**Background**

- **Point Event**
  - Triangle
  - One time stamp (e.g. one day)

- **Interval Event**
  - Horizontal marker
  - Two time stamps (e.g. start time and an end time)

- **EventFlow layout**

- **Search and Replace options**
  - Similar to other “Search and Replace” feature

  - Replace options
    - One event → One event
      - Replace one event with another event
    - Many events → One event
      - Replace many events with one event
    - One event → Many events
      - Replace one event with many events
    - Many events → Many events
      - Replace many events with many events
Training

• Training Task 1 – Using Search in EventFlow
  – Search for people with at least one of the following sequence (Red Green Green Blue)
  – Search for the five people with the most (Red Green Green Blue) sequence
  – Can you visually find people with the most Yellow events during the (Red Green Green Blue) sequence?
  – Reset the Search feature

• Training Task 2 - Using Search and Replace
  – Search for the following sequence (Yellow Blue Green) and Replace with a black interval
  – Search for people with at least one of the (Yellow Blue Green) sequence
  – Can you visually find people with the most Red events during the (Yellow Blue Green) sequence?

• Training Task 3 – Using event sequences as search option
  – Search for people who have at least two Red events after the (Yellow Blue Green) sequence
  – Reset the Search and Replace feature

• Training Task 4 – Using the repetition
  – Search for people who have 4 Red events in a row and replace with an orange interval

• Training Task 5 – No order sequence
  – Search for a set of Red and Green events where the order does not matter

• Training Task 6 – Using the wildcard
  – Search for people who have a both a Green and a Blue event with another point event in the middle and replace with a Purple interval
Usability Study

• **User Task 1 – Using Search in EventFlow**
  – To see how long people typically stayed in graduate school, search for BS, MS, PHD
  – See how many publications do these graduate students have

• **User Task 2 - Using Search and Replace**
  – Replace the BS, MS, PHD events with a new GRAD STUDENT interval
  – Now compare the duration of this new interval
  – Also, is it easier to see how many publications were made during graduate school?
  – Simplify the Assistant Professor, Associate Professor and Professor interval events with one interval event title “FACULTY”
  – Can you see which people had bigger gaps between receiving their PhD and starting as faculty?

• **User Task 3 – No order sequence**
  – Search for the people who had both book and newspaper publications, order of these publications does not matter
  – Can you find all the people who had both book and newspaper publications?

• **User Task 4 – Using the repetition**
  – Search for people who have published at least 10 conference publications
  – Can you find all the people with at least 10 conference publications?

• **User Task 5 – Using the wildcard to simplify**
  – Further simplify the visualization by replacing all the journal, conference, book, and newspaper publications with a new point event called “PUBLICATION”