

1. ViewfindViewByIdnull  
SDKlayout
2. SDKrecieverBUG  
Manifest
3. AndroidManifest merge  
application  
tools:replace="android:allowBackup, android:label, android:icon, android:theme"  
FR SDK
4. android supportmerge  
gradle excludeFR SDK

```

compile 'com.android.support:appcompat-v7:25.3.1'
compile 'com.android.support:recyclerview-v7:25.3.1'
compile 'com.google.zxing:core:3.1.0'

compile('com.fr.android:report-sdk:', {
    exclude group: 'com.android.support', module: 'appcompat-v7'
    exclude group: 'com.android.support', module: 'recyclerview'
    exclude group: 'com.google.zxing', module: 'core'
})
compile('com.fr.android:bi-sdk:', {
    exclude group: 'com.android.support', module: 'appcompat-v7'
    exclude group: 'com.android.support', module: 'recyclerview'
    exclude group: 'com.google.zxing', module: 'core'
})

```

5.

6. :

```

import com.fr.android.activity.IFOEMUtils
import com.fr.android.utils.IFContextManager
import com.fr.android.app.IFOptionsHelper

```

: 8.4.18, platform, .

7.

demoProguardappminifyEnabledtrue

```

buildTypes {
    debug {
        minifyEnabled false
        proguardFiles getDefaultProguardFile('proguard-android.txt'),
            'proguard-rules.pro'
    }
    release {
        //true
        minifyEnabled true
        proguardFiles getDefaultProguardFile('proguard-android.txt'),
            'proguard-rules.pro'
    }
}

```

libappproguard-rules.prooemproguard-rules.pro

```

-dontshrink
-dontwarn InnerClasses
-dontwarn EnclosingMethod

```

```

#Android
-keep public class * extends android.app.Appliction
-keep public class * extends android.app.Service
-keep public class * extends android.content.BroadcastReceiver
-keep public class * extends android.content.ContentProvider
-keep public class * extends android.app.backup.BackupAgentHelper
-keep public class * extends android.preference.Preference
-keep public class * extends android.view.View{
    *** get*();
    void set*(***);
    public <init>(android.content.Context);
    public <init>(android.content.Context, android.util.AttributeSet);
    public <init>(android.content.Context, android.util.AttributeSet, int);
}
-keepclassmembers class * implements java.io.Serializable {
    static final long serialVersionUID;
    private static final java.io.ObjectStreamField[] serialPersistentFields;
    private void writeObject(java.io.ObjectOutputStream);
    private void readObject(java.io.ObjectInputStream);
    java.lang.Object writeReplace();
    java.lang.Object readResolve();
}
#support
-keep class android.support.** { *; }

#
-keep public class com.fr.android.chart.IFChartGlyph
-keep public class com.fr.android.script.IFHyperlink4Internet
-keep public class com.fr.android.utils.IFLocalHistory

-keep public class * extends com.fr.android.IFModule
#js,before.js
-keep public class com.fr.android.stable.IFDeviceUtils
-keep public class com.fr.android.stable.IFLogger
-keep public class com.fr.android.utils.IFCodeUtils
#js
-keep class com.fr.android.script.** { *; }

#HttpClient
-keep class org.apache.http.** { *; }
-keep class android.net.** { *; }
-keep class com.android.internal.** { *; }
-keep class com.loopj.** { *; }
-dontwarn org.apache.http.**
-dontwarn android.net.**

#js.jarorg.mozilla.javascript.toolsswinggui
-dontwarn org.mozilla.javascript.tools.**

#WebViewJavascriptInterface
-keepclassmembers class com.fr.android.bi.script.IFJSJavaScriptInterface4BI {
    public *;
    @android.webkit.JavascriptInterface <methods>;
}
-keepclassmembers class * extends android.webkit.WebViewClient {
    public void *(android.webkit.WebView, java.lang.String, android.graphics.Bitmap);
    public boolean *(android.webkit.WebView, java.lang.String);
}
-keepclassmembers class * extends android.webkit.WebViewClient {
    public void *(android.webkit.webView, java.lang.String);
}

#
#,
-keep class com.baidu.** { *; }
-keep class vi.com.gdi.bgl.android.** { *; }
#
-keep class com.tencent.** { *; }
-keep public class * extends com.qq.taf.jce.JceStruct{*};

```

```
#js
-keep class org.mozilla.** { *; }
#
-keep class com.amap.** { *; }
-keep class com.autonavi.** { *; }
-keep class com.loc.** { *; }
#VPN
-keep class com.sangfor.** { *; }

#
-dontwarn com.baidu.**
#API
-dontwarn com.tencent.**
```