ADEI – Web 2.0 Data Manager for the KATRIN Neutrino Experiment

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ADEI (Advanced Data Extraction Infrastructure) provides an easy access to the data of distributed data acquisition and control systems to the international collaborations of physics experiments.

ADEI Highlights
- General framework which can be easily applied to many experiments and extended to experiment’s specific needs
- Provides uniform access to a distributed system of heterogeneous data sources
- Support for long running experiments and high data rates
- Fast and intuitive browser through experiment database
- Intelligent caching for optimal performance
- Platform independent programming interface
- Easy integration with major data analysis frameworks
- Successfully used in several projects since 2007

KATRIN Slow Control and Data Acquisition
- Distributed and heterogeneous: KATRIN consists of several subcomponents operated by multiple control systems.
- Long-running: The expected life time exceeds 10 years.
- Big-community: Members of KATRIN collaborations are working in Europe, United States, Russia.

ADEI Architecture
- Pluggable data sources with customizable filtering support
- Cache to accelerate plotting of charts and data searches
- Simple web services abstracting data storage and control

ADEI Web Display
- Fast & flexible navigation
- Support for gestures on multi-touch devices (iPhone, iPad)
- Works in all major browsers
- Display multiple plots and axes
- Multiple modes of aggregation
- Data filtering and interpolation
- Reporting of invalid data
- Bookmarking of data views

ADEI Applications

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