

Slide 12.13: Displaying a map

Slide 12.15: Displaying an interactive map (cont.)

Home



## Displaying an Interactive Map

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The example below displays an interactive map with a marker and the options of zoom and drag:

Display the Map!

Line-by-line explanations of the code are given as follows:

Line 08: `<script src="http://maps.google.com/maps/api/js?sensor=false"></script>`

The URL stores the JavaScript file that loads all of the symbols and definitions for using the Google Maps API. Set `sensors=false` in the URL, otherwise Google will try to find out the user's position for you.

Line 22: `latlon = new google.maps.LatLng( lat, lon );`

A `LatLng` class is a point in geographical coordinates: latitude and longitude.

Line 23: `mapholder.style.height = '250px';`

Returns an object that represents the element's style attribute.

Line 26: `var myOptions = {`

To initialize a Map, a Map `options` object is created to contain map initialization variables.

Line 29: `mapTypeId: google.maps.MapTypeId.ROADMAP,`

The following [map types](#) are supported by the Google Maps:

- `ROADMAP`—displays the normal, default 2D tiles of Google Maps.
- `SATELLITE`—displays photographic tiles.

- HYBRID—displays a mix of photographic tiles and a tile layer for prominent features (roads, city names).
- TERRAIN—displays physical relief tiles for displaying elevation and water features (mountains, rivers, etc.).

```
<!DOCTYPE HTML>
<html>
<body>
  Click the button to display the map:
  <button onClick="getLocation( )">Display the Map!</button>
  <p id="mapholder"></p>

  <script src="http://maps.google.com/maps/api/js?sensor=false"></script>
  <script>
    var mapholder = document.getElementById( "mapholder" );

    function getLocation( ) {
      if ( navigator.geolocation )
        navigator.geolocation.getCurrentPosition( showPosition );
      else
        mapholder.innerHTML = "Geolocation is not supported by this browser.";
    }

    function showPosition( position ) {
      lat      = position.coords.latitude;
      lon      = position.coords.longitude;
      latlon   = new google.maps.LatLng( lat, lon );
      mapholder.style.height = '250px';
      mapholder.style.width  = '400px';

      var myOptions = {
        center: latlon,
        zoom: 14,
        mapTypeId: google.maps.MapTypeId.ROADMAP,
        mapTypeControl: false,
        navigationControlOptions: {
          style: google.maps.NavigationControlStyle.SMALL
        }
      };

      var map = new google.maps.Map( document.getElementById (
        "mapholder" ), myOptions );
      var marker = new google.maps.Marker ( {
        position:latlon, map:map, title:"You are here!" } );
    }
  </script>
</body>
</html>
```

## Demonstration

The following demonstration shows how the HTML5 script is displayed on the Web.

[Display the HTML](#)[Reset](#)

```
<html>
<head><title>HTML Working Area</title></head>
<body>
  Click the button to display the map:
  <button onClick="getLocation( )">Display the Map!
</button>
  <center><p id="mapholder"></p></center>
  <script src="http://maps.google.com/maps/api/js?
sensor=false"></script>
  <script>
    var mapholder = document.getElementById( "mapholder"
  );

    function getLocation( ) {
      if ( navigator.geolocation )
        navigator.geolocation.getCurrentPosition(
showPosition );
      else
        mapholder.innerHTML = "Geolocation is not supported
```

[Slide 12.13: Displaying a map](#)[Slide 12.15: Displaying an interactive map \(cont.\)](#)[Home](#)