



JPG 위치 추출



프로젝트 생성

2



Application name: **JPGLocation01**

Company Domain: **admid.example.com**

Project location: **C:\Android\StdWork\tampnewtest**

Target Android Devices

- **Phone and Tablet**
- **Minimun SDK API 20**

Add an activity to Mobile : **Empty Activity**

Customize the Activity

Activity Name: **MainActivity**

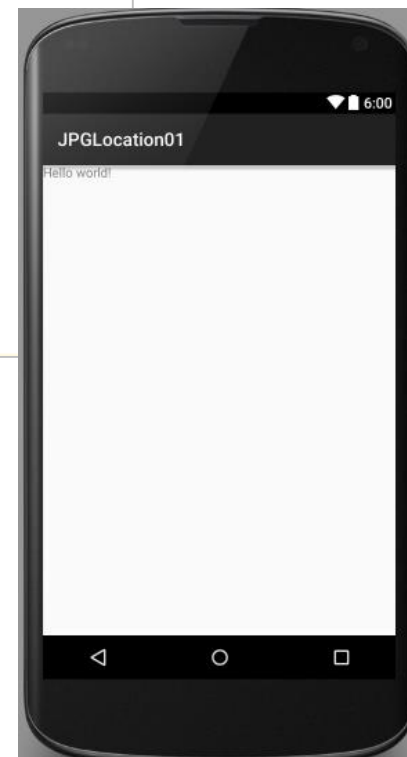
Layout Name: **activity_main**



```
activity_main.xml x
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/txt01"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello world!" />

</LinearLayout>
```



MainActivity.java x

```
1 package com.example.admin.jpglocation01;
2
3 import android.media.ExifInterface;
4 import android.os.Bundle;
5 import android.support.v7.app.ActionBarActivity;
6 import android.widget.TextView;
7 import android.widget.Toast;
8
9 import java.io.File;
10 import java.io.IOException;
11
12
```

```
11
12
13 public class MainActivity extends ActionBarActivity {
14     ExifInterface exif = null;
15
16     @Override
17     protected void onCreate(Bundle savedInstanceState) {
18         super.onCreate(savedInstanceState);
19         setContentView(R.layout.activity_main);
20         TextView txt = (TextView) findViewById(R.id.txt01);
21         String newFilename = "/storage/emulated/0/DCIM/Camera/pos01.jpg";
22         File photo = new File(newFilename);
23         try {
24             exif = new ExifInterface(photo.getCanonicalPath());
25             String lati = exif.getAttribute(ExifInterface.TAG_GPS_LATITUDE);
26             String longi = exif.getAttribute(ExifInterface.TAG_GPS_LONGITUDE);
27             Toast.makeText(getApplicationContext(), lati + ", " +
28                 longi, Toast.LENGTH_SHORT).show();
29             txt.setText("위도:" + lati + ", " + "경도:" + longi);
30         } catch (IOException e) {
31             e.printStackTrace();
32             Toast.makeText(getApplicationContext(), "error", Toast.LENGTH_SHORT).show();
33         }
34     }
35 }
```

AndroidManifest.xml x

```

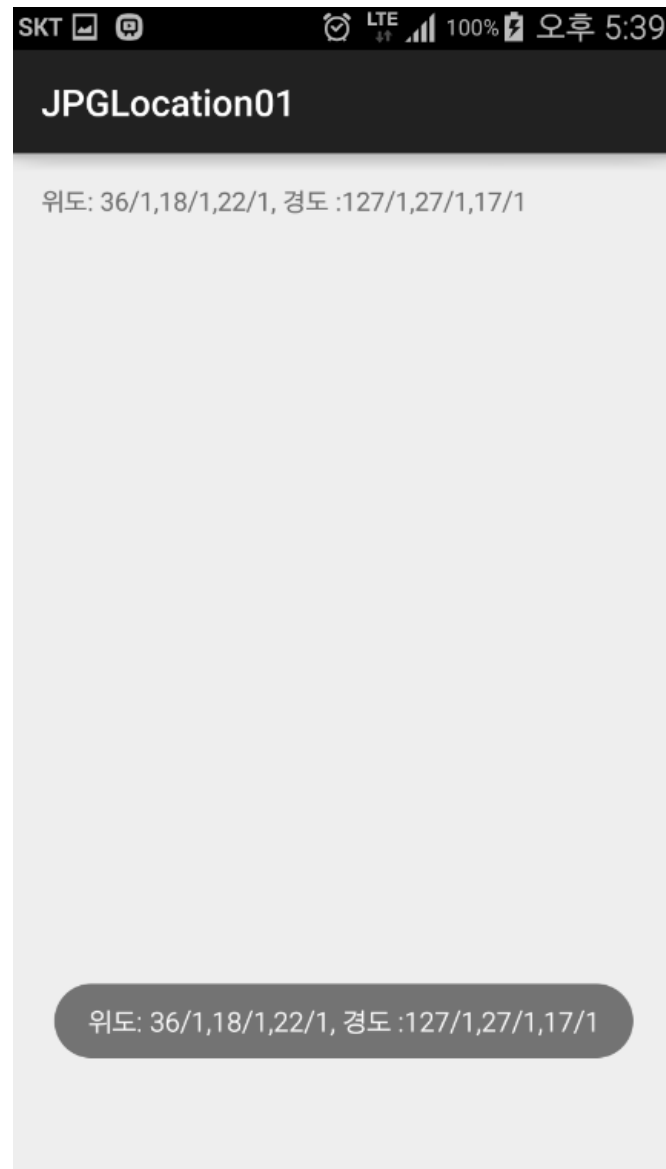
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.admin.jpglocation01">

    <uses-permission android:name="android.permission.READ_EXTERNAL_STORAGE"></uses-permission>

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="JPGLocation01"
        android:theme="@style/AppTheme">
        <activity
            android:name=".MainActivity"
            android:label="JPGLocation01">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

```



```
13 public class MainActivity extends ActionBarActivity {  
14  
15     ExifInterface exif = null;  
16  
17     @Override  
18     protected void onCreate(Bundle savedInstanceState) {  
19         super.onCreate(savedInstanceState);  
20         setContentView(R.layout.activity_main);  
21  
22         TextView txt = (TextView) findViewById(R.id.txt01);  
23  
24         String newFilename = "/storage/emulated/0/DCIM/Camera/pos01.jpg";  
25         File photo = new File(newFilename);  
26  
27         try {  
28             exif = new ExifInterface(photo.getCanonicalPath());  
29             String lati = exif.getAttribute(ExifInterface.TAG_GPS_LATITUDE);  
30             String longi = exif.getAttribute(ExifInterface.TAG_GPS_LONGITUDE);  
31  
32             String latiArray[] = lati.split(",");  
33             String latiAArray0[] = latiArray[0].split("/");  
34             String latiAArray1[] = latiArray[1].split("/");  
35             String latiAArray2[] = latiArray[2].split("/");  
36  
37             String longiArray[] = longi.split(",");  
38             String longiAArray0[] = longiArray[0].split("/");  
39             String longiAArray1[] = longiArray[1].split("/");  
40             String longiAArray2[] = longiArray[2].split("/");
```

도,분,초

위도: 36/1,18/1,22/1, 경도 :127/1,27/1,17/1

```
String longiArray2[] = longiArray[2].split("/");

Double IntnewLati = Double.parseDouble(latiArray0[0]) +
    Double.parseDouble(latiArray1[0])/60
    + Double.parseDouble(latiArray2[0])/3600;

Double IntnewLong = Double.parseDouble(longiArray0[0]) +
    Double.parseDouble(longiArray1[0])/60
    + Double.parseDouble(longiArray2[0])/3600;

String StrnewLati = String.valueOf(IntnewLati);
String StrnewLong = String.valueOf(IntnewLong);

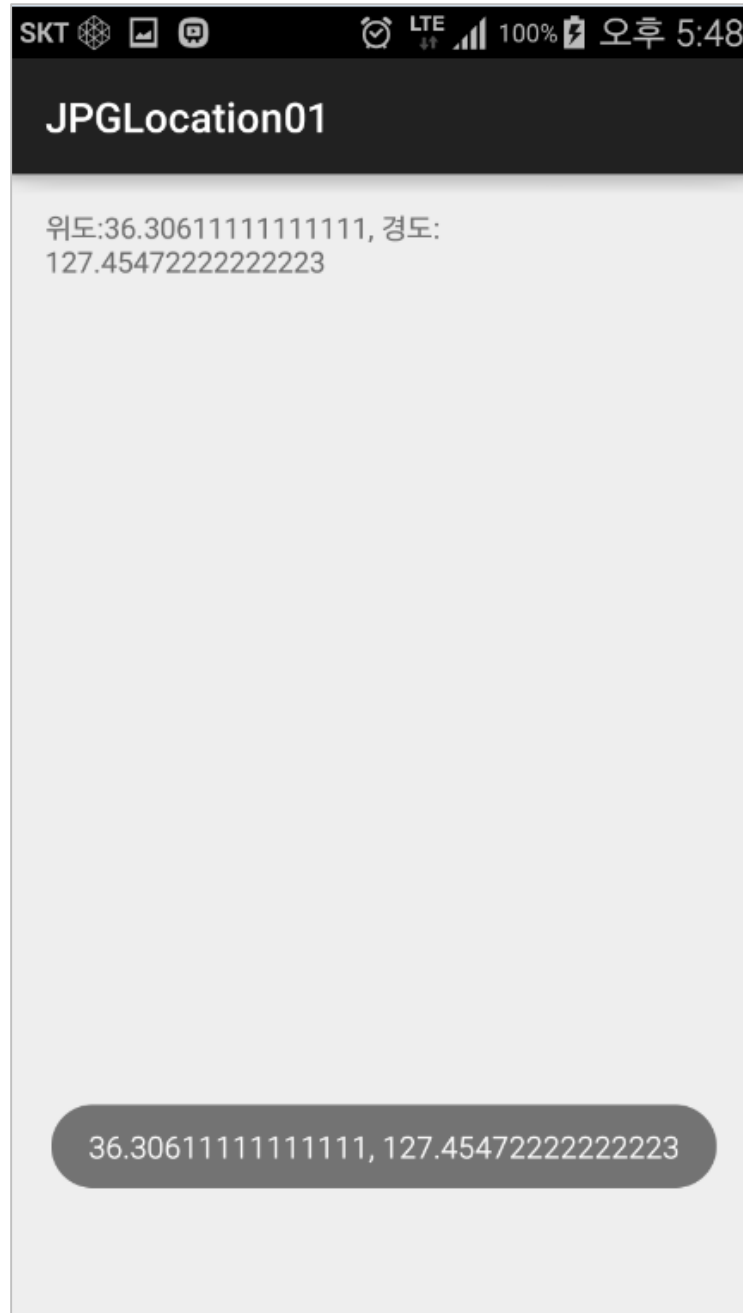
Toast.makeText(getApplicationContext(), StrnewLati + ", " +
    StrnewLong, Toast.LENGTH_SHORT).show();

txt.setText("위도:" + StrnewLati + ", " + "경도: " + StrnewLong);

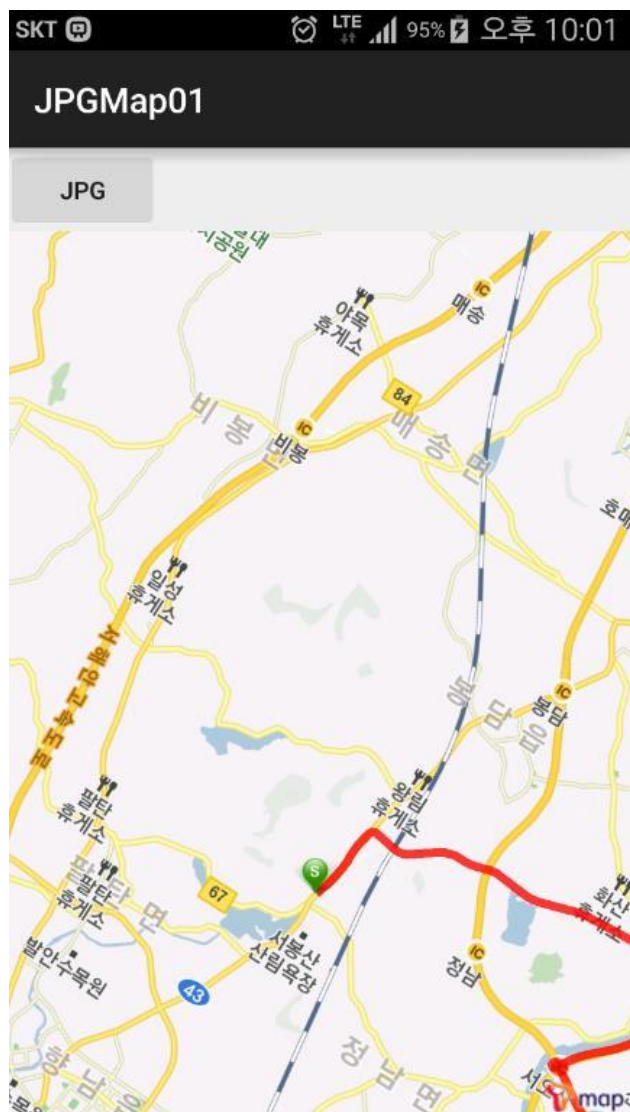
// txt.setText("위도:" + lati + ", " + "경도: " + longi);

} catch (IOException e) {
    e.printStackTrace();
    Toast.makeText(getApplicationContext(), "error", Toast.LENGTH_SHORT).show();
}

}
```



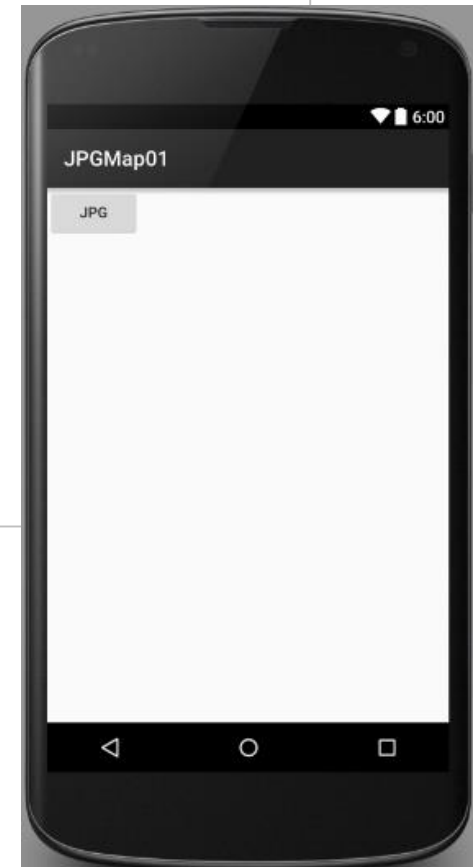
TMap과 연결



프로젝트 정보

- Application Name: JPGMap01
- Minimum SDK : API 20
- Add an activity to Mobile: Blank Activity
- Activity Name: MainActivity
- Layout Name: activity_main
- Title: MainActivity
- Menu Resource Name: menu_main

```
activity_main.xml ×  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
    xmlns:tools="http://schemas.android.com/tools"  
    android:layout_width="match_parent"  
    android:layout_height="match_parent"  
    android:id="@+id/linear"  
    android:orientation="vertical"  
    tools:context=".MainActivity">  
  
    <Button  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:id="@+id/btn"  
        android:text="JPG" />  
  
</LinearLayout>
```



```
MainActivity.java x
1  package com.example.administrator.jpgmap01;
2
3  import android.graphics.Color;
4  import android.location.Location;
5  import android.location.LocationListener;
6  import android.media.ExifInterface;
7  import android.os.Bundle;
8  import android.support.v7.app.AppCompatActivity;
9  import android.util.Log;
10 import android.view.View;
11 import android.widget.Button;
12 import android.widget.LinearLayout;
13 import android.widget.Toast;
14
15 import com.skp.Tmap.TMapData;
16 import com.skp.Tmap.TMapGpsManager;
17 import com.skp.Tmap.TMapMarkerItem;
18 import com.skp.Tmap.TMapPOIItem;
19 import com.skp.Tmap.TMapPoint;
20 import com.skp.Tmap.TMapPolyLine;
21 import com.skp.Tmap.TMapView;
22
23 import java.io.File;
24 import java.io.IOException;
25 import java.util.ArrayList;
26
```

MainActivity.java x

```
26
27  public class MainActivity extends AppCompatActivity implements TMapView.OnLongClickListenerCallback,
28     LocationListener, TMapGpsManager.onLocationChangedCallback {
29     private TMapView tMapView = null;
30     TMapGpsManager gps = null;
31     public static String mApiKey = null;
32     public static String mBizAppID = null;
33     private static final String TAG = "TestTmap";
34
35     TMapData tMapData;
36     TMapPoint point2;
37     Double IntnewLati;
38     Double IntnewLong;
39
40     ExifInterface exif = null;
41     File photo;
42     Button btn;
43
```

C MainActivity.java x

```
43
44     @Override
45     protected void onCreate(Bundle savedInstanceState) {
46         super.onCreate(savedInstanceState);
47         setContentView(R.layout.activity_main);
48
49         LinearLayout liner = (LinearLayout) findViewById(R.id.liner);
50         btn = (Button) findViewById(R.id.btn);
51
52         tMapView = new TMapView(this);
53         mApiKey = "3fbf4752-c3c79";
54         tMapView.setSKPMapApiKey(mApiKey);
55
56         liner.addView(tMapView);
57         setContentView(liner);
58
59         tMapView.setZoomLevel(16);
60         tMapView.setCompassMode(true);
61         tMapView.setSightVisible(true);
62         tMapView.setMapPosition(TMapView.POSITION_NAVI);
63         tMapView.setTrackingMode(true);
```

MainActivity.java x

```
64  
65     gps = new TMapGpsManager(MainActivity.this);  
66     gps.setMinTime(1);  
67     gps.setMinDistance(1);  
68     gps.setProvider(gps.NETWORK_PROVIDER);  
69     //gps.setProvider(gps.GPS_PROVIDER);  
70     gps.OpenGps();  
71  
72     IntnewLat i = tMapView.getLatitude();  
73     IntnewLong = tMapView.getLongitude();  
74  
75     tMapData = new TMapData();  
76  
77     String newFilename = "/storage/emulated/0/DCIM/Camera/pos01.jpg";  
78     photo = new File(newFilename);  
79
```

```
MainActivity.java x
79
80 btn.setOnClickListener(new View.OnClickListener() {
81     @Override
82     public void onClick(View v) {
83         try {
84             exif = new ExifInterface(photo.getCanonicalPath());
85             String lati = exif.getAttribute(ExifInterface.TAG_GPS_LATITUDE);
86             String longi = exif.getAttribute(ExifInterface.TAG_GPS_LONGITUDE);
87
88             String latiArray[] = lati.split(",");
89             String latiAArray0[] = latiArray[0].split("/");
90             String latiAArray1[] = latiArray[1].split("/");
91             String latiAArray2[] = latiArray[2].split("/");
92
93             String longiArray[] = longi.split(",");
94             String longiAArray0[] = longiArray[0].split("/");
95             String longiAArray1[] = longiArray[1].split("/");
96             String longiAArray2[] = longiArray[2].split("/");
97
```

MainActivity.java ×

```
97
98         IntnewLati = Double.parseDouble(latiArray0[0]) +
99             Double.parseDouble(latiArray1[0]) / 60
100             + Double.parseDouble(latiArray2[0]) / 3600;
101
102         IntnewLong = Double.parseDouble(longiArray0[0]) +
103             Double.parseDouble(longiArray1[0]) / 60
104             + Double.parseDouble(longiArray2[0]) / 3600;
105
106         String StrnewLati = String.valueOf(IntnewLati);
107         String StrnewLong = String.valueOf(IntnewLong);
108
109         Toast.makeText(getApplicationContext(), StrnewLati + ", " +
110             StrnewLong, Toast.LENGTH_SHORT).show();
111     } catch (IOException e) {
112         e.printStackTrace();
113     }
114 }
115 });
116 }
117
```

MainActivity.java x

```
117
118     @Override
119     public void onLocationChanged(Location location) {
120
121     }
122
123     @Override
124     public void onStatusChanged(String provider, int status, Bundle extras) {
125
126     }
127
128     @Override
129     public void onProviderEnabled(String provider) {
130
131     }
132
133     @Override
134     public void onProviderDisabled(String provider) {
135
136     }
137
138     @Override
139     public void onLongPressEvent(ArrayList<TMapMarkerItem> arrayList,
140                                 ArrayList<TMapPOIItem> arrayList1, TMapPoint tMapPoint) {
141
142     }
143
```

MainActivity.java x

```
144     @Override
145     public void onLocationChange(Location location) {
146         tMapView.setCenterPoint(location.getLongitude(), location.getLatitude());
147         tMapView.setLocationPoint(location.getLongitude(), location.getLatitude());
148
149         btn.callOnClick();
150
151         TMapPoint point1 = tMapView.getCenterPoint();
152         //TMapPoint point2 = new TMapPoint(point1.getLatitude() + 0.1, point1.getLongitude() + 0.1);
153         point2 = new TMapPoint(IntnewLat i, IntnewLong);
154
155         Toast.makeText(getApplicationContext(), "위치변경됨", Toast.LENGTH_SHORT).show();
156
157         tMapData.findPathDataWithType(TMapData.TMapPathType.CAR_PATH,
158             point1, point2, new TMapData.FindPathDataListenerCallback() {
159             @Override
160             public void onFindPathData(TMapPolyLine polyLine) {
161                 polyLine.setLineWidth(20);
162                 polyLine.setOutlineColor(Color.LTGRAY);
163                 tMapView.addTMapPath(polyLine);
164             }
165         });
166     }
```

MainActivity.java x

```
158 point1, point2, new TMapData.FindPathDataListenerCallback() {
159     @Override
160     public void onFindPathData(TMapPolyLine polyLine) {
161         polyLine.setLineWidth(20);
162         polyLine.setOutLineColor(Color.LTGRAY);
163         tMapView.addTMapPath(polyLine);
164     }
165 });
166
167 tMapData.setResponseCodeInfoCallback(new TMapData.OnResponseCodeInfoCallback() {
168     @Override
169     public void responseCodeInfo(String s, int i, String s1) {
170         Log.d(TAG, Thread.currentThread().getStackTrace()[2].getFileName() + " / " +
171             Thread.currentThread().getStackTrace()[2].getMethodName() + " / " +
172             Thread.currentThread().getStackTrace()[2].getLineNumber() +
173             " : API is " + s + " ResponseCode is " + i);
174     }
175 });
176 }
177 }
178
```

