SuperObjects 2 Software Specification

Specification Description

Developing environment and controls

- Operable on Windows 2000/XP/2003/Vista operating system platforms.
- Program developers can develop the required GIS application programs with 32 bits OCX (OLE Custom Control) interface objects under general environments (eg. Visual Basic, Visual Basic for Applications, Delphi, Visual C++, Visual Fox Pro, Visual Studio.NET, Borland C++ Builder, PowerBuilder).
- Complete built-in object controls to enrich map variety, including map controls, table of content, toolbar, compass and scale.
- Toolbars have basic map manipulation tools, such as map display, zooming, panning, inquiry, transparency setting, rotation, export and so on.
- Conforms to Microsoft OLE (Objects Linking and Embedding) standards and more than 45 OLE automation objects are provided.
- Enables users to control looks and functions of the OLE automation objects as well as vector and image data display by property and method modifications.
- Opening GIS Component cell library and implement interface can provide powerful and exclusive map manipulation functions with high customization flexibility, for example, the open layer interface can support users to define layer file formats via customization.
- Developers can display maps on webpage with the Web Control objects.

Storage and reading formats for file

- Provides several storage and reading capabilities for multiple data, including vector file layers such as ESRI Shapefile, MIF, DXF files and image file layers such as BMP, JPG, GIF, LAN, GIS, PNG, GeoTiff, ECW, MrSID. It greatly enhances the display settings to provide more delicate adjustments and configurations for image data and greatly improves the display efficiency.
- New GEO file format (SuperGeo GEO Format) can greatly improve the mapping efficiency.

Coordinate conversion

- Complete coordinate projection objects are provided and can support tens of general projection coordinate systems, such as Bonne, Mollweide, Robinson, Cassini and so on, to perform real-time overlapping, conversion and analysis with world maps.

Map demonstration

- Display of overlapping vector and image layers is supported.
- Enables users to adjust the transparency across layers for overlapping display and analysis.
- Enables users to rotate files at 360 degrees.
- Multipoint shape properties are supported for point data (to view multiple points as one record).
- New Chinese/English map labeling function greatly improves the flexibility of point, polyline and polygon labeling. Road labels can be labeled with all or along the line. Users are enabled to set the character direction and alignment to fit general road name reading habits.
- Strengthened thematic methods provide users different ways to set symbols based on feature attribute properties, including classified symbol, graduated symbol, unique symbol, spot chart, pie chart, bar chart and so on.
- Enables uses to add graphic objects to the map, such as point, polyline, polygon and circle.
- Enables users to add notes with descriptive texts to the map.
- Map Tip display is supported.

Query data

- Enables users to query spatial data by region, buffer and position point, polyline and polygon.
- Basic statistical query functions for spatial data
- Various spatial data query methods
- Developers can customize feature selecting and query methods for faster and more flexible operation to fulfill client end’s requests.

Edit file

- New layer edit functions are added (shapefiles, GEO formats) for point, polyline and polygon layers data.
- Enables users to query the features and their attributes. Updating and editing of layer data, including spatial and attribute data, are supported.

Geoprocessing

- All new Geoprocessing libraries provide geometry calculations for geometric objects with faster and more powerful capability, including buffer, union, intersection, difference and symmetric difference.
- Built-in spatial data structure index lifts the storage and reading efficiency of spatial and attribute data.

Support GPS

- Dynamic real-time data display is supported for the coordinates received by GPS.
- With the GPS objects contained, it can support NMEA GPS and conduct data instantaneously upon receiving to provide more flexible applications.
- Tracking function supports polyline, polygon, circle and rectangle type to enhance usage and management for GPS data.

Support OGC standard

- Conforms to OpenGIS Simple Features Specification for OLE/COM 1.1（OGC SFO）
- Support for reading GML documents (2.0, 3.0, 3.1.0)

Position engine in Chinese address format

- Address position program engine provides fast and flexible address positioning.
- Supports auto-shifting-to-position-address inquiry capability.

Aid resource

- Object-oriented architecture and complete on-line help

- Additional data conversion tool for users to convert among different formats of vector data, including GEO, SHP, MIF, DXF, DWG, E00, and SEF.

System Requirement

- CPU: Pentium II 266 or above
- RAM: 256 MB or above
- Operation system: Windows 2000/Windows XP/Windows 2003/Windows Vista