

Computer System Visualization Needs Scalable Tools and Algorithms

时间: 3月12日 (星期五) 下午 2:00
地点: 北京大学理科二号楼 2736

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内容提要

Over the past decade the information visualization group in AT&T has built practical systems for

- Illustration-quality rendering of small, detailed networks
- Layout and interactive exploration of large, sparse networks with over 100,000 objects
- Monitoring statistics and events at carrier scale (many thousands of endpoint devices, many millions of events and statistics per day)
- Exploring large sets of time series from the above (joint work with Tamara Munzner at the University of British Columbia)

I will show demo videos from this portfolio of software research, review the engineering of these systems including some observations about why conventional architectures are too inefficient for this level of scale, and discuss some implications for future work.



Dr. Stephen North is Executive Director of Information Visualization Research. He works on software for visualizing and interactively exploring large, complex structures. He is one of the authors of the Graphviz system. His group also created the core software for Vizgems, a software system AT&T runs for its internal operations and enterprise customers. Vizgems collects, analyzes and displays near-realtime information for several managed services, and monitors about 100,000 endpoint devices. Stephen's group is part of the Information, Software and Systems Research Lab in AT&T.