

Geomashup Custom Overlay Controls

You can add tilesets to your geomashups as *base maps*, only one of which can be viewed at a time, or as *overlays*, which allow multiple layers to be selected for simultaneous viewing. Geomashups have separate layer controls for base maps and overlays, and you can use the Options panel in the Assemble Geomashup process to choose the types of controls to include for each. Here we discuss the types of available overlay controls and how you select them, as well as other custom geomashup controls. The resulting controls are created in your geomashup via

JavaScript libraries created by MicroImages. Choosing controls for base map selection, panning, and zooming is covered in the Technical Guide entitled *Geomeia Publishing: Geomashup Map Control Options*.

Overlay Control Options

Overlay controls are selected using the Custom Control Options section of the Options tabbed panel. The contents of this section vary depending on the Web Mapping API you have selected as your target geobrowser (Google Maps v2 and v3 [mobile], Google Earth, Bing Maps, or Open Layers). In Open Layers geomashups the only choices are whether or not to include layer controls (via a *Layer Controls* toggle) and, if included, whether the Layer Controls panel should be initially open or collapsed. For all other web mapping APIs you can select from different styles of controls using the Overlay Control menu. Available selection controls for overlays include:

- check boxes (allowing each overlay to be toggled on/off independently)
- radio buttons (mutually-exclusive group of overlays, only one visible at a time)
- dropdown menu (mutually-exclusive group of overlays, only one visible at a time)


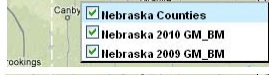



In addition, some selection controls can also be provided with a slider that lets the viewer vary the transparency of an overlay. This slider is shown only for the overlay that is currently active in the geomashup. The overlay controls that are available for the different web mapping APIs are indicated in the checklist above.

Combining Check Box and Radio Button Controls

In some geomashups you may have a group of overlays that you wish to be mutually exclusive, controlled by radio buttons, and one or more other overlays that you want to allow to be visible along with the exclusive group, and thus controlled by check boxes. For example, in the sample control illustrations above, the geomashup includes two statewide imagery layers acquired in different years.

Since these opaque imagery layers cover the same areas, they are obvious candidates for a mutually-exclusive grouping using radio buttons. The Nebraska Counties overlay includes county boundaries and labels with a transparent background, and so could be viewed in combination with either of the imagery tilesets.

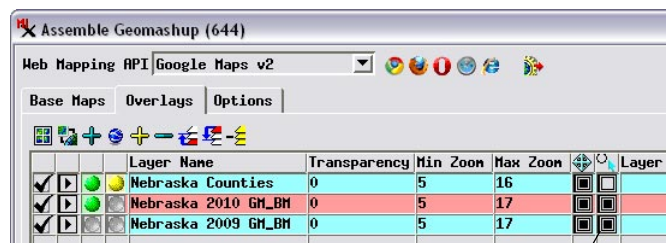
You can set up a combination of radio button and check box overlay controls for Google Maps v2 geomashups. Choose one of the Visibility Control options (with or without Transparency Slider)

Control	Sample (Google Maps v2)	Google Maps v2	Google Maps v3	Bing Maps	Google Earth	Open Layers
Check Boxes and Transparency slider		✓ 1		✓		
Check Boxes Only		✓ 2	✓	✓	✓	✓
Radio Buttons (mutually-exclusive)		✓ 3	✓		✓	
Check Boxes and Radio Buttons		✓ 3				
Dropdown Menu with Transparency Slider		✓				
None		✓	✓	✓	✓	✓

Special terminology for Google Maps v2 API:

1 Visibility Control and Transparency Slider	3 Choose <i>Visibility Control</i> and use the <i>Combine with other overlays</i> toggles on the Overlays tabbed panel to designate the set of overlays to be controlled by the radio buttons
2 Visibility Control	

from the Overlay Control menu. On the Overlays tabbed panel, turn on the *Combine with other overlays* toggle (see illustration below) for each of the overlays that you want to be part of the mutually-exclusive group. The set of overlays so designated are provided with a set of radio buttons. Any other overlays are provided with check boxes, allowing them to be controlled individually. The result is shown in the Check Boxes and Radio Buttons example above. (over)



Combine with other overlays toggles turned on to designate a set of mutually-exclusive overlays to be provided with radio button controls.

Other aspects of the Assemble Geomashups process are covered in the Technical Guides on *Geomeia Publishing* entitled *Introduction to Geomashups*, *Managing Custom Base Maps for Geomashups*, *Managing Custom Overlays for Geomashups*, *Geomashups for Google Earth*, and *Geomashup Data Management Options*.

In geomashups for Google Maps v3 (mobile) you can set the desired position and layout of the overlay controls in the geobrowser view using menus in the Custom Control Options grouping. You can set the control position (Bottom, Top, Left, Right, Top Right, and others) and its orientation (whether layer entries are laid out in a horizontal row or a vertical column). You can also specify X and Y offsets (in screen pixels) of the control from the edge of the geomashup view.



The Custom Control Options for Google Earth v3 (mobile) geomashups allow you to set the position of the overlay controls in the view.

Other Custom Control Options

In addition to layer controls, other custom controls and features are available for some geomashup types and are specified in the Custom Control Options grouping.

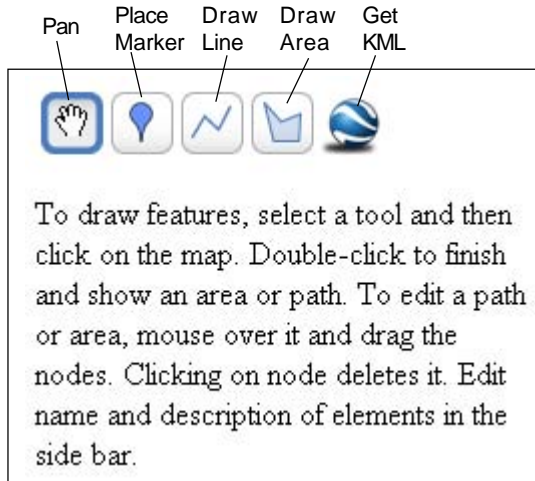
A Drag Zoom tool is available for use in Google Maps v2 or Bing Maps geomashups and is selected by turning on the Drag Zoom toggle. This tool allows the user to drag out a rectangular zoom box within the geobrowser view. When the tool is activated by pressing its icon button (see illustration to the right), the view is dimmed temporarily while you drag the zoom box. After zooming, the tool remains active (indicated by the dimmed view) for a short time before turning off. You can set the duration of this reset time (in seconds) in the Custom Control Options.



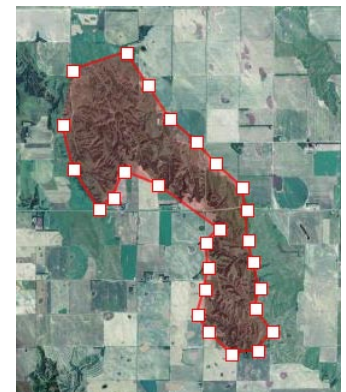
The custom Drag Zoom control allows you to drag out a box in the geobrowser view to zoom in to the specified area. The tool is shown above in Google Maps (tool icon circled in upper left). The equivalent control in Bing Maps (right) includes an icon to return to the home view.

The Image URL field in the Custom Control Options sets the source of the images used for the transparency sliders in Google Maps v2 and Bing Maps geomashups. You should keep the default value for this field unless you have designed your own slider graphic.

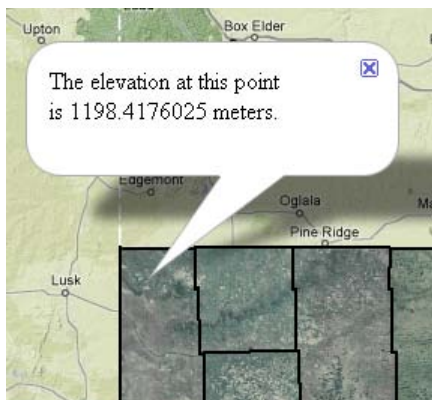
You can choose to include a panel of drawing tools in Google Maps v2 geomashups. This panel (illustrated to the right) is shown on the sidebar of the geobrowser view and includes instruction text beneath the tool icon buttons. There are separate tools for placing points (indicated by a standard Google marker), drawing lines, and drawing polygons. You can use the Get KML icon to save a KML file containing the features you have drawn. The Pan icon button lets you switch the mouse interaction in the view back to the default panning operation.



The drawing tools panel available for Google Maps v2 geomashups allows you to place points, draw lines or polygonal areas, and to save the result as a KML file.



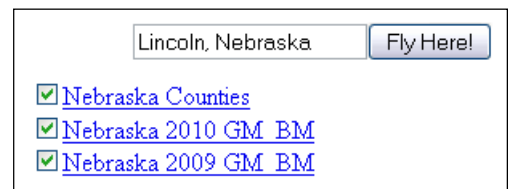
A polygonal area being drawn over an orthoimage overlay using the custom drawing tools in a Google Maps v2 geomashup.



Custom elevation report in a Google Maps v3 (mobile) geomashup.

Google Maps v3 (mobile) geomashups can include a feature that allows the viewer to left-click in the geobrowser view and get an information bubble that reports the elevation at that location (as illustrated to the left). To provide this feature, turn on the *Click to get location elevation* toggle in the Custom Control Options.

You can include a custom Fly Here! search bar in the sidebar of Google Earth geomashups (illustrated to the right) by checking the Search Bar toggle in the Custom Control Options.



Sidebar in a Google Earth geomashup with overlay controls and Fly Here! search box.