GPLBrowse: Infrastructure for interactive browsing of microarray data
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GPLBrowse: A desktop-like web interface to microarray samples

Project goals
- Develop web-based methods for browsing microarray data based on data properties, rather than using local identifiers such as accession numbers.
- Provide rich exploration of metadata in a visual context.
- Allow users to access and download large datasets based on properties.
- Show large contextual relationships.
- Use split client-server architecture to assure interactive performance.
- Provide an infrastructure that can be adapted to other types of data and problems.

Examples of GPLBrowse infrastructure
http://visual-charts.cs.utsa.edu/GPLBrowse
http://visual-test.cs.utsa.edu/GSE2109Browse
http://visual-test.cs.utsa.edu/GSE3526Browse

GPLBrowse architecture

GPLBrowse uses the AJAX-enabled YUI (Yahoo User Interface) Toolkit for its widgets and Apache Lucene for search.
All menus and plot information are generated from XML files to allow additional visualizations to be added without programmatic change to GPLBrowse.
The server side is implemented using Java servlets. All code is standards-based and runs on the latest versions of Internet Explorer and Mozilla Firefox. Data from NCBI GEO is downloaded and quarterly for updates.

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References
Burkhardt C. and Robbins K. A. GPLBrowse: An interactive platform browser for NCBI microarray data, in submission.