# Intent的Action和URI

## Implicit Intent

使用「意圖啟動內建應用程式」則是使用隱含意圖。Intent意圖物件提供的目標活動不是明確的類別或元件名稱，而是系統預先定義的一些動作，例如：ACTION\_VIEW等。

在Intent意圖物件可以使用setAction()方法來指定，活動常用的動作類型如下表所示。

萬用資源識別(URI)是用來定位Android系統的資源，幫助Intent意圖物件的動作取得或找到操作資料。常用如下：

|  |  |  |
| --- | --- | --- |
| 動作類型 | 說明 | Uri |
| ACTION\_VIEW | 顯示資料給使用者檢視 | <http://xxx.xxx.xxx> |
| content://contacts/people/1 |
| content://contacts/people/ |
| <tel:033333333> |
| geo:25.008212, 121.320467?z=14 |
| ACTION\_EDIT | 顯示資料給使用者編輯 |  |
| ACTION\_DIAL | 顯示撥號 | tel:0918171178 |
| ACTION\_CALL | 打電話 | <tel:033333333> |
| ACTION\_SENDTO | 寄電子信件 | mailto:ultratsay@gmail.com |
| ACTION\_WEB\_SEARCH | 網站搜尋 |  |
| ACTION\_MAIN | 啟動(程式進入點的主程式) |  |

URL網址：URI可以直接使用URL網址：http://www.google.com.tw/

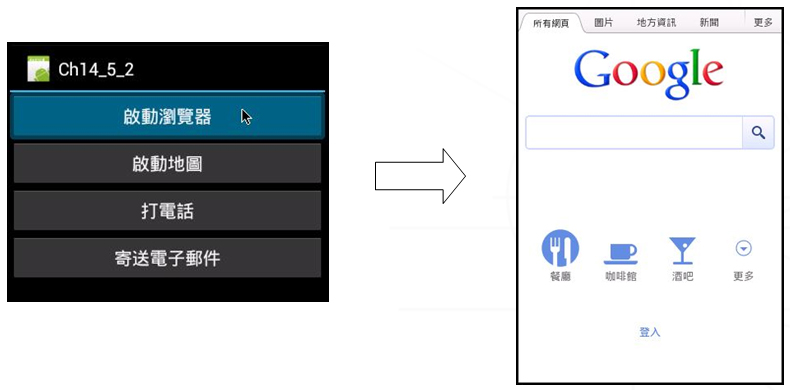
地圖位置：GPS定位的座標值(GeoPoint格式)：geo: 25.008212, 121.320467

電話號碼：指定撥打的電話號碼：tel:033333333

寄送郵件：寄送郵件至指定的電子郵件位址：mailto:hueyan@ms2.hinet.net

使用意圖啟動內建應用程式

 在瞭解意圖物件和URI後，就可以在活動使用意圖啟動內建應用程式。



在活動啟動內建瀏覽器是建立ACTION\_VIEW動作，和URI為URL網址的Intent物件：

public void btn1\_Click(View view) {

Intent i = new Intent(Intent.ACTION\_VIEW, Uri.parse("http://www.google.com.tw"));

startActivity(i);

}

public void btn2\_Click(View view) {

Intent i = new Intent(Intent.ACTION\_VIEW, Uri.parse("geo:25.008212, 121.320467"));

startActivity(i);

}

public void btn3\_Click(View view) {

Intent i = new Intent(Intent.ACTION\_DIAL, Uri.parse("tel:+886918171178"));

startActivity(i);

}

public void btn4\_Click(View view) {

Intent i = new Intent(Intent.ACTION\_SENDTO, Uri.parse("mailto:ultratsay@gmail.com"));

startActivity(i);

}

## URI和Action

|  |  |
| --- | --- |
| URI [Action] | 說明 |
| http(s):web\_address [VIEW] | 顯示網頁 |
| "" [WEB\_SEARCH] | 顯示瀏覽器 |
| http(s):web\_address [WEB\_SEARCH] | 開啟檔案 |
| tel: phone\_number [CALL] | 直接撥電話 |
| tel: phone\_number [DIAL] | 顯示撥號介面 |
| geo:latitude,longitude [VIEW] | 顯示撥號介面 |
| geo:latitude,longitude?z=zoom [VIEW] | 顯示地圖 |
| geo:0,0?q=my+street+address [VIEW] | 顯示地圖 |
| geo:0,0?q=business+near+city [VIEW] | 顯示地圖 |
| google.streetview:cbll=lat,lng& cbp=1,yaw,,pitch,zoom&mz=mapZoom [VIEW] | 顯示街景 |
| [MediaStore.ACTION\_IMAGE\_CAPTURE] | 啟動相機 |
| file:/sdcard/song.mp3 [ACTION\_VIEW] | 啟動該檔案 |
| market:search?q=pname:pkg\_name [ACTION\_VIEW] | 搜尋商場 |
| market://details?id=pkg\_name\_or\_app\_id [ACTION\_VIEW] | 軟體資訊 |
| People.CONTENT\_URI [ACTION\_VIEW] | 聯絡人清單 |

package ccc.test;

import android.app.Activity;

import android.content.Intent;

import android.net.Uri;

import android.os.Bundle;

import android.provider.MediaStore;

import android.provider.Contacts.People;

import android.view.View;

import android.widget.Button;

public class IntentTest extends Activity {

/\*\* Called when the activity is first created. \*/

@Override

public void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.main);

Button buttonUrl = (Button) findViewById(R.id.ButtonUrl);

Button buttonEmail = (Button) findViewById(R.id.ButtonEmail);

Button buttonTel = (Button) findViewById(R.id.ButtonTel);

Button buttonCamera = (Button) findViewById(R.id.ButtonCamera);

Button buttonGMap = (Button) findViewById(R.id.ButtonGMap);

Button buttonImage = (Button) findViewById(R.id.ButtonImage);

Button buttonPeople = (Button) findViewById(R.id.ButtonPeople);

Button buttonMarket = (Button) findViewById(R.id.ButtonMarket);

buttonUrl.setOnClickListener(new Button.OnClickListener() {

public void onClick(View view) {

Uri uri=Uri.parse("[http://www.google.com.tw](http://www.google.com.tw/)");

Intent i=new Intent(Intent.ACTION\_VIEW,uri);

startActivity(i);

}

});

buttonEmail.setOnClickListener(new Button.OnClickListener() {

public void onClick(View view) {

Uri uri=Uri.parse("mailto:ultratsay@gmail.com");

Intent i=new Intent(Intent.ACTION\_SENDTO,uri);

startActivity(i);

}

});

buttonTel.setOnClickListener(new Button.OnClickListener() {

public void onClick(View view) {

Uri uri=Uri.parse("tel:0918171178");

Intent i=new Intent(Intent.ACTION\_VIEW,uri);

startActivity(i);

}

});

buttonCamera.setOnClickListener(new Button.OnClickListener() {

public void onClick(View view) {

Intent i = new Intent(MediaStore.ACTION\_IMAGE\_CAPTURE);

startActivity(i);

}

});

buttonGMap.setOnClickListener(new Button.OnClickListener() {

public void onClick(View view) {

Uri uri = Uri.parse("geo:25.008212, 121.320467");

Intent i = new Intent(Intent.ACTION\_VIEW, uri);

startActivity(i);

}

});

buttonImage.setOnClickListener(new Button.OnClickListener() {

public void onClick(View view) {

Intent i = new Intent(Intent.ACTION\_GET\_CONTENT);

i.addCategory(Intent.CATEGORY\_OPENABLE);

i.setType("image/\*");

startActivityForResult(i, 0);

}

});

buttonPeople.setOnClickListener(new Button.OnClickListener() {

public void onClick(View view) {

Intent i = new Intent(Intent.ACTION\_VIEW, People.CONTENT\_URI);

startActivity(i);

}

});

buttonMarket.setOnClickListener(new Button.OnClickListener() {

public void onClick(View view) {

//尋找某個應用程式

Uri uri = Uri.parse("market://search?q=dropbox");

Intent it = new Intent(Intent.ACTION\_VIEW, uri);

startActivity(it);

}

});

}

}

檔案：res/layout/activity\_main.xml

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

<LinearLayout

android:id="@+id/MainLayout"

android:layout\_width="fill\_parent"

android:layout\_height="fill\_parent"

android:orientation="vertical"

xmlns:android="<http://schemas.android.com/apk/res/android>">

<Button

android:id="@+id/ButtonUrl"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:text="[http://www.google.com.tw](http://www.google.com.tw/)">

</Button>

<Button

android:id="@+id/ButtonEmail"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:text="mailto:ccc@nqu.edu.tw">

</Button>

<Button

android:id="@+id/ButtonTel"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:text="tel:0918123123 (view)">

</Button>

<Button

android:id="@+id/ButtonCamera"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:text="Camera">

</Button>

<Button

android:id="@+id/ButtonGMap"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:text="geo:25.008212, 121.320467">

</Button>

<Button

android:id="@+id/ButtonImage"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:text="image/\*">

</Button>

<Button

android:id="@+id/ButtonPeople"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:text="People.CONTENT\_URI">

</Button>

<Button

android:id="@+id/ButtonMarket"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:text="market://search?q=dropbox">

</Button>

</LinearLayout>

## Intent用法

### 顯示網頁

Uri uri = Uri.parse("http://google.com");

Intent intent = new Intent(Intent.ACTION\_VIEW, uri);

startActivity(intent);

### 顯示地圖

Uri uri = Uri.parse("geo:25.008212, 121.320467");

Intent intent = new Intent(Intent.ACTION\_VIEW, uri);

startActivity(intent);

其他 geo URI 範例

geo:latitude,longitude

geo:latitude,longitude?z=zoom

geo:0,0?q=my+street+address

geo:0,0?q=business+near+city

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

### 路徑規劃

Uri uri = Uri.parse("http://maps.google.com/maps?f=d&saddr=startLat%20startLng&daddr=endLat%20endLng&hl=en");

Intent intent = new Intent(Intent.ACTION\_VIEW, uri);

startActivity(intent);

//經緯度startLat, startLng, endLat, endLng是含六位小數的數值，如: 25.008212，121.320467

### 撥打電話

//叫出撥號程式

Uri uri = Uri.parse("tel:0918000123");

Intent intent = new Intent(Intent.ACTION\_DIAL, uri);

startActivity(intent);

//直接打電話出去

Uri uri = Uri.parse("tel:0918000123");

Intent intent = new Intent(Intent.ACTION\_CALL, uri);

startActivity(intent);

//要在AndroidManifest.xml中，加上<uses-permission id="android.permission.CALL\_PHONE" />

### 傳送 SMS/MMS

//呼叫簡訊程式

Intent intent = new Intent(Intent.ACTION\_VIEW);

intent.putExtra("sms\_body", "The SMS text");

intent.setType("vnd.android-dir/mms-sms");

startActivity(intent);

//傳送簡訊

Uri uri = Uri.parse("smsto:0918000123");

Intent intent = new Intent(Intent.ACTION\_SENDTO, uri);

intent.putExtra("sms\_body", "The SMS text");

startActivity(intent);

//傳送 MMS

Uri uri = Uri.parse("content://media/external/images/media/23");

Intent intent = new Intent(Intent.ACTION\_SEND);

intent.putExtra("sms\_body", "some text");

intent.putExtra(Intent.EXTRA\_STREAM, uri);

intent.setType("image/png");

startActivity(intent);

HTC Sense手機要用

Intent sendIntent = new Intent("android.intent.action.SEND\_MSG");

sendIntent.putExtra("address", toText);

sendIntent.putExtra(Intent.EXTRA\_SUBJECT, "subject");

sendIntent.putExtra("sms\_body", textMessage);

sendIntent.putExtra(Intent.EXTRA\_STREAM, Uri.parse(url));

sendIntent.setType("image/jpeg");

startActivity(sendIntent);

下面這段更好，可在所有手機上用

//refer to http://stackoverflow.com/questions/2165516/sending-mms-into-different-android-devices

Intent intent = new Intent(Intent.ACTION\_SENDTO, Uri.parse("mmsto:<number>");

intent.putExtra("address", <number>);

intent.putExtra("subject", <subject>);

startActivity(intent);

### 傳送 Email

Uri uri = Uri.parse("mailto:xxx@abc.com");

Intent intent = new Intent(Intent.ACTION\_SENDTO, uri);

startActivity(intent);

Intent intent = new Intent(Intent.ACTION\_SEND);

intent.putExtra(Intent.EXTRA\_EMAIL, "me@abc.com");

intent.putExtra(Intent.EXTRA\_TEXT, "The email body text");

intent.setType("text/plain");

startActivity(Intent.createChooser(intent, "Choose Email Client"));

Intent intent=new Intent(Intent.ACTION\_SEND);

String[] tos={"me@abc.com"};

String[] ccs={"you@abc.com"};

intent.putExtra(Intent.EXTRA\_EMAIL, tos);

intent.putExtra(Intent.EXTRA\_CC, ccs);

intent.putExtra(Intent.EXTRA\_TEXT, "The email body text");

intent.putExtra(Intent.EXTRA\_SUBJECT, "The email subject text");

intent.setType("message/rfc822");

startActivity(Intent.createChooser(intent, "Choose Email Client"));

//傳送影音附件檔

Intent intent = new Intent(Intent.ACTION\_SEND);

intent.putExtra(Intent.EXTRA\_SUBJECT, "The email subject text");

intent.putExtra(Intent.EXTRA\_STREAM, Uri.parse("file:///sdcard/mysong.mp3"));

intent.setType("audio/mp3");

startActivity(Intent.createChooser(intent, "Choose Email Client"));

//傳送圖片附件檔

Intent intent = new Intent(Intent.ACTION\_SEND);

intent.putExtra(Intent.EXTRA\_SUBJECT, "The email subject text");

intent.putExtra(Intent.EXTRA\_STREAM, Uri.parse("file:///sdcard/mypic.jpg"));

intent.setType("image/jpeg");

startActivity(Intent.createChooser(intent, "Choose Email Client"));

### 顯示聯絡人清單

Intent intent = new Intent(Intent.ACTION\_VIEW, People.CONTENT\_URI);

startActivity(intent);

### 顯示某個朋友的詳細資料

Uri uriPerson = ContentUris.withAppendedId(People.CONTENT\_URI, 5);//5 是朋友的 ID

Intent intent = new Intent(Intent.ACTION\_VIEW, uriPerson);

startActivity(intent);

### 播放多媒體

Intent intent = new Intent(Intent.ACTION\_VIEW);

Uri uri = Uri.parse("file:///sdcard/song.mp3");

intent.setDataAndType(uri, "audio/mp3");

startActivity(intent);

Uri uri = Uri.withAppendedPath(MediaStore.Audio.Media.INTERNAL\_CONTENT\_URI, "1");

Intent intent = new Intent(Intent.ACTION\_VIEW, uri);

startActivity(intent);

### 從圖庫中回傳選到的圖片

Intent intent = new Intent(Intent.ACTION\_GET\_CONTENT);

intent.addCategory(Intent.CATEGORY\_OPENABLE);

intent.setType("image/\*");

startActivityForResult(intent, 0);

//回傳的圖片可透過 intent.getData() 取得圖片之Uri

## 啟動照相機，並將相片存在指定的檔案

Intent intent = new Intent(MediaStore.ACTION\_IMAGE\_CAPTURE);

//假設你要將相片存在/sdcard/xxx.jpg中

File file = new File(Environment.getExternalStorageDirectory().getAbsolutePath() + "/xxx.jpg");

intent.putExtra(MediaStore.EXTRA\_OUTPUT, Uri.fromFile(f));

startActivity(intent, 0);

### Market 相關

//尋找某個應用程式

Uri uri = Uri.parse("market://search?q=pname:pkg\_name");

Intent intent = new Intent(Intent.ACTION\_VIEW, uri);

startActivity(intent);

//where pkg\_name is the full package path for an application

//顯示某應用程式詳細畫面

Uri uri = Uri.parse("market://details?id=pkg\_name\_or\_app\_id");

//pkg可至google play找APP並在網址列從details複製

Intent intent = new Intent(Intent.ACTION\_VIEW, uri);

startActivity(intent);

//where app\_id is the application ID, find the ID by clicking on your application on Market home page, and notice the ID from the address bar

### Uninstall 應用程式

Uri uri = Uri.fromParts("package", strPackageName, null);

Intent intent = new Intent(Intent.ACTION\_DELETE, uri);

startActivity(intent);

### 安裝 APK 檔

Uri uri = Uri.parse("url\_of\_apk\_file");

Intent intent = new Intent(Intent.ACTION\_VIEW, uri);

intent.setData(uri);

intent.addFlags(Intent.FLAG\_GRANT\_READ\_URI\_PERMISSION);

intent.setClassName("com.android.packageinstaller", "com.android.packageinstaller.PackageInstallerActivity");

startActivity(intent);

//make sure the url\_of\_apk\_file is readable for all users