

Modeling for Multi-resolution Satellite Imagery

BANG KI IN, Jeong Soo, Kim Kyung-Ok
Spatial Information Research Team ETRI KOREA

Abstract: Sensor fusion helps to overcome the limitation of individual sensor for a particular task. When there are not enough images of one sensor to generate information, complementary images may be supported by another sensor. Nowadays many different types of satellite imagery are used by end-user since earth observation satellites have launched and produced various remote sensing data in around world. IKONOS provides about 1m spatial resolution image, and KOMPSAT, Korean Multi Purpose Satellite, produces 6.5m resolution imagery. Another famous satellite, SPOT, has 10m or 2.5m spatial resolution. 3D topographic information, such as DEM, requires stereo images or more than two images in target area. If there are not enough many images of individual sensor in same area, it needs to integrate multi-source images which are consisted of several types of image. So we have developed technology to process multi-resolution imagery, such as IKONOS, SPOT, KOMPSAT, which are used mainly to generate topographic information in KOREA. Through introduced technology we have produced linear feature and DEM in imagery block of target area.