



VAST 2024 MC3: INTERACTIVE DATA EXPLORATION AND ANALYSIS

User Guide



ISSS608 Visual Analytics & Applications

Project Group 8

I. About the application

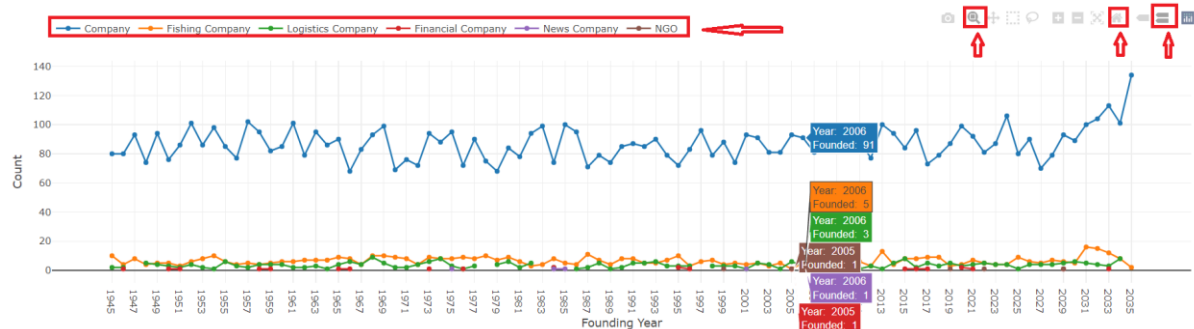
The application has multiple tabs that contains different graphs for the purpose of Data analysis. These includes:

- Timeseries Tab
- Network Graph Tab

Further information on each tab is provided below.

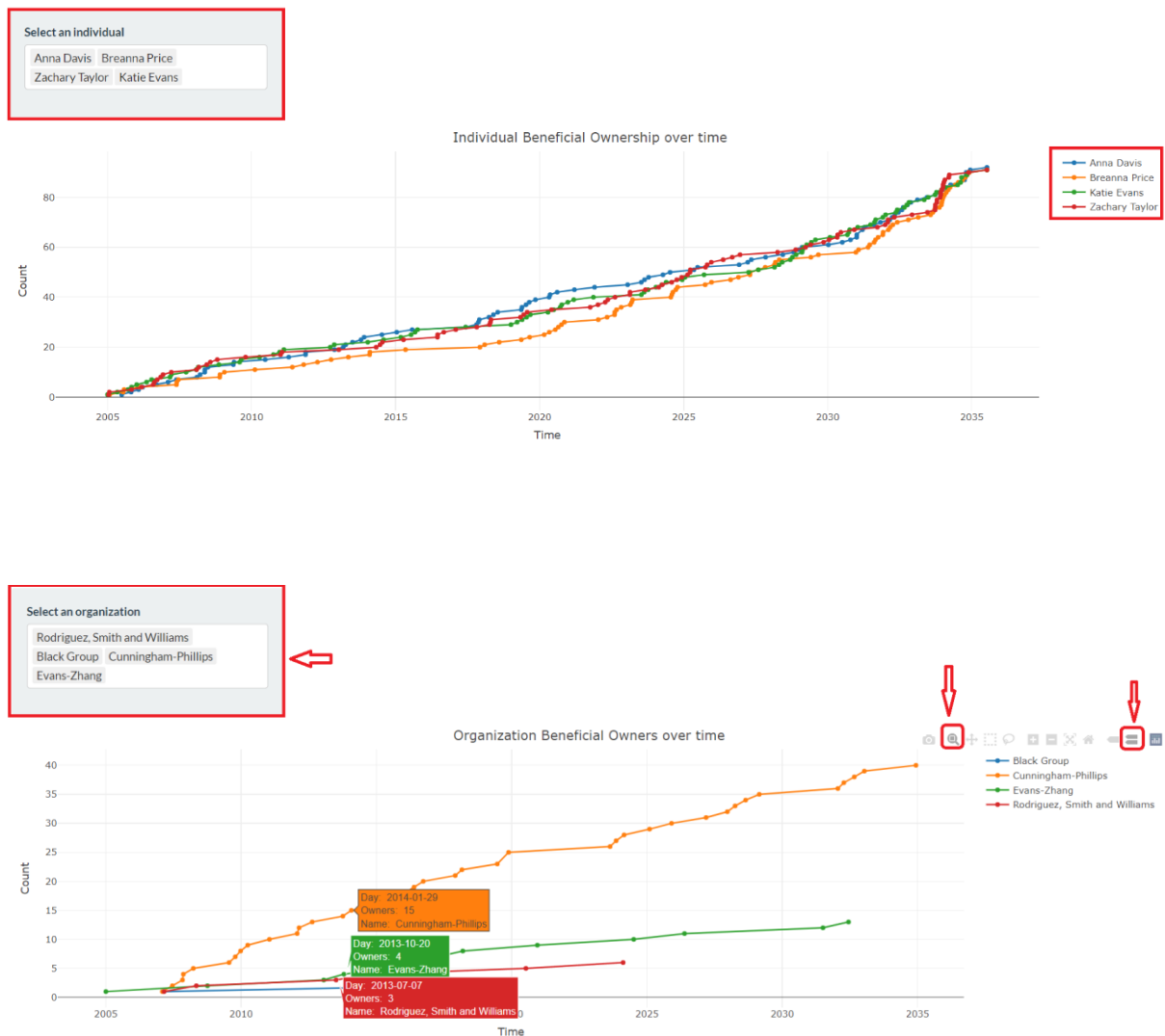
II. Timeseries

1. Yearly founded organizations



1. User could select the legend to remove them as necessary
2. The **Zoom** button is for granularity viewing of the specific period.
3. **Reset axes** button is used to return the graph to its original state
4. The **Compare data on hover** button could be used to compare data for the same period for different organization types.

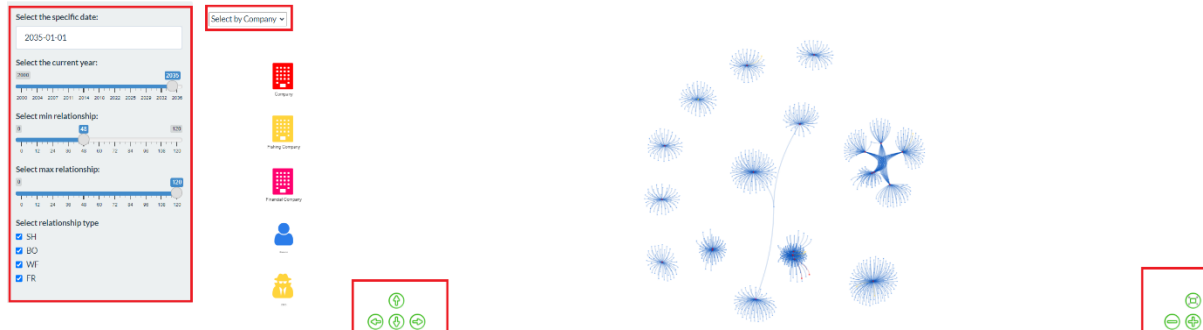
2. Individuals Beneficial Ownership & Organizations Beneficial Ownership



1. Name of specific organizations or individuals of interest could be put in for viewing and comparing
2. The **Zoom** button is for granularity viewing of the specific period.
3. **Reset axes** button is used to return the graph to its original state
4. The **Compare data on hover** button can be used to compare data for the same period for different organizations or individuals.

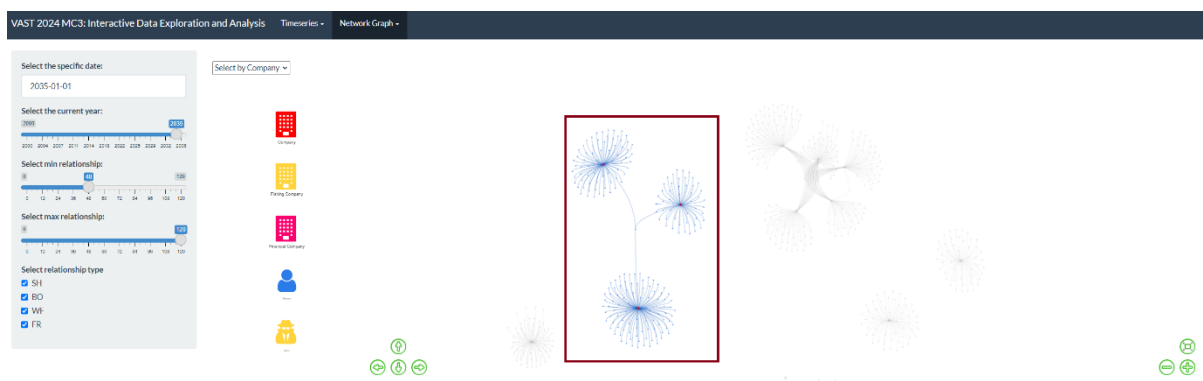
III. Network Graph

1. Organizational Relationships

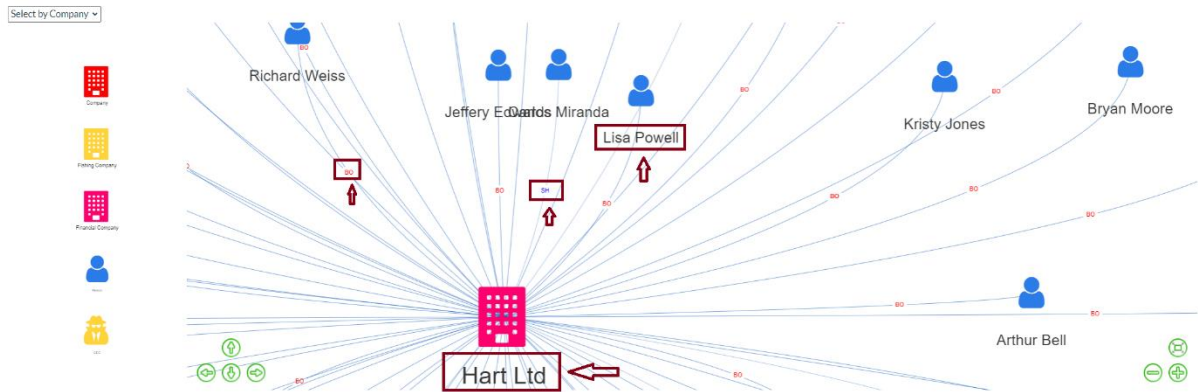


1. Sidebar functionalities

1. A specific **date** could be **input in the field** to see the calculation from the beginning of the data up to that date.
2. Similar to the date field, the **year slider** serves the same purpose and provide an easier way to filter the data.
3. The **min max relationship** is used to control the minimum and maximum number of relationships a specific company or nodes have with others.
4. The relationship type could be used to filter out different types of relationships considered in the graph. These are **BO, SH, WF, FR**, which refer to **Beneficial Ownership, Shareholdership, Works For, and FamilyRelationship** respectively.
5. A **specific node** could be clicked on or selected from the drop-down menu. Doing so would highlight other nodes that has a relationship with the selected node up to a **degree of 2**.
6. The navigation button at the bottom of the graph can be used to move around and zoom in further, but mouse drag, and mouse wheel would work as well.



- Once zoomed in, further information of the nodes can be viewed, including the relationship between the nodes and the names of specific nodes.



2. Organizational Hierarchy

Network Analysis

Select Company
SouthSeafood Express Corp

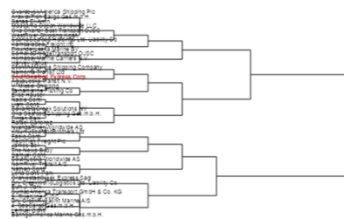
Select Key Date
25 May 2035

Select Data Range
☒ Top
☐ Bottom

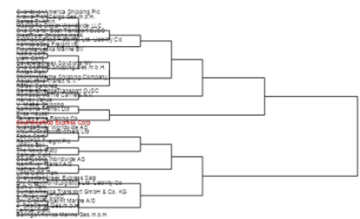
Insert Percentage (%)
5

Analyze Network

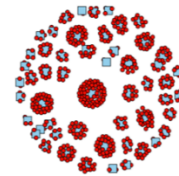
Before and On 25 May 2035



After 25 May 2035



Network Graph of Top 5 % Revenue Outliers



For the dendrogram, users can:

1. Choose the company from the **"Select Company"** dropdown menu
2. Enter the **date** in the "Select Key Date" field to show the charts for before and after this date.

For the network graph:

1. Choose either **"Top"** or **"Bottom"** on the "Select Data Range" radio buttons.
2. Enter the **percentage** of outliers you want to consider in the "Insert Percentage (%)" field.
3. Click the **"Analyze Network"** button to generate both charts.