

Conference Abstract

The Problem of Stratigraphical Time Grouping of Earth Science Data

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Abstract

An essential aspect of earth science data is the age they represent. The age, in most cases, is not a simple time stamp measured in years, but often specified as a stratigraphic interval or unit. Numerous schemes exist for age attribution in geological data, referring to various methods of e.g. biostratigraphy, chronostratigraphy, sequence-stratigraphy, magnetostratigraphy. Furthermore, opinions about the relationships between the stratigraphical units differ from author to author and are in a steady historical flux. New stratigraphic units become established and old ones are abandoned. This is a challenge for databases that rely on fixed standards.

However, all stratigraphic schemes can be conceptualized as a system of unique names related by opinions and expressed in publications. A database (<http://rnames.luomus.fi>) linking the names of stratigraphic units with referenced (published) opinions would allow for the development of dynamic models for time grouping based on explicit algorithms. We will present and discuss our database approach to tackle this problem.

Keywords

stratigraphy, earth science collections, database

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