Using iGMT with World Stress Map Data Thorsten W. Becker¹ Alexander Braun²



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Abstract

In 1998 we released iGMT [1], a Tcl/Tk [2] based software that serves as a graphical user interface for the Generic Mapping Tools (GMT) of Wessel and Smith [3]. iGMT does not only make it much easier for the first-time user to deal with GMT, it also provides extensive earthscience data processing capability.

In August 1999, over 80 institution world wide were registered iGMT users (Figure 1). Our program is used for everyday map-making as well as for teaching GMT.

The developer version 1.2 of iGMT now also includes World Stress Map [4] data handling (Figures 2 and 3), with input directly from the csv format as found on the Karlsruhe server [5]. This additional feature can be combined interactively with all other types of data that are already supported by iGMT. A few examples are: topography, seafloor age, gravity, geoid, plate boundaries, CMT solutions. volcano locations. and earthquake hypocentres.

iGMT is available under the GNU public license from our web site in the States,

www.seismology.harvard.edu/~becker,

or our European server

op.gfz-potsdam.de/igmt.

References

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[2] Ousterhout, J. K., TCL and the Tk Toolkit, Addison-Wesley, Reading MA, 1993.

[3] Wessel, P. and Smith, W. H. F.: New version of the Generic Mapping Tools released, EOS Trans. AGU, 76, 329, 1995.

[4] Zoback, M. L.: First- and second-order patterns of stress in the lithosphere: The World Stress Map project, J. Geophys. Res., 97, 11703, 1992.

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[5] Mueller, B., Wehrle, V. and Fuchs, K.: The 1997 release of the World Stress Map, on-line at:

www-wsm.physik.uni-karlsruhe.de/pub/Rel97 wsm97.html, 1998.







60° 80° 100° 120° 140 Postscript output 36 data in asia, only 36 axes are shown. Quality A. B, and 24° 24 C; data from all 12° 12 120° 80 100 from GTOPO30. 60 140