Lab Exercise 2 – Using Transforming Commands for Visualizations

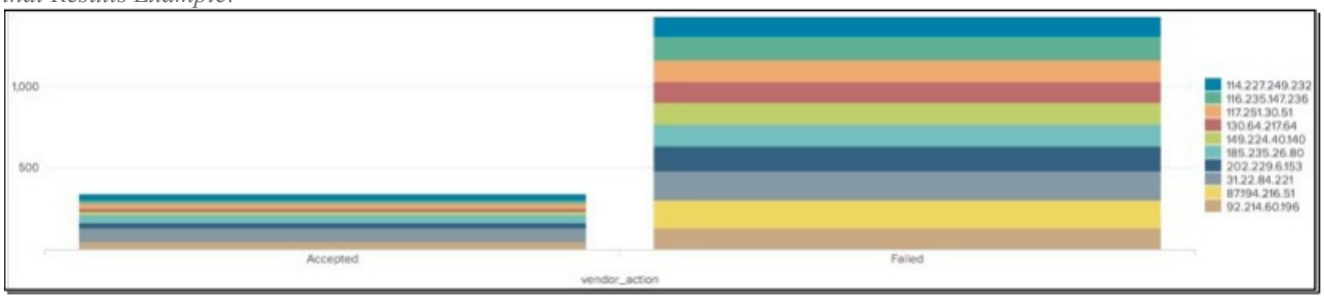
Description

In this lab exercise, you use the `chart` and `timechart` commands.

Steps

Task 1: Report the top ten completed events on the web server during the last 24 hours and add it to a new security dashboard as a column chart.

Final Results Example:



1. Search the web server [`sourcetype=linux_secure`] for events where the [`vendor_action`] is not equal to "`session opened`" during the **last 7 days**.

Results Example:

i	Time	Event
>	7/24/19 8:04:59.000 PM	Wed Jul 24 2019 20:04:59 www0 sshd[37002]: Failed password for user myuan from 133.166.61.223 port 5826 ssh2 host = www1 source = /opt/log/www1/secure.log sourcetype = linux_secure
>	7/24/19 8:04:56.000 PM	Wed Jul 24 2019 20:04:56 www0 sshd[94890]: Failed password for user myuan from 133.166.61.223 port 5826 ssh2 host = www1 source = /opt/log/www1/secure.log sourcetype = linux_secure
>	7/24/19 8:04:53.000 PM	Wed Jul 24 2019 20:04:53 www0 sshd[91204]: Failed password for user myuan from 133.166.61.223 port 5826 ssh2 host = www1 source = /opt/log/www1/secure.log sourcetype = linux_secure

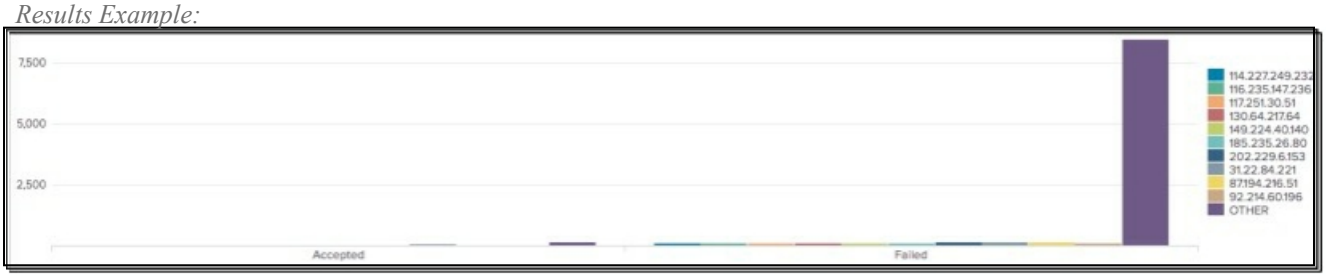
2. Using the `chart` command, display a count for each of these actions by IP [`src_ip`].

Results Example:

vendor_action	114.227.249.232	116.235.147.236	117.251.30.51	130.64.217.64	149.224.40.140	185.235.26.80	202.229.6.153	31.22.84.221	87.194.216.51	92.214.60.196	OTHER
Accepted	33	21	30	21	23	48	29	80	0	52	188
Failed	121	146	131	128	134	131	151	175	176	132	8478

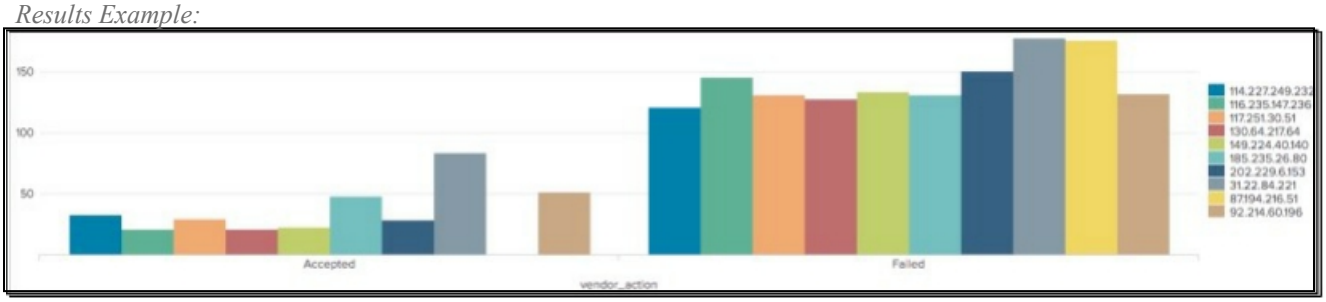
3. Click on the **Visualization** tab and make sure **Column Chart**  is selected.

Results Example:



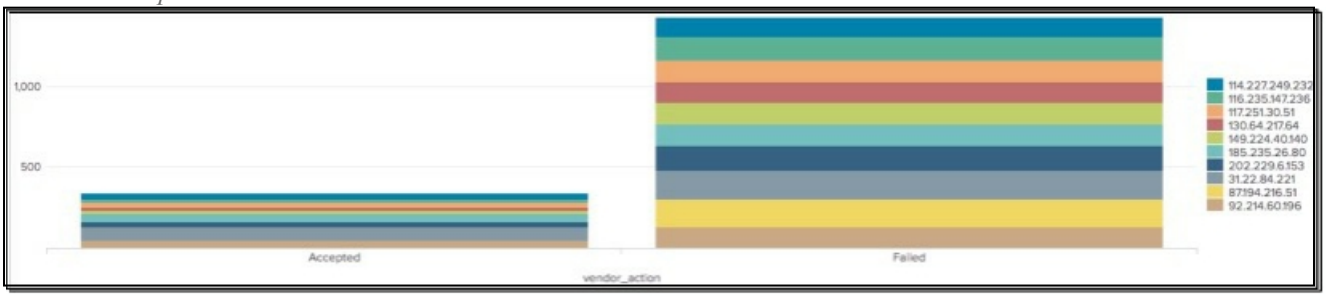
4. As you can see, there is an OTHER column at the end of the Failed results that overwhelms all the other data on the chart, making the other data difficult to see. Set the `useother` option to `f` in order to remove this column.

Results Example:



5. Click **Format**; in the General section, set the Stack Mode to **Stacked**.

Results Example:



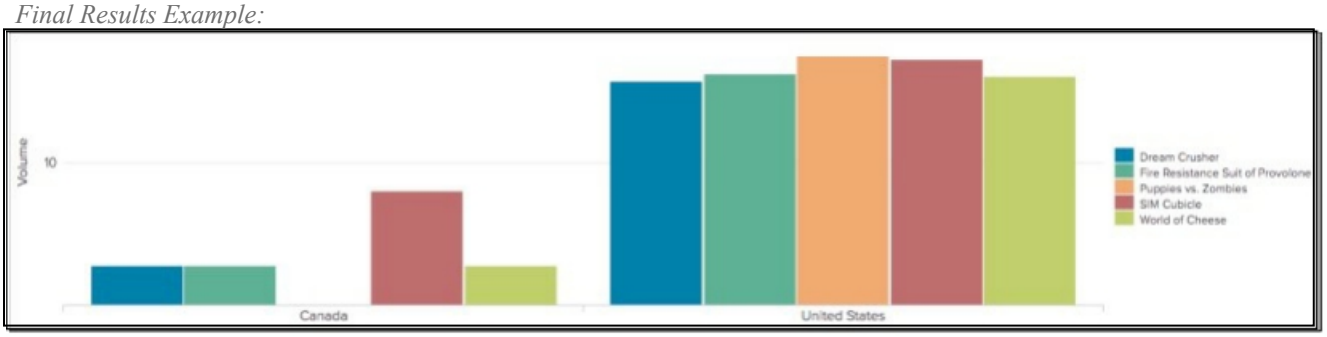
6. Click **Save As** and choose **Report**.
7. Name your report **L2S1** and click **Save**.
8. On the Your Report Has Been Created screen, click **Add to Dashboard**.
9. Save the dashboard with these values:
   - Dashboard: *New*

- Dashboard Title: *IT Ops*
- Panel Title**:** *Accepted vs. Failed Web Events*
- Panel Powered By: *Report*

10. Click **Save** and view your dashboard.
11. Mouse over your column chart and click one of the bars. Notice that, by default, the drilldown feature is not activated.
12. Click the **Edit** button.
13. Click the More actions icon  on the top right of the panel.
14. Click **Edit Drilldown**.
15. In the Drilldown Editor, choose **Link to search** from the **On click** dropdown menu.
16. Click **Apply.**
17. Click **Save** to save the dashboard.
18. Mouse over your column chart and click one of the bars. Notice that the drilldown feature is now activated.
19. Use your browser's Back button to return to your dashboard. (This is the easiest way to return to the dashboard from a drilldown.)

Task 2: Chart by country the five best selling products for the vendors in North America during the last 7 days.

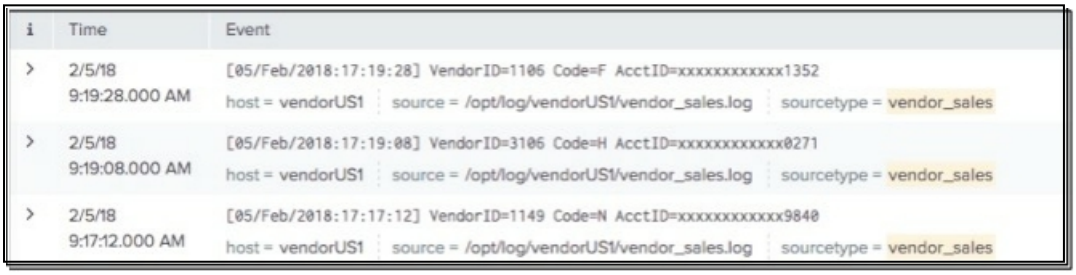
Final Results Example:



- VendorID:
  - 1000-2999 USA
  - 3000-3999 Canada
  - 4000-4999 Caribbean, Central & South America
  - 5000-6999 Europe and the Middle East
  - 7000-8999 Asia and Pacific Region
  - 9000-9900 Africa
  - 9901-9999 Outliers, such as the South Pole

20. Search for retail store events [`vendor_sales`] from North America (United States and Canada) during the **last 7 days**.

Results Example:



i	Time	Event
>	2/5/18 9:19:28.000 AM	[05/Feb/2018:17:19:28] VendorID=1106 Code=F AcctID=xxxxxxxxxxxx1352 host = vendorUS1 source = /opt/log/vendorUS1/vendor_sales.log sourcetype = vendor_sales
>	2/5/18 9:19:08.000 AM	[05/Feb/2018:17:19:08] VendorID=3106 Code=H AcctID=xxxxxxxxxxxx0271 host = vendorUS1 source = /opt/log/vendorUS1/vendor_sales.log sourcetype = vendor_sales
>	2/5/18 9:17:12.000 AM	[05/Feb/2018:17:17:12] VendorID=1149 Code=N AcctID=xxxxxxxxxxxx9840 host = vendorUS1 source = /opt/log/vendorUS1/vendor_sales.log sourcetype = vendor_sales

21. Using the `chart` command, count the events over `VendorCountry`.

Results Example:

VendorCountry	count
Canada	303
United States	4839

22. To see the count of each product sold in each country, add a `by` clause to further split the data by `product_name`.

Results Example:

VendorCountry	Dream Crusher	Final Sequel	Fire Resistance Suit of Provolone	Holy Blade of Gouda	Manganiello Bros.	Manganiello Bros. Tee	OTHER	Puppies vs. Zombies	SIM Cubicle	World of Cheese	World of Cheese Tee
Canada	22	17	24	17	36	9	101	7	24	31	15
United States	538	297	404	308	306	311	747	517	536	565	314

23. Use the `limit` option to include only the 5 best-selling products.

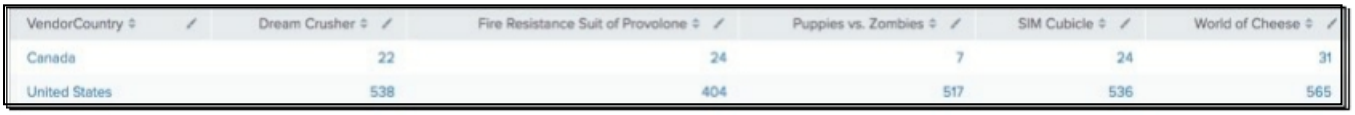
NOTE: Splunk automatically calculates the top products by totaling each column and taking the top *n* results (*n* being the number you specify in your limit).

Results Example:

VendorCountry	Dream Crusher	Holy Blade of Gouda	Puppies vs. Zombies	SIM Cubicle	World of Cheese	OTHER
Canada	1	3	0	2	3	27
United States	68	51	67	71	68	304

24. Remove the **OTHER** column from your table.

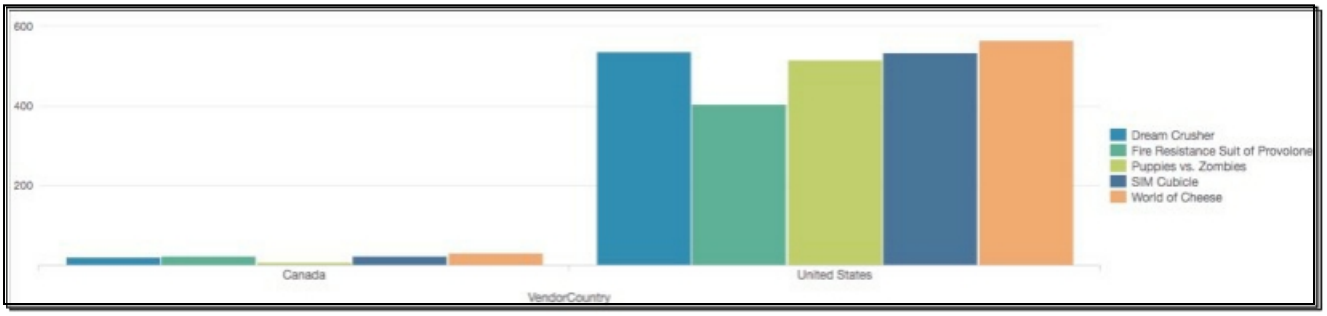
Results Example:



VendorCountry	Dream Crusher	Fire Resistance Suit of Provolone	Puppies vs. Zombies	SIM Cubicle	World of Cheese
Canada	22	24	7	24	31
United States	538	404	517	536	565

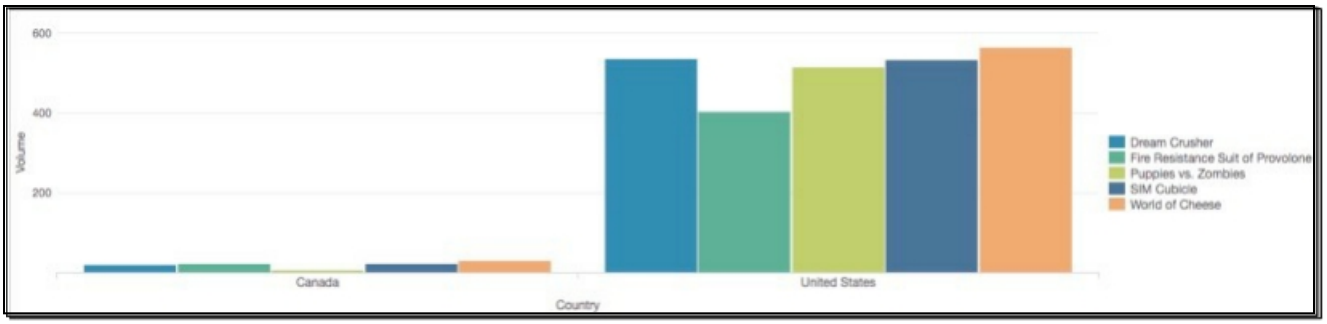
25. Switch to the **Visualization** tab and, if a column chart was not automatically shown, set the chart type to **Column Chart**.

Results Example:

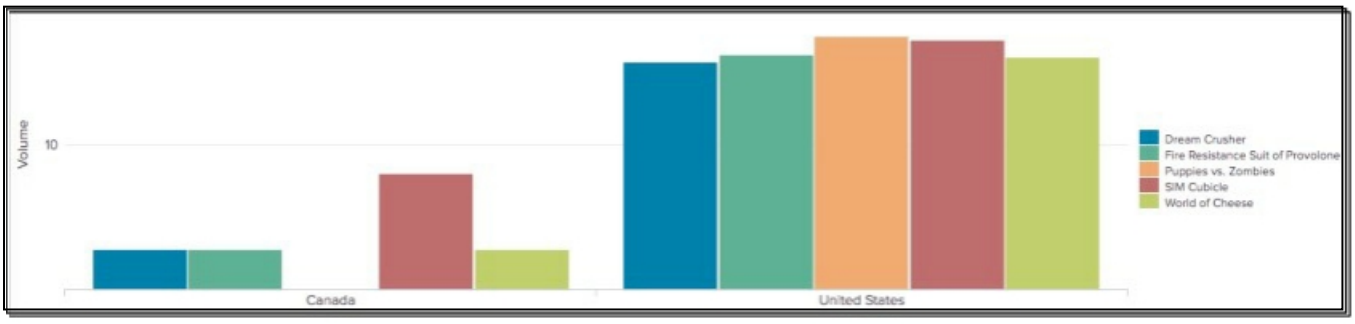


26. Use the **Format** options to define custom labels of **Country** and **Volume** for the X and Y axes, respectively.

Results Example:



27. Use the **Format** option to change the scale of the Y axis from linear to logarithmic (Log).

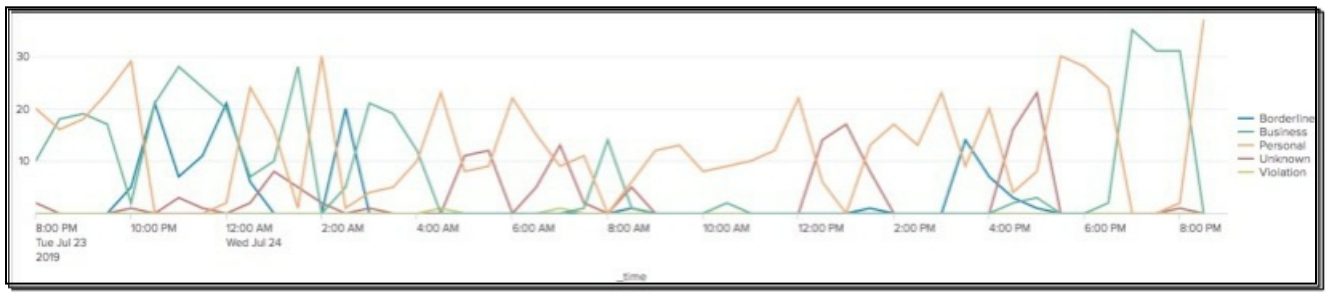


28. Save your search as report, **L2S2**.

Task 3: Display Internet usage in a timechart during the last 24 hours.

29. Click **Search** to clear the previously set **Format** options.
30. Search for web appliance events [`cisco_wsa_squid`] during the **last 24 hours**.
31. Use the `timechart` command to count the events by `usage`.
32. Change the visualization to **Line Chart**.

Results Example:



33. Save the search as report, **L2S3**.
34. Add this report to your *IT Ops* dashboard in a panel named: **Internet Usage - Last 24 Hours**. Do **not** click the button to view the dashboard; instead, close the Your Dashboard Panel Has Been Created window by clicking the x in the upper right corner. (If you accidentally do click **View Dashboard**, click your browser's Back button to get back to the L2S3 report.)
35. Click on **Trellis**.
36. Click the **Use Trellis Layout** checkbox.
37. For Scale, click **Independent** .

Results Example:

38. Save the search as a report, **L2S4**.
39. Add this report to your IT Ops dashboard in a panel named: **Internet Usage by Category**.
40. Edit your dashboard and arrange your panels so that the dashboard looks like this:

Results Example:

41. Click **Save**.

NOTE: Visualization formatting options persist until you turn them off or change them. So, the next time you do a visualization, by default, it will appear as a line chart with the Trellis option , because that's what you chose previously. And if that's not what you want, just change the options—turn off the Trellis option, choose a different type of visualization, etc.