

# The Construction Of Digital Geologic Map Ontology System In Korea

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## ABSTRACT

Almost all records accomplished mankind have been taken over by computers. In the last twenty years, GIS formats managing to spatial data are computerized in the level of information as well but are occurred both the integration and distribution problem constructed with parallel from initial level of computerization. the geological map, raw data using this research have these problems

Ageological map is an important data source using the development of national territory and natural resources, prevention of geological hazard and environmental pollution, and other educational and research purpose. However its both computerization and standardization have not yet been tried systematically or comprehensively, thus There are limited to its value and effective usage. Both investigated and published geological map until a recent date have used different geological boundaries, geologic age, color, symbol, pattern and acronyms due to different period because of a long period of geological investigation and a number of investigator, and moreover, two adjacent geological maps are included many problems Finally, such geological data are provided only for the benefit of the publisher rather than that of the user. therefore it is important to the standardization of geological information in the user side so that it can be incorporated with other IT and ET resources by, for example, merging with other spatial information, producing thematic map, or extracting additional information.

the major study area to solve these problems is both geologic ontology system and geologic data modeling. the present spatial data are disappeared modelers' idea and are distorted by programmers. this also enables data to play a part the level of information but it is impossible to proceed with the level of knowledge. this problem occurred to be considered data model subsequently which is the most important coupling medium between modelers and programmers. this thesis is doing research in the ontology of geological map terms. Ontologies constitute a formal conceptualization of a particular domain of geologic interest that is shared by a group by people. The ontologies of geologic map term consist of the usage, hierarchy of geologic term both in Korean and in English

this research structures, extracts and abstracts geologic terms from the existing geological map through the analysis of geological map and proposes the ontology of

geologic map terms

To make this out, We need to find out the major objects correctly and by analyzing an existing digital geological map and construct a guideline about the ontology of digital geologic map