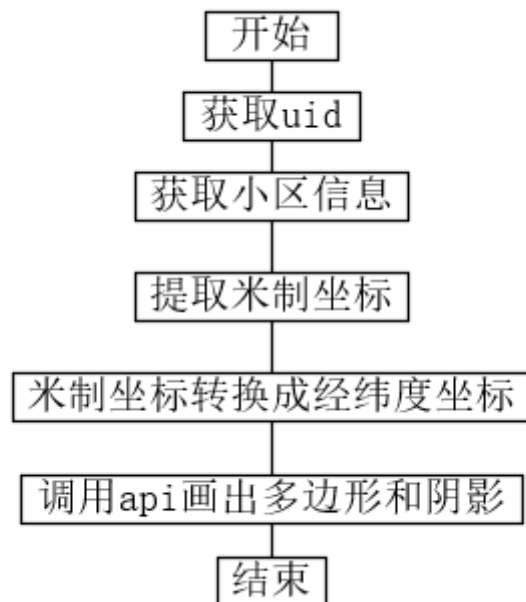


周报

百度地图和高德地图一样，已有的api接口可以直接获得县级及以上的边界。目前所知，没有现成的api接口可以获得乡镇、村乃至小区边界。网上方法采用web解析的方法分析百度地图实现边界。流程如下：



1、初始化百度地图

```
var map = new BMap.Map("container");
// 创建地图实例
var point = new BMap.Point(116.404, 39.915);
// 创建点坐标
map.centerAndZoom(point, 15);
// 初始化地图，设置中心点坐标和地图级别
map.enableScrollWheelZoom();
```

2、获取需要小区的UID

通过百度提供的JS接口LocalSearch的Search方法搜索小区名称，返回LocalResult中包含POI的uid。

```
▼ Array(10)
▶ 0: {title: "双清大厦", uid: "aa2d18f89dcfe156df1e525f", point: N, pointN: H, url: "http://map.baidu.com/?s=inf%26uid%3Daa2d18f89dcfe156df1e525f%26c%3D131&i=0&sr=1", ...}
▶ 1: {title: "双清大厦-4号楼", uid: "7ffb8685c4e16a2e2dffa7dd%26c%3D131&i=0&sr=1", ...}
▶ 2: {title: "双清大厦-2号楼", uid: "b7ca701213c4ec6b9b68b40c", point: N, pointN: H, url: "http://map.baidu.com/?s=inf%26uid%3Db7ca701213c4ec6b9b68b40c%26c%3D131&i=0&sr=1", ...}
▶ 3: {title: "鸿运大厦", uid: "48a957973f936e9ed518b711", point: N, pointN: H, url: "http://map.baidu.com/?s=inf%26uid%3D48a957973f936e9ed518b711%26c%3D131&i=0&sr=1", ...}
▶ 4: {title: "同方大厦", uid: "484c28a38e43be1fb1077de5", point: N, pointN: H, url: "http://map.baidu.com/?s=inf%26uid%3D484c28a38e43be1fb1077de5%26c%3D131&i=0&sr=1", ...}
▶ 5: {title: "华业大厦", uid: "d5464cf8a1788d57fca778ae", point: N, pointN: H, url: "http://map.baidu.com/?s=inf%26uid%3Dd5464cf8a1788d57fca778ae%26c%3D131&i=0&sr=1", ...}
▶ 6: {title: "双清大厦-3号楼", uid: "f48acd938628d08995ca0700", point: N, pointN: H, url: "http://map.baidu.com/?s=inf%26uid%3Df48acd938628d08995ca0700%26c%3D131&i=0&sr=1", ...}
▶ 7: {title: "中太大厦", uid: "fb3b45faa3421e8e3b221c0d", point: N, pointN: H, url: "http://map.baidu.com/?s=inf%26uid%3Dfb3b45faa3421e8e3b221c0d%26c%3D131&i=0&sr=1", ...}
▶ 8: {title: "双清大厦-1号楼", uid: "512b05617b9950277f29bd56", point: N, pointN: H, url: "http://map.baidu.com/?s=inf%26uid%3D512b05617b9950277f29bd56%26c%3D131&i=0&sr=1", ...}
▶ 9: {title: "学研大厦", uid: "7bfa08fc5563220125d2bb23", point: N, pointN: H, url: "http://map.baidu.com/?s=inf%26uid%3D7bfa08fc5563220125d2bb23%26c%3D131&i=0&sr=1", ...}
```

3、获取小区信息

根据网上提供的分析，获取小区信息有关的url为"http://map.baidu.com/?pcevaname=pc4.1&q=ext&ext_ver=new&l=12&uid="+uid,获取信息如下。

```

▼ Object
  ▶ content: {geo: "4|12951752.18,4839992.81;12951939.04,4840200.82|1--81,12951939.04,4840129.44,12951762.18,4840200.82;", uid: "aa2d18f89dcfe156df1e525f"}
  ▶ current_city: {code: 1, geo: "1|11590057.96,4489812.75;11590057.96,4489812.75|11590057.96,4489812.75;", level: 0, name: "中国", sup: 0, ...}
  ▶ err_msg: ""
  ▶ hot_city: (10) ["北京市|131", "上海市|289", "广州市|257", "深圳市|340", "成都市|75", "天津市|332", "南京市|315", "杭州市|179", "武汉市|218", "重庆市|132"]
  ▶ result: {data_security_filt_res: 0, error: 0, illegal: 0, qid: "", type: 10, ...}
  ▶ ui_err: 0
  ▶ __proto__:
    ▶ constructor: f Object()
    ▶ hasOwnProperty: f hasOwnProperty()
    ▶ isPrototypeOf: f isPrototypeOf()
    ▶ propertyIsEnumerable: f propertyIsEnumerable()
    ▶ toLocaleString: f toLocaleString()
    ▶ toString: f toString()
    ▶ valueOf: f valueOf()
    ▶ __defineGetter__: f __defineGetter__()
    ▶ __defineSetter__: f __defineSetter__()
    ▶ __lookupGetter__: f __lookupGetter__()
    ▶ __lookupSetter__: f __lookupSetter__()
    ▶ get __proto__: f __proto__()
    ▶ set __proto__: f __proto__()

```

通过分析，content中的geo为边界坐标集合。

4、坐标转换

现在所获取到的小区边界坐标集合是百度墨卡托米制坐标，即BD09MC，现在需要将米制坐标转换为经纬度坐标，即BD09LL。百度提供了BMAP_NORMAL_MAP.getProjection()。这个类里面的pointToLngLat(new BMap.Pixel(pos.lng, pos.lat));方法，可以将百度米制坐标转为经纬度坐标。

```

function coordinateToPoints(coordinate) {
    var points = "";
    if (coordinate) {
        var projection = BMAP_NORMAL_MAP.getProjection();

        if (coordinate && coordinate.indexOf("-") >= 0) {
            coordinate = coordinate.split('-');
        }
        //取点集合
        var tempco = coordinate[1];
        if (tempco && tempco.indexOf(",") >= 0) {
            tempco = tempco.replace(";", "").split(",");
        }
        //分割点，两个一组，组成百度米制坐标
        var temppoints=[];
        for(var i = 0, len = tempco.length; i < len; i++){
            var obj = new Object();
            obj.lng=tempco[i];
            obj.lat=tempco[i+1];
            temppoints.push(obj);
            i++;
        }
        //遍历米制坐标，转换为经纬度
        for ( var i = 0, len = temppoints.length; i < len; i++) {
            //var pos = coordinate[i].split(',');
            var pos = temppoints[i];
            var point = projection.pointToLngLat(new BMap.Pixel(pos.lng,
            pos.lat));
            points += ([ point.lng, point.lat ].toString() + ";");
        }
    }
    return points;
};

```

得到结果如下

```
▼ Array(7) i
  ▶ 0: N {lng: 116.346393, lat: 40.013691}
  ▶ 1: N {lng: 116.346303, lat: 40.013246}
  ▶ 2: N {lng: 116.346339, lat: 40.013004}
  ▶ 3: N {lng: 116.346389, lat: 40.012614}
  ▶ 4: N {lng: 116.347516, lat: 40.012254}
  ▶ 5: N {lng: 116.347982, lat: 40.013198}
  ▶ 6: N {lng: 116.346393, lat: 40.013691}
    length: 7
    __proto__: Array(0)
```

5、画出多边形

调用百度api，根据坐标点画多边形

```
var polygon = new BMap.Polygon(arr, {strokeColor:"red", strokeWeight:2,
strokeOpacity:0.5});
map.addOverlay(polygon);
```

效果如下：



源码：<https://github.com/QYongCN/houseboundary.git>

现有问题及改进

- 1、当前地图以北京市为中心点，可以画出北京市任意POI点边界。当查找不在北京市的POI时，会随机画一个同名POI，当POI地址越准确，画的越精确
- 2、由于采用抓包的方式获取小区信息，url的稳定性还存在疑问。这种方法是否合法有待商榷。
- 3、当前只能搜索出一个POI然后画出边界，同时画出所有POI边界也有待研究。
- 4、在测试过程中，会存在某些点没有边界坐标集合的情况
- 5、尝试过web解析高德地图进行画边界，网上提供的url已经不能用，状态返回码为0，可以得到POI的id但是得不到地理坐标