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Discussions Geoscientific Instrumentation Methods and Data Systems

# *Interactive comment on* "The GPlates Geological Information Model and Markup Language" *by* X. Qin et al.

**Anonymous Referee #1**

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This paper by Qin et al on the Gplates information model and markup language is fairly technical but gives a good overview of the challenges faces in developing a self-consistent system for handling 4-D geological data in a plate tectonic reconstruction context. It represents a major step forward for geological modeling, allowing all sorts of reconstructions to be quantified and visualized. I found the paper straightforward and noted a few minor issues:

1. P4,L15: A rotation is not called a pole. I think the author means that such a rotation is called a total reconstruction rotation. 2. P4,L22: Parenthesis should be around year only, i.e., Cox and Hart (1986). 3. P5, L4: remove comma after therefore 4. P7,L10: Write "...property type, which in turn affects ..." 5. P10, L19: Write "has yet to be implemented" 6. P13, L2: Use capital G in Gplates 7. P13, L23: Write" ...on the other



side it imposes a huge effort on ..." 8. P18, L2-3: Parenthesis should be around year only, i.e., Landgrebe and Muller (2011) P20, L16: Write "Using an XML file ..." P20, L27-28: GMT inception was late 1980s; official release was Oct 1991 so mid-1990s is a bit late.

I would think a minor revision would be suitable for this paper, after which time it should be ready for publication.

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