GIS系统代码研究

\*主要用到开发语言 Html (Flash载体),Mxml,ActionScript,C#(Web服务)，C++ 视频播放OCX控件。

\*主要用到的技术Flash,WebService,OCX。

# 系统总体架构

GIS部分主要需要跟以下三个部分进行交互：

nvr\_data

nvr\_storagee

police

视频服务

NSC

NSC

NSC

NSC

WebService

地图代理

在线地图

离线地图

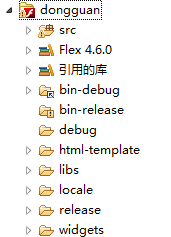
GIS

系统结构示意图

1. 视频服务 主要处理视频部分的业务。这部分需要用到三个SQL Server数据库NVR\_Data,NVR\_Storage,police数据库，视频服务包括NVC（视频存储） NVT（流媒体） NVP（中心服务）三个自服务，另外还包括NSC服务（存储服务 暂时没有涉及）。
2. 地图代理服务 可以访问本地离线或者百度，google等在线数据库，GIS部分显示的地图数据就是从地图代理服务而来。
3. WebService调用police数据库查询结果返回给GIS部分用于标点查询等。比如查询所有视频，卡口，警力分布等均是调用该服务。

# 程序代码层次结构

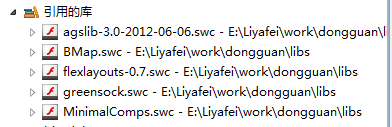
整体结构如下；



其中src目录下为代码结构

Flex4.6.0是Flex的库文件

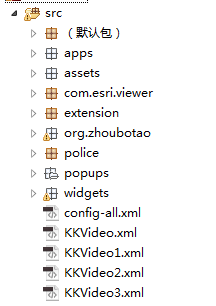
引用的库是我们需要引用的



其中agslib-3.0-2012-06-06.swc是我们用到的核心的东西既Arcgis api for flex

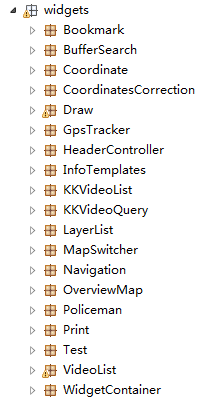
下面其他文件夹都是生成目录或者项目的一些临时文件夹我们不需要关注

Src目录下的结构层次如下图：



其中widgets是我们需要开发的所有插件

Config-all.xml是全局配置文件其他都是框架代码一般不需要做任何修改



Widgets目录下是我们所有的插件，每一个插件对应一个包



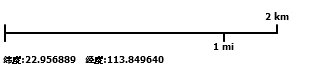
正常情况下以一个插件包含一个mxmx和同名的xml文件

生成到发布目录后就分别是swf文件和xml文件

# GIS总体框架

目前的GIS部分采用Arcgis Viewer 也就是GIS+Widget 插件方式 以下均是Widget





这种方式开发比较灵活，我们可以将GIS部分业务功能进行分解。通过业务功能的组合满足不同用户的需求。另外将业务功能封装成widget可以使不同的开发者关注各自侧重的问题，便于系统开发。所有业务插件与GIS系统的整合是通过Config.Xml的文件进行配置的：

典型的一个config.xml配置文件如下：

<?xmlversion=*"1.0"*?>

<configuration>

///基础信息配置以及地图底色配置

<title>东莞石龙移动警务通地理信息平台</title>

<subtitle>version(0.9)</subtitle>

<logo>assets/images/i\_biomass.png</logo>

<style>

<!-- Black Gold -->

<colors>0x000000,0xBADCF3,0xF0F0F0,0xA8C6EE,0x000000</colors><!-- BADCF3 old 0xFFFFFF,0x333333,0x101010,0x000000,0xFFD700-->

<alpha>0.8</alpha>

<titlefontname=*'华文中宋'*></titlefont><!-- walnuthe20121115,字体需要修改 -->

<fontname=*'微软雅黑'*size=*'12'*></font>

</style>

///地图代理服务器地址配置

<httpproxy>http://192.168.1.133/WebMapProxy/RequestProxy.ashx</httpproxy>

<!-- replace the following url with your own geometryservice -->

<geometryserviceurl=*"http://tasks.arcgisonline.com/ArcGIS/rest/services/Geometry/GeometryServer"*/>

<!--<splashpage label="东莞移动警务通地理信息平台" config="widgets/Splash/SplashWidget.xml" url="widgets/Splash/SplashWidget.swf"/>-->

///地图基本放大缩小鹰眼等工具插件配置

//以下这些widget是一些地图上的小插件 比如郭鹰眼 比例尺 放大缩小等常用工具

<widgetleft=*"10"*top=*"50"*config=*"widgets/Navigation/NavigationWidget.xml"*url=*"widgets/Navigation/NavigationWidget.swf"*/>

<!--<widget bottom="35" right="5" config="widgets/StaticImage/StaticImageWidget.xml" url="widgets/StaticImage/StaticImageWidget.swf"/>-->

<widgetright=*"-2"*bottom=*"-2"*config=*"widgets/OverviewMap/OverviewMapWidget.xml"*url=*"widgets/OverviewMap/OverviewMapWidget.swf"*/>

<widgetright=*"15"*top=*"55"*config=*"widgets/MapSwitcher/MapSwitcherWidget.xml"*url=*"widgets/MapSwitcher/MapSwitcherWidget.swf"*/>

<widgetleft=*"0"*top=*"0"*config=*"widgets/HeaderController/HeaderControllerWidget.xml"*url=*"widgets/HeaderController/HeaderControllerWidget.swf"*/>

<widgetleft=*"3"*bottom=*"3"*config=*"widgets/Coordinate/CoordinateWidget.xml"*url=*"widgets/Coordinate/CoordinateWidget.swf"*/>

//地图初始化位置层级图层配置

<maplogovisible=*"false"*initialextent=*"12671060 2626266 12683860 2632050"*fullextent=*"12671060 2626266 12683860 2632050"*wraparound180=*"false"*top=*"40"*addarcgisbasemaps=*"false"*>

///地图基本图层配置

<basemaps>

//基础地图配置 这里配置了一个卫星地图和一个普通电子地图。

<mapservicelabel=*"卫星影像"*type=*"customer"*visible=*"false"*alpha=*"1"*locationIndex=*"0"*

url=*"BAIDU\_SATELLITE"*/>

<mapservicelabel=*"电子地图"*type=*"customer"*visible=*"true"*alpha=*"1"*locationIndex=*"2"*

url=*"BAIDU\_EMAP"*/>

</basemaps>

<!--<operationallayers>

<layer label="东莞石龙数据" type="dynamic" visible="false" alpha="0.6"

url="http://localhost/ArcGIS/rest/services/data\_mercator/MapServer"/>

</operationallayers>-->

</map>

<widgetcontainerlayout=*"float"*><!--horizontal(default)|float|vertical|fix-->

///业务插件配置列表 这一部分插件会出现在GIS的工具条中 并且按照各自配置的图标进行显示 点击后弹出相应的业务窗体。

<widgetlabel=*"地图书签"*

icon=*"assets/images/i\_bookmark.png" //插件对应图标*

config=*"widgets/Bookmark/BookmarkWidget.xml" //插件对应配置文件*

url=*"widgets/Bookmark/BookmarkWidget.swf"*/> /插件swf文件路径（相对web根目录相对路径）

<widgetlabel=*"标绘测量"*

icon=*"assets/images/i\_draw2.png"*

config=*"widgets/Draw/DrawWidget.xml"*

url=*"widgets/Draw/DrawWidget.swf"*/>

<widgetlabel=*"摄像头位置较正"*

icon=*"assets/images/coord\_correct.png"*

config=*"widgets/CoordinatesCorrection/CoordinatesCorrectionWidget.xml"*

url=*"widgets/CoordinatesCorrection/CoordinatesCorrectionWidget.swf"*/>

<widgetlabel=*"高清视频"*

icon=*"assets/images/i\_webcam.png"*x=*"100"*y=*"250"*

config=*"widgets/VideoList/VideoListWidget.xml"*

url=*"widgets/VideoList/VideoListWidget.swf"*/>

<widgetlabel=*"警力资源"*

icon=*"assets/images/policeman.png"*

config=*"widgets/Policeman/PolicemanWidget.xml"*

url=*"widgets/Policeman/PolicemanWidget.swf"*/>

<widgetlabel=*"GPS跟踪器"*

icon=*"assets/images/i\_satellite.png"*

url=*"widgets/GpsTracker/GpsTrackerWidget.swf"*/>

<widgetlabel=*"警力查询"*

icon=*"assets/images/i\_search.png"*

url=*"widgets/BufferSearch/BufferSearchWidget.swf"*/>

<widgetlabel=*"卡口视频"*

icon=*"assets/images/i\_camera.png"*

config=*"widgets/KKVideoList/KKVideoListWidget.xml"*

url=*"widgets/KKVideoList/KKVideoListWidget.swf"*/>

<widgetlabel=*"卡口视频1"*

icon=*"assets/images/i\_camera.png"*

url=*"widgets/KKVideoQuery/KKVideoQueryWidget.swf"*/>

<widgetlabel=*"数据查询"*

icon=*"assets/images/i\_search.png"*

config=*"widgets/Search/SearchWidget\_Louisville.xml"*

url=*"widgets/Search/SearchWidget.swf"*/>

<widgetlabel=*"图例"*

config=*"widgets/Legend/LegendWidget.xml"*

icon=*"assets/images/Legend32.png"*

url=*"widgets/Legend/LegendWidget.swf"*/>

<widgetlabel=*"统计图表"*

config=*"widgets/Chart/ChartWidget.xml"*

icon=*"assets/images/i\_piechart.png"*

url=*"widgets/Chart/ChartWidget.swf"*

left=*"80"*bottom=*"80"*/>

</widgetcontainer>

//GIS系统相关WebServiced地址配置

<webservices>

<linkType=*"dongguan"*Address=*"http://192.168.1.133/dongguanWebService/dongguan.asmx?wsdl"*TimeOut=*"60"*/> //GIS部分需要调用的数据查询WebService地址。

</webservices>

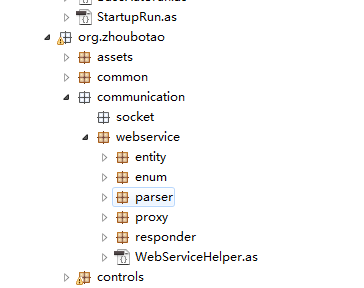
</configuration>

# 功能分解实现

## 程序插件配置方式

Config.Xml配置文件参见第三节内容。

## Flex调用asp.net webservice服务



**org.zhoubotao.communication.webservice.WebServiceHelper;提供了调用Webservice的通用方法**

需要调用webService的时候

private function init():void

{

varext:Extent = map.extent;

trace(ext.xmin.toString() + " " + ext.ymin.toString() + " " + ext.xmax.toString() + " " + ext.ymax.toString());

graphicsLyr = new GraphicsLayer();

graphicsLyr.symbol = new PictureMarkerSymbol("assets/images/i\_camera.png");

//map.addLayer(graphicsLyr);

LayerManager.addGraphicsLayer(map, graphicsLyr);

graphicsLyrLabel = new GraphicsLayer();

LayerManager.addGraphicsLayer(map, graphicsLyrLabel);

varvalue:Object = configData.wsdls.find("dongguan");

varwsUrl:String = String(value.address);

wsHelper = new WebServiceHelper(wsUrl);

wsHelper.sendRequestShort("GetAllKKCamera", null, getAllCameraHandler);

cluseterTool = new ClustererTool(map);

graphicsLyr.clusterer = cluseterTool.cluseter;

infoWIndowManager = new InfoWindowManager();

}

**privatefunction**getAllCameraHandler(value:Object):**void**

{

**if**(videoList == **null**)

videoList = **new**ArrayCollection()

**var**result:ArrayCollection = value **as**ArrayCollection;

**var**item:Object = **null**;

**var**arr:Array = **null**;

**var**camera:Graphic = **null**;

**var**label:Graphic = **null**;

**var**mercator:MapPoint = **null**;

**var**lonlat:MapPoint = **null**;

**for**(**var** i:int = 0; i<result.length; i++)

{

arr = result[i].toString().split(**","**);

mercator = **new** MapPoint();

mercator.x = Number(arr[4].toString());

mercator.y = Number(arr[5].toString());

item = **new** Object();*//木场隧道口,木场隧道口,0,12636835.13,2623397.21*

item.cameraType = **"KK"**;

item.cameraId = arr[0].toString();

item.cameraName = arr[1].toString();

item.cameraAddress = arr[2].toString();

item.cameraStatus = arr[3].toString() == **"1"** ? **"开启"** : **"关闭"**;

item.cameraLng = arr[4].toString();

item.cameraLat = arr[5].toString();

item.videoNames = arr[6].toString();

item.videoUrl = videoUrl;

item.geometry = mercator;

videoList.addItem(item);

camera = **new** Graphic(mercator);

camera.attributes = item;

*// camera.addEventListener(MouseEvent.DOUBLE\_CLICK, cameraDoubleClickHandler);*

camera.addEventListener(MouseEvent.CLICK, cameraClickHandler);

graphicsLyr.add(camera);

camera.infoWindowRenderer

**var**txtSymbol:TextSymbol = **new**TextSymbol(arr[1].toString(), **null**, 0x000000, 1, **true**, 0x000000, **true**, 0xFFFFFF, **"middle"**);

txtSymbol.textFormat = **new**TextFormat(**null**, 12);

txtSymbol.yoffset = -35;

label = **new** Graphic(mercator);

label.symbol = txtSymbol;

graphicsLyrLabel.add(label);

}

}

## 动态绘制摄像头（视频卡口等）

**privatefunction**getAllCameraHandler(value:Object):**void**

{

**if**(videoList == **null**)

videoList = **new**ArrayCollection()

**var**result:ArrayCollection = value **as**ArrayCollection;

**var**item:Object = **null**;

**var**arr:Array = **null**;

**var**camera:Graphic = **null**;

**var**label:Graphic = **null**;

**var**mercator:MapPoint = **null**;

**var**lonlat:MapPoint = **null**;

**for**(**var** i:int = 0; i<result.length; i++)

{

arr = result[i].toString().split(**","**);

mercator = **new** MapPoint();

mercator.x = Number(arr[4].toString());

mercator.y = Number(arr[5].toString());

item = **new** Object();*//木场隧道口,木场隧道口,0,12636835.13,2623397.21*

item.cameraType = **"KK"**;

item.cameraId = arr[0].toString();

item.cameraName = arr[1].toString();

item.cameraAddress = arr[2].toString();

item.cameraStatus = arr[3].toString() == **"1"** ? **"开启"** : **"关闭"**;

item.cameraLng = arr[4].toString();

item.cameraLat = arr[5].toString();

item.videoNames = arr[6].toString();

item.videoUrl = videoUrl;

item.geometry = mercator;

videoList.addItem(item);

camera = **new** Graphic(mercator);

camera.attributes = item;

*// camera.addEventListener(MouseEvent.DOUBLE\_CLICK, cameraDoubleClickHandler);*

camera.addEventListener(MouseEvent.CLICK, cameraClickHandler);

graphicsLyr.add(camera);

camera.infoWindowRenderer

**var**txtSymbol:TextSymbol = **new**TextSymbol(arr[1].toString(), **null**, 0x000000, 1, **true**, 0x000000, **true**, 0xFFFFFF, **"middle"**);

txtSymbol.textFormat = **new**TextFormat(**null**, 12);

txtSymbol.yoffset = -35;

label = **new** Graphic(mercator);

label.symbol = txtSymbol;

graphicsLyrLabel.add(label);

}

## 点击识别地图点

//点击地图调用相应服务接口

**privatefunction**myMap\_mapClickHandler(event:MapMouseEvent):**void**

{

myMap.defaultGraphicsLayer.clear();

**var**identifyParams:IdentifyParameters=**new**IdentifyParameters();

identifyParams.layerOption=IdentifyParameters.LAYER\_OPTION\_VISIBLE;

identifyParams.returnGeometry=**true**;

identifyParams.tolerance= 3;

identifyParams.width=myMap.width;

identifyParams.height=myMap.height;

identifyParams.geometry=event.mapPoint;

identifyParams.mapExtent=myMap.extent;

identifyParams.spatialReference=myMap.spatialReference;

clickLocation=event.mapPoint;

**var**clickGraphic:Graphic=**new**Graphic(event.mapPoint,clickPtSym);

myMap.defaultGraphicsLayer.add(clickGraphic);

identifyTask.execute(identifyParams,**new**AsyncResponder(myResultFunction,myFaultFunction));

}

//查询成功后处理

**privatefunction**myResultFunction(results:Array,token:Object=**null**):**void**

{

**if**(results&&results.length> 0)

{

**var**list:ArrayList=**new**ArrayList();

**for**(**var**i:int= 0; i<results.length; i++)

{

**var**result:IdentifyResult=results[i];

list.addItem(result.feature);

}

contentNavigator.dataProvider=list;

myMap.infoWindowContent=contentNavigator;

myMap.infoWindow.show(clickLocation);

}

myMap.defaultGraphicsLayer.clear();

}

//查询失败后处理

**privatefunction**myFaultFunction(error:Object,token:Object=**null**):**void**

{

Alert.show(String(error),**"Identify Error"**);

}

## 点击设备显示信息窗口

## FeatureLayer查询

<?xml version="1.0" encoding="utf-8"?>

<s:Applicationxmlns:fx="http://ns.adobe.com/mxml/2009"

xmlns:s="library://ns.adobe.com/flex/spark"

xmlns:esri="http://www.esri.com/2008/ags"

pageTitle="FeatureLayer and its definitionExpression">

<fx:Script>

<![CDATA[

**import**com.esri.ags.events.LayerEvent;

**import**mx.controls.Alert;

**import**mx.rpc.events.FaultEvent;

**privatefunction**doSearch():**void**

{

*// fLayer.layerDetails.displayField*

fLayer.definitionExpression=**"STATE\_NAME like '"**+qText.text+**"'"**;

}

*// the following four functions are 'just' error handling and showing/hiding the busy cursor*

**protectedfunction**fLayer\_updateStartHandler(event:LayerEvent):**void**

{

**this**.cursorManager.setBusyCursor();

}

**protectedfunction**fLayer\_updateEndHandler(event:LayerEvent):**void**

{

**if**(event.fault)

{

**trace**(**"updateEnd: "**+event.fault); *// maybe a badly formatted query?*

}

**elseif**(event.updateSuccess==**false**)

{

**trace**(event.type+**": "**+event.updateSuccess+**" ... unexpected failure"**);

}

**else***// things seem OK*

{

**if**(FeatureLayer(event.layer).numGraphics< 1)

{

Alert.show(**"Sorry, found no such features, please try something else"**);

}

}

**this**.cursorManager.removeBusyCursor();

}

**protectedfunction**fLayer\_faultHandler(event:FaultEvent):**void**

{

Alert.show(event.fault.faultString+**"\n\n"**+event.fault.faultDetail,**"FeatureLayer Fault "**+event.fault.faultCode);

}

**protectedfunction**fLayer\_loadErrorHandler(event:LayerEvent):**void**

{

Alert.show(event.fault.faultString+**"\n\n"**+event.fault.faultDetail,**"FeatureLayer Load Error "**+event.fault.faultCode);

}

]]>

</fx:Script>

<s:controlBarLayout>

<s:VerticalLayout gap="10"

paddingBottom="7"

paddingLeft="10"

paddingRight="10"

paddingTop="7"/>

</s:controlBarLayout>

<s:controlBarContent>

<s:BorderContainer width="100%"

backgroundAlpha="0"

borderAlpha="0.4"

borderWeight="2"

cornerRadius="5"

dropShadowVisible="true">

<s:layout>

<s:HorizontalLayoutpaddingBottom="5"

paddingLeft="5"

paddingRight="5"

paddingTop="5"

verticalAlign="baseline"/>

</s:layout>

<s:Label text="Query a layer (search for U.S. states)"/>

<s:TextInput id="qText"

width="100%"

enter="doSearch()"

text="California"

toolTip="You may use % as a wildcard, e.g., New%"/>

<s:Button click="doSearch()" label="Search"/>

</s:BorderContainer>

</s:controlBarContent>

<esri:Map id="myMap">

<esri:extent>

<esri:Extentxmin="-14305000" ymin="2748000" xmax="-6815000" ymax="7117000">

<esri:SpatialReferencewkid="102100"/>

</esri:Extent>

</esri:extent>

<esri:ArcGISTiledMapServiceLayer url="http://server.arcgisonline.com/ArcGIS/rest/services/World\_Physical\_Map/MapServer"/>

<esri:FeatureLayer id="fLayer"

fault="fLayer\_faultHandler(event)"

load="{doSearch()}"

loadError="fLayer\_loadErrorHandler(event)"

mode="snapshot"

updateEnd="fLayer\_updateEndHandler(event)"

updateStart="fLayer\_updateStartHandler(event)"

url="http://sampleserver1.arcgisonline.com/ArcGIS/rest/services/Demographics/ESRI\_Census\_USA/MapServer/5">

<esri:renderer>

<esri:SimpleRenderer>

<esri:SimpleFillSymbol>

<esri:SimpleLineSymbol width="2"/>

</esri:SimpleFillSymbol>

</esri:SimpleRenderer>

</esri:renderer>

</esri:FeatureLayer>

</esri:Map>

</s:Application>

## 地图查询（Query）

<?xml version="1.0" encoding="utf-8"?>

<s:Applicationxmlns:fx="http://ns.adobe.com/mxml/2009"

xmlns:s="library://ns.adobe.com/flex/spark"

xmlns:esri="http://www.esri.com/2008/ags"

initialize="application\_initializeHandler(event)"

pageTitle="Example - Query For Statistics">

<fx:Script>

<![CDATA[

**import**com.esri.ags.events.QueryEvent;

**import**com.esri.ags.tasks.supportClasses.Query;

**import**com.esri.ags.tasks.supportClasses.StatisticDefinition;

**import**mx.collections.ArrayCollection;

**import**mx.controls.Alert;

**import**mx.events.FlexEvent;

**import**mx.rpc.events.FaultEvent;

**protectedfunction**application\_initializeHandler(event:FlexEvent):**void**

{

**var**query:Query=**new**Query();

**var**statsDef1:StatisticDefinition=**new**StatisticDefinition();

statsDef1.onStatisticField=**"POP2000"**;

statsDef1.outStatisticFieldName=**"POP\_SUM"**;

statsDef1.statisticType=StatisticDefinition.TYPE\_SUMMATION;

**var**statsDef2:StatisticDefinition=**new**StatisticDefinition();

statsDef2.onStatisticField=**"SUB\_REGION"**;

statsDef2.outStatisticFieldName=**"STATES\_COUNT"**;

statsDef2.statisticType=StatisticDefinition.TYPE\_COUNT;

query.groupByFieldsForStatistics=[**"SUB\_REGION"**];

query.outStatistics=[statsDef1,statsDef2];

queryTask.execute(query);

}

**protectedfunction**queryTask\_executeCompleteHandler(event:QueryEvent):**void**

{

**var**attributes:Array=event.featureSet.attributes;

dg.dataProvider=**new**ArrayCollection(attributes);

}

**protectedfunction**esri\_faultHandler(event:FaultEvent):**void**

{

Alert.show(**"Error: "**+event.fault.faultString,**"Error code: "**+event.fault.faultCode);

}

**protectedfunction**sumLabelFunction(item:Object,column:GridColumn):String

{

**return**numberFormatter.format(item[**"POP\_SUM"**]);

}

]]>

</fx:Script>

<fx:Declarations>

<!-- Query Task -->

<esri:QueryTask id="queryTask"

executeComplete="queryTask\_executeCompleteHandler(event)"

fault="esri\_faultHandler(event)"

url="http://sampleserver6.arcgisonline.com/arcgis/rest/services/Census/MapServer/3"/>

<!-- Initial Extent -->

<esri:Extent id="startExtent"

xmin="-16971000" ymin="615000" xmax="-4448000" ymax="8110000">

<esri:SpatialReferencewkid="102100"/>

</esri:Extent>

<!-- Symbols -->

<esri:SimpleFillSymbol id="sfs0"

color="0xFF7837"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleFillSymbol id="sfs1"

color="0xE8BD81"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleFillSymbol id="sfs2"

color="0xFFEF9D"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleFillSymbol id="sfs3"

color="0xDB1B2F"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleFillSymbol id="sfs4"

color="0x8C0C23"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleFillSymbol id="sfs5"

color="0xFFC06C"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleFillSymbol id="sfs6"

color="0xF09B63"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleFillSymbol id="sfs7"

color="0xEB704F"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleFillSymbol id="sfs8"

color="0xE33226"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleFillSymbol id="sfsDefault"

alpha="0.7"

color="0xA8B371"

outline="{sfsOutline}"

style="solid"/>

<esri:SimpleLineSymbol id="sfsOutline"

alpha="0.1"

color="0x1C272C"/>

<s:NumberFormatter id="numberFormatter" trailingZeros="false"/>

</fx:Declarations>

<esri:Map extent="{startExtent}">

<esri:ArcGISTiledMapServiceLayer url="http://services.arcgisonline.com/ArcGIS/rest/services/NatGeo\_World\_Map/MapServer"/>

<esri:ArcGISDynamicMapServiceLayer id="demographicsLayer"

imageFormat="png32"

url="http://sampleserver6.arcgisonline.com/arcgis/rest/services/Census/MapServer">

<esri:visibleLayers>

<s:ArrayList>

<fx:Number>3</fx:Number>

<!-- Only show the states layer -->

</s:ArrayList>

</esri:visibleLayers>

<esri:layerDrawingOptions>

<esri:LayerDrawingOptionslayerId="3">

<esri:renderer>

<esri:UniqueValueRendererdefaultSymbol="{sfsDefault}" field="SUB\_REGION">

<esri:UniqueValueInfo symbol="{sfs0}" value="East North Central"/>

<esri:UniqueValueInfo symbol="{sfs1}" value="East South Central"/>

<esri:UniqueValueInfo symbol="{sfs2}" value="Mid Atlantic"/>

<esri:UniqueValueInfo symbol="{sfs3}" value="Moutain"/>

<esri:UniqueValueInfo symbol="{sfs4}" value="New England"/>

<esri:UniqueValueInfo symbol="{sfs7}" value="Pacific"/>

<esri:UniqueValueInfo symbol="{sfs6}" value="South Atlantic"/>

<esri:UniqueValueInfo symbol="{sfs5}" value="West North Central"/>

<esri:UniqueValueInfo symbol="{sfs8}" value="West South Central"/>

</esri:UniqueValueRenderer>

</esri:renderer>

</esri:LayerDrawingOptions>

</esri:layerDrawingOptions>

</esri:ArcGISDynamicMapServiceLayer>

</esri:Map>

<s:DataGrid id="dg"

width="280"

right="20" top="20">

<s:columns>

<s:ArrayList>

<s:GridColumndataField="SUB\_REGION" headerText="US Region"/>

<s:GridColumndataField="POP\_SUM"

headerText="Region Population"

labelFunction="sumLabelFunction"/>

<s:GridColumn width="49"

dataField="STATES\_COUNT"

headerText="Count"/>

</s:ArrayList>

</s:columns>

</s:DataGrid>

</s:Application>

## 地图查询（FindTask）

在程序中配置查询服务

<esri:FindTask id="findTask"

executeComplete="executeCompleteHandler(event)"

url="http://sampleserver1.arcgisonline.com/ArcGIS/rest/services/Specialty/ESRI\_StatesCitiesRivers\_USA/MapServer"/>

//配置查询条件

<esri:FindParameters id="myFindParams"

contains="true"

layerIds="[0,1,2]"

outSpatialReference="{map.spatialReference}"

returnGeometry="true"

searchFields="[CITY\_NAME,NAME,SYSTEM,STATE\_ABBR,STATE\_NAME]"

searchText="{fText.text}"/>

执行查询操作

**privatefunction**doFind():**void**

{

findTask.execute(myFindParams);

}

查询结果处理操作

**privatefunction**executeCompleteHandler(event:FindEvent):**void**

{

myGraphicsLayer.clear();

**var**graphic:Graphic;

resultSummary.text=**"Found "**+event.findResults.length+**" results."**;

**var**resultCount:int=event.findResults.length;

**for**(**var**i:Number= 0; i<resultCount; i++)

{

graphic=event.findResults[i].feature;

graphic.toolTip=event.findResults[i].foundFieldName+**": "**+event.findResults[i].value;

**switch**(graphic.geometry.type)

{

**case**Geometry.MAPPOINT:

{

graphic.symbol=smsFind;

**break**;

}

**case**Geometry.POLYLINE:

{

graphic.symbol=slsFind;

**break**;

}

**case**Geometry.POLYGON:

{

graphic.symbol=sfsFind;

**break**;

}

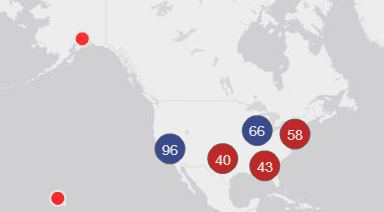
}

myGraphicsLayer.add(graphic);

}

}

## 对象聚合



<?xml version="1.0" encoding="utf-8"?>

<s:Applicationxmlns:fx="http://ns.adobe.com/mxml/2009"

xmlns:s="library://ns.adobe.com/flex/spark"

xmlns:esri="http://www.esri.com/2008/ags"

xmlns:text="flash.text.\*"

pageTitle="Clustering with Flex API">

<fx:Style>

@namespaceesri"http://www.esri.com/2008/ags";

@namespaces "library://ns.adobe.com/flex/spark";

esri|ContentNavigator

{

headerBackgroundColor:#D3D1D1;

headerColor:#000000;

}

esri|InfoWindow

{

border-thickness:1;

borderColor:#666666;

borderAlpha:0.7;

background-color:#EEEEEE;

info-placement:top;

info-offset-y:20;

shadowAlpha:0.6;

shadowDistance:10;

}

</fx:Style>

<fx:Declarations>

<text:TextFormat id="tf"

color="0xE6E6E6"

font="Arial"

size="14"/>

<esri:FlareSymbol id="flareSymbol"

backgroundAlphas="[0.7,1.0]"

backgroundColor="0x394B8C"

backgroundColors="[0x5B8C3E,0xBF2827]"

borderColor="0x666666"

flareMaxCount="30"

flareSizeIncOnRollOver="3"

sizes="[20,30]"

textFormat="{tf}"

weights="[30,60]"/>

<esri:WeightedClusterer id="clusterer"

sizeInPixels="22"

symbol="{flareSymbol}">

<esri:center>

<esri:MapPoint x="{(-14477000-6677000)\*0.5}" y="{(2273000+8399000)\*0.5}"/>

</esri:center>

</esri:WeightedClusterer>

<esri:SimpleMarkerSymbol id="defaultsym"

alpha="0.8"

color="0xFF0000">

<esri:SimpleLineSymbol width="2" color="0xE6E6E6"/>

</esri:SimpleMarkerSymbol>

</fx:Declarations>

<s:controlBarLayout>

<s:VerticalLayout gap="10"

paddingBottom="7"

paddingLeft="10"

paddingRight="10"

paddingTop="7"/>

</s:controlBarLayout>

<s:controlBarContent>

<s:HGroup width="100%"

gap="5"

minHeight="10"

verticalAlign="middle">

<s:Label text="{featureLayer.numGraphics}"/>

<s:Label text="Graphics - Overall cluster min count"/>

<s:Label text="{clusterer.overallMinCount}"/>

<s:Label text="max count"/>

<s:Label text="{clusterer.overallMaxCount}"/>

</s:HGroup>

</s:controlBarContent>

<esri:Map id="map"

infoWindowRendererHighlightColor="0x666666"

openHandCursorVisible="false">

<esri:extent>

<esri:Extentxmin="-14094328" ymin="3208011" xmax="-7539088" ymax="6642174">

<esri:SpatialReferencewkid="102100"/>

</esri:Extent>

</esri:extent>

<esri:infoWindowContent>

<s:TextArea id="myTextArea"

width="200" height="80"

editable="false"/>

</esri:infoWindowContent>

<esri:ArcGISTiledMapServiceLayer url="http://server.arcgisonline.com/ArcGIS/rest/services/Canvas/World\_Light\_Gray\_Base/MapServer"/>

<esri:ArcGISTiledMapServiceLayer url="http://server.arcgisonline.com/ArcGIS/rest/services/Canvas/World\_Light\_Gray\_Reference/MapServer"/>

<esri:FeatureLayer id="featureLayer"

clusterer="{clusterer}"

definitionExpression="POP1990 &gt; 75000"

mode="snapshot"

outFields="\*"

symbol="{defaultsym}"

url="http://sampleserver1.arcgisonline.com/ArcGIS/rest/services/Specialty/ESRI\_StatesCitiesRivers\_USA/MapServer/0">

<esri:infoWindowRenderer>

<fx:Component>

<esri:LabelDataRenderer label="{data.CITY\_NAME}">

<s:BorderContainerbackgroundColor="0xEEEEEE"

borderVisible="false"

minHeight="0"

minWidth="0">

<s:layout>

<s:VerticalLayoutpaddingBottom="5"

paddingLeft="5"

paddingRight="5"

paddingTop="5"/>

</s:layout>

<s:Label text="State Name: {data.STATE\_NAME}"/>

<s:Label text="Age (5-17): {data.AGE\_5\_17}"/>

<s:Label text="Age (18-64): {data.AGE\_18\_64}"/>

<s:Label text="Age (65 and above): {data.AGE\_65\_UP}"/>

</s:BorderContainer>

</esri:LabelDataRenderer>

</fx:Component>

</esri:infoWindowRenderer>

</esri:FeatureLayer>

</esri:Map>

</s:Application>

框架中对对象的聚合已经进行了封装

直接调用就行

publicvarcluseterTool:ClustererTool;

cluseterTool = **new**ClustererTool(map);

graphicsLyr.clusterer = cluseterTool.cluseter; //设置相应图层的聚合属性