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Solid Earth Discussions

Interactive comment on "Open Plot Project: an open-source toolkit for 3-D structural data analysis" *by* S. Tavani et al.

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General comments: the paper presents a new toolkit for structural data management and analysis in a 3D georeferenced environment. A major milestones of the toolkit is that allows dynamic selection (directly by using the 3D plot window or by filtering of attributes) and plot of data (scatter plots, stereographic projection, etc.), avoiding tedious import/export of data between applications. The software is distributed as open source and, for this reason, it has a large potential to be used by a wider of the structural geology community and be a reference tool in the future.

The text is clear and concise, but I find some lack of references and concise description of approaches used by other authors. Although I know is not the main objective of the manuscript, please add some reference of 3D modelling of Geologic Structures (e.g.

using Gocad or the 3D Geological Editor of BRGM) and some appropriate references to approaches used for structural data management by other authors (see e.g. Caumon et al. 2009 or Suzuki et al., 2008).

Next comments are technical and arose as consequence to test the code (in both Linux and Windows OS). I understand that the code is an alpha version and still in development, but I recommend that final version included in this paper or in future distributions of the software will be more stable than provided in this review. There are a lot of bugs, not only related to 3D tools. For example, I had my problems to do something apparently simple as load and visualize of a DEM with some georeference images and structural data-set of several stations. After several trials at the end I did, but I lost a lot of time. The movies files provided are sparse and tedious. They are not useful and are frustrating. Most of my problems arose because the code is not distributed with example files. Because in the manuscript you explain two field examples, add some example files in the supplementary data. This will facilitate the use of the code to future readers/users. Additionally add a figure in the manuscript of the analyzed field examples using the code. This will facilitate to readers take an idea of the abilities of the code.

Finally, I recommend the publication of the manuscript with minor revision.

Albert Griera

References

Caumon et al., 2009 Surface-Based 3D Modeling of Geological Structures. Math Geosci (2009) 41: 927–945. DOI 10.1007/s11004-009-9244-2.

Suzuki S, Caumon G, Caers JK (2008) Dynamic data integration for structural modeling: model screening approach using a distance-based model parameterization. Comput Geosci 12(1):105–119.

Interactive comment on Solid Earth Discuss., 2, 375, 2010.