Science Language Technical Team
Working memo #1
04/20/2000

Science Language Technical Team colleagues:

Although pragmatism is our main goal with regard to schemes for science-language classification, I think we need to spend a short time addressing some generic conceptual issues.

I have assembled several issues below that I will place at the web-conference site (http://geology.usgs.gov/dm/terms/). Please reflect on these and any other issues that you deem relevant to our task, and place your words on the conference site. Each of you needs to weigh in on these issue, in order for the group to begin to develop consensus (if that is possible).

(a) can we really develop common science-language standards on a continent-wide basis?

Yes

No

Maybe

(b) can we really do this at a level deeper than "granite versus basalt" or "glacial versus deltaic" or "geologic contact versus fault", etc?

Yes

No

Maybe

(c) what role do regional geologic differences and geologic-mapping traditions play in the development of science-language standards?

(d) should there be one single terminology standard, or multiple standards linked by translators and equivalency tables?

(e) what kinds of scientific queries should be supported by standard terminologies at the National, Regional, and Local levels, and should a single science-language structure support each and all levels?

(f) To what audience(s) will the data-model science language speak on behalf of our various agencies? Technical only? Hybrid technical and non-technical? One language for technical, a second language for non-technical?

(g) What does each map-producing agency expect to query (search for and retrieve) from geologic-map data bases produced by the data model? (agency point of view)

(h) What kind of geologic information will the typical geologist expect to put INTO the data model and retrieve FROM it? (geologist point of view)

(i) What kinds of interdisciplinary science should be incorporated into the data model science language? Or, put differently, how should the data model be structured and populated to ensure its utility to the geophysics, geo-engineering, earthquake, geochemical, and hydrogeologic communities?

(j) What kinds of feature-level locational-accuracy issues should be addressed by our science language, as these bear on agency accountability?

(k) What kinds of feature-level scientific-confidence issues should be addressed by our science language, as these bear on agency accountability?

(l) What kinds of feature-level data-origination issues should be addressed in our science language, as these bear on agency accountability?

Let's have all of this done by 12 May. I will take the results of this discussion to the next meeting of the Data Model Steering Committee on 16 May in Lexington, Kentucky.

Adios from Tucson, Jonathan