The DRILSDOWN project: "drilling down" to Visualizations, for Algorithm Development

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We seek to facilitate scientists' ability to “drill down” into multivariate 3D visualizations (case studies), hyperslabbed (subsetted) from large aggregated geospatial data sets such as grids of atmosphere and ocean flow. These case studies need to be provenanced, repeatable, and documented. Toward this goal, we are developing a set of robust connectors between existing technologies (Jupyter notebooks, the Java-based IDV data visualization package, and RAMADDA repository software). Our connectors will allow us to make product-like software “stacks” ranging from simple (Web-based) to full-functioned (for users who will run their own Python notebook analyses, with sizable ensembles of drill-down cases, all stored on their own service-rich repositories).