

## AmberCore software

Amber iQ is a revolutionary, high performance spatial decision support system that allows users to truly understand the forces that affect their organization and make better decisions. Amber iQ empowers users to model, simulate and analyze location based information with a comprehensive set of high performance spatial analysis tools.

### Modeling and Simulation

Amber iQ draws on years of advanced mathematical research and experience that allows users to accurately and effectively model real world scenarios. Designed to be the most powerful software in its class Amber iQ allows users to integrate advanced spatial analysis functionality, such as Interpolation, Viewshed Analysis, Spatial Correlation and Predictive Analysis into their workflow.

### Large Data Sets

Amber iQ allows users to directly process files that required extensive pre-processing or were too large for traditional GIS systems. With Amber iQ's data processing capabilities users can now gain large operational efficiencies and realize significant cost savings.

Amber iQ realizes this capability by employing several strategies beginning with the removal of any size limit on raster data sets. Whether the file is 10 MB in size or 100 GB, it can be opened, viewed and analyzed. For example, digital elevation models for entire continents can be stored in a single file.

Amber iQ also incorporates advanced memory management for the processing of large point files. This involves intelligent buffering and double indexing of the data prior to processing. Dynamic display technology and pyramid data structures are also used to provide real time screen displays.

### Wizard Power

Amber iQ includes easy to use wizards that intelligently walk the user through data processing, visualization and analysis. For example, Amber iQ features a Predictive Analysis wizard that incorporates all of the solvers required to statistically analyze multiple layers of data and identify areas with similar spatial characteristics. Coupled with the power of multi threaded processing Amber iQ allows users to simultaneously process, view and compare multiple point density solutions. The inclusion of these unique wizards allows users to implement Amber iQ out of the box producing meaningful results quickly and without a long learning curve.

### Independence

- Built with .NET
- Standalone
- Compatible with industry formats
- Compatible with leading GIS platforms

### Usability

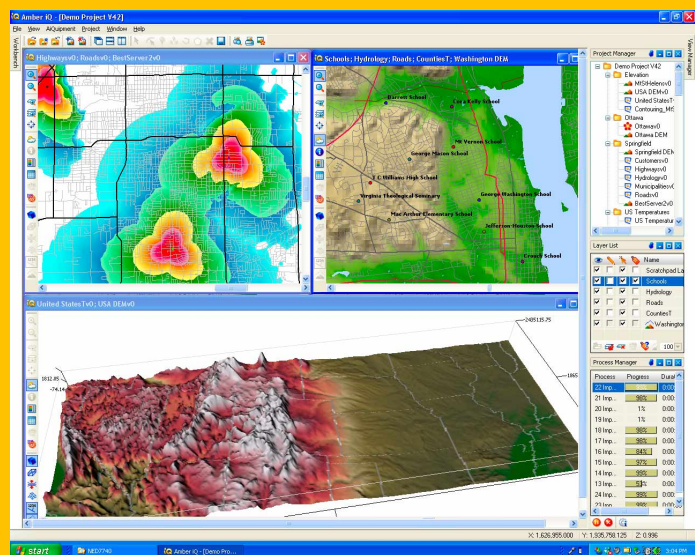
- Wizard approach to most operations
- Wizards include a preview window
- On-the-fly projection for vector and raster data

### Efficiency

- Multi-threaded processes
- Project Manager
- Grid Compression
- Pyramid structured data files
- Optimized dynamic display technology

### Google Earth™ Support

Amber iQ now supports the Keyhole Markup Language (KML) file format. Powerful analytical results produced with Amber iQ can now be leveraged and combined with Google's vast library of imagery and geographic information. Both raster and vector map layers with appropriate attribute information can be exported and shared using Google's world class visualization environment.





## Data Analysis

- Predictive Analysis
- Semi Variogram Analysis
- Distance Mapping – Geographic Profiler
- Trade Area Gravity Model
- Table Queries
- Measuring tool

## Terrain Analysis

- Watershed Analysis – flow channel and watershed delineation, accumulation and power calculations
- Slope and Aspect
- Viewshed

## Grid Visualization

- Grid Colorization – relief shading by date and time.
- 3D Display
- Contouring – line or region
- Map Layer Transparency
- Automatic map graticule line display

## Data Processing Tools

- Raster Image Registration
- Point Aggregation
- Voronoi Generator
- Vector Arc/Node Browsing and Editing
- Data Trimmer
- Grid Resizer
- Grid Splicer
- Gap Filler
- Map Reprojector

## Surface Creation

- Interpolation – TIN, IDW, Kriging, Minimum Curvature Spline, Nearest Neighbor.
- Point Density
- Kernel Smoothing
- Spatial Events Analysis

## Data Integration

Amber iQ supports import/export capabilities for the most popular formats including ESRI and MapInfo. Any conversions from 3<sup>rd</sup> party formats to the native Amber iQ vector or grid/raster format is transparent to the user.

## Vector Files

- SHP – ESRI shape file format
- TAB - MapInfo native vector file format
- MIF, MID – MapInfo data exchange format
- Support for ESRI .PRJ files

## Grid Files

- FLT – ESRI floating point grid format
- ASCII Grid – text file with ESRI format standard
- MIG, GRD, GRC – MapInfo grid file formats
- XYZ – delimited text file with xyz values
- DEM – USGS Digital Elevation Model format
- DTED – USGS Digital Terrain Elevation Model format
- CDED – NRC Canadian Digital Elevation Data format
- SDTS – USGS SDTS surface data
- Support for ESRI .PRJ files

## System Requirements

- Platform – PC
- Operating System – Windows NT, 2000, XP
- CPU Speed – 2Ghz or higher
- Processor – Pentium or higher
- Memory / RAM – 512Mb or larger
- Hard Disk – 100Mb or larger
- Display – 1024x768 VGA with True Color
- CD ROM Drive for installation
- Video Card - 64Mb or larger recommended

The features and benefits in this document represent AmberCore's understanding about the software's expected content and functionality at the time of publication.