

# Preparing Maps for Online Use

**Libraries with paper map collections can begin turning maps into digital geospatial data for online access by students, researchers, and patrons.**

Progeos Map Library services include coordinating scanning and georeferencing map collections to assist or train users to be able to continually create new online map data.

## Scan

Paper maps of all sizes should be scanned by using specialized, high-resolution equipment, so as to not lose any detail on the map.

For institutions without large flatbed scanners, drum scanners, or high-quality digital cameras, outsourcing map scanning projects to a reputable third party is the best solution.

Suggested resources include the Map Scanning Registry of the Map and Geography Round Table (MAGERT) of the American Library Association (ALA), as well as their list of map imaging service providers.

## Digitize

Once a paper map has been scanned to a digital file format, care must be taken to ensure the digital image is readable and of sufficient quality. Maps to be used as base layers or raster data such as aerial photography need to maintain accuracy to be able to be used as reliable reference information.

Users can use photo imaging software to view and edit scanned images to verify quality before beginning the georeferencing process.

Vector layers can also be created by hand from paper maps by using on-screen digitizing. This method requires precise tracing of boundaries to create accurate vector data, and is better used for small-scale maps that do not have detailed linework.

For more information please visit:

[www.maplibraryonline.com](http://www.maplibraryonline.com)

## Georeference

A scanned map must have its geographic coordinate location defined before being used as a map layer in the Progeos system or any other GIS software. This can be accomplished by using an already-georeferenced base layer that covers the extent of the scanned map, and transforming or “rubber sheeting” to line the two maps up by common points.

Appropriate control layers to georeference a scanned map can include vector files of state, county, or town boundaries, TIGER street files or other rectified raster datasets.

**After a paper map has been scanned, digitized, and georeferenced, it is ready to be used in the Progeos online viewer, and can also be imported into GIS software or other applications such as Google Maps.**



**To learn more about how Progeos Map Library services can improve and expand access to map collections, or to find out more about preparing paper maps, call (860) 896-5274 or email [maya@progeos.com](mailto:maya@progeos.com).**