

Geoinformation Sharing System for East and Southeast Asia

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Geographic Information System (GIS) is the most efficient tool for storing, managing, processing and sharing geographically referenced information. However, the cost of procuring and maintaining proprietary GIS software is very prohibitive, especially for some countries in east and southeast Asia. Furthermore, conventional GIS is not very efficient for sharing geoscience information from multiple countries. This paper presents a GIS-based spatial information sharing system for the region, using the internet as the platform and Free and Open Source Software (FOSS) and Open Geospatial Consortium (OGC) standards as the backbone for geoscience information management, processing and sharing. In this system, the GIS software and database are setup in a central server. Spatial information processing and sharing are implemented through the formulation of web services Web Map Service (WMS) and Web Processing Service (WPS) in the server. Clients process, render and share geoscience data by sending request to these web services. OpenLayers JavaScript library is mainly used for the rendition of spatial contents online. The developed system also includes an important component to control data access privileges for each user. Data owners could decide the users' data access privileges which are view (read), write (edit) and download, and all possible combinations of the three. Users' group could also be created to classify users with the same data access privileges. The URL of the geoinformation sharing system is http://ccop-gsi.org/MyPortalCreator/new_main/index.html .

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