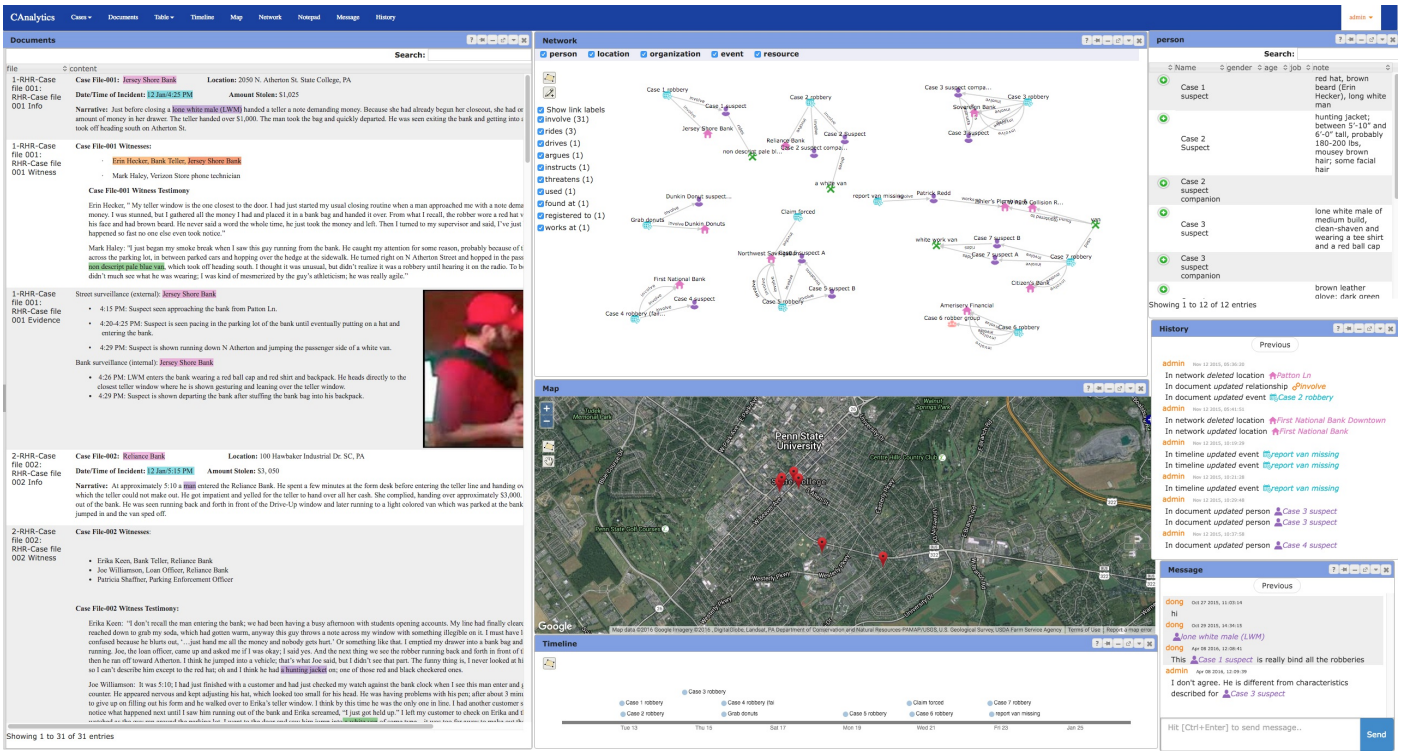
CAnalytics Tutorial

Overview



CAnalytics is a web application to support collaborative information analysis.

Key features:

- Integrated support for data collection, data analysis, and hypothesis development.
- Real time sharing of data and views in teams.

CAnalytics Tutorial - Data Annotation

What is CAnalytics?

Follow step by step

1. Log in to CAnalytics http://ca.ist.psu.edu with your PSU credentials
2. CAnalytics is team-based, which means you have to join a team to start analysis in an intelligence case.
    i. In the real study case, one member in your team needs to enter Case `Training One` and creates a team name and pin.
    ii. Other team members join the team in that case with the team credentials.
    iii. For this tutorial case only, each of you will create your own team so that you can go through all the following steps yourself.
3. Open `Case` window to learn information about the case and your role
4. Open `Document` window
5. Start making annotaitons. You achieve two things by making an annotation:
    i. You create an entity or relationship, which structures your later analysis
    ii. You preserve the context from which the entity/relationship was extracted, which will help your teammates and yourself to revisit the data source.
6. Create person entity `Jeff`, and put a note `victim`

7. Mouse over the annotation to see details
8. Create event `Theft 1` with involved person and time.
9. Create person entity `Lisa` and apply to all text `Lisa`
10. Delete the first annotation on `Lisa`, note that this does not delete the entity `Lisa`
11. Delete the second annotation on `Lisa` and choose `Delete All`. Note: deleting all annotations will archive the entity `Lisa`
12. Open `Person Table` window and restore the entity `Lisa` (or you can open history to restore the entity)
13. Create location `Rec Hall`
14. Modify the event `Theft 1` and add the location.

Exercise

Create the following entities and relationships by making annotations on the document.

Entity	Name	Attribute
person	Tom	
Event	Basketball game	time (9-12pm), person (Jeff and Tom), location (Rec Hall)
Relationship	teammate	source (Tom), target (Jeff)
Event	visit New York	time (8/13-8/14), person (Lisa), location (New York)
Person	Alex	
Event	lunch	time (11-1pm), person (Alex and Baldric), location(IST)
Event	debt due	time (Aug 21), person (Baldric)

Event	work	time (10-1pm, every Friday, repeated), person (Jeff and Alex), location (starbucks)
Event	money transfer	time (2pm Aug 20), person (Baldric, Alex)

Tips

1. Name entities and relationships descriptively and briefly. The names are what show in visualizations directly.
2. Two basic strategies might be useful when you making annotations.

   2.1 Read and annotate. Make annotations while you read through the documents

   2.2 Search and annotate. Use browser search (cmd/ctrl + F) to find text of your interest, and annotate that text.
3. The name of entities should be unique. Give different names to different entities (e.g. theft 1, theft 2)
4. Not all information is related to your question. Collect only the data that matters to your team. For entities your team created that are no longer important, feel free to archive them to reduce your data size, and you can always restore them if needed.

CAnalytics Tutorial - Data Analysis

1. Open the `person table` to learn the people involved (Note: click the plus icon to display details)
2. Open the `Network` window to learn their relationships
3. Network basic operations: zoom in and out; pan; drag node; mouse over node and relationship;
4. Open timeline to learn the events. Timeline basic operations: zoom in and out; pan; mouse over events.
5. Open map to learn the locations. Map basic operations: zoom in and out; change base map; mouse over locations.
6. Do filters to reduce the data in your view!
    i. Open `Timeline` window, zoom into the theft date (Aug 13). We find that Tom and Jeff were playing basketball, and Alex and Baldric were having lunch. Lisa went to New York
    ii. Create a hypothesis: Lisa can be eliminated because she went to New York. Note: your current view is automatically saved together with the hypothesis.
    iii. Archive Lisa
    iv. Create a hypothesis: Tom and Jeff can be eliminated because they were playing basketball (Note: set the hypothesis as a new thread)
    v. Open `Map` window to see the locations those events occurred. We find that the place where Alex and Baldric had lunch - IST - is very close to Rec Hall, where the theft occurred.
    vi. Create a hypothesis following the last one: Tom and Jeff should not be eliminated from suspects because their event location was very close to Rec Hall.

vii. Remove the `Timeline` filter
viii. Open `Person table` window and select `Alex` and `Baldric` (Note: hold `shift` to select multiple)
ix. Open `Network` and see events about `Alex` and `Baldric`
x. Open `Timeline` window, to see events involving `Alex` and `Baldric`. We find `Baldric` had a debt due and transferred money to `Alex` after the theft
xi. Create a hypothesis: Baldric is suspectable. He has the motivation (to pay debt).

7. Watching the view of your teammates!
    i. The visualization windows as well as filter result is shared in real time.
    ii. You can still work on other windows (e.g. message) while in watching

Tips:

1. Use the `filter` function wisely to reduce your data in your view
2. Share your hypotheses promptly
3. Use the `history` window to learn your team activities.
4. If you want to open two of the same windows (for example, you want to work on your network window while watching teammate's network view), just open two browser tabs!