BinX
Dynamic binning for time series

Project update
Information Visualization - CS533c
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Motivation
- Time series are ubiquitous and important
- Lots of information = long series
- Understanding a long time series is hard!
- Comparing two time series is even harder!!

The Data & tasks
- Daily currency exchange rates over several years
- Comparing different time periods
- Comparing two currencies

Proposed approach
- Binning over time intervals simplifies exploration and comparison
- Dynamic binning (continuous)
- Mitigating information loss in bins (visual encoding, “glyphs”)

Visualization approach
- Clear spatial cues
- Mix and match
- Context maintenance

Related work
Dynamic Aggregation with Circular Visual Designs, Mei C. Chuah
Related work

- Cluster and Calendar based Visualization of Time Series Data, Wijk, Selow
- Interactive Visualization of Serial Periodic Data, Carlis, Konstan

Project state

- Currency data assembled (*fxhistory*)
- Application framework using Java2D
- Data parsed and processed
- Focus on spiral display
- Basic Interaction (keyboard based)

* http://www.oanda.com/convert/fxhistory
Milestone check

- Preparation of test data
- Prototype of visualizations and basic interactions (dynamic change of bin size)
- Finalizing the visualization paradigm
- GUI + Linked navigation implementation
- Implementing bin similarity display, based on clustering (+ consideration of displaying other indicators)

Summary

- Dynamic binning can be a powerful aid
- Visual cues to assist the user
- Questions?