EARTH SCIENCE MARKUP LANGUAGE

Rahul Ramachandran, Mohammed Alshayeb, Bruce Beaumont, Helen Conover, Sara Graves,
Nathan Hanish, Xiang Li, Sunil Movva, Andrew McDowell and Matt Smith

Information Technology and Systems Center
University of Alabama in Huntsville

Abstract

The Earth Science community is the processing and analyzing large amount and variety of data from space and ground-based observations and from models. These data are generally stored in physical media with different data formats. This large variety of data formats forces the scientists to spend significant amount of time in writing specialized data format specific, readers before their analysis can even begin. Formats for Earth Science data can be as simple as ASCII and binary formats or be as complex as Hierarchical Data Format (HDF) and HDF Earth Observing System (HDF-EOS) formats. In this paper, we introduce the **Earth Science Markup Language (ESML)**, being currently developed at the Information Technology and Systems Center at the University of Alabama in Huntsville. ESML would make applications independent of data formats and facilitate easier searches for data via internet search engine. Primary purpose of this paper is to bring ESML to the attention of data consumers and producers, and invite comments and suggestions.