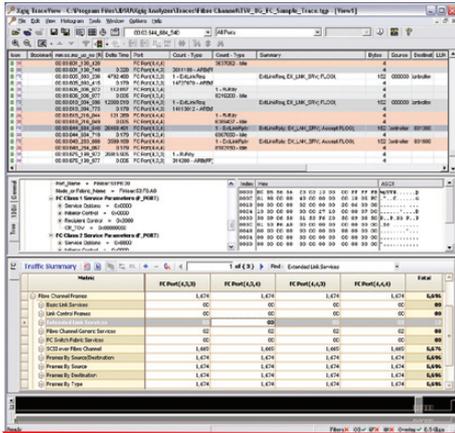


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To navigate to an event on a particular port, click on the (non-zero) count for that event within the port. The Dword and Spreadsheet views will scroll to the point in time at which that event first occurs.

Clicking on a count within a port column will synchronize the views to the first event encountered within either of the unidirectional ports that makes up that port pair.

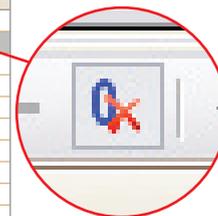
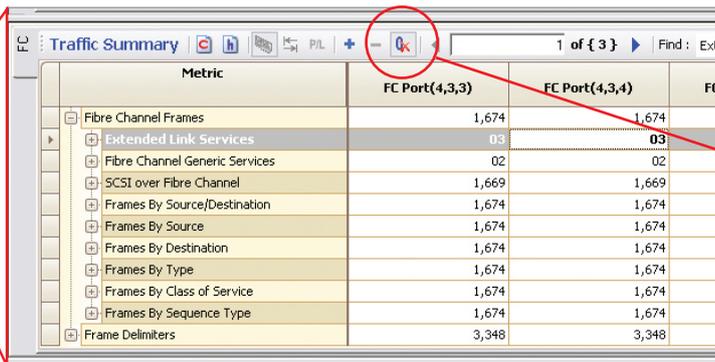
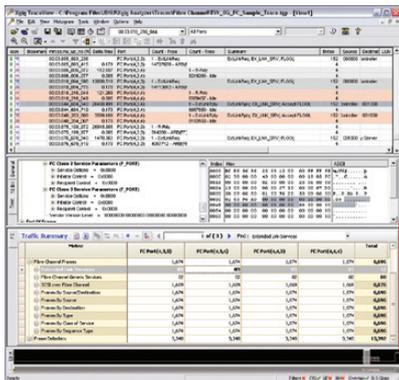
Clicking on a count within the Total column will synchronize the views to the first event encountered within all of the FC ports within the domain.

Metric	FC Port(4,3)	FC Port(4,3,4)	FC Port(4,4,3)	FC Port(4,4,4)	Total
Fibre Channel Frames	1,674	1,674	1,674	1,674	6,696
Basic Link Services	00	00	00	00	00
Link Control Frames	00	00	00	00	00
Enhanced Link Services	03	03	03	03	12
Fibre Channel Generic Services	02	02	02	02	08
FC Switch Fabric Services	00	00	00	00	00
SCSI over Fibre Channel	1,669	1,669	1,669	1,669	6,676
Frames By Source/Destination	1,674	1,674	1,674	1,674	6,696
Frames By Source	1,674	1,674	1,674	1,674	6,696
Frames By Destination	1,674	1,674	1,674	1,674	6,696

Navigation using ports and totals within the TSV Window

## Filtering TSV Entries with Zero Values

Traffic Summary View will show all unique protocol element types, zero or otherwise, by default. To limit the entries to just those containing non-zero data, press the “Hide Zero Entries” button. This option will hide non-zero data regardless of other options selected.



## Filtering TSV Entries Via Ports, Links, or Both



Traffic Summary View allows filtering via ports, links, or both simultaneously with three selectable options\*. (The Total column is always active regardless of selection.)



Select this option to only show entries via ports. (unidirectional, host-to-target and target-to-host)



Select this option to only show entries via links. (bidirectional, to-and-from both host and target)



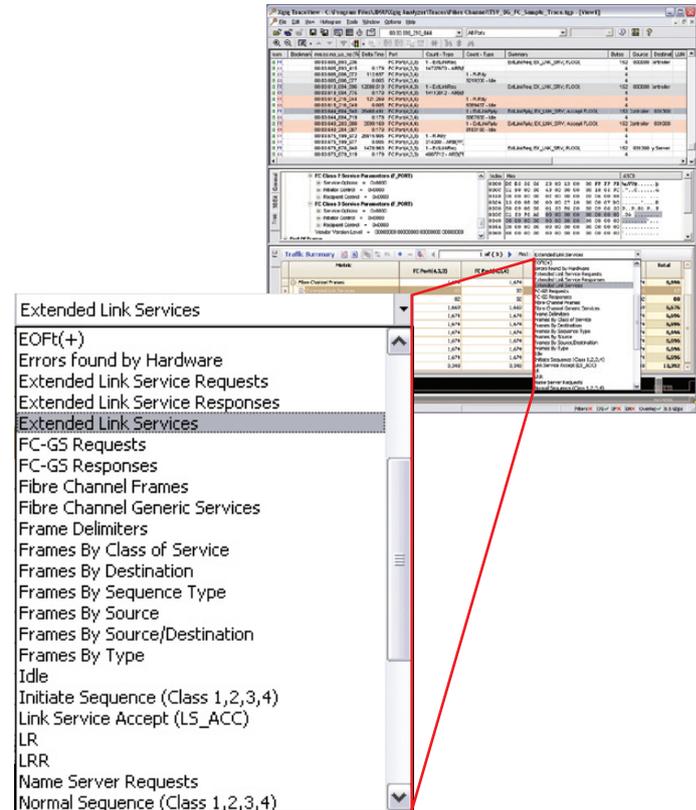
Select this option to show both ports and links simultaneously.

\* For Fibre Channel, only entries via ports are available.

Metric	Link - 3	Total
<b>Errors found by Hardware</b>	<b>04</b>	<b>04</b>
Code or Disparity Error	04	04
Primitive Error	01	01
OOB	12	12
Valid COM Events	12	12
Speed Negotiation	69	69
Valid Speed Negotiation	61	61
Invalid Speed Negotiation	06	06
SAS Phy Reset	02	02
Primitives	288,667	288,667
Primitives Outside Connection	286,192	286,192
Primitives Inside SSP/SMP Connec...	2,475	2,475
Connections	139	139
SSP Connections	139	139
SAS/SATA Frames	300	300
Address Frames	147	147
SSP Frames	153	153

## Navigating TSV Via the Find Menu

Traffic Summary View allows navigating entries via its Find Menu in addition to its Tree View. Located on the right side of TSV, the drop-down list shows all protocol types alphabetically. Selecting any entry will highlight that metric in the Tree View. It will synchronize the Dword and Spreadsheet views to the first entry of the type selected if that type's count is non-zero. When "Hide Zero Entries" is active, the Find Menu will show only types with non-zero counts.



## Expanding and Collapsing the TSV Tree View

To expand or collapse TSV Tree View levels, press either the plus or minus selections on the TSV menu to expand or collapse, respectively, the currently selected Tree View branch. Alternatively, press the plus or minus signs on any Tree View entry to expand or collapse that branch's view.

The image shows the Xgig TraceView interface. The main window displays a 'Traffic Summary' table with columns for Metric, Link - 3, and Total. A tree view on the left side of the summary table shows a hierarchy of traffic metrics. A red circle highlights the plus and minus icons in the tree view, and another red circle highlights the plus and minus icons in the top toolbar. A third red circle highlights the expanded tree view structure.

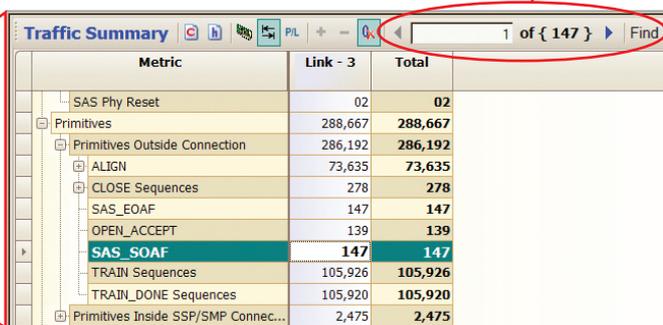
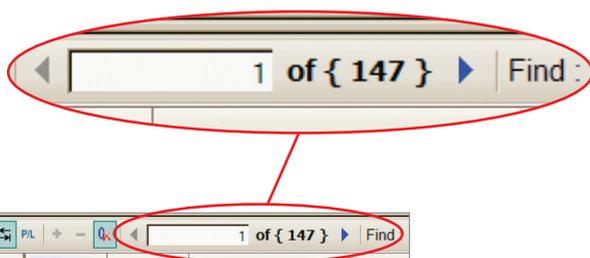
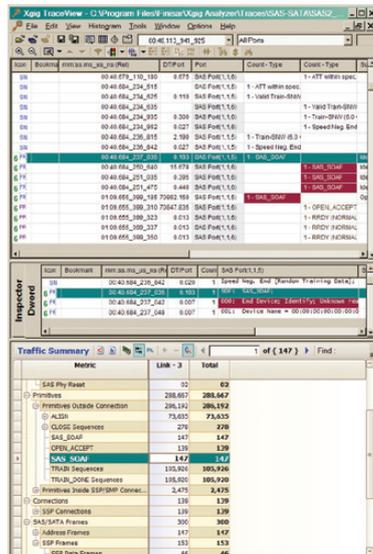
Metric	Link - 3	Total
SAS Phy Reset	02	02
<b>Primitives</b>	<b>288,667</b>	<b>288,667</b>
Primitives Outside Connection	286,192	286,192
ALIGN	73,635	73,635
CLOSE Sequences	278	278
SAS_EOAF	147	147
OPEN_ACCEPT	139	139
SAS_SOAF	147	147
TRAIN Sequences	105,926	105,926
TRAIN_DONE Sequences	105,920	105,920
Primitives Inside SSP/SMP Connec...	2,475	2,475
Connections	139	139
SSP Connections	139	139
SAS/SATA Frames	300	300
Address Frames	147	147
SSP Frames	153	153
SSP Data Frames	46	46

## Navigating Between TSV Entry Occurrences

TSV allows navigation between event occurrences via its previous (blue back arrow or F11) and next (blue forward arrow or F12) occurrence controls. If the value of the metric is zero, the buttons and menu items are grayed out. If the current location is the first/last occurrence, the control grays out the back/forward button and previous/next menu items, respectively.\*

The Event Number text box within the Previous/Next Occurrence control area allows direct specification of the occurrence number for the currently selected metric. Typing a number between 1 and the total number of occurrences (to the right of the text box) syncs the Spreadsheet and Dword Views to the occurrence's numbered location within the trace.

\* Navigating between entry occurrences may sometime increment or decrement by more than one due to repeat counts.



## Creating a .csv File Within TSV

TSV allows creation of a summary of traffic statistics as a Comma Separated Value (.csv) file. This report will contain all metrics and columns. The resulting CSV files can be imported into other applications, such as Microsoft Excel.



**Step 1:** Select “Create .csv file” within the TSV menu.

**Step 2:** Specify the filename for the .csv file.

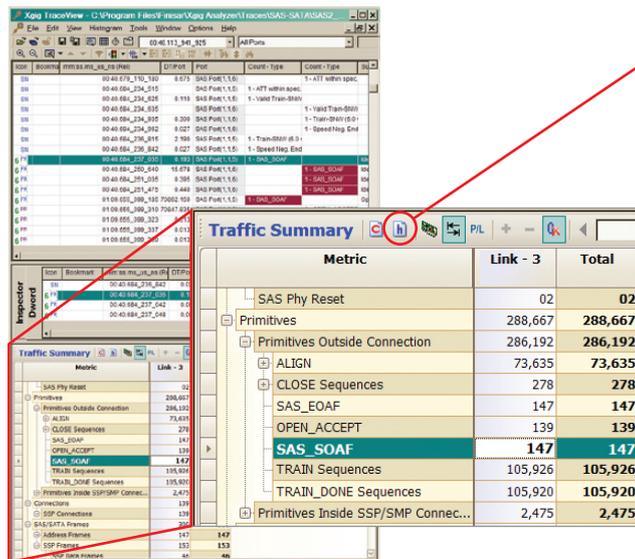
The screenshot shows the Xgig Analyzer interface. The top window displays a list of traffic events with columns for Source, Destination, Port, Count, Type, and Count Type. Below this, the 'Inspector' window shows a detailed view of a selected event. The bottom window, titled 'Traffic Summary', displays a table with the following data:

Metric	Link - 3	Total
SAS Phy Reset	02	02
Primitives	288,667	288,667
Primitives Outside Connection	286,192	286,192
ALIGN	73,635	73,635
CLOSE Sequences	278	278
SAS_EOAF	147	147
OPEN_ACCEPT	139	139
SAS_SOAF	147	147
TRAIN Sequences	105,926	105,926
TRAIN_DONE Sequences	105,920	105,920
Primitives Inside SSP/SMP Connec...	2,475	2,475

The 'Save CSV file as' dialog box is shown. The 'Save in:' field is set to 'SAS-SATA'. The 'File name:' field contains 'My CSV File'. The 'Save as type:' dropdown is set to 'CSV files (\*.csv)'. The 'Save' and 'Cancel' buttons are visible at the bottom right.

## Creating a TSV Traffic Summary Report

TSV allows production of a Traffic Statistics Summary as an HTML report. The report contains all filtered metrics and columns. Hyperlinks within the report jump to their respective report locations. Once created, the File menu within the Traffic Statistics Summary Report allows saving the report to a file.



**Traffic Statistics Summary Report**

File

### Traffic Statistics Summary

generated by Xgig Analyzer.  
Trace name: C:\Program Files\Finisar\Xgig Analyzer\Traces\SAS-SATA\SAS2\_6GB\_OOB\_Example.tgp

**Summary**

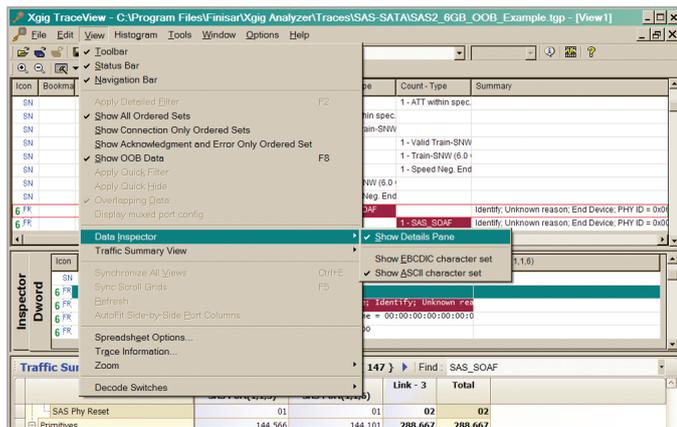
Metric	Link - 3 SAS Port(1,1,5)	Link - 3 SAS Port(1,1,6)	Link - 3	Total
<a href="#">Errors found by Hardware</a>	4	0	4	4
<a href="#">OOB</a>	6	6	12	12
<a href="#">Speed Negotiation</a>	32	37	69	69
<a href="#">Primitives</a>	144566	144101	288667	288667
<a href="#">Connections</a>	85	54	139	139
<a href="#">SAS/SATA Frames</a>	110	190	300	300
<a href="#">Transactions</a>	17	0	17	17

**Summary. Errors found by Hardware**

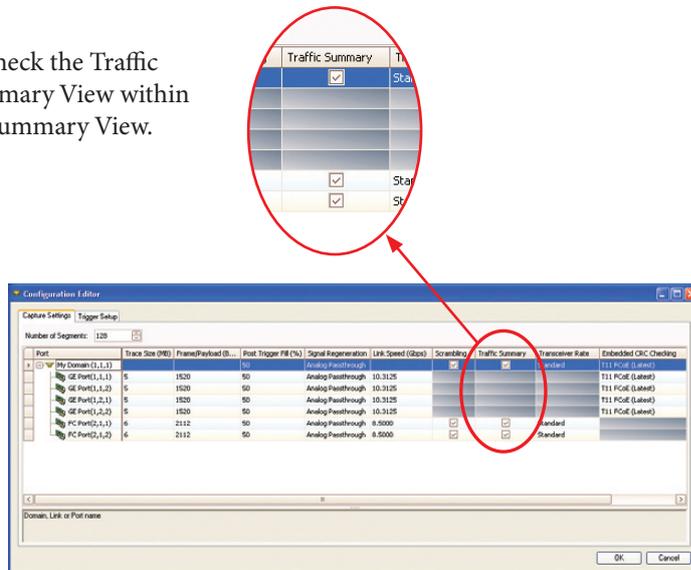
Metric	Link - 3 SAS Port(1,1,5)	Link - 3 SAS Port(1,1,6)	Link - 3	Total
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## Disabling Traffic Summary Information

To stop generating TSV information by default within traces, uncheck the Traffic Summary option within TraceControl. To remove the Traffic Summary View within TraceView, uncheck the “Show Pane” option within View/Traffic Summary View.



Removing Traffic Summary View (TSV) within TraceView



Disabling Traffic Summary generation within TraceControl

## Test & Measurement Regional Sales

<b>NORTH AMERICA</b> TEL: 1 888 746 6484 sales-snt@jdsu.com	<b>ASIA PACIFIC</b> apacsales-snt@jdsu.com	<b>EMEA</b> emeasales-snt@jdsu.com	<b>WEBSITE: <a href="http://www.jdsu.com/snt">www.jdsu.com/snt</a></b>
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