A Comparison of Federal Geospatial Taxonomic Standards
Among Selected U.S. Department of Defense and U.S. Department of Interior Agencies

Abstract

Federal agencies use GIS data to carry out their mission and for regulatory compliance of legal statutes such as the National Environmental Policy Act (NEPA). Without a common GIS data standard, misunderstandings can occur. In other branches of science, there is a common standard applicable to the particular science that practitioners should know to facilitate communication within that field. An example of catalog standardization, also known as taxonomy, includes scientific classification of the biological sciences using the Integrated Taxonomic Information System (ITIS). For resource specialists who have experience with other taxonomical systems such as ITIS, the military’s Spatial Data Standards for Facilities, Infrastructure, and Environment (SDSFIE) Browser can provide a similar hierarchal classification for GIS data. This thesis compared the DoD’s GIS taxonomy, SDSFIE, for use by the Department of Interior’s (DoI) Bureau of Land Management (BLM) for creating an environmental assessment (EA) on-site visit geodatabase and ArcPad forms for GPS data collection. The result of this thesis determined that the SDSFIE based ArcPad forms would provide the BLM Natural Resource Specialist (NRS) with a standardized federal GIS taxonomic system for collecting field data necessary for energy permitting EAs. The field testing of this research emphasized the use of the SDSFIE based ArcPad forms for GPS data collection of surface features related to energy permitting of the subsurface mineral estate managed by the BLM.