

iPlots Extreme - next-generation interactive graphics for analysis of large data in R

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Interactive graphics have proven to be very helpful in data analysis not only for explorative data analysis but also in the analysis of models and model results. However, R provides no native facilities for interactive graphics. iPlots have been developed to bridge this gap and provide highly interactive and customizable framework for interactive graphics. As the size of datasets and capabilities of modern computers increase to allow even large and larger datasets to be processed in R, the same need is required from interactive graphics software. In this paper we present an entirely new generation of interactive graphics: iPlots Extreme which leverages the potential of modern computers to allow us to visualize and analyze large data. New approaches are necessary not only in the highly-optimized implementation but also in approaches to methods for visualization of such large datasets. iPlots Extreme offer a wide range of plots as well as customization. They support both continuous and categorical data with many interactive features while maintaining a flat learning curve and an intuitive interface. We will discuss the design as well as illustrate the use of iPlots Extreme on large-scale practical examples.