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# **SuperGIS Server 3.1a Functionality Matrix**

**Jan. 2013**

## SuperGIS Server 3.1a Functionality Matrix

SuperGIS Server, a comprehensive and server-based GIS, is designed for giving the organizations the ability to create, manage, integrate and distribute a variety of GIS resources over the Internet to support desktop, mobile and web applications. SuperGIS Server 3.1a provides three editions for users to choose; the details of the functionality are listed below.

### Overview

	SuperGIS Server 3.1a		
	Value	Standard	Advanced
<b>Support for Spatially Enabled Databases</b>	✓	✓	✓
<b>Geodatabase Management</b>	✓	✓	✓
<b>GIS Web Services</b>	✓	✓	✓
<b>Web Mapping Applications</b>	✓	✓	✓
<b>Web Editing</b>	✓	✓	✓
<b>Geoprocessing</b>		✓	✓
<b>Advanced Geoprocessing</b>			✓
<b>Mobile Application SDK</b>		✓	✓
<b>*Map Cache Tool</b>	✓	✓	✓

\* SuperGIS Server Map Cache Tool is an independent map cache generating tool provided with SuperGIS Server.

### Support for Spatially Enabled Databases

	SuperGIS Server 3.1a		
	Value	Standard	Advanced
<b>Microsoft SQL Server</b>	✓	✓	✓
<b>Microsoft SQL Server Express</b>	✓	✓	✓
<b>Microsoft SQL Azure</b>			
<b>Oracle</b>	✓	✓	✓
<b>PostgreSQL</b>	✓	✓	✓
<b>Netezza</b>			
<b>IBM DB2</b>			
<b>IBM Informix Dynamic Server</b>			

## GIS Web Services

	SuperGIS Server 3.1a		
	Value	Standard	Advanced
<b>Geodatabase Replication</b>	⊙1	⊙1	⊙1
<b>Feature services (read-only)</b>	✓	✓	✓
<b>Geometry (for geometric calculations such as calculating areas and lengths)</b>	✓	✓	✓
<b>Dynamic Map Services</b>	✓	✓	✓
<b>Cached Map Services</b>	✓	✓	✓
<b>Feature services (read and write)</b>	✓	✓	✓
<b>Geoprocessing (for modeling and analysis of spatial data)</b>		✓	✓
<b>Globe (for 3D and globe rendering)</b>		⊙2	⊙2
<b>Network</b>		⊙3	⊙3
<b>Mobile (for Windows Mobile)</b>		✓	✓
<b>Keyhole Markup Language (KML)</b>	✓	✓	✓
<b>Web Coverage Service (WCS)</b>	✓	✓	✓
<b>Web Feature Service (WFS)*and Transactional Web Feature Service (WFS-T)</b>	✓	✓	✓
<b>Web Map Service (WMS)</b>	✓	✓	✓
<b>Web Map Tile Service (WMTS)</b>	✓	✓	✓

⊙1: It depends on the mechanism of databases.

⊙2: Globe services can be supported by working with SuperGIS 3D Earth Server.

⊙3: Network services can be provided by working with either SuperGIS Network Server 3.1a or SuperGIS Network Analyst.



## Web Mapping Applications

	SuperGIS Server 3.1a		
	Value	Standard	Advanced
<b>*Viewer</b>	✓	✓	✓
<b>JavaScript</b>	✓	✓	✓
<b>Flex</b>	✓	✓	✓
<b>Silverlight</b>	✓	✓	✓

\* SuperGIS Server 3.1a provides SuperGIS Mobile Viewer for users to view the map services on Android mobile devices.

## Web Editing

	SuperGIS Server 3.1a		
	Value	Standard	Advanced
<b>Feature Services</b>	✓	✓	✓
<b>Geometry Services</b>	✓	✓	✓

## Geoprocessing

	SuperGIS Server 3.1a		
	Value	Standard	Advanced
<b>Geoprocessing</b>		✓	✓
<b>Advanced Geoprocessing</b>			✓

© Geoprocessing services require the process you define with SuperGIS Toolkit in SuperGIS Desktop. The geoprocessing services you can publish depend on the edition of SuperGIS Server you have. SuperGIS Server Standard edition can publish the process defined with SuperGIS Toolkit Standard level, and SuperGIS Server Advanced edition can also publish the additional functions with Professional level tools. The details of the functions provided by SuperGIS Toolkit are listed in Appendix 1, and Supergeo will keep improving and adding more tools to SuperGIS toolkit.

## Mobile SDK

	SuperGIS Server 3.1a		
	Value	Standard	Advanced
<b>iOS</b>		✓	✓
<b>Android</b>		✓	✓
<b>Windows Mobile</b>		✓	✓
<b>Windows Phone</b>			

## Extensions

	SuperGIS Server 3.1a		
	Value	Standard	Advanced
<b>Spatial Analyst</b>		Optional	✓
<b>3D Analyst</b>		Optional	✓
<b>Spatial Statistical Analyst</b>		Optional	✓
<b>Network Analyst</b>		Optional	✓
<b>Biodiversity Analyst</b>		Optional	Optional

© The functions provided with the extensions for SuperGIS Server are listed in Appendix 2.



**SuperGIS Toolkit**

Functionalities	Server Value	Desktop Std.	Desktop Pro.
		Server Standard	Server Advanced
<b>Analysis Tools</b>			
Clip	✓	✓	✓
Select	✓	✓	✓
Table Select	✓	✓	✓
Erase			✓
Intersect		✓	✓
Union		✓	✓
Buffer	✓	✓	✓
Create Thiessen Polygons			✓
<b>Conversion Tools</b>			
Raster To ASCII		✓	✓
Raster To Point		✓	✓
Raster To Polygon		✓	✓
Raster To Polyline		✓	✓
ASCII To Raster		✓	✓
Feature To Raster		✓	✓
<b>Data Management Tools</b>			
Create Feature Class	✓	✓	✓
Add Line String	✓	✓	✓
Add Points	✓	✓	✓
Add Polygon	✓	✓	✓
Add XY Coordinates		✓	✓
Copy Features	✓	✓	✓
Delete Features	✓	✓	✓
Feature Attribute To ASCII		✓	✓
Feature Envelope To Polygon			✓
Feature To Line			✓
Feature To Point			✓
Feature To Polygon			✓
Feature Vertices To Points			✓
Multipart To Singlepart		✓	✓
Polygon To Line			✓



Repair Geometry		✓	✓
Split Line At Point			✓
Split Line At Vertices			✓
Add Field	✓	✓	✓
Delete Field	✓	✓	✓
Merge		✓	✓
Dissolve		✓	✓
Simplify Line			✓
Simplify Polygon			✓
Project		✓	✓
Flip		✓	✓
Mirror		✓	✓
Project Raster		✓	✓
Rotate		✓	✓
Shift		✓	✓
Clip		✓	✓
Convert Cell Type		✓	✓
Grayscale		✓	✓
Mosaic		✓	✓
NDVI			✓
Pan-sharpen		✓	✓
Resample		✓	✓
<b>Spatial Statistics Tools</b>			
Calculate Areas		✓	✓
Calculate Length		✓	✓
<b>Extensions</b>			
3D Analysis Tools		Optional	Optional
Spatial Analysis Tools		Optional	Optional
Network Analysis Tools		Optional	Optional



## SuperGIS Extensions

### 3D Analysis Tools

<b>Conversion:</b>	Raster to TIN
<b>Raster Interpolation:</b>	IDW, Trend
<b>Raster Math:</b>	Int, Minus, Divide, Plus, Times
<b>Raster Surface</b>	Aspect, Contour Curvature, Cut/Fill, Hillshade, Slope, Viewshed

### Spatial Analysis Tools

<b>Conditional:</b>	Con, Set Null
<b>Density:</b>	Kernel Density, Line Density
<b>Distance:</b>	Corridor, Cost Allocation, Cost Back Link, Cost Distance, Euclidean Allocation, Euclidean Direction, Euclidean Distance
<b>Extraction:</b>	Extract by Attributes, Extract by Circle, Extract by Mask, Extract by Rectangle, Extract by Polygon, Extract by Point, Extract Values to Points
<b>Generalization:</b>	Aggregate, Boundary Clean, Expand, Majority Filter, Nibble, Region Group, Shrink
<b>Hydrology:</b>	Basin, Fill, Flow Accumulation, Flow Direction, Flow Length, Sink, Snap Pour Point, Stream Link, Stream Order, Watershed
<b>Interpolation:</b>	IDW, Trend
<b>Local:</b>	Cell Statistics, Combine, Equal to Frequency, Greater than Frequency, Less than Frequency, Lowest Position, Popularity, Rank
<b>Math:</b>	Logical: Logic-And, Logic-Not, Logic-Or, Logic-XOr, Logic-Is Null
	Trigonometric: ACos, ACosH, ASin, ASinH, ATan, ATan2, ATanH, Cos, CosH, Sin, SinH, Tan, TanH
	Abs, Ceil, Divide, Exp, Exp10, Exp2, Float, Int, Ln, Log10, Log2, Minus, Mod, Nagate, Plus, Power, Round Down, Round Up, Square, Square Root, Times
<b>Neighborhood:</b>	Focal Flow
<b>Raster Creation:</b>	Create Constant Raster, Create Normal Raster, Create Random Raster
<b>Surface:</b>	Aspect, Contour, Curvature, Cut/Fill, Hillshade, Slope, Viewshed
<b>Zonal:</b>	Zonal Fill, Zonal Geometry, Zonal Geometry as Table, Zonal Statistics, Zonal Statistics as Table



### Network Analysis Tools

<b>Analysis:</b>	Closest Facilities, Cost Matrix, Location Analysis, Service Area, Shortest Path, Superior Route, Vehicle Routing Problem
<b>Locations:</b>	Create Barriers, Create Facilities, Create Incidents, Create Order, Create Stops, Create Vehicles
<b>Network Data:</b>	Network
<b>Route Result:</b>	Export to Features, Export Vertices to ASCII