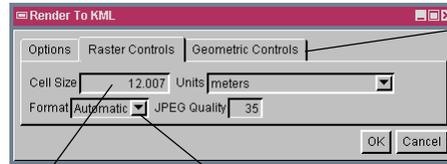## Spatial Display

Render Raster Objects to KML

The Render to KML feature in the Display process provides you the options to control the format, resolution and quality of the images created with the KML file. When rendering layouts or groups to KML an image is created in either a JPEG or PNG format for each raster object in the layout and saved in the same folder as the KML file. If the layout is rendered to KMZ, the compressed form of KML, the images are embedded in the KMZ file.

You can use the settings in the Raster Controls tabbed panel to control the format, resolution and quality of the images when rendering to KML. The Render to KML feature allows you to create the raster objects either in PNG or JPEG format choosing from the Format menu. If you use the default setting where the format selection is made automatically, either PNG or JPEG is chosen based on the raster content. The PNG format is the default format for the rasters with transparency. You can set the quality of the images in JPEG format by entering a value for JPEG Quality setting. The higher values for JPEG Quality setting creates better quality images with a larger file size. The Cell Size setting defaults automatically to a value calculated in meters from the raster object that has been added to the view and has the smallest cell size. You can change this automatically specified cell size and its units according to your desired output resolution requirements. If you enter lower values than the value calculated by default, you get more detail than you are currently viewing (if available) at the expense of getting a KML file in a larger size. The minimum cell size you can specify for the raster objects is limited to the half of the automatically specified cell size. The automatically specified cell size also matches coordinate accuracy of geometric objects if the any group contains geometric objects. More information about rendering geometric objects to KML is provided in the Technical Guide entitled *Spatial Display: Render Map Layouts to KML.*
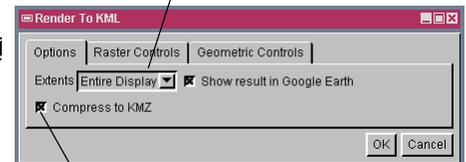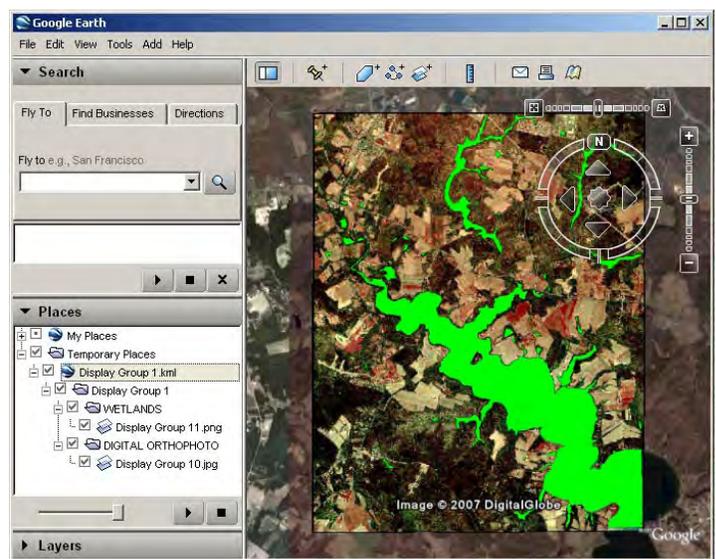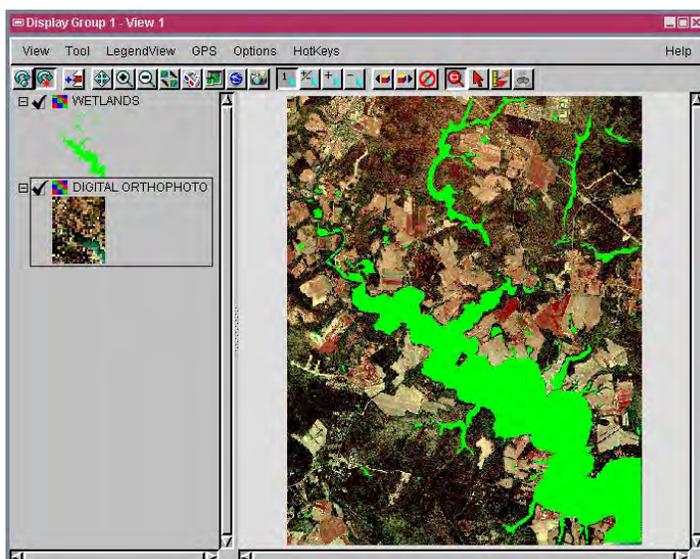
The Geometric Controls tab is visible only when there is a geometric object in a group.

Select any open view window or Entire Display to specify the extents of the KML or KMZ file.

Enter a value to specify a cell size.

Click to select format from the list.

Toggle on this button to create a KMZ file in which the image created for each raster object is embedded.

Google Earth currently limits the size of each raster used as a Temporary Place (typically 4096 by 4096 cells). Your display card may even limit this size futher. If your output size is larger than allowed, it will not display in Google Earth even though you have a KML or KMZ file. You can alter the size of the rasters rendered to a KML file to fit into Google Earth's limitation by changing the cell size and/or JPEG quality. You can check the limit on the size of the raster used as a Temporary Place by choosing About Google Earth from Help (PC) or Google Earth (Mac) menu.

The illustration above (left) shows the two raster objects, WETLANDS and DIGITAL ORTHOPHOTO, in a group. The WETLANDS raster object is a binary raster that contains transparent cells. The DIGITAL ORTHOPHOTO raster object is a composite raster object that contains no transparent cells. When this group is rendered to KML with default settings accepted, a PNG image is created for the WETLANDS raster object and a JPEG image for the DIGITAL ORTHOPHOTO raster object. The illustration above (right) shows the content of the same group in Google Earth.