Part 1 - Maps Application

The simplest way to work with maps in Xamarin.Android is to leverage the built-in maps application shown below:


3:29
Maps
53
Fire & Ice
Church St
Swiss Watchmaker

When you use the maps application, the map will not be part of your application. Instead; instead, your application will launch the maps application and load the map externally. The next section examines how to use Xamarin.Android to launch maps like the one above.

Creating the Intent

Working with the maps application is as easy as creating an Intent with an appropriate URI, setting the action to ActionView, and calling the StartActivity method. For example, the following code launches the maps application centered at a given latitude and longitude:

```
var geoUri = Android.Net.Uri.Parse ("geo:42.374260,-71.120824");
var mapIntent = new Intent (Intent.ActionView, geoUri);
StartActivity (mapIntent);
```

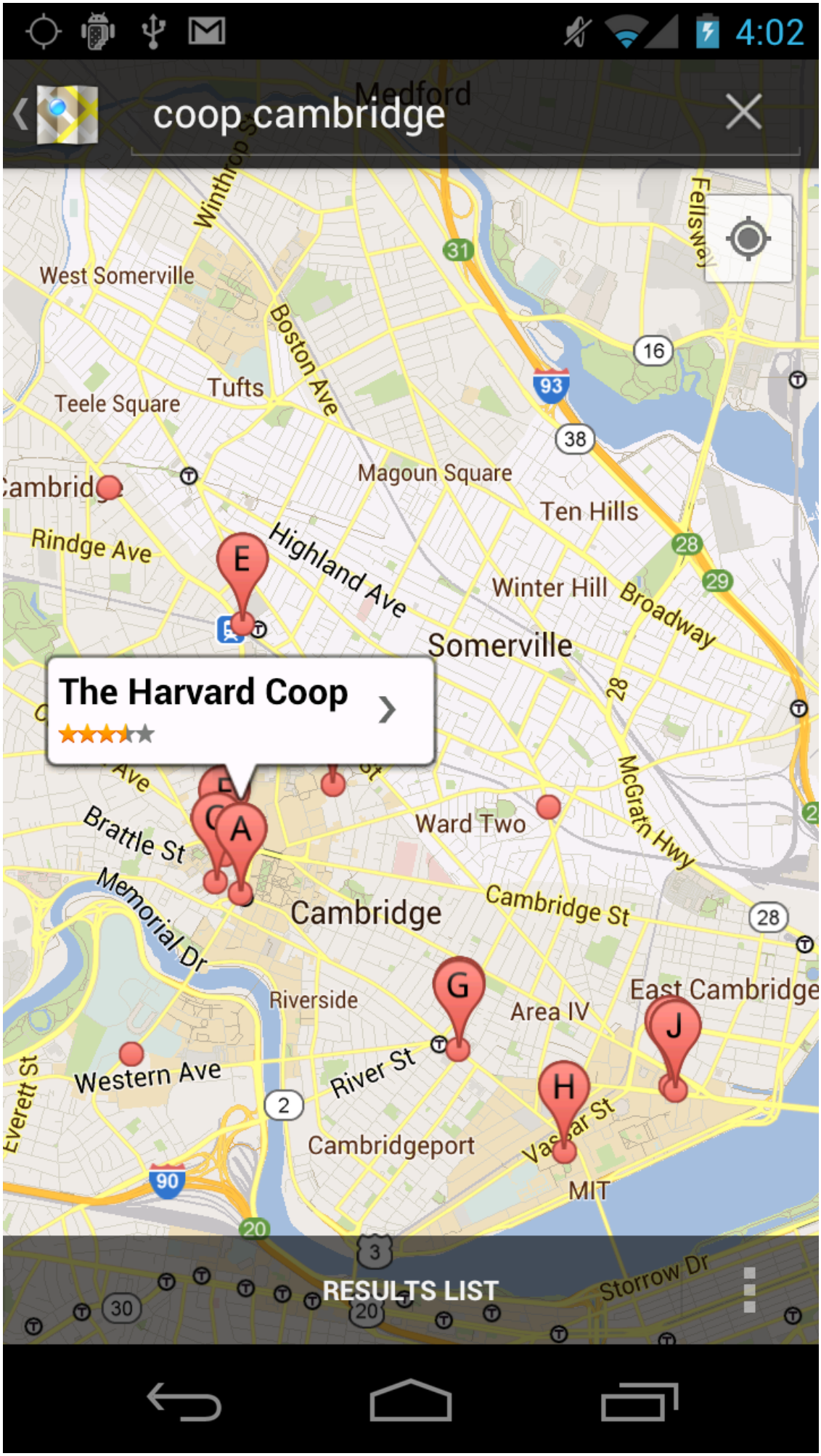
This code is all that is needed to launch the map shown in the previous screenshot. In addition to specifying latitude and longitude, the URI scheme for maps supports several other options.

Geo Uri Scheme

The code above used the geo scheme to create a URI. This URI scheme supports several formats, as listed below:

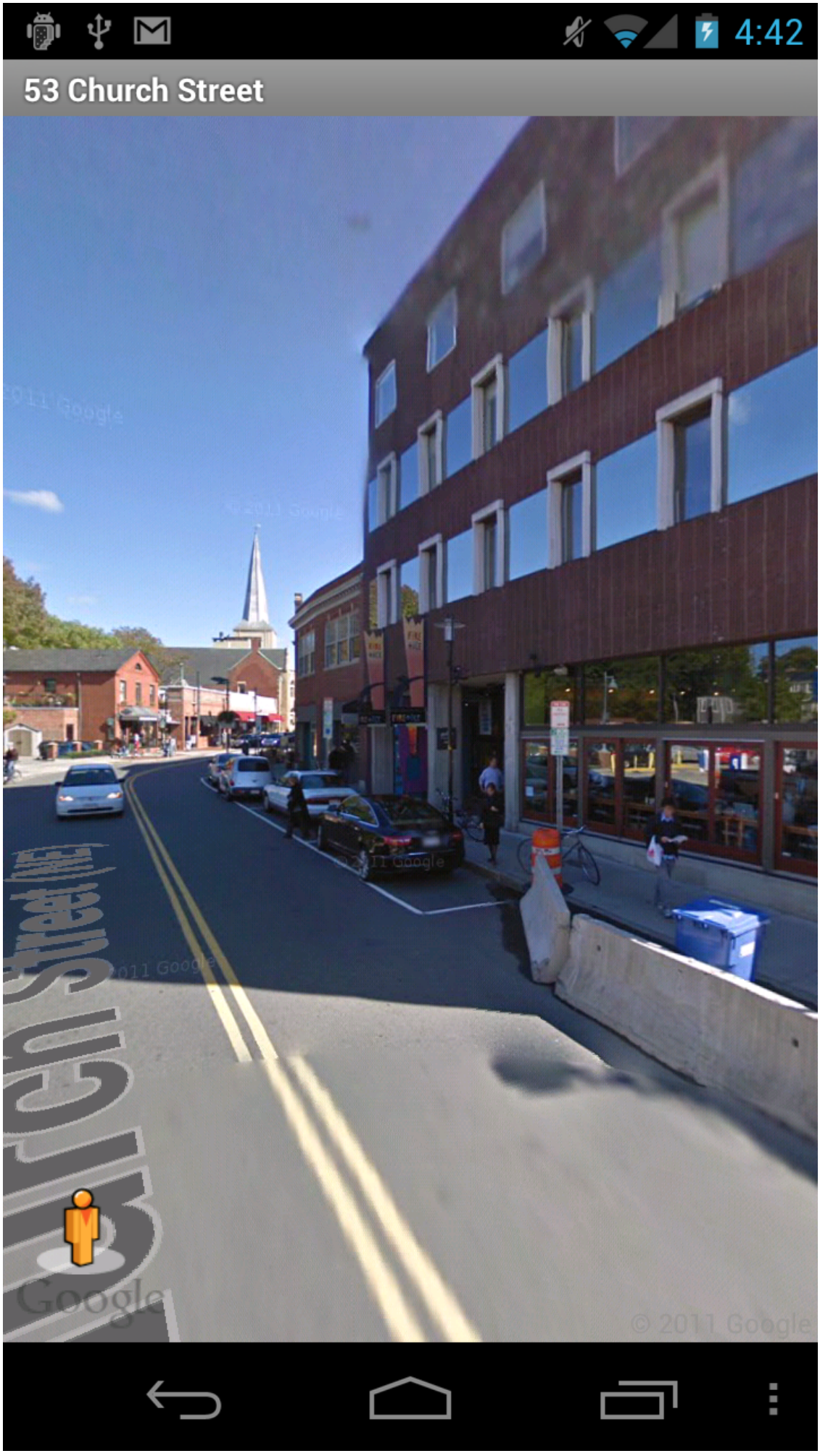
- geo:latitude,longitude – Opens the maps application centered at a lat/lon.
- geo:latitude,longitude?z=zoom – Opens the maps application centered at a lat/lon and zoomed to the specified level. Zoom levels are examined in the Maps API section that appears later in this document.
- geo:0,0?q=my+street+address – Opens the maps application to the location of a street address.
- geo:0,0?q=business+near+city – Opens the maps application and displays the annotated search results.

The versions of the URI that take a query (namely the street address or search terms) use Google’s geocoder service to retrieve the location that is then displayed on the map. For example, the URI geo:0,0?q=coop+Cambridge results in the map shown below:


4:02
coop cambridge
Medford
West Somerville
Tufts
Teele Square
Boston Ave
Magoun Square
Ten Hills
Rindge Ave
Highland Ave
Winter Hill
Broadway
Somerville
The Harvard Coop
Ward Two
McGrath Hwy
Brattle St
Memorial Dr
Cambridge
Cambridge St
Riverside
Area IV
East Cambridge
Western Ave
River St
Cambridgeport
MIT
RESULTS LIST
Storrow Dr

Street View

In addition to the geo scheme, Android also supports loading street views from an Intent. An example of the street view application launched from Xamarin.Android is shown below:


4:42
53 Church Street
Google
© 2011 Google

To launch a street view, simply use the google.streetview URI scheme, as demonstrated in the following code:

```
var streetViewUri = Android.Net.Uri.Parse (
       "google.streetview:cbll=42.374260,-71.120824&cbp=1,90,,0,1.0&mz=20");
var streetViewIntent = new Intent (Intent.ActionView, streetViewUri);
StartActivity (streetViewIntent);
```

The google.streetview URI scheme used above takes the following form:

```
google.streetview:cbll=lat,lng&cbp=1,yaw,,pitch,zoom&mz=mapZoom
```

As you can see, there are several parameters supported, as listed below:

- lat – The latitude of the location to be shown in the street view.
- lng – The longitude of the location to be shown in the street view.
- pitch – Angle of street view panorama, measured from the center in degrees where 90 degrees is straight down and -90 degrees is straight up.
- yaw – Center-of-view of street view panorama, measured clockwise in degrees from North.
- zoom – Zoom multiplier for street view panorama, where 1.0 = normal zoom, 2.0 = zoomed 2x, 3.0 = zoomed 4x, etc.
- mz – The map zoom level that will be used when going to the maps application from the street view.

Working with the built-in maps application or the street view is an easy way to quickly add mapping support. However, Android's Maps API offers finer control over the mapping experience.

Next: Part 2 - Maps API

Source URL:
http://docs.xamarin.com/guides/android/platform_features/maps_and_location/part_1_-_maps_application