

## SuperGIS Image Server 3.0 Specification

### Specification Description

- User Interface is available in Chinese and English.
- Manual is available in Chinese and English

### Control on GIS Image Data and Services

- Concentrative storage and control on the image data will have higher security and better maintenance.
- The client side can use the published image services through internet service instead of saving image data in local computer.
- The server provides On-the-fly Image Processing on the Internet and publishes solutions to increase the usability and value of the images.
- The server will manage the function settings of images required by clients.
- The account and password of remote administration can be set, which can facilitate administrators to adjust settings and publish services.
- The setting of remote user's account and password can stop the use by non-authenticated user.
- Multi-computer deployment is supported, and image process service with dispersed operation is provided.
- Image compression can reduce the data volume, and high speed streaming will transmit data to the client side more quickly.
- Image Service Console can help administrators to publish, edit, and manage the image services.
- The multiply image data source can be combined to produce multiple images.
- Support to display 3D images
- Support multi-client to navigate and process images simultaneously.

### Components in Server

- **Image Server:** It plays a role of Broker between Client and image process unit, providing data to the client and ensuring the client have the permission to use image process. It is also responsible for the loading balance between Service Units.
- **Service Manager:** It's a unit for creating and editing image services.

The main functions of this unit is to add or delete images, and to implement image process; then, a definition file of image service, which is a basis of implementing the image process through Service Unit, is created.

- **Service Unit:** It is the unit that mainly runs image process among the applications of Image Server components, and an Image Server system should be able to contain several Service Units together. Through the distribution by Image Server, Service Unit receives the Image Service request from the client side, runs the published Image process, and then sends the results to Image Provider Unit to transmit data to the client side.
- **Provider Unit:** The unit is to publish the huge image. It is responsible for transmitting data to the client side with the image streaming and compression techniques. Also, it can work together with the aided services of data encryption and multi-sourced spatial data overlay process.

#### On-the-Fly image process

- Classify
- Color Map
- Convolution Filter
- Algebra
- NDVI
- Pan-sharpen
- Spectral Matrix
- Stack Bands
- Stretching
- Trend
- Viewshed
- Visualize Elevation

#### Client side applications

- The client side software, 3D Global is able to display data of image, elevation and model from SuperGIS Image Server in 3D mode.
- The Image Server Desktop Client, constructed on SuperGIS Desktop, is able to receive the image data from SuperGIS Image Server in SuperGIS Desktop.

- Html Viewer, the webpage-based front-side viewer, provides the basic image data display and sample of website creation.

#### Support File Format

- Supports various commonly used image data formats, such as \*.sgr \ \*.sid \ \*.ecw \ \*.lan \ \*.jpg \ \*.bmp and \*.geotiff.f

#### System Requirements

- **Server side**

- ✓ Operating System: Windows 2000/Windows XP Professional/  
Windows Server 2003
- ✓ CPU: Pentium IV 1.6G or above
- ✓ RAM: 1GB or above
- ✓ IIS : 5.0 or above
- ✓ .Net Framework 2.0 or above
- ✓ Internet bandwidth:
  - ❖ Intranet : 100Mb or above
  - ❖ Internet : 4Mb/1Mb (download/upload) or above

- **Client side**

- ✓ CPU: Pentium III 800 or above
- ✓ RAM: 256 MB or above
- ✓ Operating System: Windows 2000/Windows XP/Windows 2003  
/Windows Vista
- ✓ Internet bandwidth:
  - ❖ ADSL : 2 Mb/256 Kb

- **Communication Environment**

- ✓ The communication environment for the APs in Server side is designed as intranet, the protocol and port has no special restriction; the communication environment for Server side and Client side is internet, and the protocol is set as HTTP basically and port is usual set 80 port. It is available to switch to other settings based on the software applied in Client side.