**Unity3D教程：调用Android语音识别**

Posted on 2013年07月04日 by U3d / [Unity3D 基础教程](http://www.unitymanual.com/category/manual/unity3d-%e5%9f%ba%e7%a1%80%e6%95%99%e7%a8%8b)/被围观 80 次

语音识别在Android下面很简单，因为语音识别就是google的，源代码网上也到处都有的，尝试了一下google的语音识别，当时很慢，据说不够稳定，我又试了一下讯飞的语音识别，相对的确讯飞要快点，但是在调用他的mcs.jar包时，在eclipse运行正常，但是在Unity调用的时候，我发现它的几个方法都能找到，但是不能调用，没办法就只能用google的技术了。

UnityTestActivity.java;

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| --- | --- |
| 001 | package com.xys; |
| 002 |  |
| 003 | import java.util.ArrayList; |
| 004 |  |
| 005 | import android.os.Bundle; |
| 006 | import android.speech.RecognitionListener; |
| 007 | import android.speech.RecognizerIntent; |
| 008 | import android.speech.SpeechRecognizer; |
| 009 | import android.util.Log; |
| 010 | import android.content.BroadcastReceiver; |
| 011 | import android.content.Context; |
| 012 | import android.content.Intent; |
| 013 | import android.content.IntentFilter; |
| 014 | import com.unity3d.player.UnityPlayerActivity; |
| 015 |  |
| 016 | **public** **class** UnityTestActivity extends UnityPlayerActivity{ |
| 017 | */\*\* Called when the activity is first created. \*/* |
| 018 | Context mContext = **null**; |
| 019 | **private** SpeechRecognizer sr; |
| 020 | **String** str; |
| 021 | **private** **static** final **String** TAG = "Unity"; |
| 022 | **private** final **String** ACTION\_NAME ="send"; |
| 023 | BroadcastReceiver mBroadcastReceiver; |
| 024 | @**Override** |
| 025 | **public** **void** onCreate(Bundle savedInstanceState) { |
| 026 | super.onCreate(savedInstanceState); |
| 027 | mContext = **this**; |
| 028 | sr = SpeechRecognizer.createSpeechRecognizer(**this**); *// 初始化识别工具，得到句柄* |
| 029 | sr.setRecognitionListener(new listener()); *// 注册回调类及函数* |
| 030 | str ="杨纯说:"; |
| 031 | sr.startListening(new Intent(RecognizerIntent.ACTION\_GET\_LANGUAGE\_DETAILS)); |
| 032 | mBroadcastReceiver = new BroadcastReceiver(){ |
| 033 | @**Override** |
| 034 | **public** **void** onReceive(Context context, Intent intent) { |
| 035 | **String** action = intent.getAction(); |
| 036 | Log.i(action, action); |
| 037 | **if**(action.equals(ACTION\_NAME)){ |
| 038 | SpeechRecognizer sr2; |
| 039 | sr2 = SpeechRecognizer.createSpeechRecognizer(mContext); *// 初始化识别工具，得到句柄* |
| 040 | sr2.setRecognitionListener(new listener()); *// 注册回调类及函数* |
| 041 | sr2.startListening(new Intent(RecognizerIntent.ACTION\_GET\_LANGUAGE\_DETAILS)); |
| 042 | } |
| 043 | } |
| 044 |  |
| 045 | }; |
| 046 | *//注册广播* |
| 047 | registerBoradcastReceiver(); |
| 048 | } |
| 049 | **public** **void** registerBoradcastReceiver(){ |
| 050 | IntentFilter myIntentFilter = new IntentFilter(); |
| 051 | myIntentFilter.addAction(ACTION\_NAME); |
| 052 | *//注册广播* |
| 053 | registerReceiver(mBroadcastReceiver, myIntentFilter); |
| 054 | } |
| 055 |  |
| 056 | **public** **String** getstr(){ |
| 057 | **return** str; |
| 058 | } *//Unity3D教程手册：www.unitymanual.com* |
| 059 | **public** **void** StartActivity0(){} |
| 060 | **class** listener implements RecognitionListener *// 回调类的实现* |
| 061 | { |
| 062 | **public** **void** onReadyForSpeech(Bundle **params**) |
| 063 | { |
| 064 | Log.d(TAG, "onReadyForSpeech"); |
| 065 | } |
| 066 | **public** **void** onBeginningOfSpeech() |
| 067 | { |
| 068 | Log.d(TAG, "onBeginningOfSpeech"); |
| 069 | } |
| 070 | **public** **void** onRmsChanged(**float** rmsdB) |
| 071 | { |
| 072 | Log.d(TAG, "onRmsChanged"); |
| 073 | } |
| 074 | **public** **void** onBufferReceived(**byte**[] buffer) |
| 075 | { |
| 076 | Log.d(TAG, "onBufferReceived"); |
| 077 | } |
| 078 | **public** **void** onEndOfSpeech() |
| 079 | { |
| 080 | Log.d(TAG, "onEndofSpeech"); |
| 081 | } |
| 082 | **public** **void** onError(**int** error) |
| 083 | { |
| 084 | Log.d(TAG, "error " + error); |
| 085 | **if**(error!=0){ |
| 086 | Intent mIntent = new Intent(ACTION\_NAME); |
| 087 | mIntent.putExtra("yaer", "发送广播，相当于在这里传送数据"); |
| 088 | *//发送广播* |
| 089 | sendBroadcast(mIntent); |
| 090 | } |
| 091 | } *//Unity3D教程手册：www.unitymanual.com* |
| 092 | **public** **void** onResults(Bundle results) *// 返回识别到的数据* |
| 093 | { |
| 094 | **String** s=""; |
| 095 | Log.d(TAG, "onResults " + results); |
| 096 | ArrayList data = results.getStringArrayList(SpeechRecognizer.RESULTS\_RECOGNITION); |
| 097 | **for** (**int** i = 0; i < data.size(); i++) |
| 098 | { |
| 099 | Log.d(TAG, "result " + data.**get**(i)); |
| 100 | s += data.**get**(i); |
| 101 | } |
| 102 | str=s; |
| 103 | **if**(data.size()>0){ |
| 104 | Intent mIntent = new Intent(ACTION\_NAME); |
| 105 | mIntent.putExtra("yaer", "发送广播，相当于在这里传送数据"); |
| 106 | *//发送广播* |
| 107 | sendBroadcast(mIntent); |
| 108 | } |
| 109 | } |
| 110 | **public** **void** onPartialResults(Bundle partialResults) |
| 111 | { |
| 112 |  |
| 113 | Log.d(TAG, "onPartialResults"); |
| 114 | } |
| 115 | **public** **void** onEvent(**int** eventType, Bundle **params**) |
| 116 | { |
| 117 | Log.d(TAG, "onEvent " + eventType); |
| 118 | } |
| 119 | } |
| 120 |  |
| 121 | } |

manifest.xml

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| 01 | <manifest |
| 02 | xmlns:android="http://schemas.android.com/apk/res/android" |
| 03 | package="com.xys" |
| 04 | android:versionCode="1" |
| 05 | android:versionName="1.0" > |
| 06 |  |
| 07 | <uses-sdk |
| 08 | android:minSdkVersion="8" |
| 09 | android:targetSdkVersion="15" ></uses> |
| 10 | <uses-permission android:name="android.permission.INTERNET"></uses> |
| 11 | <uses-permission android:name="android.permission.RECORD\_AUDIO" ></uses> |
| 12 | <application |
| 13 | android:icon="@drawable/ic\_launcher" |
| 14 | android:label="@string/app\_name" |
| 15 | android:theme="@style/AppTheme" > |
| 16 | <activity |
| 17 | android:name=".UnityTestActivity" |
| 18 | android:label="@string/title\_activity\_unity\_test"> |
| 19 |  |
| 20 | <intent-filter> |
| 21 | <action android:name="android.intent.action.MAIN" ></action> |
| 22 | <category android:name="android.intent.category.LAUNCHER" ></category> |
| 23 | </intent-filter> |
| 24 | </activity> |
| 25 | </application> |
| 26 |  |
| 27 | </manifest> |

下面是Unity工程代码：

Test.cs

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|  |  |
| --- | --- |
| 01 | **using** UnityEngine; |
| 02 | **using** System.Collections; |
| 03 |  |
| 04 | **public** **class** Test : MonoBehaviour |
| 05 | { |
| 06 |  |
| 07 | **string** stringToEdit=""; |
| 08 | **public** GUISkin skin; |
| 09 | **void** Awake () { |
| 10 | DontDestroyOnLoad (transform.gameObject); |
| 11 |  |
| 12 | } |
| 13 | *// Update is called once per frame* |
| 14 | **void** Update () |
| 15 | { |
| 16 | **if** (Input.GetKeyDown(KeyCode.Escape)){ |
| 17 | Application.Quit(); |
| 18 | } |
| 19 | } |
| 20 | **void** OnGUI() |
| 21 | { |
| 22 | AndroidJavaClass jc = new AndroidJavaClass("com.unity3d.player.UnityPlayer"); |
| 23 | AndroidJavaObject jo = jc.GetStatic<AndroidJavaObject>("currentActivity"); |
| 24 | stringToEdit=jo.Call<**string**>("getstr"); |
| 25 | GUI.skin=skin; |
| 26 | **if**(GUI.Button(new Rect(Screen.width\*0.8F,0,Screen.width\*0.2F,50),"open")) |
| 27 | { |
| 28 | **if**(Application.platform==RuntimePlatform.Android){ |
| 29 | jo.Call("StartActivity0"); |
| 30 | }**else**{ |
| 31 | Application.LoadLevel("Scene\_03"); |
| 32 | } |
| 33 | } |
| 34 |  |
| 35 | GUI.Label(new Rect(0,0,Screen.width\*0.8F,Screen.height),""+stringToEdit); |
| 36 | } |
| 37 | } |