

## Development for web accessible GIS database of the moon

# Jun Nitta[1]; Akira Yukishita[1]; Noriaki Asada[1]; Hirohide Demura[1]; Naru Hirata[1]; Demura Hirohide Aizu Lunar and Planetary Science Group[2]

[1] Univ. of Aizu; [2] -

Now the moon has been a focus of attention of space development. The moon race is played by USA, Europe, India, China, and Japan. A Japanese lunar explorer SELENE will be launched in 2007 summer. The SELENE will bring a set of global observation data up to over 10 terabytes in size. If the dataset is provided to researchers through a web GIS database service, it will be useful for the lunar research.

Although there are many GIS products for terrestrial datasets, they cannot handle lunar and planetary datasets. Compared with terrestrial map data, planetary map data is different in many points, such as the radius of the globe, the definition of the coordinate system, and the scale of maps. The aim of this study is to establish a GIS database for the lunar data that enable a web-based data publishing. We selected a commercial software ArcGIS as a basis, and modified it to achieve an acceptability of the lunar data. Requirements of the system are as follows.

The system consists of two servers to archive, retrieve and publish data. Java applets are implemented into the system to provide functions to visualize data efficiently.