Manually Geotag Digital Photos

The Create Geotagged Image Database process in TNTmips provides both automated and manual methods for geotagging digital photos. The automated procedures utilize GPS logs to derive geotag coordinates, while the manual methods enable you to geotag digital photos that were acquired without concurrent GPS logs. You can also use the manual methods to geotag JPEG, TIFF, or PNG image files lacking EXIF headers.

Two manual geotag methods are provided. You can derive geographic coordinates (latitude and longitude) for each individual photo by locating the photo's position in a view of a georeferenced raster object such as an orthoimage, satellite image, or scanned map. Or, if you already have obtained geographic coordinates for the photos from another source, you can directly enter the latitude and longitude values for each photo in the respective fields in the Image List in the Create Geotagged Image Database window.

Procedures for using a georeferenced image for geotagging photos are illustrated below. The Database Pinmap window allows you to select the raster object (georeferenced to any supported coordinate reference system) to be used as a visual reference and source of map coordinates. Selecting a digital photo in the Image List in the Create Geotagged Image Database window automatically activates a point tool in the Database Pinmap window; drag the tool's crosshairs symbol in the view to the desired location, then right-click to set the position. The corresponding map coordinates are automatically de-

termined from the raster object's georeference (and converted to the WGS84 / Geographic coordinate reference system, if necessary) and transferred to the Latitude and Longitude fields in the Image List for that photo. The photo position is also marked in the view using the selected pinmap symbol.

Setting the position for the selected photo also automatically activates the view's selection tool with which you can select any photo pin in the view for repositioning; selecting the pin symbol (or selecting its photo record in the Image List) reactivates the point tool, which you can use to reposition the photo pin in the view as described above.

Once you have geotagged all of the selected photos, press the Run button to save the image database table. A general overview of this process and discussion of automated geotagging procedures using GPS logs are provided in the Technical Guides entitled *Digital Photos: Geotagging Digital Photos* and *Digital Photos: Geotag Digital Photos from GPS logs*.

You can change the pin symbol used to mark geotagged photo locations in the view by choosing Controls from the right mouse button menu for the Geotagged Images entry in LegendView. In the Pinmap Layer Controls window, press the Style button on the Symbol tabbed panel to open the Point Style Editor.

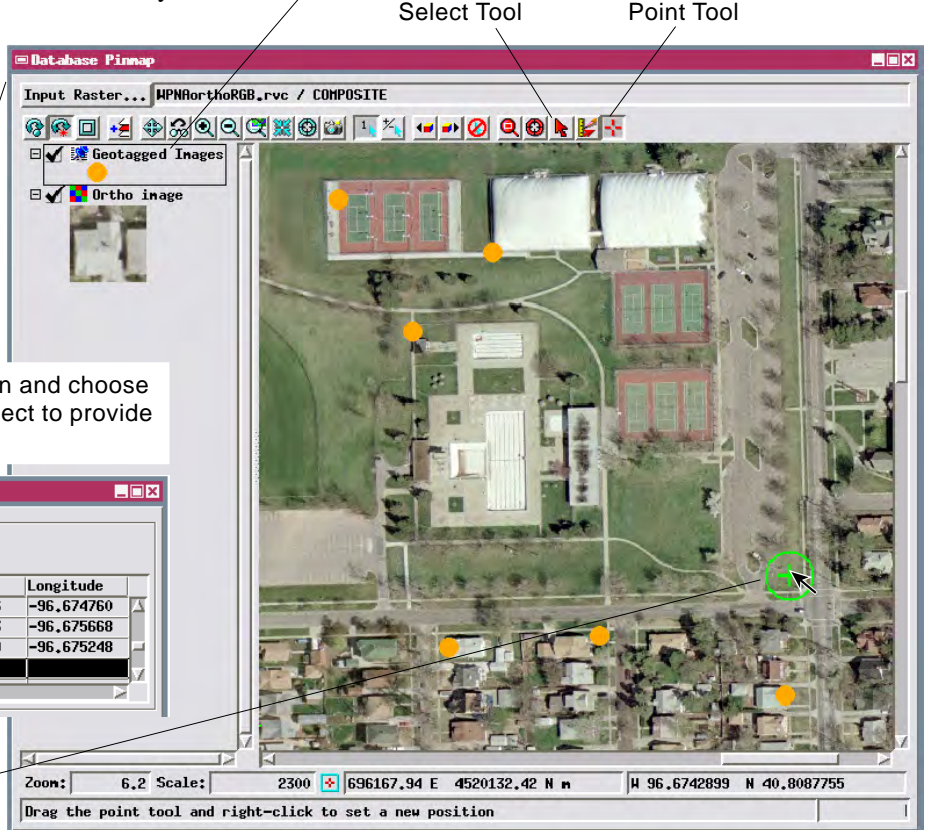**To manually geotag digital photos using a georeferenced image:**

① Use the Add Images icon button to select the photo files to geotag.

② Press the Database Pinmap icon button to open the Database Pinmap view window.

③ Press the Input Raster button and choose the georeferenced raster object to provide the map coordinates.

④ Left-click on a photo in the list to select it.

⑤ Drag the point tool's crosshairs symbol to the desired location in the view and right-click to accept the position.

Select Tool   Point Tool

⑥ Repeat the last two steps for the remaining photos.

⑦ Press [Run] in the Geotag process window to save the image database table.