

## The prototype of lunar GIS database

# Akira Yukishita[1]; Hirohide Demura[1]; Noriaki Asada[1]

[1] Univ. of Aizu

Lunar and planetary geographic information system has been popular although the system database can not be implemented by tools and library without alteration of terrestrial ones. The definition of coordinates system and scale show differences between terrestrial GIS database and lunar and planetary ones. The system requires two functions. One is image operation for diverse types of mapping data in different resolutions such as vector and raster data Another is visualization of them simultaneously.

Japan has an exploration mission to the moon which is SELENE program (FY2007 Launch) and this shall bring global and massive datasets more than 20 terabytes. Our goal is to establish Java applets on web-based GIS database based on commercial software ArcGIS. Main point is required functions which are arrangement and customizing on the upper layer modules of ArcGIS.

This GIS database is driven by three software packages on two servers. These three packages are ArcSDE, ArcInfo, and ArcIMS. These two servers are delivering and retrieving system and archive system. Delivery on the web and converting map projection has been established.

We will demonstrate this GIS database in this presentation.