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Multi-platform masterclass and data analysis application

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New types of hardware, like smartphones and tablets, are becoming more available, affordable and popular in the market. Furthermore with the advent of Web2.0 frameworks, Web3D and Cloud computing, the way we interact, produce and exchange content is being dramatically transformed.
How can we take advantage of these technologies to produce engaging applications which can be conveniently used both by physicists and the general public?

We will demonstrate the development of a platform independent application for data analysis and educational scenarios. This application should enable educators to conduct a novel type of masterclasses, as well as facilitate the collaboration between physicists due to its inherent simplicity, lightness and aesthetic appeal. Users will be able to run it on different hardware such as laptops, smart phones or tablets, and have access to the data everywhere.
The application can also run within a web browser.
Based on one of the most popular graphic engines, people can view 2D histograms, animated 3D event displays and do event analysis. The heavy processing jobs will be sent to the Cloud via a master server, in such a way that people can run multiple complex jobs simultaneously.
All of this can be automated and shared with the community trough XML files describing a succession of actions.

After having introduced the new system structure and the way the new application will fit in the overall picture, we will describe the current progress of the development and the test facility and discuss further technical difficulties that we expect to be confronted to, like the security (user authentication and authorization) data discovery and load balancing.

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