

Working Group 4: Visualisation

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Input Suggestions from attendees

- One package or do we separate modelling from visualisation
- Requirements for visualisation: 3D models and other data sets
- Web visualisation: wizards/plugins
- Model outputs → cross sections, queries, animate
- Interrogate 3D model (reports; metadata)
- Dynamic updates
- Multiscale approaches to visualisation
- Different user requirements
 - Teaching
 - Academia
 - Public
 - Professional
- Use visualisation to evaluate fence/section/interpretations/data to develop 3D models
- Google style Visualisations → ability to zoom to various degrees/levels of model detail
- Impact of Specialist “silos” on corporate outcomes
- We need a 3D viewer (free) that will allow visualisation of models plus addition of users data
- Visualising 3D/data model structures
 - Mesh+/- grids?
 - Can you interrogate these 2 structures?
- How do you represent reliability and uncertainty in 3D visualisations?
- What are the options and how much do they cost?
- Is there a common 3D viewer with cut and slice functionality?

Workshop Working Sheets

1. Original Queries

- One package or separate modelling and visualisation
- Requirements for visualisation
 - 3D models and other data sets

- Web visualisation
 - Wizards
 - Plug ins
- Model outputs
 - Cross sections
 - Queries
 - Animate
- Interrogate 3D model (reports; metadata)
- Dynamic updates
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Final Recommendations

1. We should develop an Australian focus group to influence the X3D standards internationally (cf GeoSciML activities)
2. We need an audit of existing standards (particularly X3D) for suitability for geoscience visualisation
3. We need to look into collaborative viewing and annotation, particularly work that is coming out of NCRIS
4. We need to see if it is worth GGIPAC developing/proposing a set of specifications for a 3D viewer for data that complies with a specified standard
5. We need a coordinated 3D distributed system with catalogues, a viewing capability and a data/model download system.
6. We need to decide on what delivery data format should be used
7. Any GGIPAC type work needs to be formulated into a set of recommendations for CGGC.

Overall Coordinated Approach to Building 3D models in Australia.

1. A model must have input + processes documented
 - A model must have a globally unique identifier
 - eg DOI, Science Commons, UUID
2. Organisations Need to Value Metadata
 - Where possible it should be automatically generated
 - Metadata should be mandatory on all models put out by Surveys
 - Templates need to be available of best practice
 - Metadata needs to be accessible with the data
 - ANZLIC 19115 needs to be tested for its suitability for 3D models