JavaScript ROOT

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Introduction

JavaScript ROOT provides interactive graphics in the web browsers for the major classes like histograms (TH1/TH2/TH3), graphs (TGraph), functions (TF1) and many others. Reading of binary and JSON ROOT files are supported. Flexible and powerful JSROOT API used in different web-based applications to implement interactive data display - CERNBox, iPython notebooks, THttpServer UI and many others. JSROOT with documentation and many examples can be found on https://root.cern.ch/js/ website, developer repository is https://github.com/linev/jsroot/.

Improvements

- factor 5 faster binary I/O
- factor 3-10 faster 2D graphics
- factor 10 faster 3D graphics
- 2D and 3D zooming with mouse, touch and keyboard devices
- informative 2D/3D tooltips, also for superimposed objects
- many new TH2 draw options: "text", "arr", "scat", "cont", "surf"
- more new classes supported like TH2Poly
- elementary TTree::Draw
- generic inspector for arbitrary ROOT objects
- full support of require.js
- integration with bower package manager and Node.js

New geometry viewer

- Support both TGeo and TEve based classes
- Support all shapes kinds, including composite
- Display models of arbitrary complexity
- Superimpose with tracks and/or hits
- Browsing of complete nodes hierarchy
- Tooltips and volume highlight
- Toggling visibility flags
- Focus on selected volume
- Optional clip panels
- Simple animation
- Configurable global transparency

Different TH2 draw options

Other histogram classes

TTree::Draw

Graphs and functions

Display and browse TGeo

Other supported classes

Inspector

Some detectors drawings

Event display