Client-side APIs for Web Mapping Applications

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OpenLayers

- OpenLayers is an open source (provided under a Free-BSD license) JavaScript library for displaying map data in web browsers.

- An OpenLayers Map stores information about the default projection, extents, units, and so on of the map.

- Inside the map, data is displayed via Layer’s. A Layer is a data source – information about how OpenLayers should request data and display it.

- Current Version – 2.11
Why use OpenLayers?

- Open Source – Code can be tweaked as per our requirement
- Works with almost all the server-side geospatial tools
- Provides a wide range of widgets that can be included in the app by just a control instantiation
- Supports touch events for mobile browsers
<table>
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<th>Touch events</th>
<th>Multiple touches</th>
<th>Accelerometer</th>
<th>geolocation</th>
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A simple example

var map = new OpenLayers.Map({ div: "map", allOverlays: true });

var osm = new OpenLayers.Layer.OSM();

var gmap = new OpenLayers.Layer.Google("Google Streets", {visibility: false});

map.addLayers([osm, gmap]);

map.addControl(new OpenLayers.Control.LayerSwitcher());

map.zoomToMaxExtent();

Demo
Some more examples

- Screen position to LatLong
- Map Control examples
- Full Screen Map and Kinetic Dragging
- GeoLocation API
- WFS Layer from GeoServer
- JQuery Mobile
GeoExt – OpenLayer + ExtJS

- Focuses on developing Desktop style apps for web browser
- ExtJS Ext JS is a pure JavaScript application framework for building interactive web applications using techniques such as Ajax, DHTML and DOM scripting.
Additional features provided by GeoExt

- Printing Map Extents – Example
- Out of the box tree structure and layout - Example
References

- www.openlayers.org
- www.geoext.org
Questions