Term Project: Searching and Replacing Temporal Motifs with EventFlow

Goal

- Simply the visualization of event sequence patterns by developing and integrating search and replace capabilities into EventFlow

Team

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The complexity with exploring and understanding very large temporal datasets can easily overwhelm a user’s perceptual and cognitive capabilities.

We propose a strategy to simply the visualization of event sequence patterns by developing and integrating search and replace capabilities into EventFlow.

Brief Background
- LifeLines/LifeLines2
  - Zoomable one screen overview of a patient record
- LifeFlow/LifeFlow2
  - Understanding millions of event sequences in a million pixels
- EventFlow
  - Exploring point and interval event patterns
Our Contributions

- Integrate search and replace feature for event sequence patterns with EventFlow
- Search and replace feature should be able to handle the following cases:
  - Sequence of ordered events
  - Sequence of events where order does not matter
  - Multiple repeated sequences
  - Sequence with wildcards
  - Sequence with time constraints
- Provide users flexibility to specify, change, and toggle between replacement patterns
- Provide users details on demand for replacement patterns
Demo