

# Exploring server/web-client event display for CMS

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The divergence of windowing systems among modern Linux distributions and OSX is making the current mode of operations difficult to maintain. In order to continue support the CMS experiment event display, aka Fireworks, we need to explore other options beyond the current distribution model of centrally built tarballs.

We think that C++-server web-client event display is a promising direction that can maintain the full functionality of Fireworks, including operation from the full experiment framework. In addition, it brings new features like multi-user debugging and the possibility to implement more elaborate visualization of non-event data through remote access to independent services.

We have been exploring mainly in the direction of Fireworks-based C++ server and thin web-client user interface as it allows for a large degree of reuse of existing algorithms as well as for full access to CMS data formats and accompanying functions that are crucial for correct physical interpretation of event data. We will show the basic architecture of the system, discuss the communication protocol between server and client, and show existing prototypes that demonstrate feasibility of advanced event display features.

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