NetVis

Network Security Visualisation Tool

Sponsor: Jassim Happa, University of Oxford

Developers: James Nicholls, Dominik Peters,
Albert Slawinski, Thomas Spoor, Sergiu Vicol

Project Goals

Implement an application to assist an **observer** in the detection of potential network attacks.

Improve situational awareness of a network faster than automated analytical techniques (i.e. using an IDS).

Design Choices

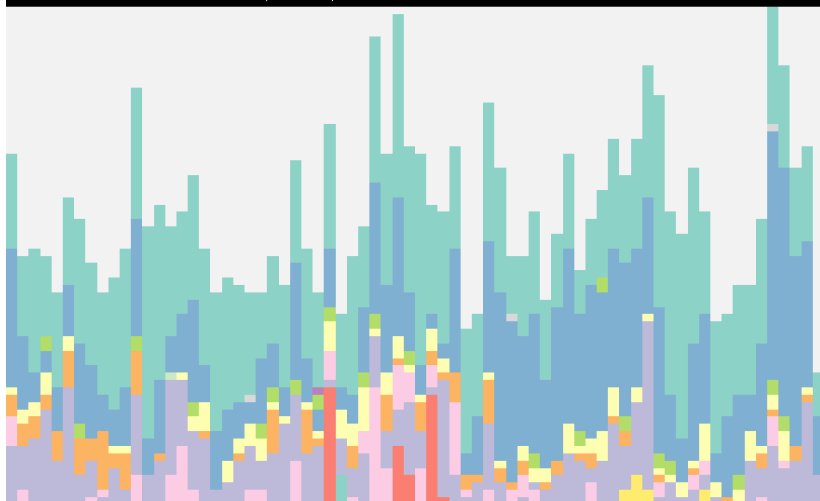The decisions we made in the early stages of the project;

- Java / Swing / OpenGL graphics API
- Network "map" for familiarity
- Overview → zoom and filter → details on demand [Shneiderman, 1996]
- Variety of visual styles

An unhelpful visualisation

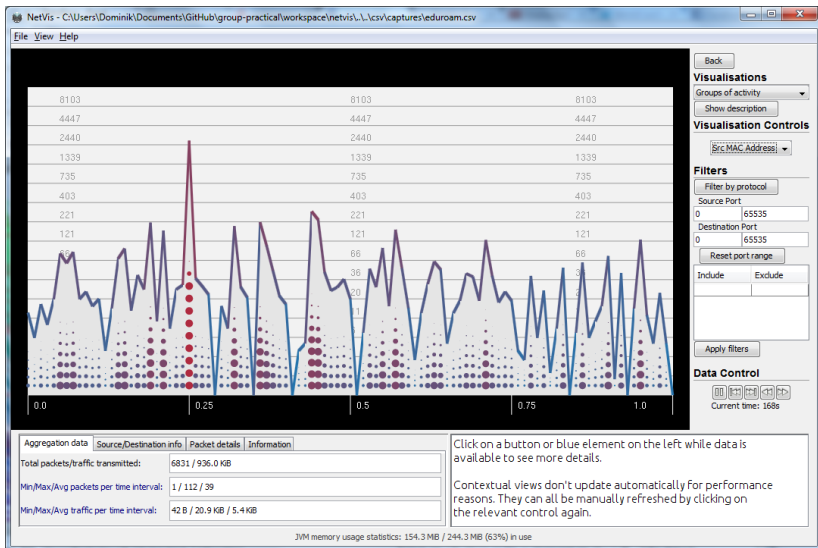Traffic Volume Visualisation −− Maximum y−value: 68 packets
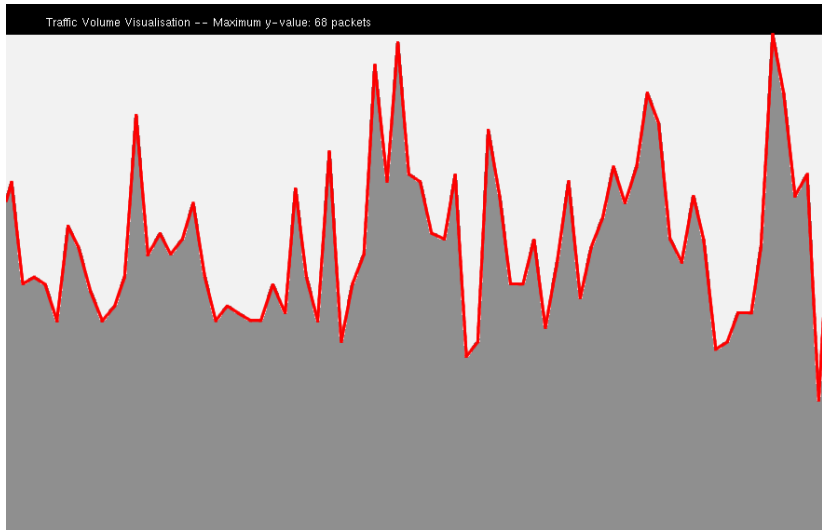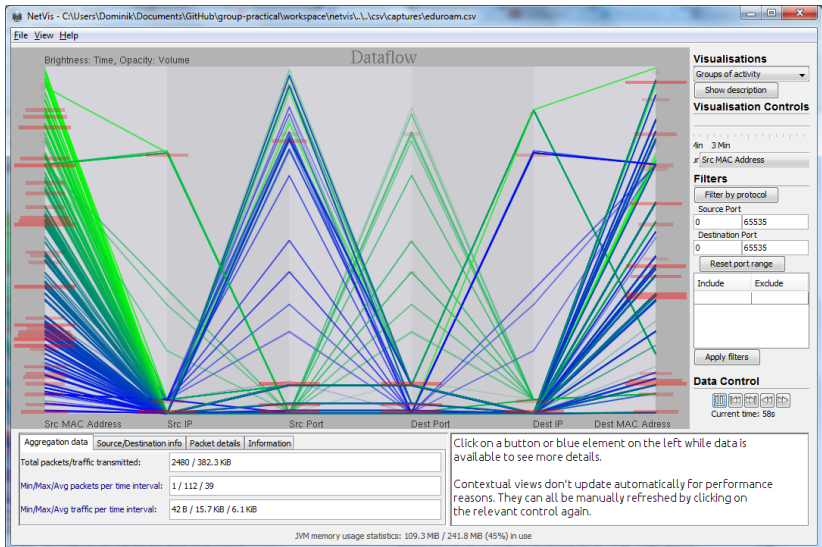
A better visualisation

Teamwork

Tools used to promote Synergy™ between team members

- Version control, code hosting: **GitHub**
- Distribution of tasks: **Google Drive**, **GitHub**
- Meeting planning: **Facebook**, **Doodle**
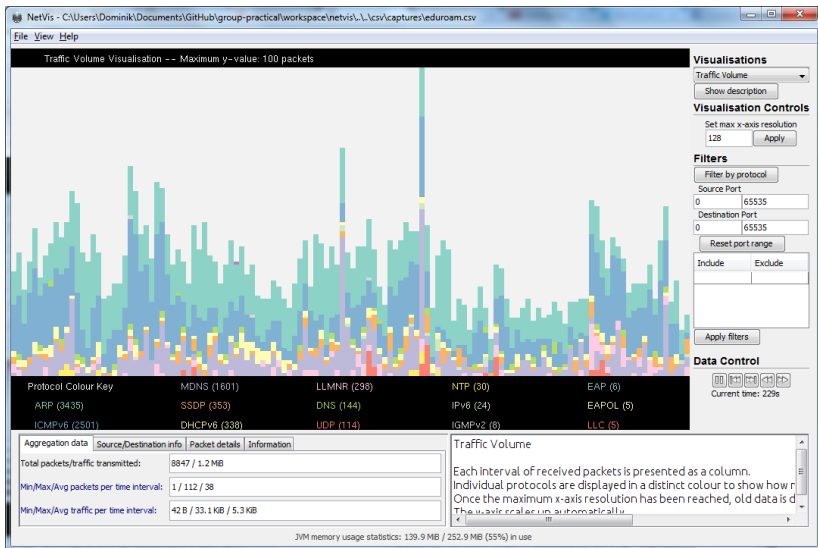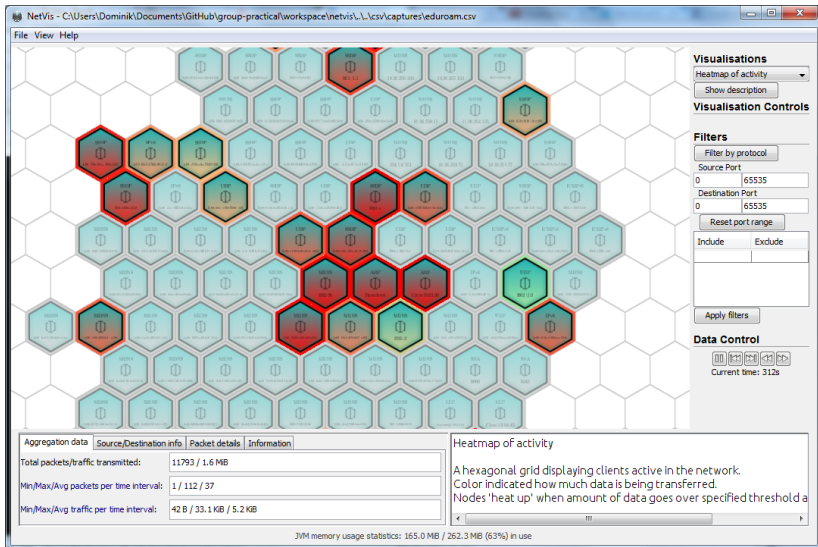- Shouting at people: **Facebook**, **GitHub**

Attributes Visualisation

Dataflow Visualisation

Traffic Volume Visualisation

Heat Map Visualisation

Activity Groups Visualisation