**Version before changed:**

defaultConfig **{** applicationId "com.fourclue.android.iot"  
 minSdkVersion 17  
 targetSdkVersion 29  
 versionCode 18  
 versionName "1.0.9.20211021"  
**}**

APIバージョンを更新し、「」は非推奨になっているため、「」を利用するように変更する 2021/11

**Datamanager class**

// *TODO startLocationManager() 中onStatusChanged() deprecated*

|  |  |  |
| --- | --- | --- |
| **Changed Methods（28-29-30）** | | |
| void [onProviderDisabled](https://developer.android.com/reference/android/location/LocationListener.html" \l "onProviderDisabled(java.lang.String)" \t "_top)(String) | Changed from abstract to non-abstract. |  |
| void [onProviderEnabled](https://developer.android.com/reference/android/location/LocationListener.html" \l "onProviderEnabled(java.lang.String)" \t "_top)(String) | Changed from abstract to non-abstract. |  |
| void [onStatusChanged](https://developer.android.com/reference/android/location/LocationListener.html" \l "onStatusChanged(java.lang.String,%20int,%20android.os.Bundle)" \t "_top)(String, int, Bundle) | Changed from abstract to non-abstract.  Now deprecated. |  |

<https://developer.android.com/reference/android/location/LocationListener.html#onStatusChanged(java.lang.String,%20int,%20android.os.Bundle)>

solution: delete

// *TODO Handler() This constructor is deprecated.*

<https://developer.android.com/reference/android/os/Handler>

solution: using Looper#getMainLooper,

Handler handler = new Handler();

// change to

// Looper looper = Looper.*getMainLooper*();

Handler handler = new Handler(Looper.getMainLooper());

Android 31 で廃止された Handler() のため、修正する

// *TODO ActivityManager getRunningTasks deprecated*

<https://developer.android.com/reference/android/app/ActivityManager.RunningTaskInfo>

String className = activityManager.getRunningTasks(1).get(0).topActivity.getClassName();

solution: using getAppTasks

Android 21 で廃止されたgetRunningTasks() のため、修正する

*// TODO NotificationCompat.Builder deprecated*

<https://developer.android.com/reference/android/app/Notification.Builder>

Solution: , "channel\_id"

use [**Builder(android.content.Context, java.lang.String)**](https://developer.android.com/reference/android/app/Notification.Builder#Builder(android.content.Context,%20java.lang.String)) instead.

All posted Notifications must specify a NotificationChannel Id.

Android 26 で廃止されたBuilder (Context context) のため、修正する。

*// TODO MODE\_MULTI\_PROCESS deprecated*

<https://developer.android.com/reference/android/content/Context#MODE_MULTI_PROCESS>

solution: MODE\_PRIVATE

Android 23 で廃止されたMODE\_MULTI\_PROCESSのため、修正する。

DataManager && TemplateListActivity

*// TODO 安卓31 FLAG\_UPDATE\_CURRENT 异常*

<https://developer.android.com/about/versions/12/behavior-changes-12#java>

<https://zhuanlan.zhihu.com/p/396790121>

<https://stackoverflow.com/questions/67045607/how-to-resolve-missing-pendingintent-mutability-flag-lint-warning-in-android-a>

solution: 改成FLAG\_IMMUTABLE？

// *TODO AsyncTask deprecated*

<https://developer.android.com/sdk/api_diff/30/changes/android.os.AsyncTask#android.os.AsyncTask.ctor_changed()>

<https://developer.android.com/reference/android/os/AsyncTask.html#AsyncTask()>

solution: Executors

Android 30 で廃止された[AsyncTask](https://developer.android.com/reference/android/os/AsyncTask.html" \l "AsyncTask()" \t "_top)() のため、修正する。

DataManager && LoginActivity && MainActivity && TemplateListActivity

**LoginActivity class**

// *TODO ProgressDialog deprecated （logging in 弹出框）*

<https://developer.android.com/reference/android/app/ProgressDialog>

solution: using ProgressBar

<https://developer.android.com/reference/android/widget/ProgressBar>

Android 26 で廃止されたProgressDialog() のため、修正する。

// *TODO ActivityManager* getRunningServices *deprecated*

<https://developer.android.com/reference/android/app/ActivityManager#getRunningServices(int)>

solution:

InfoActivity && MainActivity

**MainActivity class**

// *TODO* getDrawable

solution: lv.setDivider(ResourcesCompat.getDrawable(getResources(), R.drawable.list\_divider, null));

Android 22 で廃止されたgetDrawable() のため、修正する。

ListViewAdapter listViewAdapter = new ListViewAdapter(this, android.R.layout.simple\_expandable\_list\_item\_1, Arrays.asList("6666666666", "7777777777777"), 20f, Color.WHITE);

lv.setAdapter(listViewAdapter);

**CustomDialog class**

// *TODO Fragment & DialogFragment deprecated*

CustomDialog dialogFragment = CustomDialog.*newInstance*(title);

<https://developer.android.com/reference/android/app/Fragment>

<https://developer.android.com/reference/android/app/DialogFragment>

solution: 暂时忽略 在api28更新