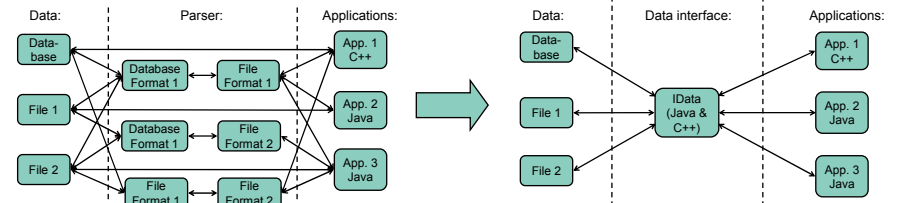


Motivation

- Connect different heterogeneous data sources to multiple visualisation and data mining techniques
- Support communication and data exchange between visualisation and data mining techniques
- Display visualisation techniques on different output devices

Data Interface

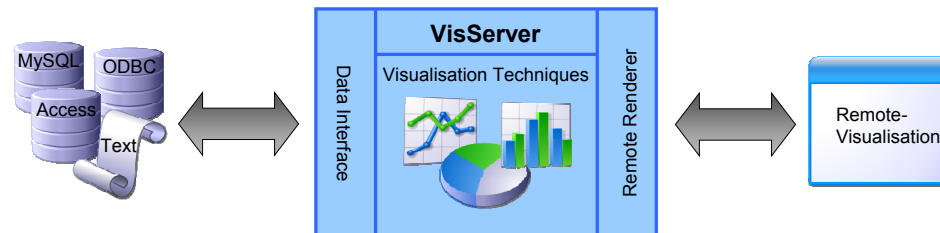
- Constructed similar to a common database interface
- Standardised internal data format (IData)
- Components for the connection to data sources:
 - MySQL,
 - ODBC,
 - Microsoft Access,
 - „Comma separated value“-files
- Extensible by other data source formats like...
 - ... Oracle, etc.



- Import as data objects to be handled with get- and set-methods
- Flexible interface for database and file export
- Common database requests implemented (sort, filter, ...)

Related Work

- North, C., Shneiderman, B. 2000. *Snap-Together Visualization: A User Interface for Coordinating Visualizations via Relational Schemata*. Working Conference on Advanced Visual Interfaces.
- Viégas, F. B., Wattenberg, M., van Ham, F., Kriss, J., McKeon, M. 2007. *Many Eyes: A Site for Visualization at Internet Scale*. In: Transactions on Visualization and Computer Graphics.
- Heer, J. 2005. *Prefuse: A Toolkit for Interactive Information Visualization*. In: CHI '05: Proceedings of the SIGCHI conference on Human factors in computing systems.

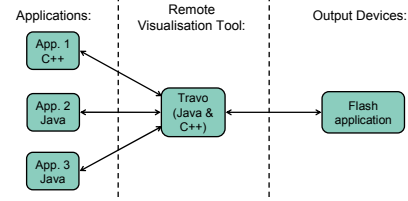


Benefit

- Quick and robust data import from heterogeneous data sources
- Adaptive linking of visualisation and data mining techniques
- Visualise confidential data without giving away data

Remote Visualisation

- Remote visualisation tool TRAVO (using Flash technology)
- Program monitors applications running on server
- Window content of application is grabbed as screenshot and sent to client
- Client visualises frames via Flash application
- Interaction is monitored on client and sent back to server



- Advantages:
 - Most of the output devices can handle Flash applications
 - The client displays only the grabbed frames, no confidential data has to be transferred

Future Work

- Implement further data format importer
- Optimising performance of IData format
- Integrate visual analytics techniques

Acknowledgement

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