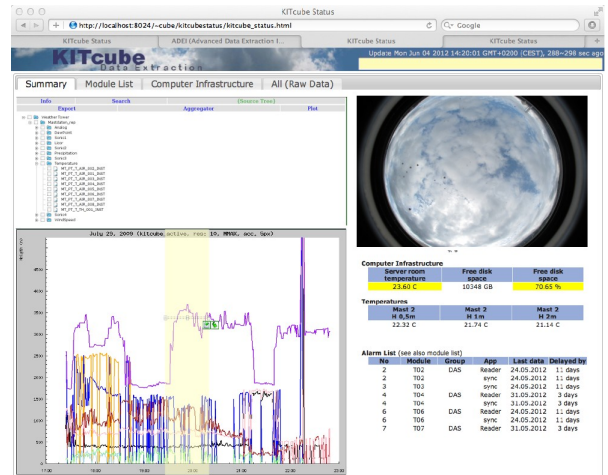


PhD Position: Intelligent visualization and management of large-scale data in scientific experiments

Scientific Context

Huge quantities of information are produced by scientific experiments world wide. Data formats, underlying storage engines, and sampling rates are varying significantly. The components of large international experiments are often located in multiple, sometimes hardly accessible places, and are developed by only loosely connected research groups. To handle the distributed and heterogeneous nature of modern experiments, a conceptually new design of data management system is required.



Subject Description

The work is embedded in a project aiming to develop a new platform for storage of large and growing archives of multi-dimensional time series. As first application serves multidimensional time series of KITs meteorological observation system KITcube. The task requires knowledge of broad areas of computer technology from high-speed parallel computing to database optimization, and web-based visualization. Particularly, WebCL and WebGL are of extreme importance for web-based data analysis and visualization.

Qualification: Master in Computer Science, Physics, or Mathematics

Required Skills: Web technologies, database design, mathematical statistics

Optional Skills: Parallel programming, 3D rendering

Conditions: The anticipated duration of the PhD is 3 years with a gross income of around 30,000 EUR per annum.

Application Deadline: July 31, 2013

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