

Sextant Geospatial package

Dynamic 3D Scene Realism from Geospatial Data

Operators can model the interiors of buildings from CAD files or digital floorplans including walls, windows, doors, holes in walls, floors, ceilings, and stairs.

Real-world digital pictures can be used as textures for exterior or interior walls.

The terrain mesh in Sextant Geospatial can be modified at the micro level to produce hills, berms, or depressions that were not captured in the original DTED or DEM.

All configurations of Sextant Geospatial can import and export geospecific terrain databases and visualizations. Ground topography is extracted from digital terrain elevation data or digital elevation model.

Depending upon optional simulation modules selected, the operator can also export SEDRIS (.stf), CTDB7, and OpenFlightTM (.flt).

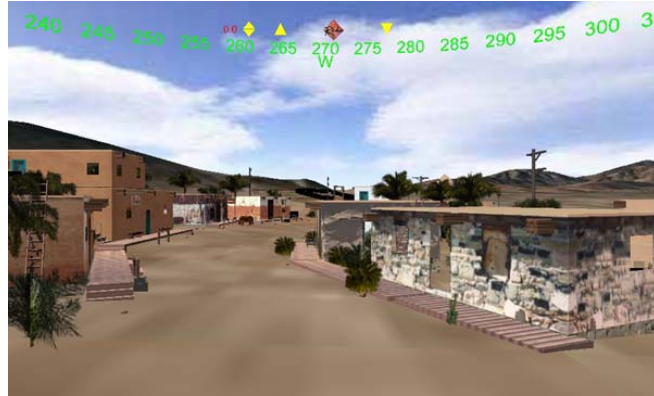
Sextant is Geo-specific

Sextant is fast

Sextant builds 3D scenes interactively

Sextant builds 3D scenes automatically from standard geospatial data

Sextant is designed for use by non-specialists



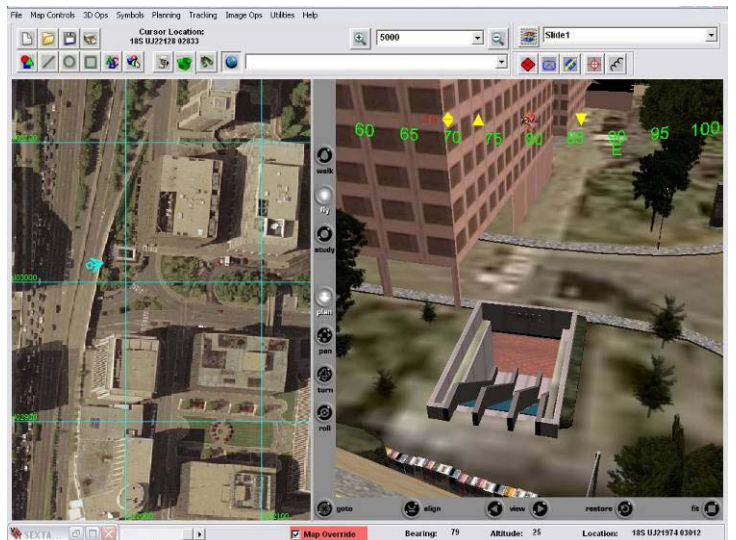
Sextant Geospatial version 5 includes:

- Rapid Automatic Terrain mesh creation from DEM or DTED
- Micro-Terrain tools for hills, depressions or holes
- Subterranean detail capability
- Easy to follow Wizards for Automatic 3D Urban modeling
- Ingest Autocad files for accurate, detailed building interiors
- Hot-Link Manager and new label options in 3D

Sextant Geospatial is designed for rapid and automatic 3D database generation. Operators use standard geospatial source vector and raster data to accurately create geospecific terrain databases and visualizations. Ground topography is extracted from digital terrain elevation data or digital elevation model. Features including buildings, treelines, rivers, and sewer systems can be manually added, based on available imagery, or are automatically extracted from vector or shape file data and rendered on the fly as terrain-following, textured 3D models.

The result is a geographically referenced 3D scene in standard format that the user can interact with, walk around in and update as new information about the scene is received (put doors and windows on the buildings for instance). Easily disseminate the small file via email or web-site link to your users.

DTED / DEM draped with imagery



Above: Sextant Geospatial – On the left is the digital map view with the corresponding 3D view on the right. As Sextant is a fusion of geospatial technology with the visualization engine, there is full correlation between the accurate geo-data and the dynamic 3D scene.

Rapid Geo-Specific 3D Database Generation

Specifications:

O/S:

- Windows XP or Windows 2000
- DirectX 8.1 or above
- Internet Explorer 6.0

Hardware minimum:

- Pentium 4
- RAM 512 MB (1 GB or more preferred)
- Hard drive space: 400 MB
- 3D graphics accelerator card
 - Geforce or Radeon cards preferred or laptop with accelerated graphics

Data types:

Imagery/Raster:

- ADRG (Arc Digitized Raster Graphic)
- ASRP/USRP (DIGEST ASRP, a NATO Military format)
- BIL (Band interleaved by line) multiband images
- BIP (Band interleaved by pixel) multiband images
- BMP Windows bitmap
- BSQ (Band sequential) multiband images
- CADRG (Compressed Arc Digitized Raster Graphics)
- CIB (Controlled Image Base)
- CRP Compressed Raster Product (Military GeoTIFF)
- ERDAS IMAGINE
- GeoTIFF (TIFF with a Geo header)
- GIF (Graphics Interchange Format)
- IMPELL RLC (Run-length compressed)
- JFIF (JPEG)
- MrSID Multi-resolution Seamless Image Data
- Sun rasterfiles
- SVF (Single Variable File)
- TIFF (Tagged Image File Format)

Vector:

- VPF (VMAP, UVMAP)
- ESRI Shape file

Elevation:

- DTED
- ESRI ASCII Grid (with world file)
- ESRI Floating Point Grid (with world file)
- Grey-scale height map images (with world file)
- GEOTIFF height maps such as from LIDAR
- USGS DEM
- USGS SDTS DEM
- ASCII XYZ



Above: Export your detailed building models directly and easily for use in Google Earth



Above: View from 1st sub-level subway platform. Use Sextant Geospatial to quickly add underground features.



Above: Sextant Geospatial allows you to add as much or as little detail to the 3D visualization as you require.