

2011 Esri China
Developer Summit

2011Esri中国开发者大会

ArcGIS JavaScript API开发 —高级篇

ESRI中国(北京)有限公司 白明

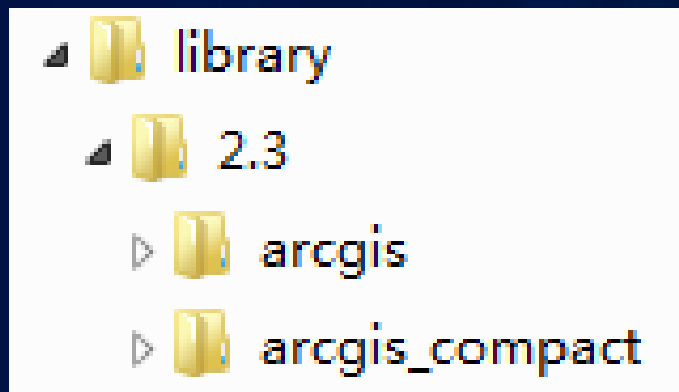


JSAPI 两种离线包

```
function init() {  
    var map = new esri.Map("map");  
    var tl = ledmapServiceLayer = new  
    esri.Layer({url: "http://esri.com/arcgis/rest/services/ESRI_Imagery_Series/MapServer",  
    title: "ESRI_Imagery_Series",  
    type: "Image",  
    opacity: 1.0});  
    map.addLayer(tl);  
}  
  
function getDriveTimePolys(results) {  
    var features = results(0).features;  
    for (var f=0; f<features.length; f++) {  
        var feature = features[f];  
        if (feature.type === "Polygon") {  
            var polys = feature.geometry.paths;  
            for (var p=0; p<polys.length; p++) {  
                var poly = polys[p];  
                var polySymbol = new esri.PolySymbol({color: "#FF0000", width: 2});  
                new dojo.Color(polySymbol.getColor(0, 0, 0, 0.5));  
                feature.setSymbol(polySymbol);  
            }  
        }  
    }  
}
```

JSAPI

- Arcgis



- arcgis_compact

JSAPI 在移动方面

```
function initMap() {  
  var map = new esri.Map("map");  
  var t1 = ledmapService.layer = new  
  esri.TiledMapLayer("http://services.esri.com/arcgis/rest/services/ESRI_Imagery_Server/MapServer/0", {  
    style: "diagonal",  
    tileInfo: new esri.TileInfo({  
      xTileSize: 256, yTileSize: 256, tileHeight: 256, tileWidth: 256, minZoom: 0, maxZoom: 20, fullExtent: new esri.Extent(-10000000, -10000000, 10000000, 10000000, "meters")  
    })  
  });  
  map.addLayer(t1);  
}
```

```
function getDriveTimePolys(results) {  
  var features = results[0].features;  
  for (var f=0, fLen=features.length; f < fLen; f++)  
    var feature = features[f];  
    var poly = feature.geometry;  
    var polysymbol = new esri.PolySymbol({  
      color: "red", width: 5, style: "solid"},  
      new dojo.Color([0, 0, 0, 0.5])  
    });  
    polysymbol.render(feature);
```

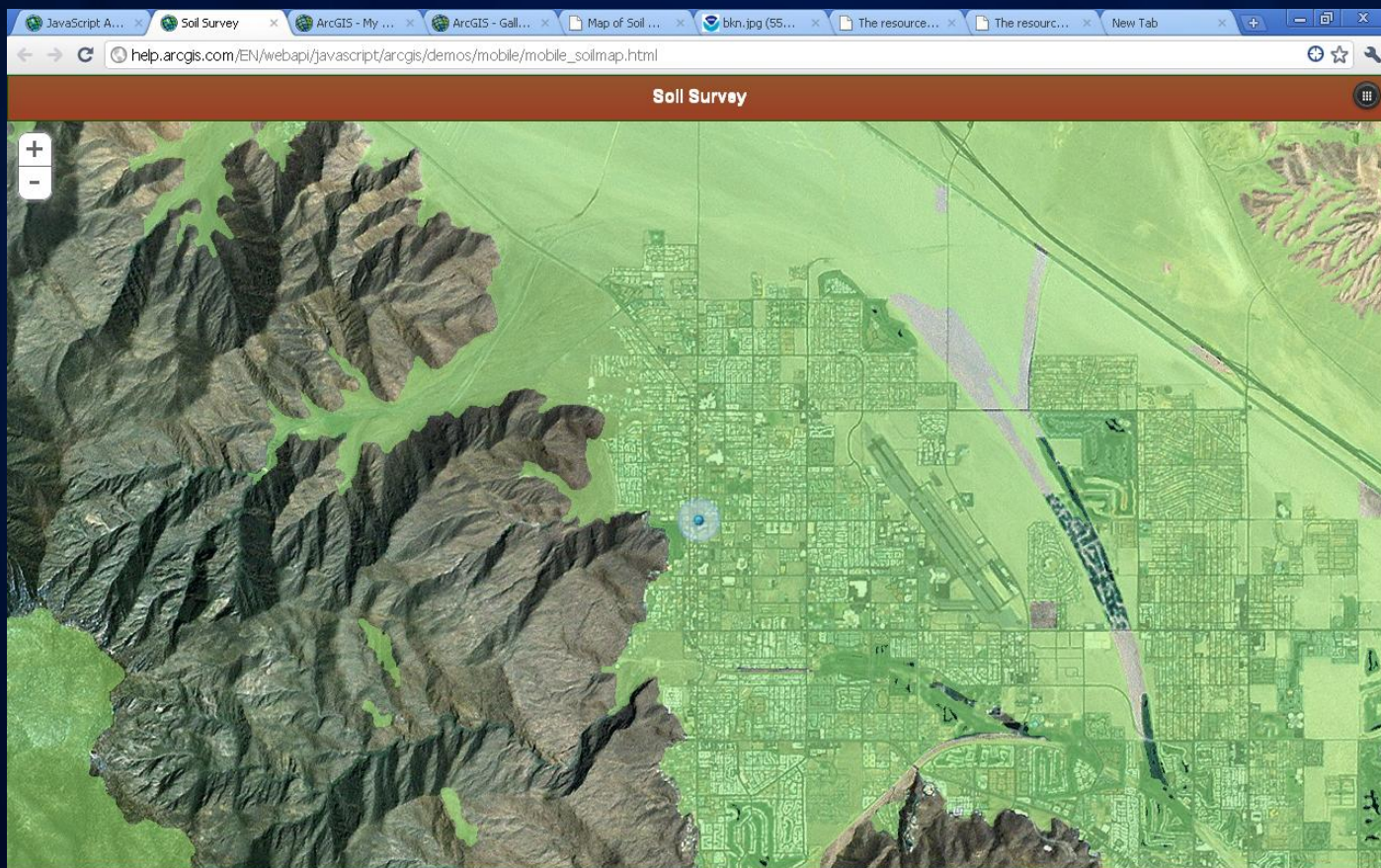
```
esri.Symbology.render(  
  polysymbol, feature)  
  .done(function() {  
    new dojo.Color([0, 0, 0, 0.5])  
    polysymbol.setSymbol(feature, polysymbol);  
  })  
  .fail(function(err) {  
    console.log("Error: " + err.message);  
  });  
}
```

```
new dojo.Color([0, 0, 0, 0.5])  
polysymbol.setSymbol(feature, polysymbol);
```

```
esri.Symbology.render(  
  polysymbol, feature)  
  .done(function() {  
    new dojo.Color([0, 0, 0, 0.5])  
    polysymbol.setSymbol(feature, polysymbol);  
  })  
  .fail(function(err) {  
    console.log("Error: " + err.message);  
  });  
}
```

```
new dojo.Color([0, 0, 0, 0.5])  
polysymbol.setSymbol(feature, polysymbol);
```

智能手机/平板电脑浏览器



智能手机/平板电脑浏览器

- 一般都带有GPS位置地理等信息工具
- 精度低
- 外形小,便于携带,使用范围广

- 处理器的频率低
- 浏览器缓存有限

JSAPI的移动支持

- 依靠触摸功能来控制地图控件,而不是键盘
- 提供了触摸功能的widgets
- 支持触摸功能移动

iOS

- 最好的手机浏览器
- 支持两个手指捏地图实现缩放功能
- 创建和编辑几何图形

- 不支持浏览器访问照片/视频
- 不支持写意的绘画风格

- 浏览器支持
 - HTML5地理定位
 - 网页寄存
 - 离线的web应用程序
 - 支持陀螺仪

Blackberry

- 支持触摸
- 支持创建/编辑几何
- 连接相机

- 不支持两个手指
- 不支持写意绘画风格

Android

- 2.2 或更高的版本才有
 - 而且还取决于制造商
- SVG 在 Android系统上是不被支持的.
 - JSAPI 需要画布(canvas)方式
- 可以创建几何图形,但是不能编辑他们

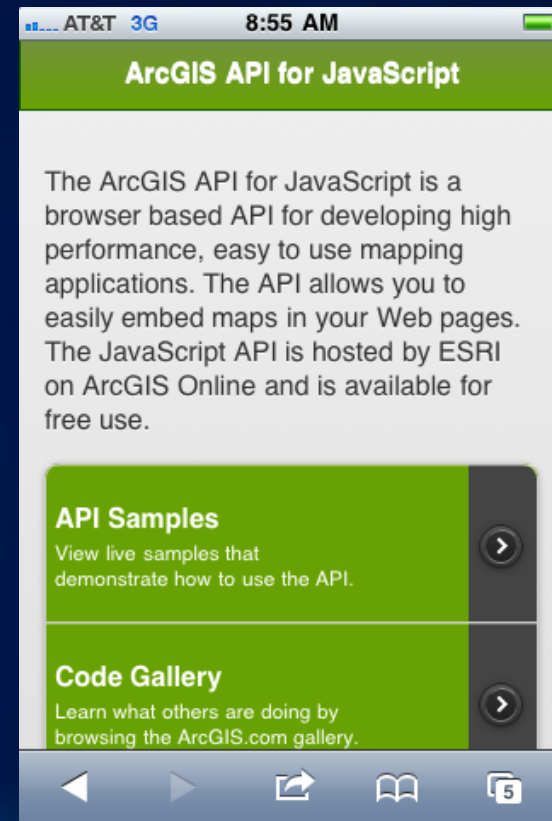
- 不支持两根手指
- 依然有很多问题

移动上的Widget

- 触摸感知缩略图
- 缩略图显示水平滚动视窗
- 触摸访问,使用户可以通过控件选择和查看项目

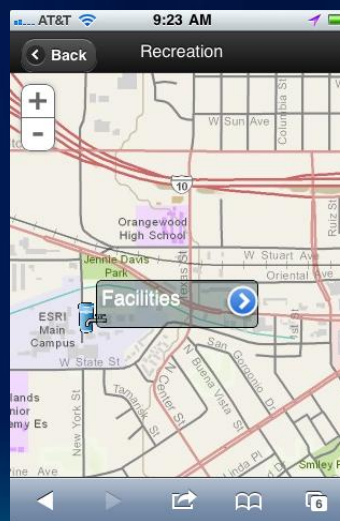
Mobile Frameworks

- Native application look and feel
 - 动画过渡栏
 - 工具条
 - 按钮
 - 列表视图



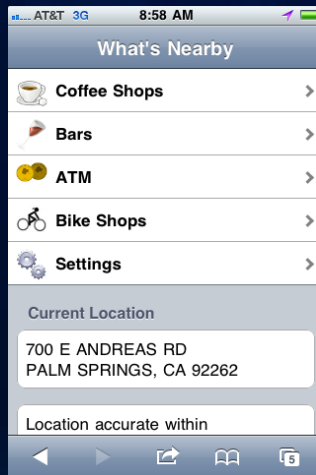
jQuery Mobile

- 2010年年底发布
- 目前的状态是 alpha 3
- 有一个很活跃的论坛
- 大量的开发实例和文档
- 支持主题(Theme)



Dojox.mobile

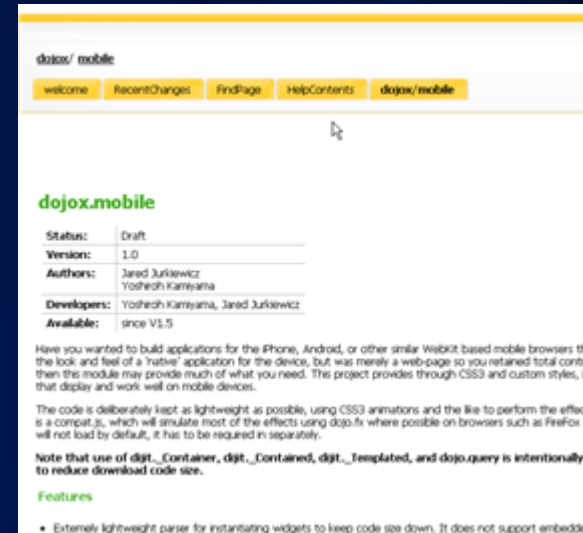
- 功能类似jQueryMobile
- 有很多不错的 demos
- 文档欠缺~~~~



```
test_iPhone-Animation.html
test_iPhone-Button.html
test_iPhone-ButtonList.html
test_iPhone-EdgeToEdge.html
test_iPhone-EdgeToEdgeCategory.html
test_iPhone-Heading.html
test_iPhone-Icon.html
test_iPhone-IconMulti.html
test_iPhone-IconSingle.html
test_iPhone-IconSingleBelow.html
test_iPhone-RadioButtonList.html
test_iPhone-RoundRect.html
test_iPhone-RoundRectList.html
test_iPhone-Settings.html
test_iPhone-Switch.html
test_iPhone-TabContainer.html
test_iPhone-VariableHeightList.html

test_Android-ButtonList.html
test_Android-EdgeToEdge.html
test_Android-EdgeToEdgeCategory.html
test_Android-Icon.html
test_Android-RoundRectList.html
test_Android-Settings.html
test_Android-Switch.html
test_Android-TabContainer.html
test_Android-VariableHeightList.html

test_buttons.html
test_bookmarkable.html
test_hash_router.html
```

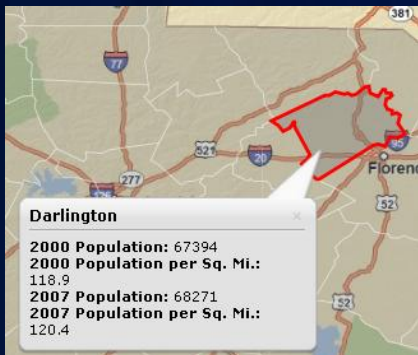


JSAPI 高级编辑

```
function init() {  
    var map = new esri.Map("map");  
    var tl = ledmapServiceLayer = new  
    esri.Layer({url: "http://esri.com/arcgis/rest/services/ESRI_Imagery_Series/MapServer",  
    title: "ESRI Imagery",  
    type: "Image",  
    opacity: 1});  
    map.addLayer(tl);  
}  
  
function getDriveTimePolys(results) {  
    var features = results[0].features;  
    for (var f=0; f<features.length; f++) {  
        var feature = features[f];  
        if (feature.type === "Polygon") {  
            var polys = feature.geometry.paths;  
            for (var p=0; p<polys.length; p++) {  
                var poly = polys[p];  
                var polySymbol = new esri.PolySymbol({color: "#FF0000", width: 2});  
                new dojo.Color(polySymbol.getColor(0, 0, 0, 0.5));  
                feature.setSymbol(polySymbol);  
            }  
        }  
    }  
}
```

FeatureLayer 使用场景

快照



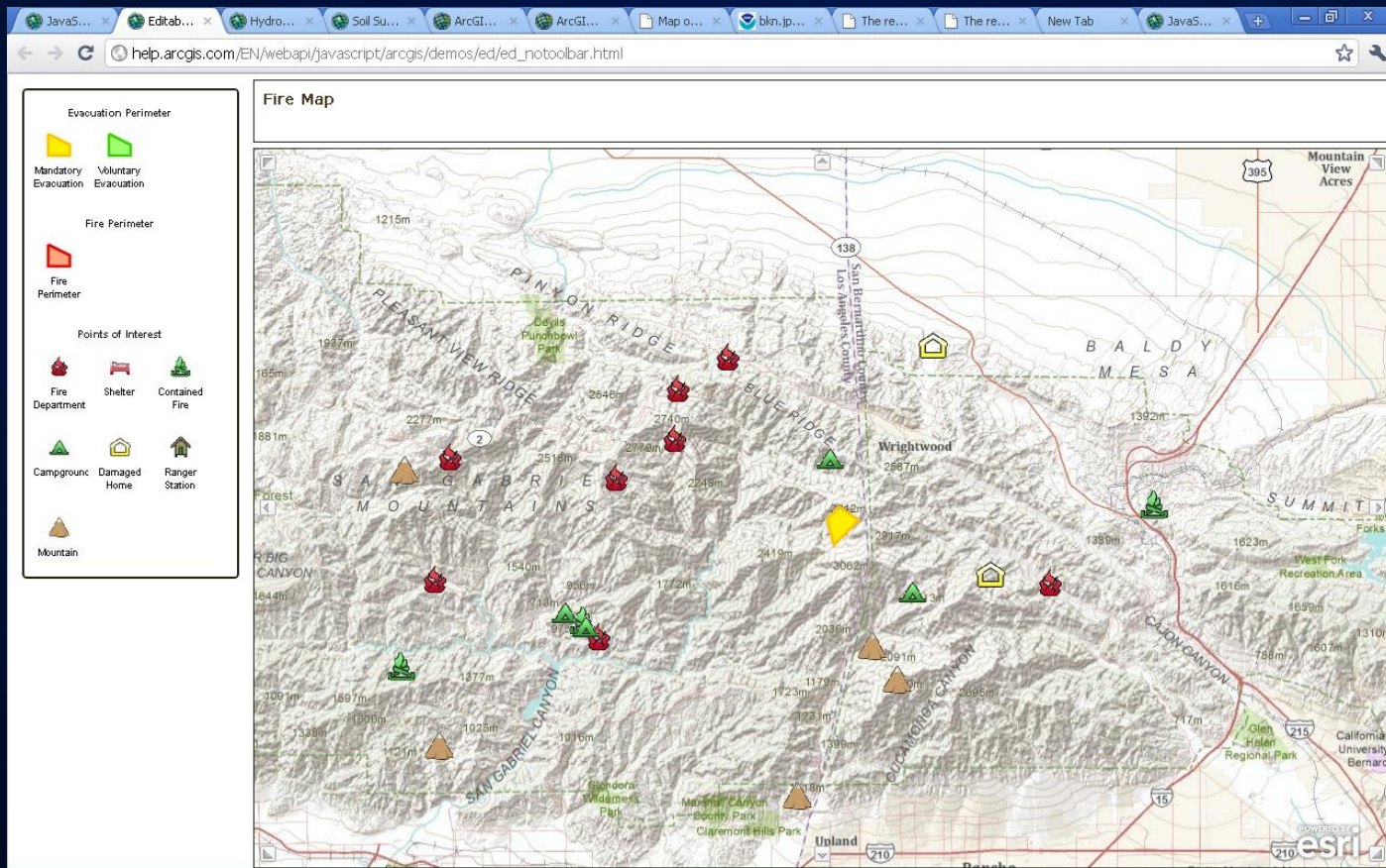
按需加载



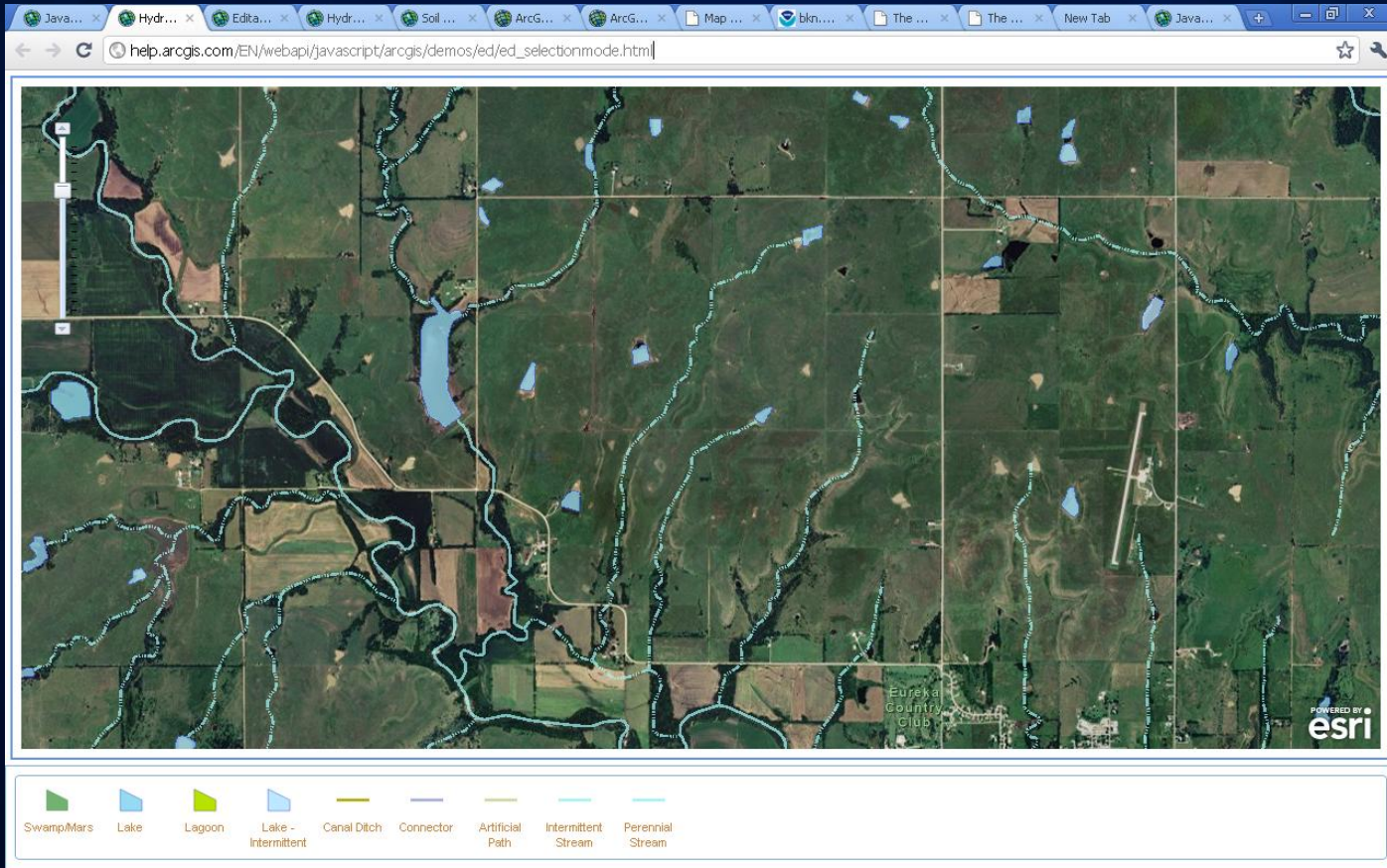
可选择性



根据不同的图层的特征实现编辑部件



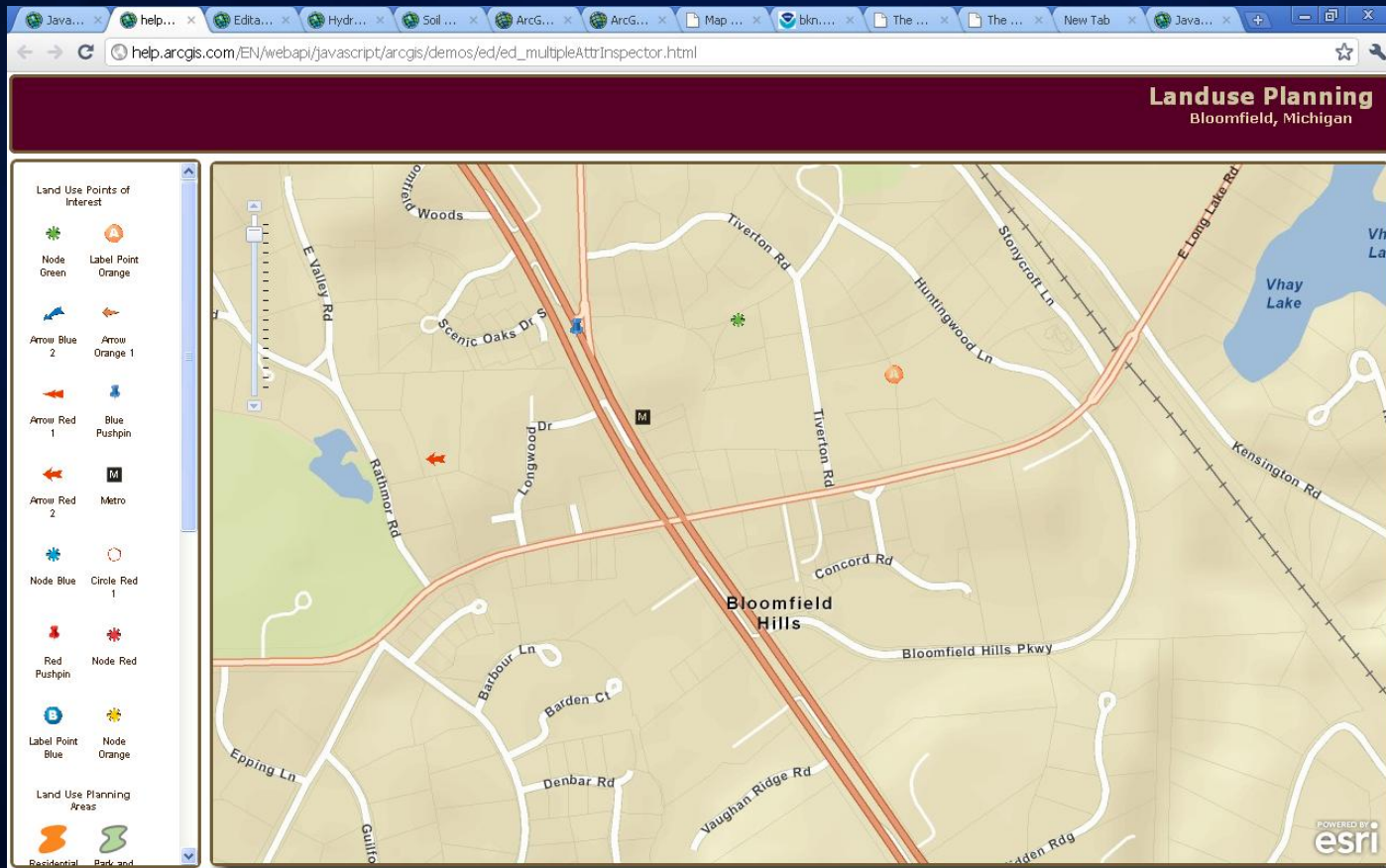
feature layers 现在是实现客户端编辑的唯一方式



feature layers

- [http://help.arcgis.com/en/arcgisserver/10.0/help/arcgis_server_dotnet_help/index.html#/What is a feature service/0093000000200000000/](http://help.arcgis.com/en/arcgisserver/10.0/help/arcgis_server_dotnet_help/index.html#/What%20is%20a%20feature%20service/0093000000200000000/)
- 数据量不能太大
- 有些渲染是不被支持的

实现属性编辑也只能通过feature layers



HTML 5

- 至今仍然很热,但是没有一个标准
- 现在可用的:
 - Web Storage
 - 离线应用
 - 文件API
 - 地理位置
 - 媒体播放
- 所有的浏览器并不一样

利用HTML5 增强JSAPI应用

- CSS Level 3
 - 在修改缩放级别时,更流畅的效果
 - 轻松的平移
 - CSS 转换
- Web Workers
 - 浏览器是一个线程.
 - 可以产生多线程
 - 如:计算,信息检索和解析
- Canvas
 - Android 浏览器 (现在还不支持SVG)
 - 没有本地事件,需要用onClick.



旧工程的迁移

```
function init() {  
    var map = new esri.Map("map");  
    var tl = ledmapServiceLayer = new  
    esri.TiledMapServiceLayer("http://www.esri.com/arcgis/rest/services/ESRI_Imagery_Series/MapServer/3");  
    map.addLayer(tl);  
}
```

```
function getDriveTimePolys(results) {  
    var features = results(0).features;  
    for (var f=0; f<features.length; f++) {  
        var feature = features[f];  
        var poly = feature.geometry.paths[0];  
        var polysymbol = new esri.PolySymbol({color: "#FF0000", width: 2});  
        polysymbol.setPath(poly);  
        polysymbol.setStyle({strokeWidth: 2});  
        polysymbol.addTo(map);  
    }  
}
```

```
new dojo.Color(0, 0, 0, 0.5);  
esri.Symbol.Stroke(0, 0, 0, 0.5);  
polysymbol.setColor(new dojo.Color(0, 0, 0, 0.5));  
feature.setSymbol(polysymbol);  
} else {  
    polysymbol.setColor(new dojo.Color(0, 0, 0, 0.5));  
    polysymbol.setWidth(2);  
    polysymbol.setStyle({strokeWidth: 2});  
    polysymbol.addTo(map);  
}
```

```
esri.Symbol.Stroke(0, 0, 0, 0.5);  
polysymbol.setColor(new dojo.Color(0, 0, 0, 0.5));  
feature.setSymbol(polysymbol);  
} else {  
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    polysymbol.setWidth(2);  
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    polysymbol.setWidth(2);  
    polysymbol.setStyle({strokeWidth: 2});  
    polysymbol.addTo(map);  
}
```

DEMO



分 享 地 理 价 值