



IBM® Content Analytics with Enterprise Search
Trends View: Explore Increases in Frequency Over Time

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By exploring increases in frequencies over time, trends, you can quickly identify sharp and unexpected increases in frequency. You can use this information to make predictions about future increases in frequency.

Scenario

In this scenario, your company is involved in litigation over the cause of engine fires in Ford Explorers. You have been asked to research the trends in engine fires in Ford Explorers.

Task flow

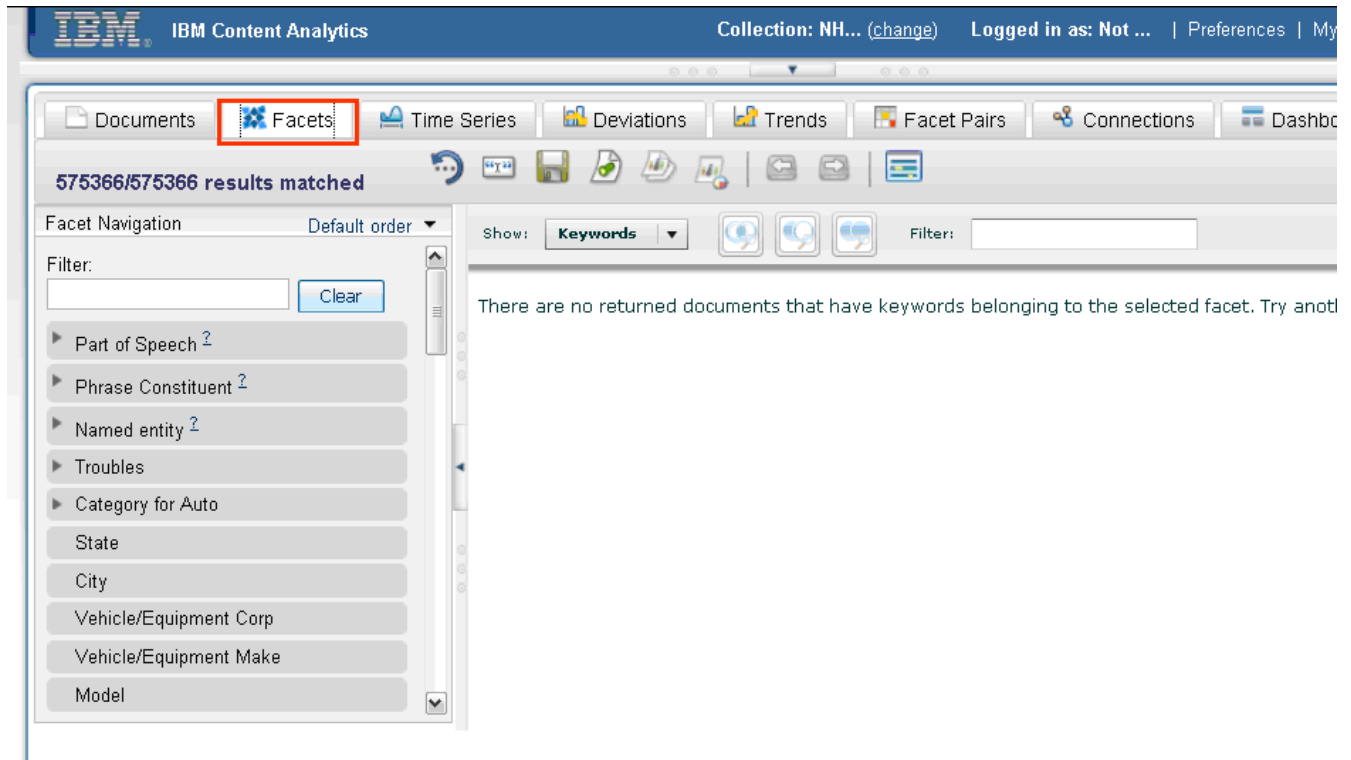
To accomplish this goal, you can follow this task flow

1. Create a query based on these two facets: *Model* and *Burn*
2. Evaluate data in the “Trends” view.

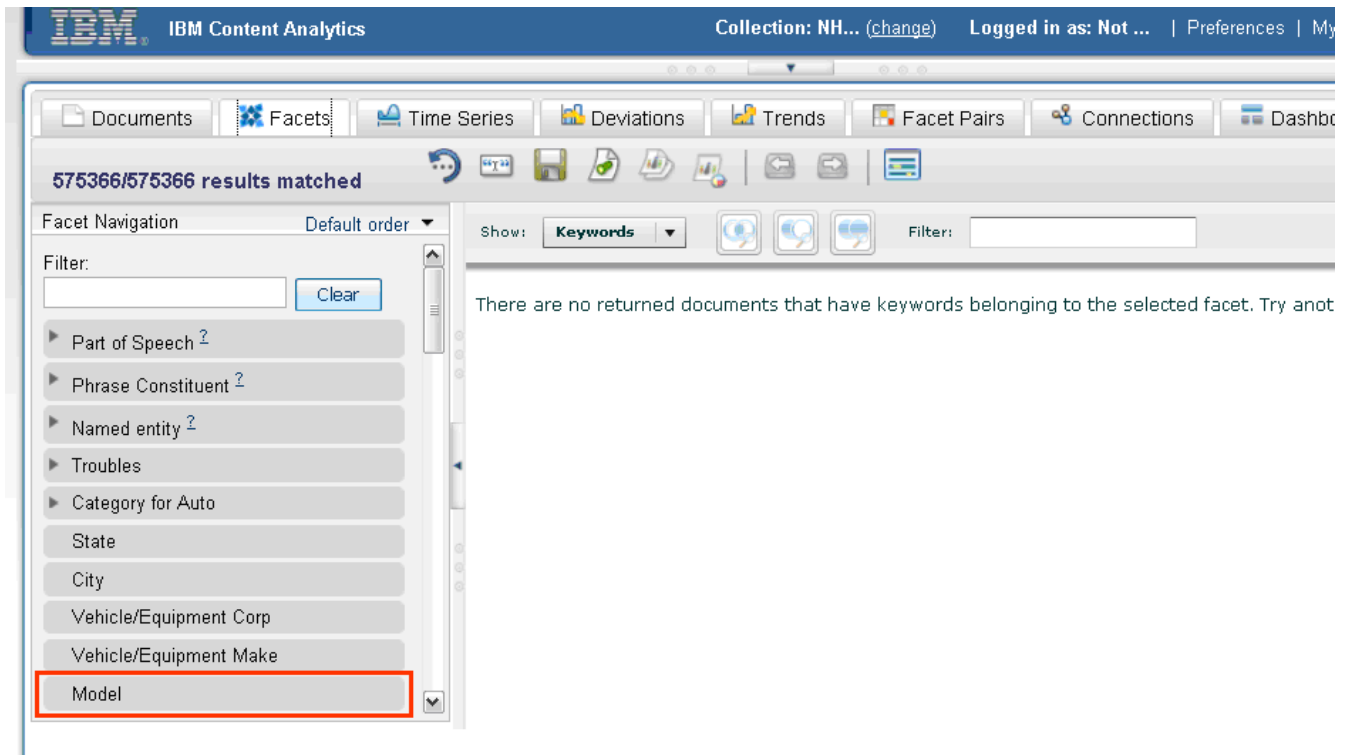
Procedure

To create a query based on *Model* and *Burn* facets:

1. From the IBM Content Analytics user interface, click the **Facets** tab.

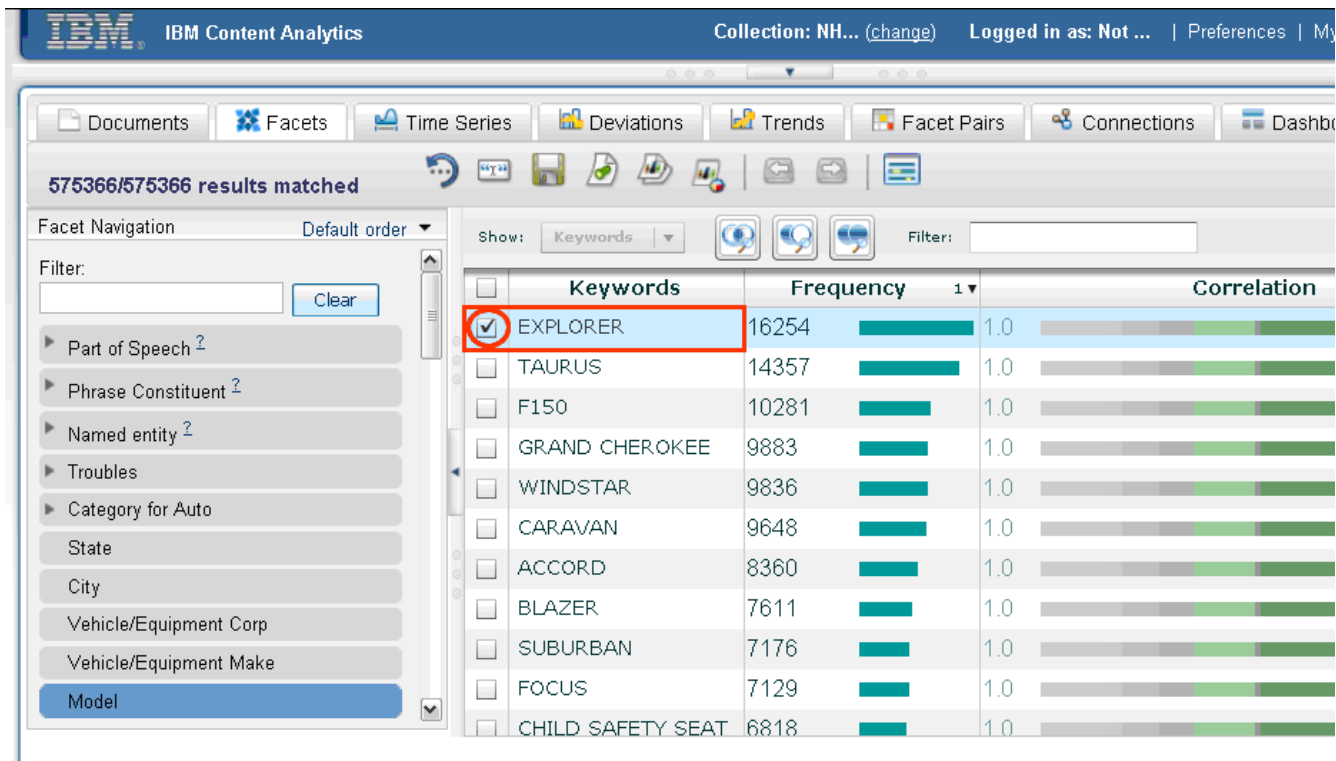


2. In the Facet Navigation panel, click your first facet, **Model**.

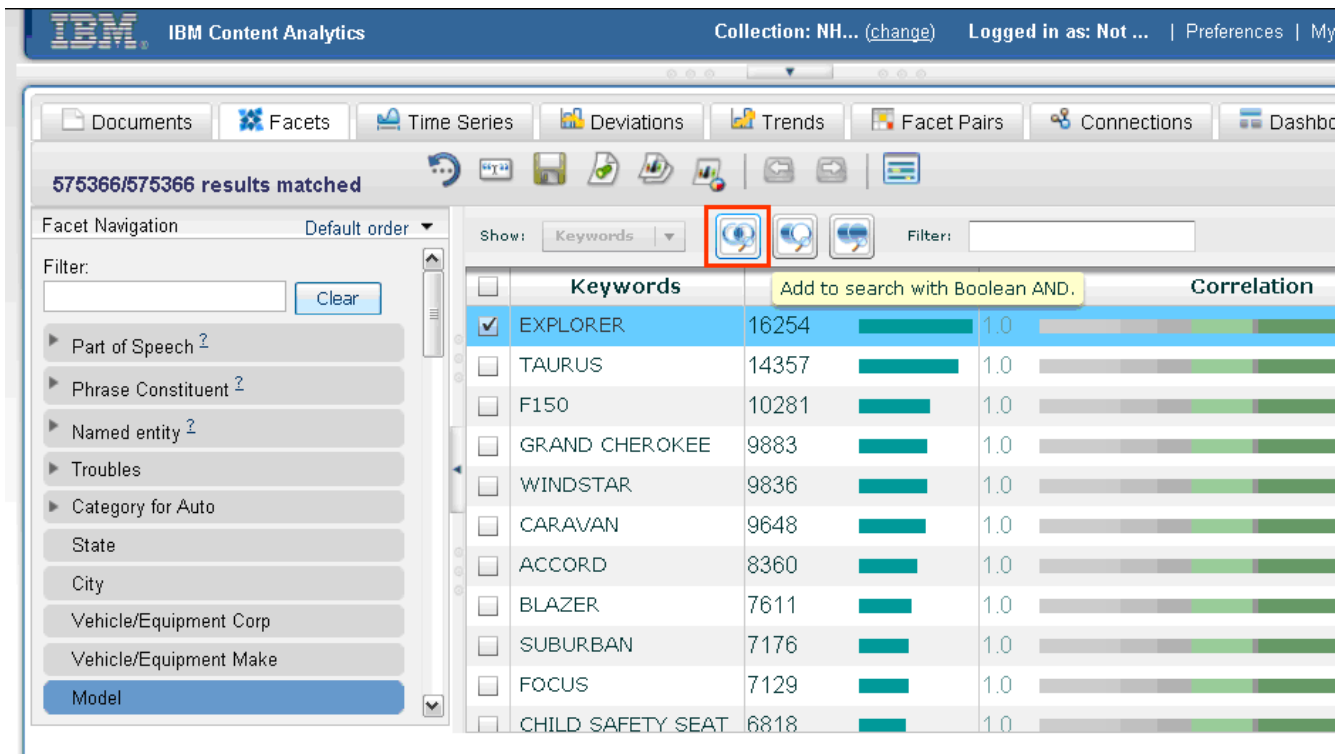


3. A list of keywords associated with the Model facet are displayed. For your research, select the model of car in question, **Ford Explorer**.

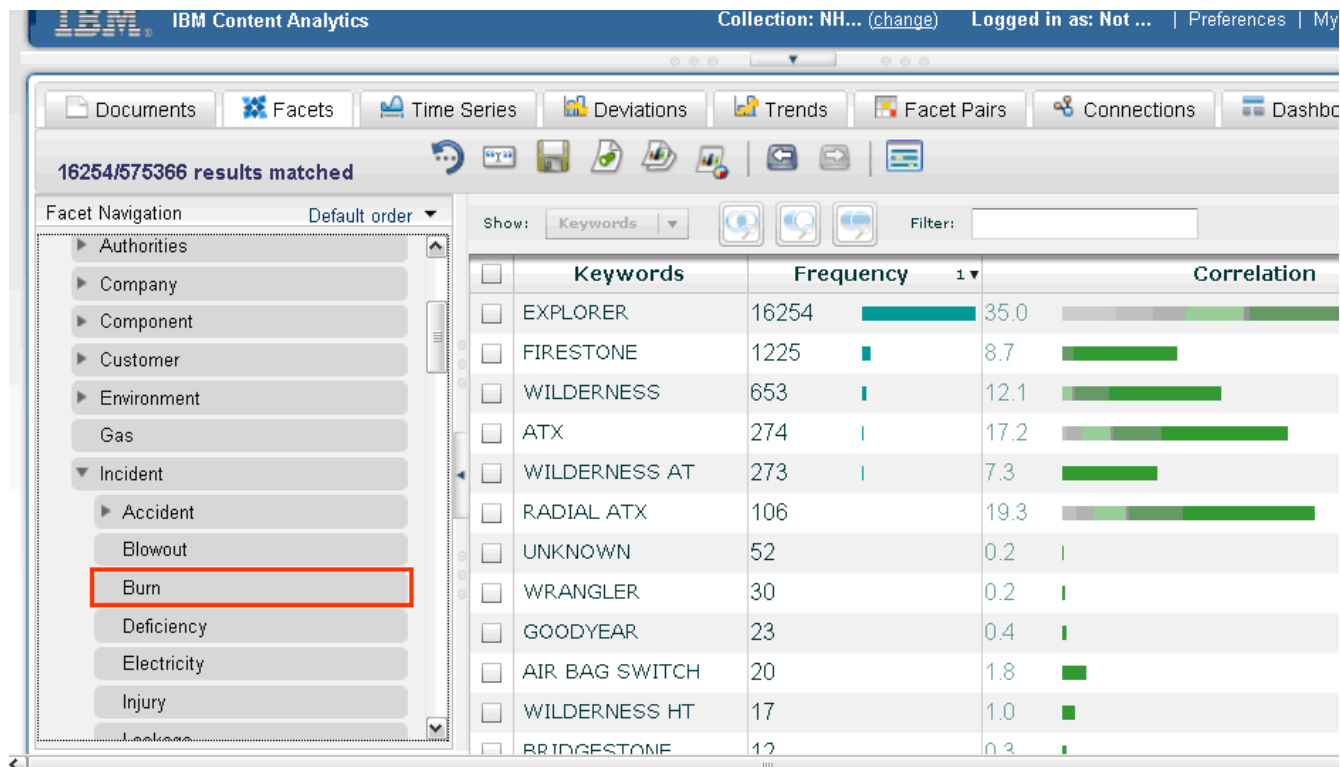
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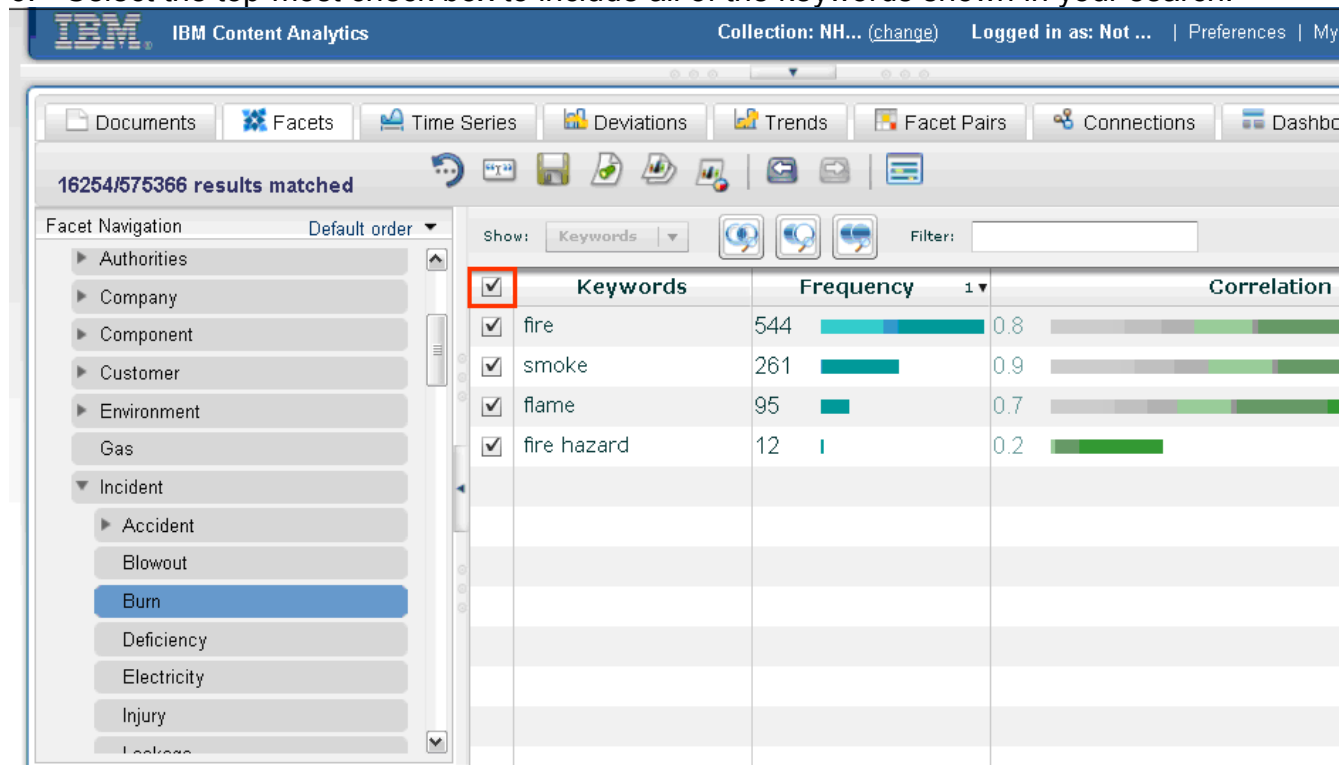
4. Add your selected keyword (Ford Explorer) to the search.



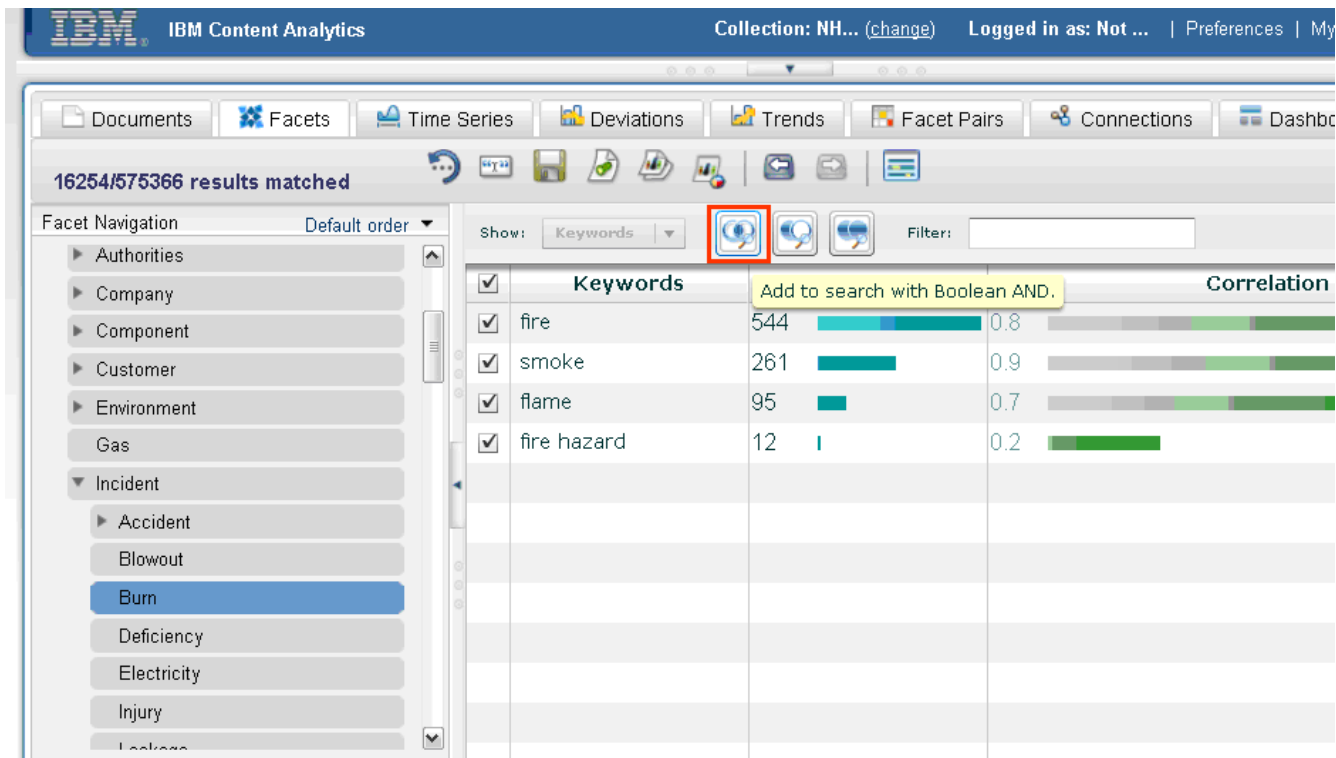
5. Select your second facet. Select **Category for Auto** → **Incident** → **Burn**.



6. Select the top-most check box to include all of the keywords shown in your search.



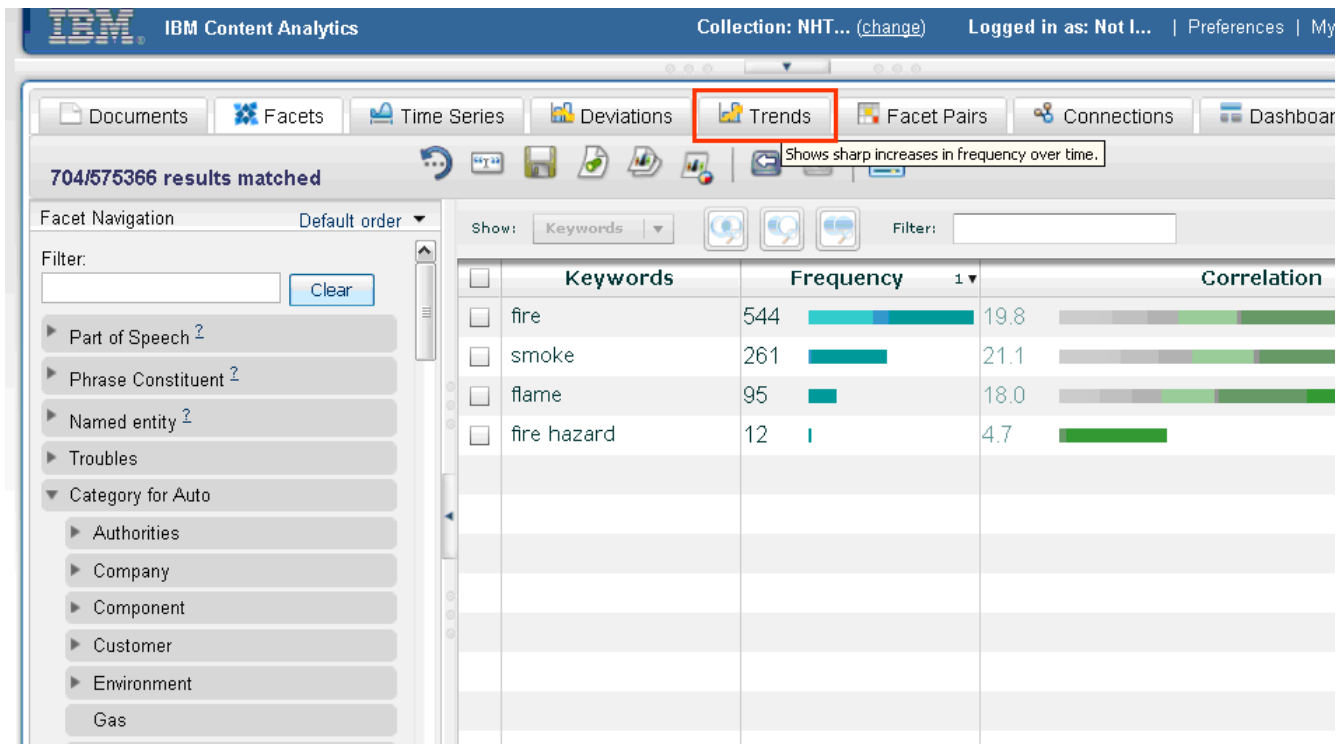
7. Add the keywords to your search by clicking **Add to search with Boolean AND.**



To evaluate data in the “Trends” view to get burn incident numbers and report trends:

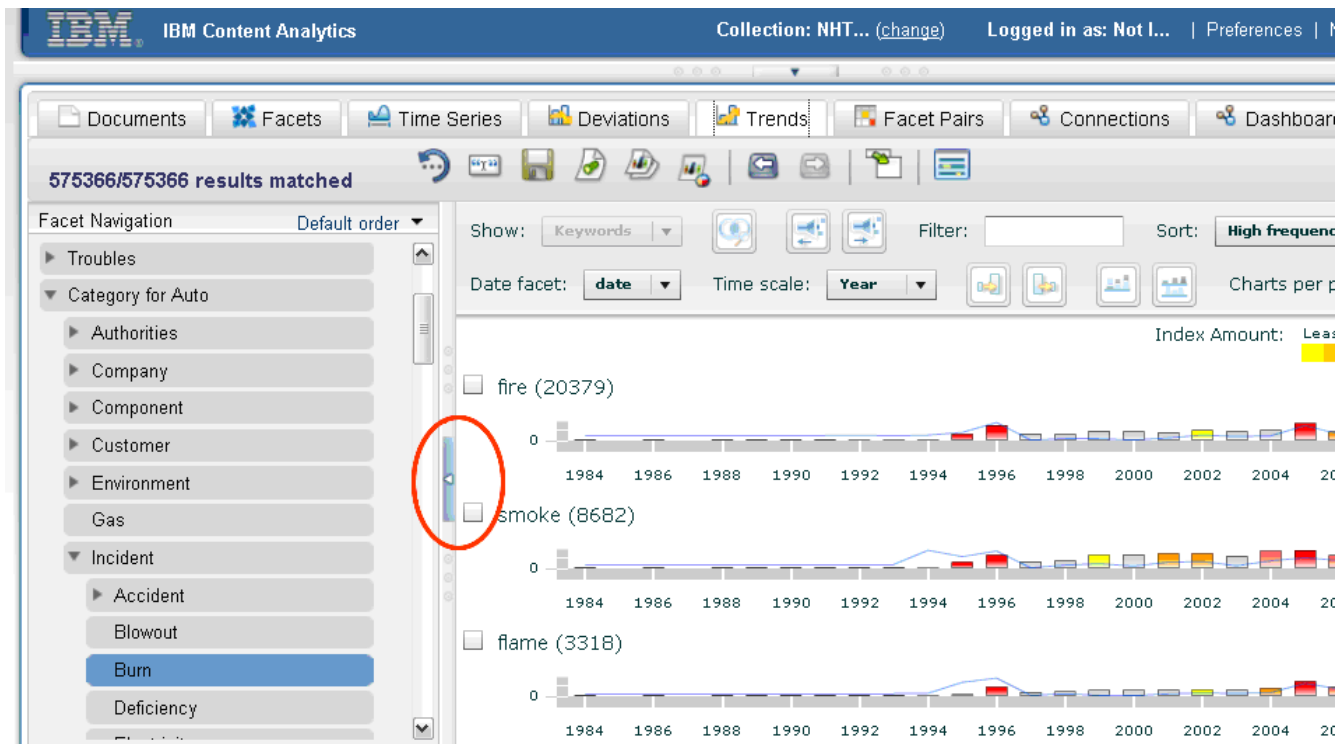
Click the **Trends** tab.

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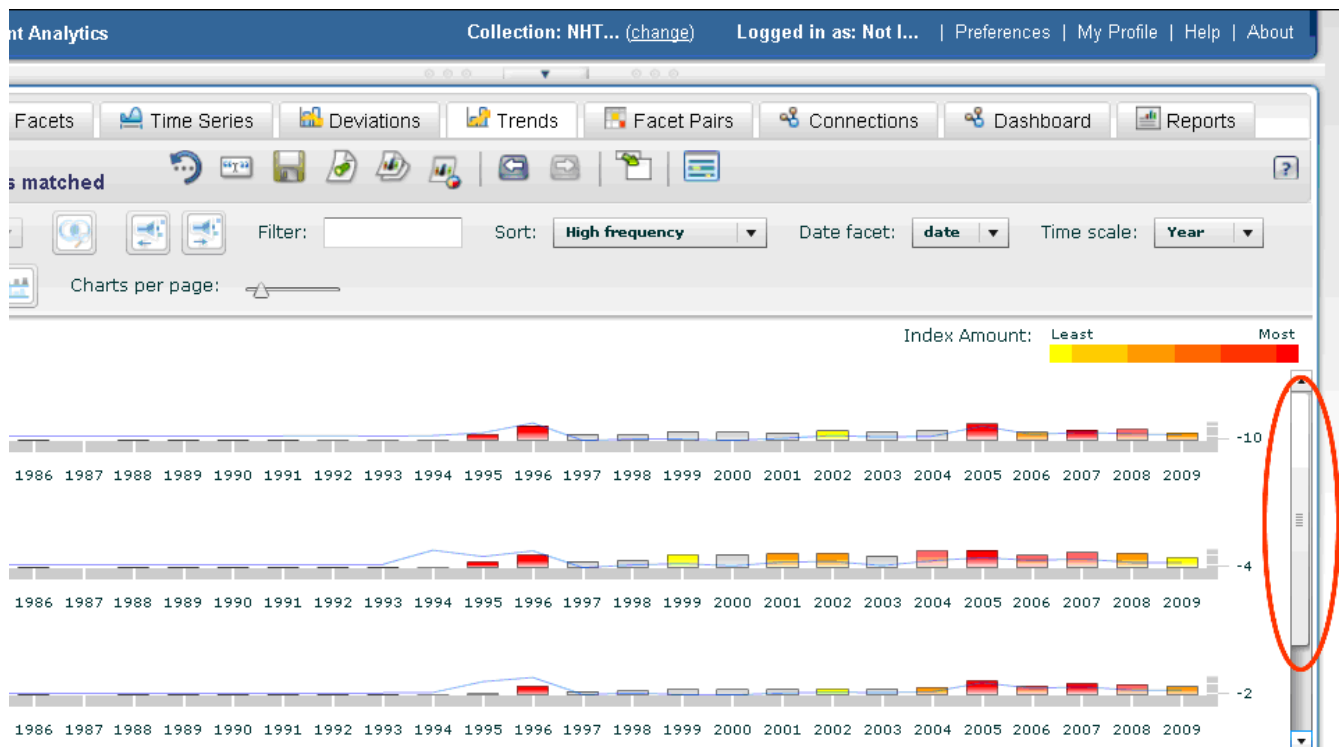


A chart is displayed for each keyword that was selected. You can close the Facet Navigation pane to increase the amount of space in which the charts are displayed.

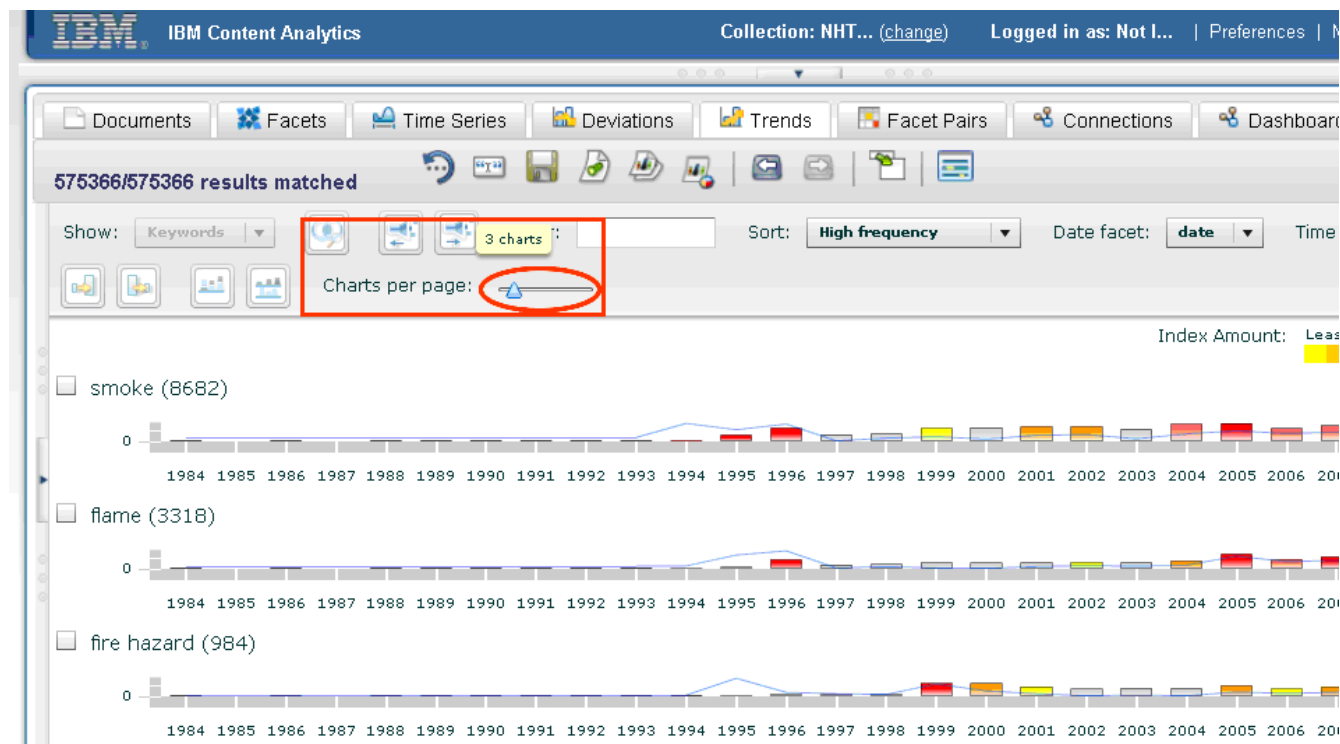
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When you have more than one page of charts, you can use the slider on the right of the view to scroll from one page to another.



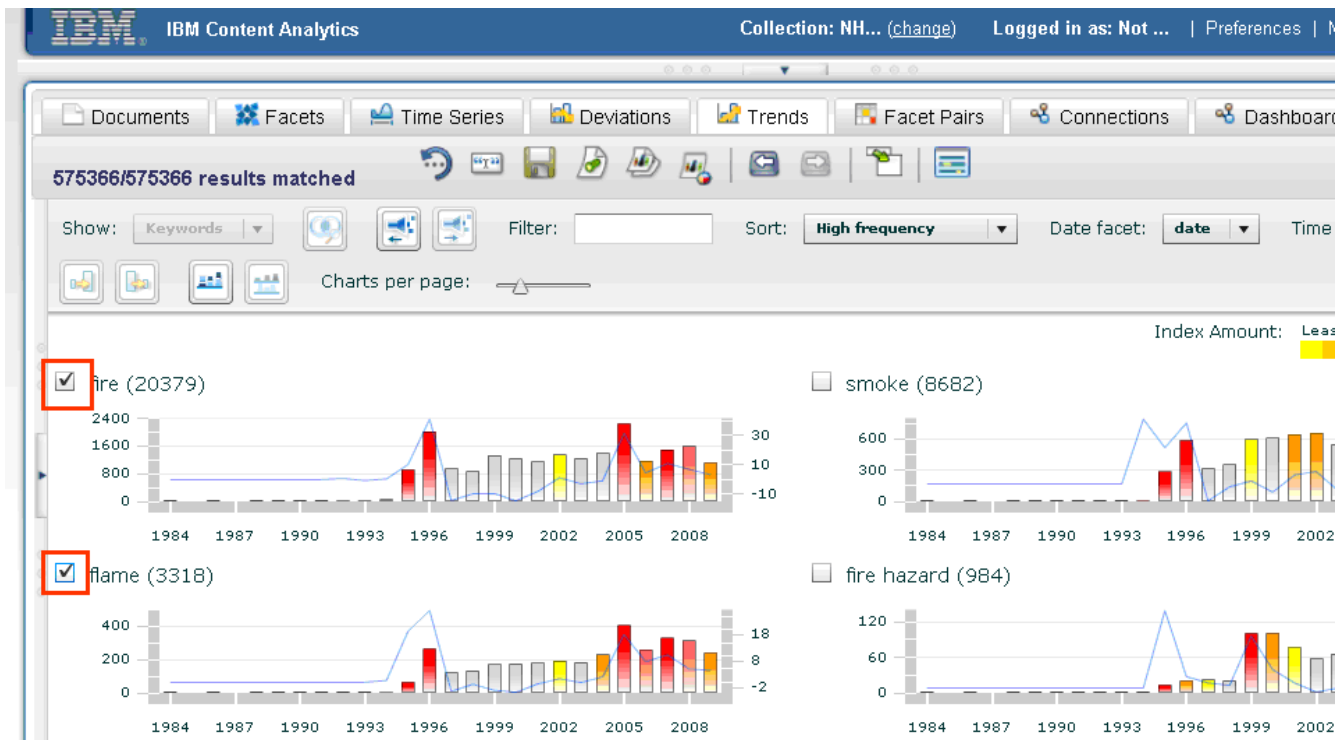
In this scenario, you decide that since you have only four slides, you would like to view them all on one page, so you click on the **Charts per page** slider and move it to the right until you see **4 charts** in the hover text.



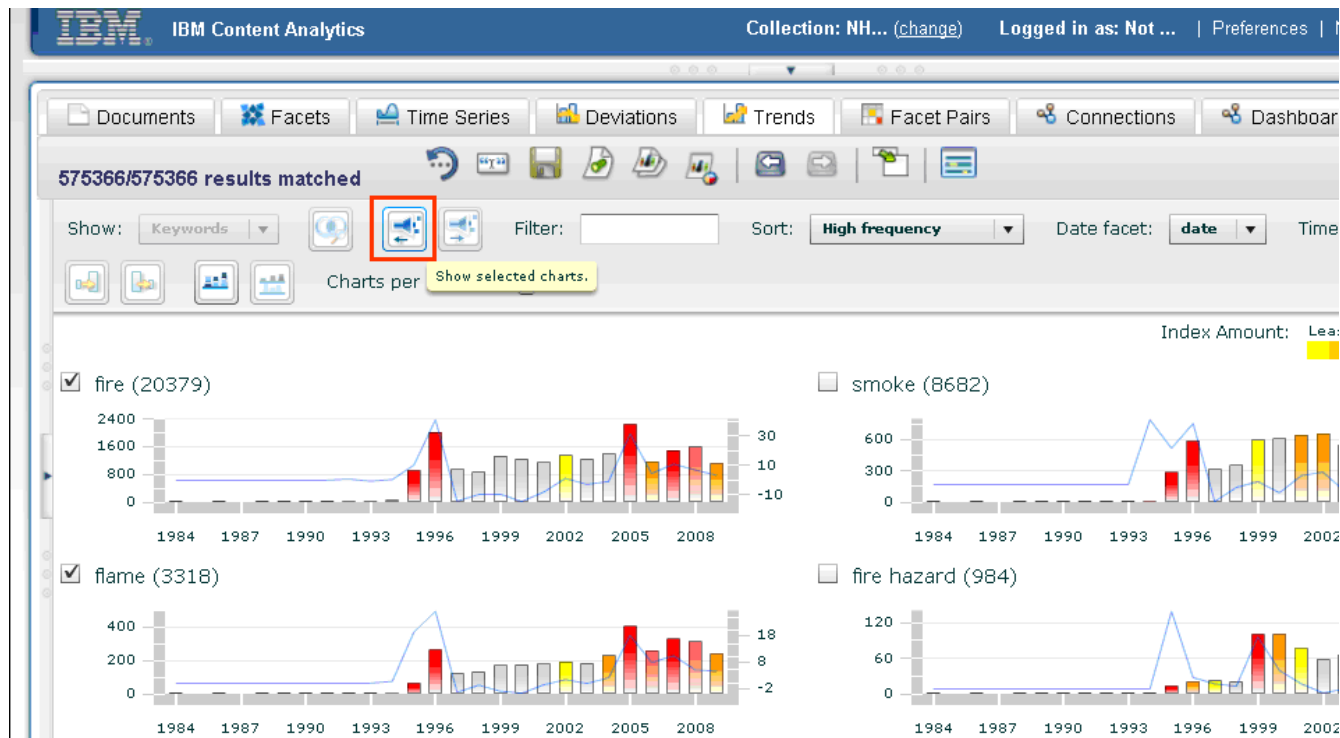
You can also show and hide charts that are displayed in the view.

For example, if you want to view just the fire and flame charts, first select the check boxes next to the charts.

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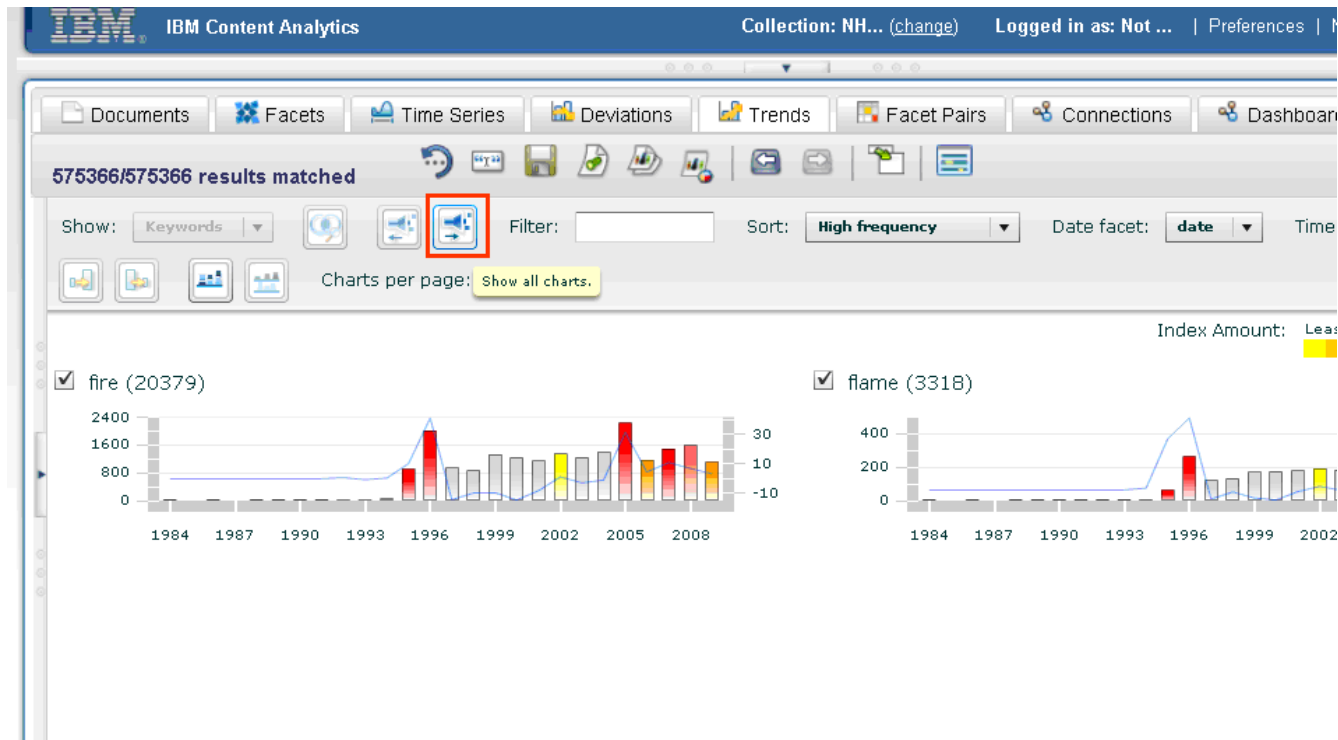
Next, click **Show selected charts.**



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Then you will only see the “fire” and “flame” charts.

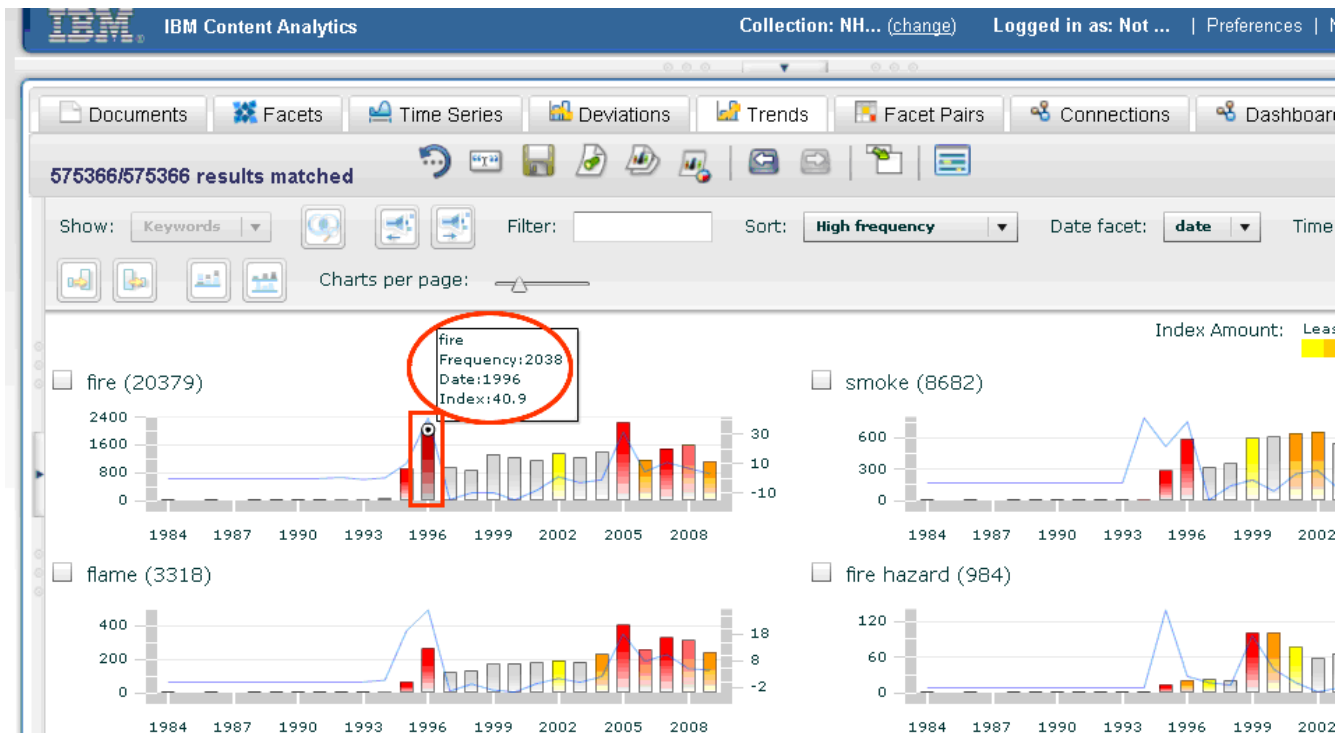
You can always click **Show all charts** to remove the filter.



If you hover over a bar or a line in a chart, you can see detailed information about the keyword at the specified point in time.

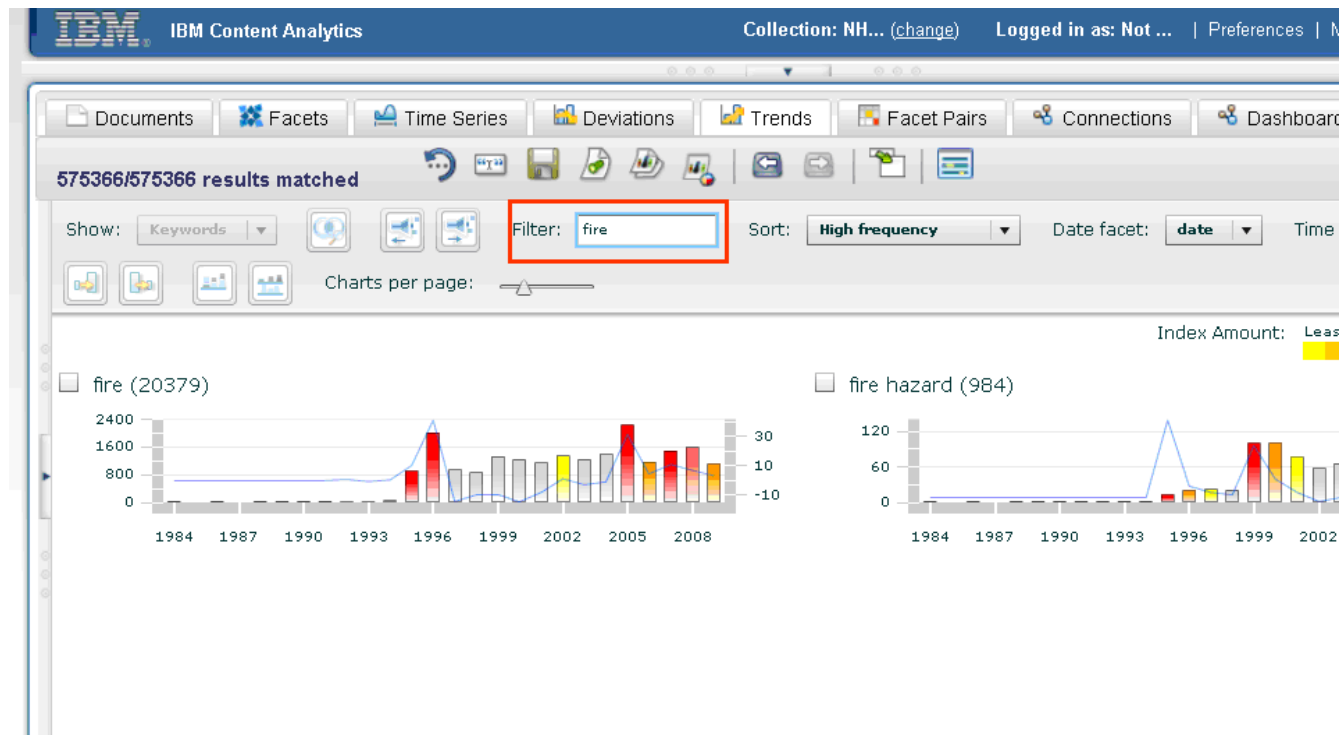
For example, if you hover over the bar for 1996 in the fire chart, you can see the keyword, frequency, date, and index.

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You can filter charts based on the content of their keywords by typing the filter into the Filter field. The view is dynamically altered to show only charts that match the filter. For example, typing fire into the Filter box hides the charts for smoke and flames.

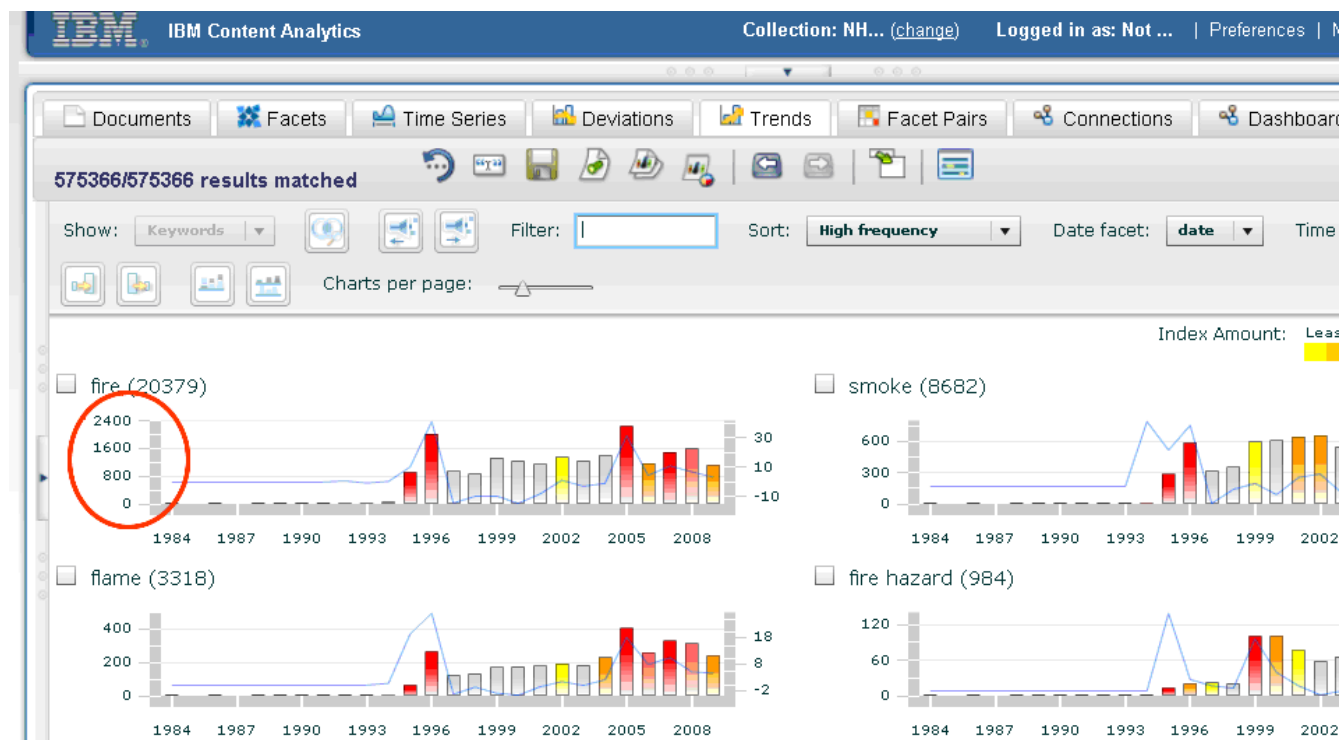
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To remove the filter, clear the Filter field.

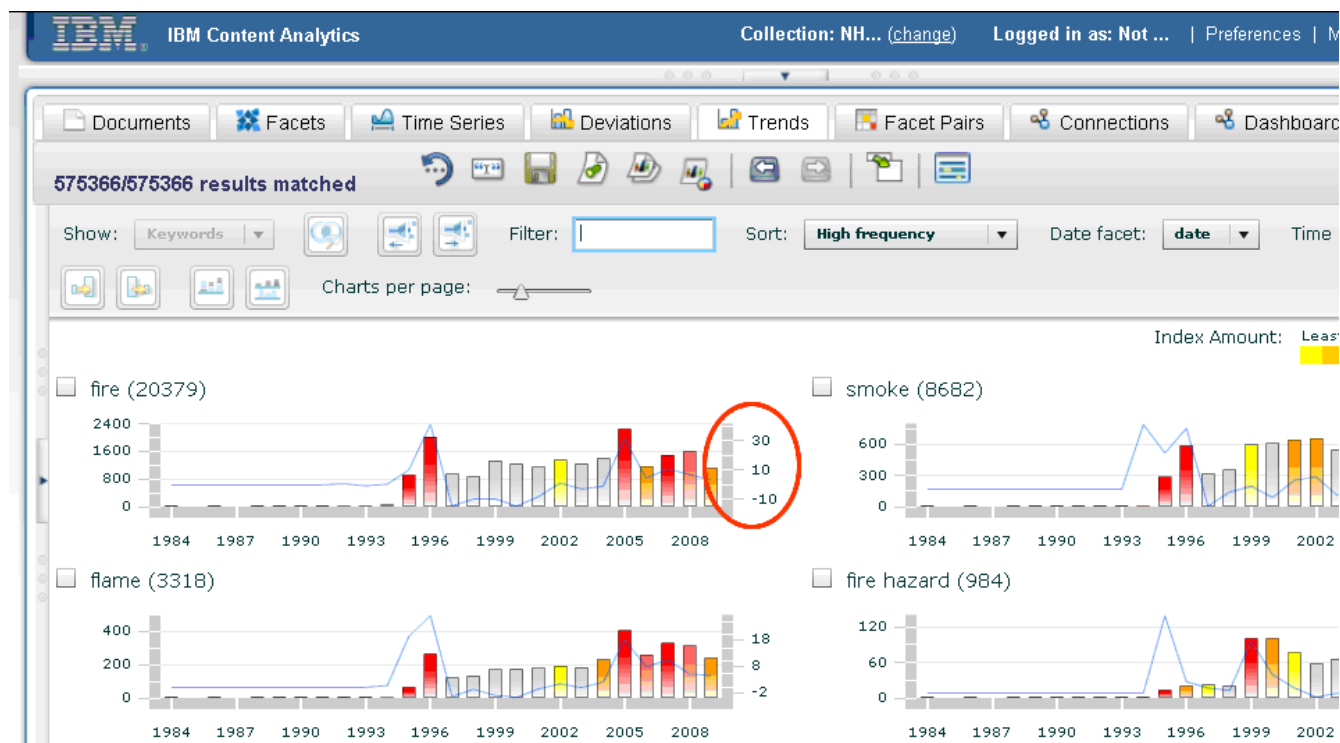
In each chart, the frequency of the selected time period is shown as a bar graph. Along the y-axis on the left of the chart, the frequency count scale measures the frequency from 0 to the maximum scale.

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Along the y-axis on the right side of each chart is the increase indicator scale. This scale measures the increase ratio of the frequency for a given time interval as compared to the expected average frequency. The **trend index** (which is a value calculated from the difference between the actual frequency and the expected frequency) is shown as a line graph in the chart.

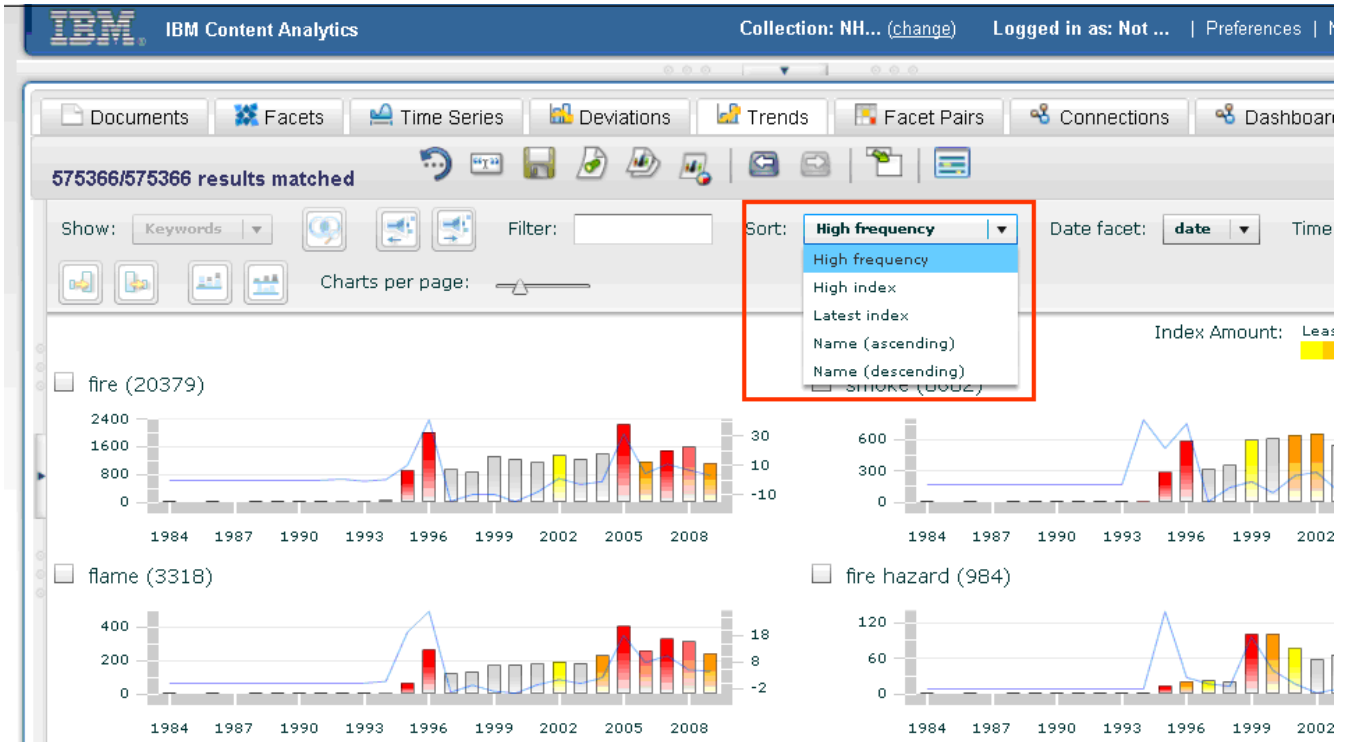
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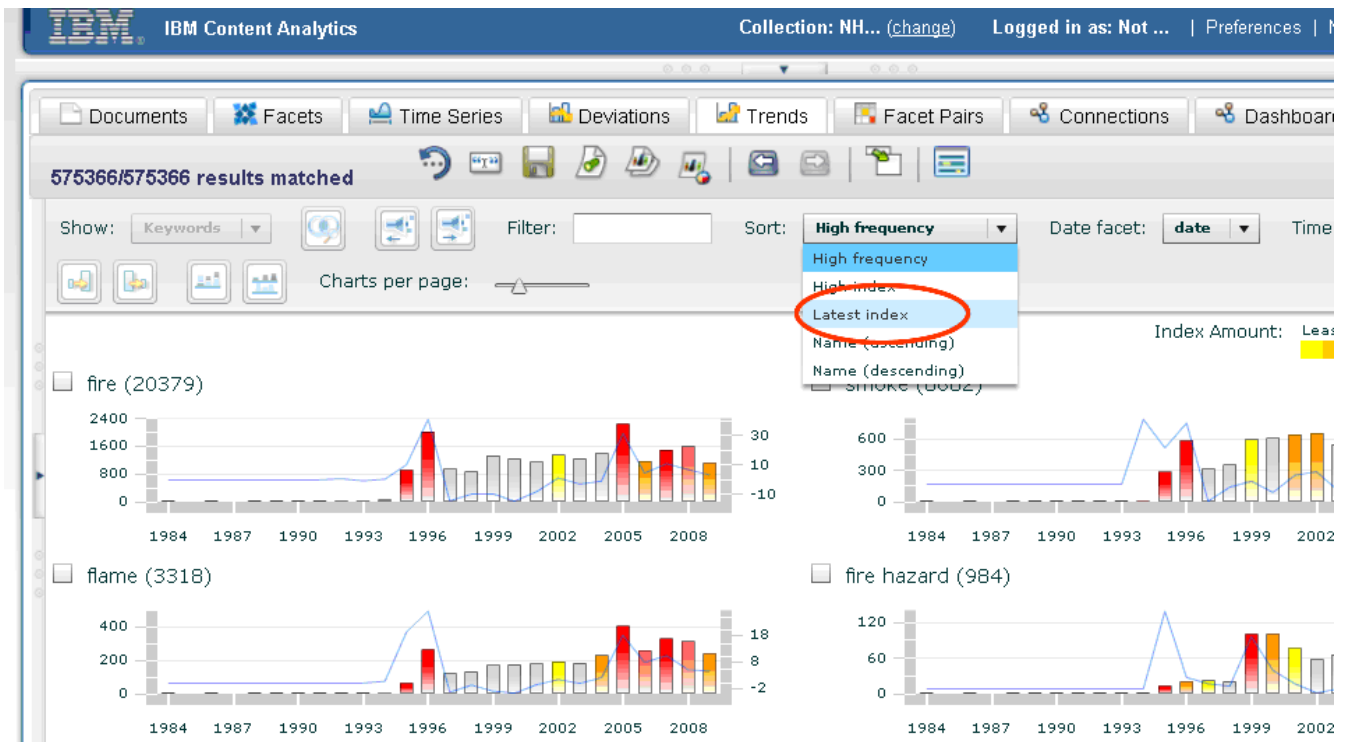
To sort the view so that you can find charts more quickly, select an option from the Sort dropdown list.

The view is sorted in descending order if you select High frequency, High index, or Latest index. Name (which sorts charts by keyword) is sorted in ascending or descending order depending on your selection.

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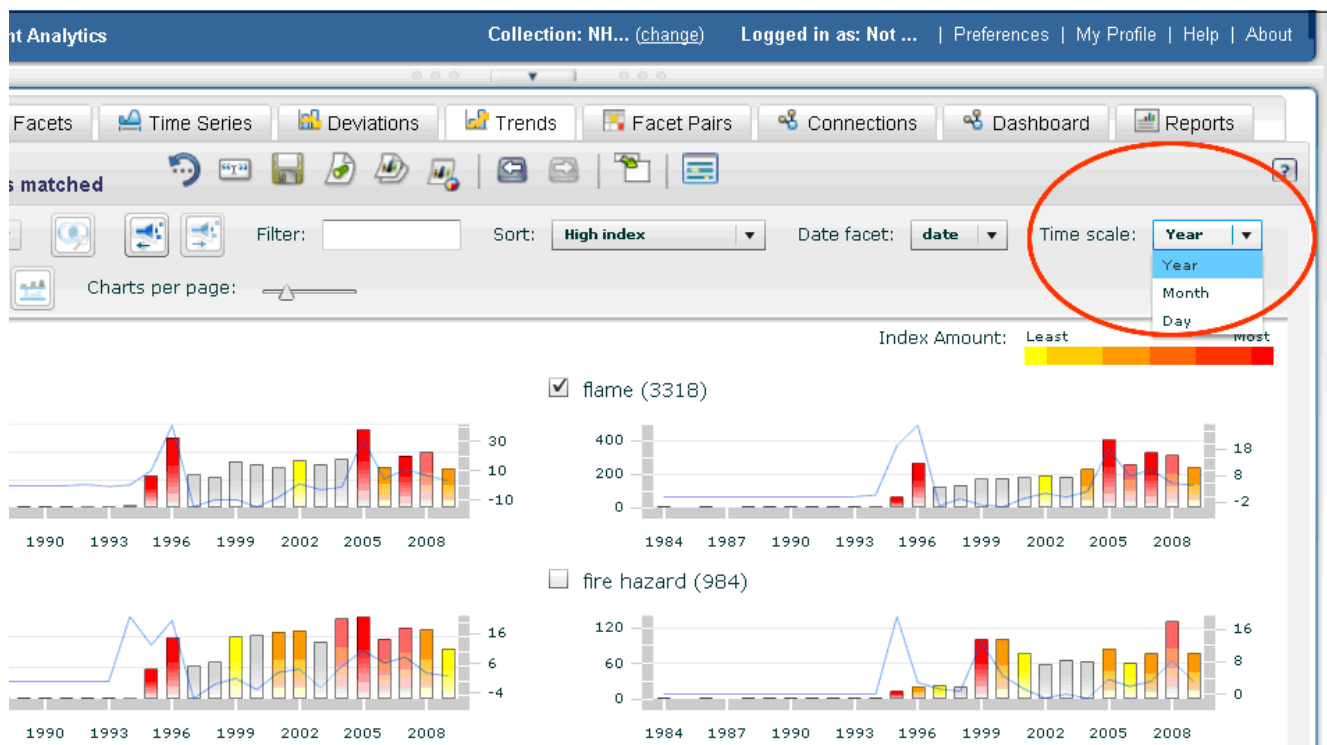


In this case, you decide that you want to quickly identify which keywords are most recently operating out of the norm, so in the Sort drop-down list you select **Latest index**.



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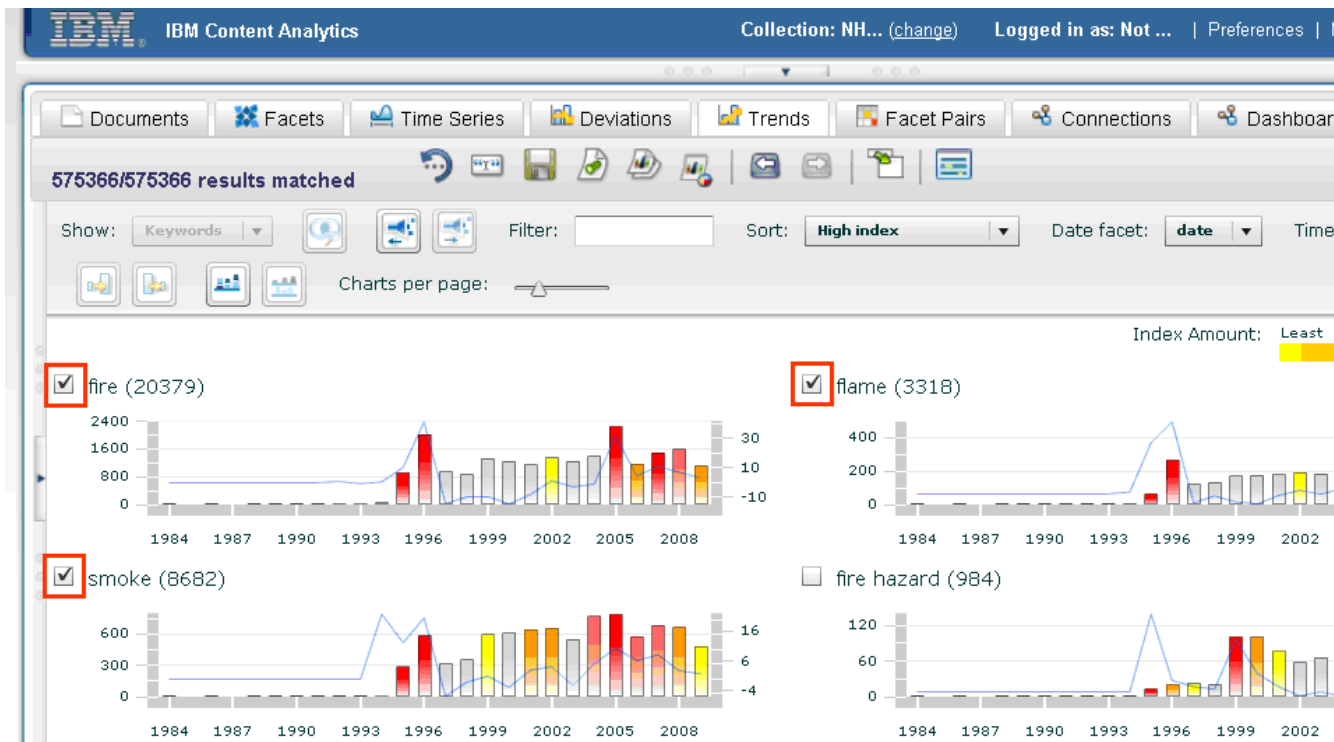
You can display trends by day, month, and year. In the Time scale drop-down list, select the time scale that you want to apply to the charts. The view is redrawn to show the data with the appropriate time scale applied.



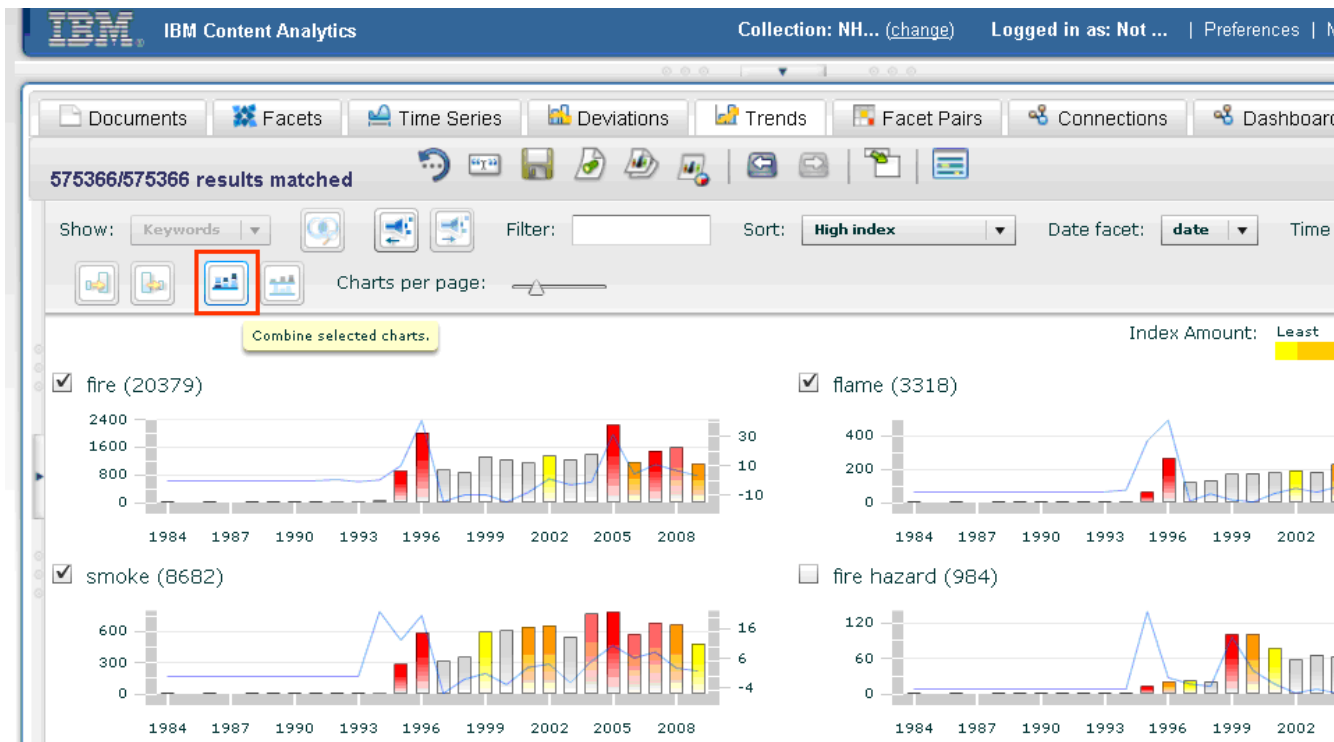
You can combine charts to see how certain keywords compare in their deviations from the expected frequency.

Let's say that you want to combine the fire, smoke, and flame charts. First, click the check boxes next to the charts for keywords that you want to combine.

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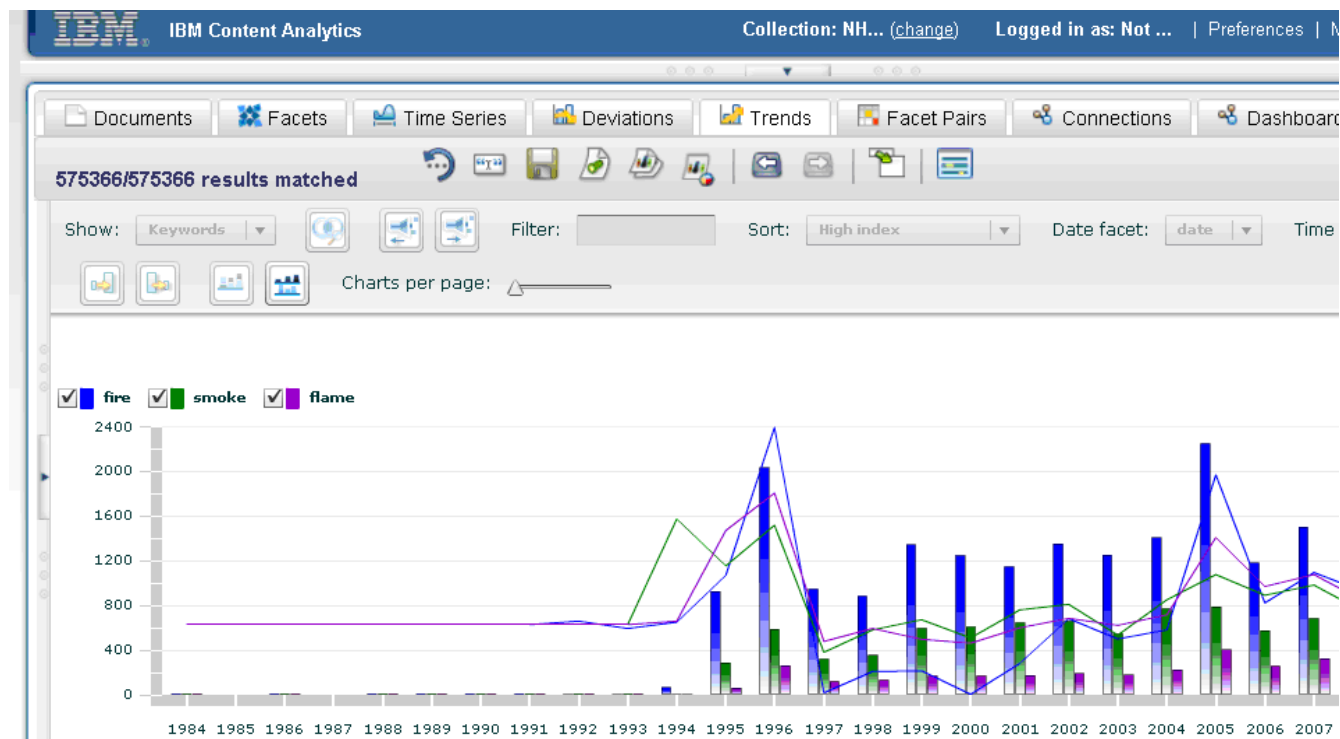


Click **Combine selected charts.**



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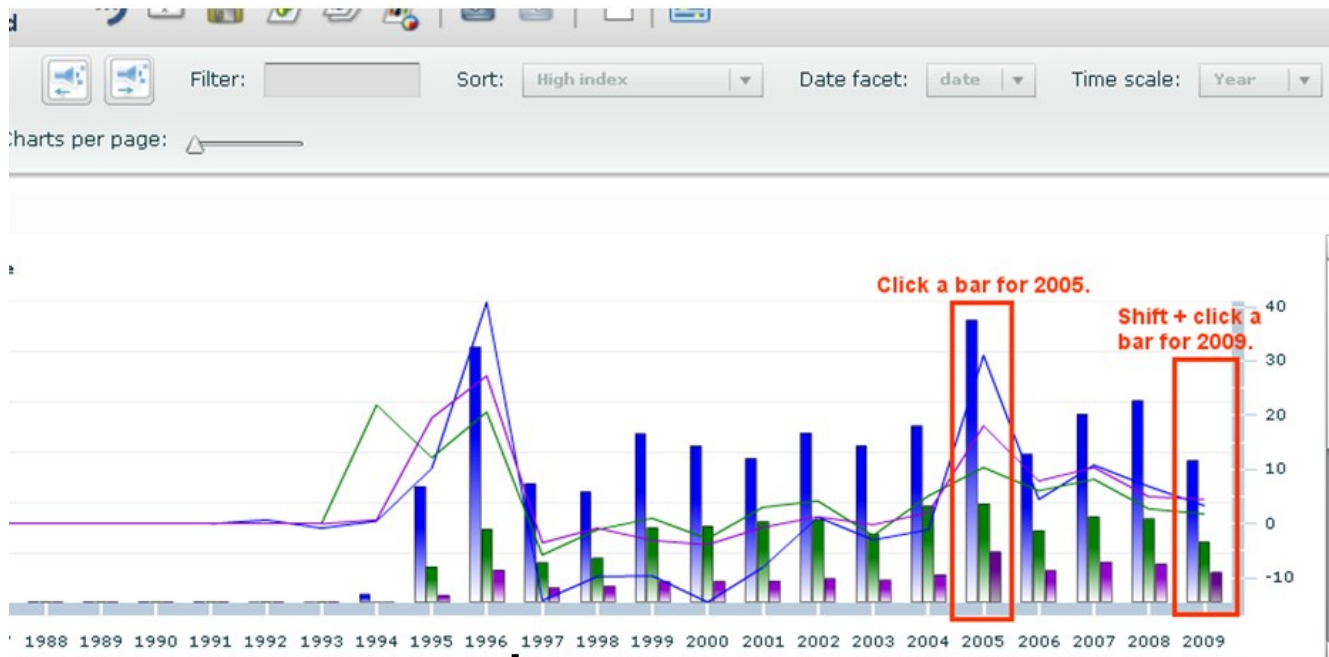
The three charts, smoke, flames, and fire are combined, so that you can see all of the data in a single chart.



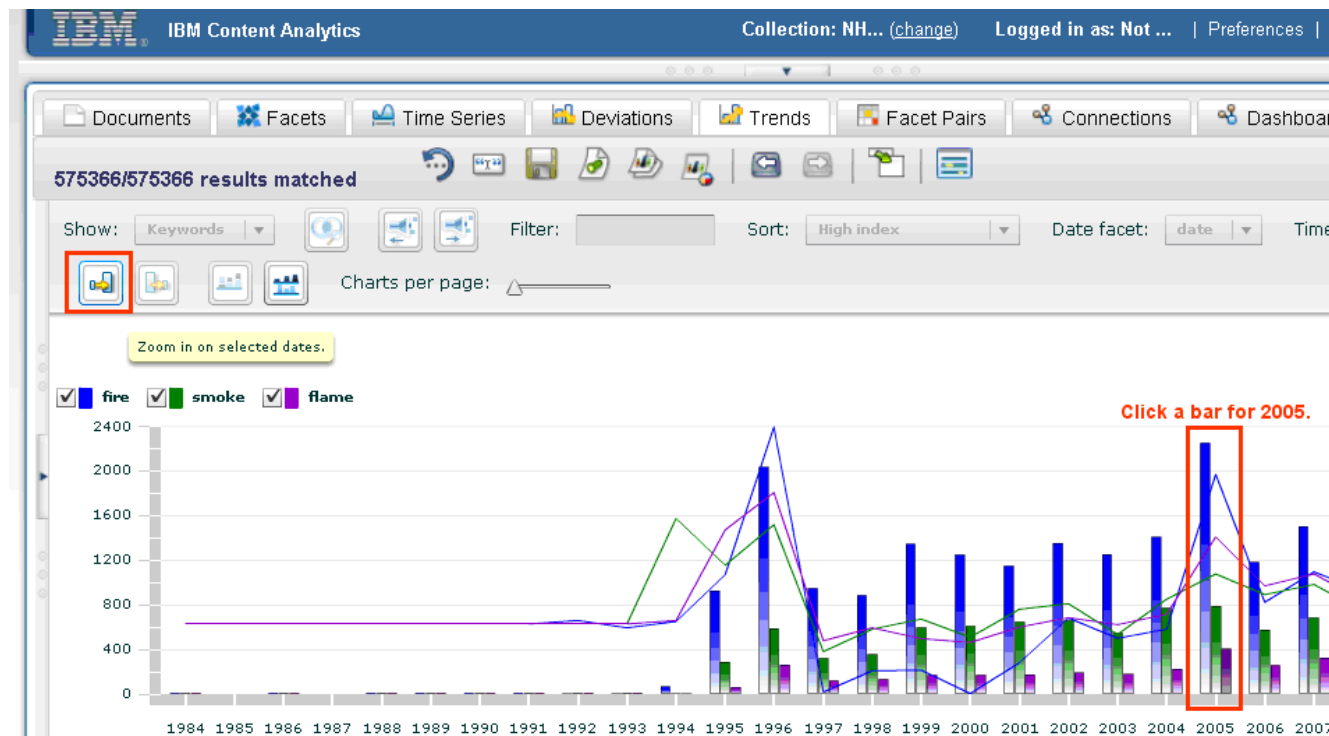
You can look more closely at a range of dates. First, click one of the bars for the start date, then press Shift and click one of the bars for the end date.

For example, if you click on a bar for 2005, and then Shift + click on a bar for 2009, the range will include all of the data from 2005 to 2009.

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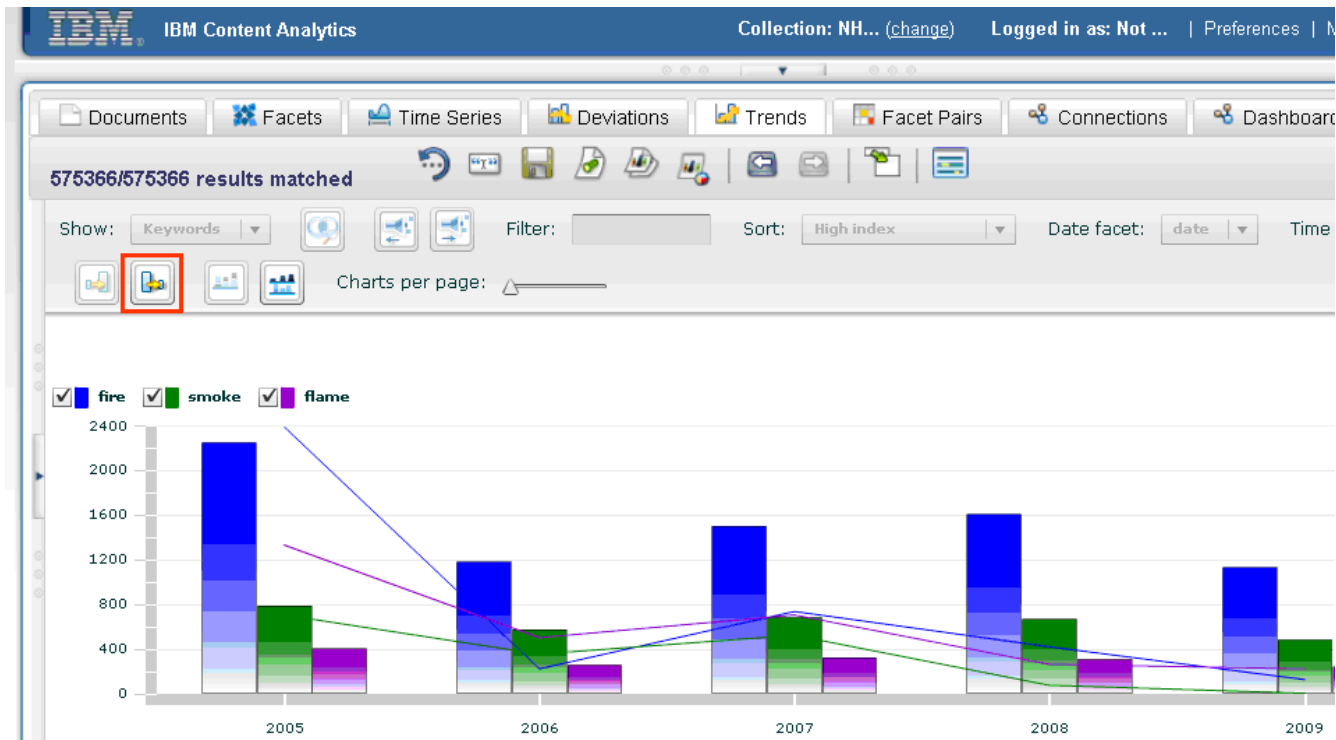
Next, click **Zoom in on selected dates.**



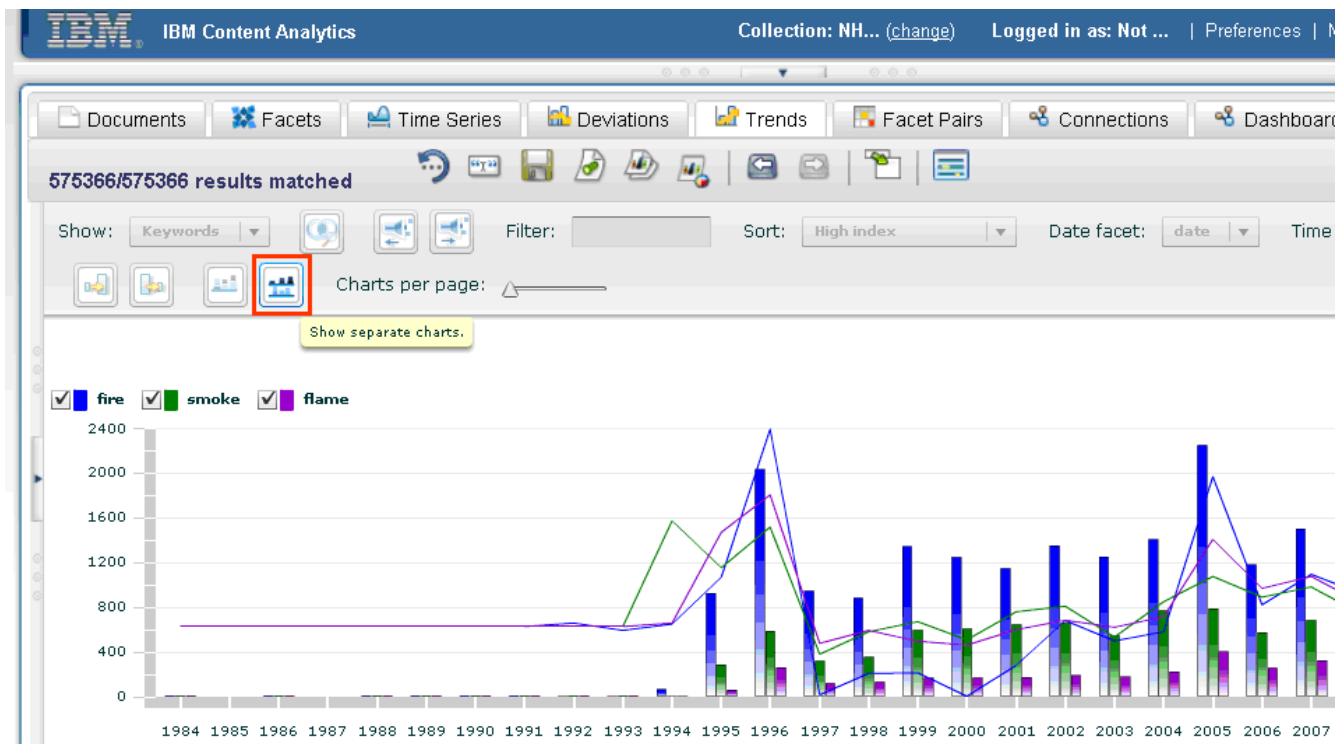
The data for 2005 to 2009 is displayed by itself.

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To remove the zoom filter, click **Zoom out to all dates**.



To view all of the charts again, click **Show separate charts**.



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This concludes the scenario for exploring sharp increases in frequency over time.

=====**End of Scenario**=====

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