

MICROOH 麦可网

Android-从程序员到架构师之路

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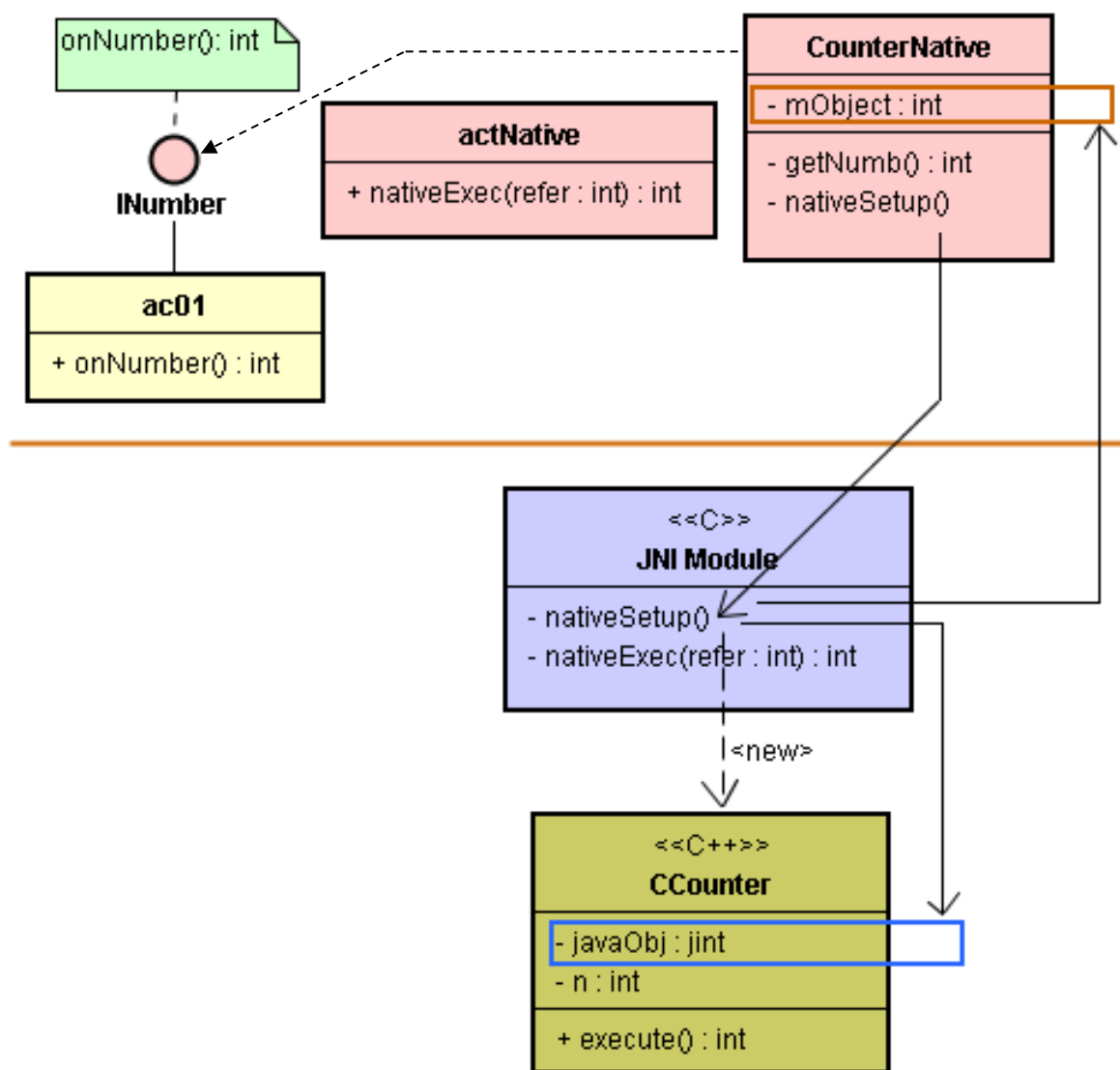
C04_e

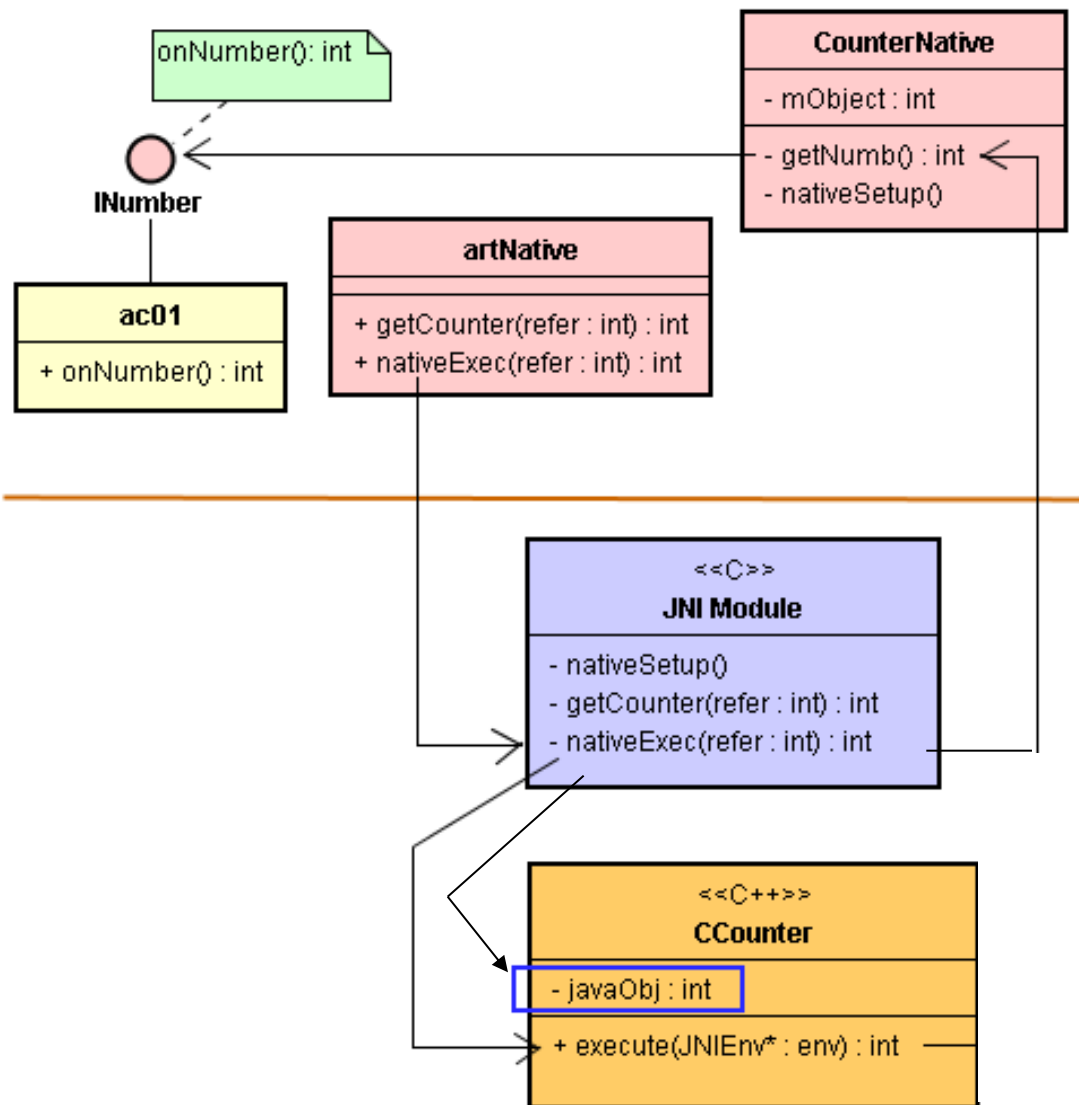
JNI：必要的优化设计(e)

By 高煥堂

结语

- 在此范例里，ac01类和actNative开发者知道CounterNative类的内涵，而且CounterNative的mObject必须public，才能取得co的指针。





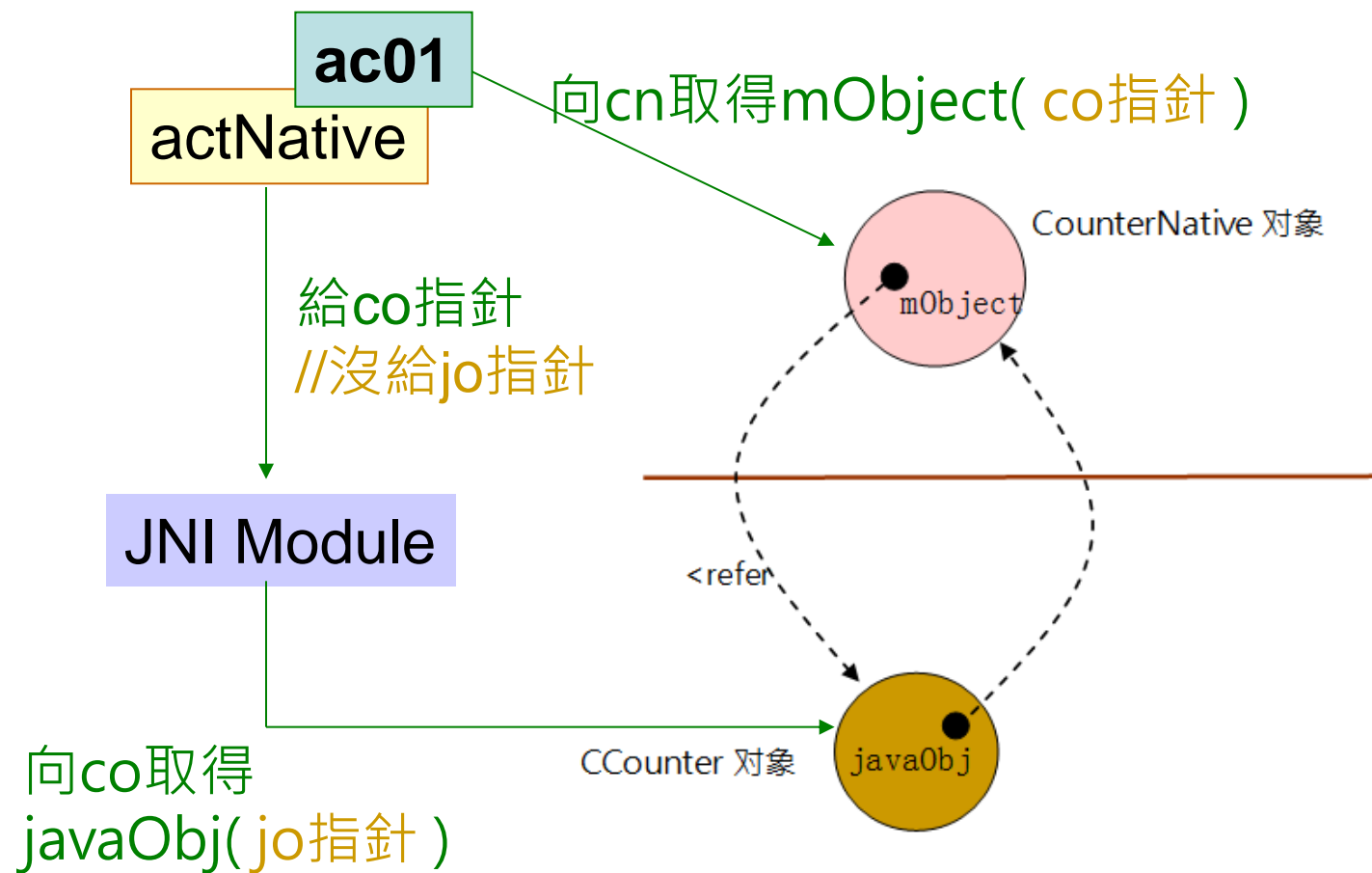
```
// ac01.java
// .....
public class ac01 extends Activity
                    implements OnClickListener, INumber {
    private CounterNative cn;

    @Override public void onCreate(Bundle savedInstanceState){
        //.....-
        cn = new CounterNative();
        cn.setOnNumber(this);
    }
}
```

```
@Override public void onClick(View v) {  
    int sum;  
    switch(v.getId()){  
        case 101:  
            sum = actNative.nativeExec( cn.mObject );  
            setTitle("Sum = " + sum);  
            break;  
        case 103:  
            finish();    break;  
    }  
}  
@Override public int onNumber() { return 17; }  
}
```

```
// CounterNative.java
package com.misoo.counter;
public class CounterNative {
    public int mObject;
    private INumber listener;

    static {
        System.loadLibrary("MyCounter8"); }
    public CounterNative()
        { nativeSetup(); }
    public void setOnNumber(INumber plis)
        { listener = plis; }
    private int getNumb()
        { return listener.onNumber(); }
    private native void nativeSetup();
}
```

- 如果CouterNative的mObject属性改为private时，ac01或actNative就拿不到mObject属性值了。
- 只能将cn指针传递给C函数。
- 此时，必须有个前置的预备动作(setup)了。

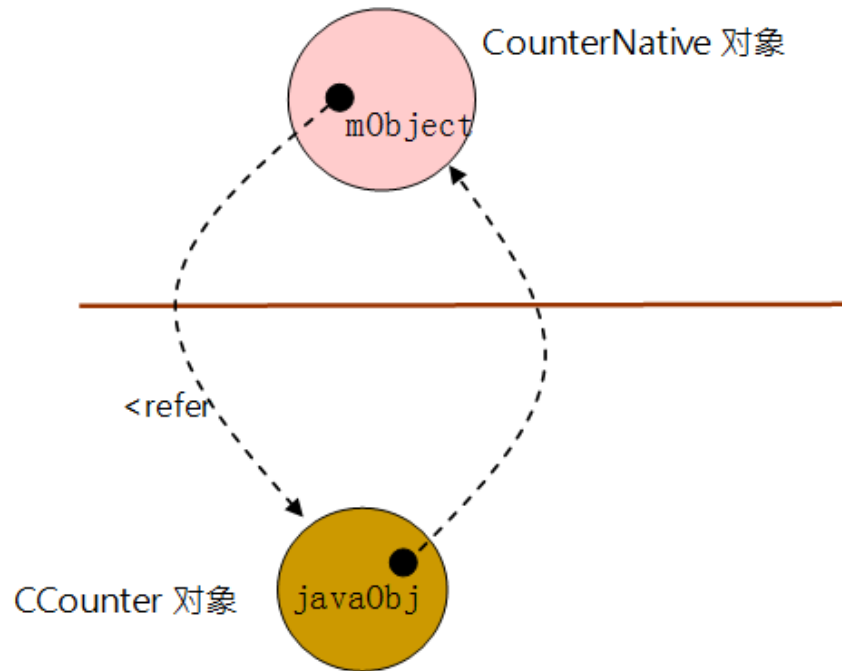
CounterNative

nativeSetup()
// 給cn指針

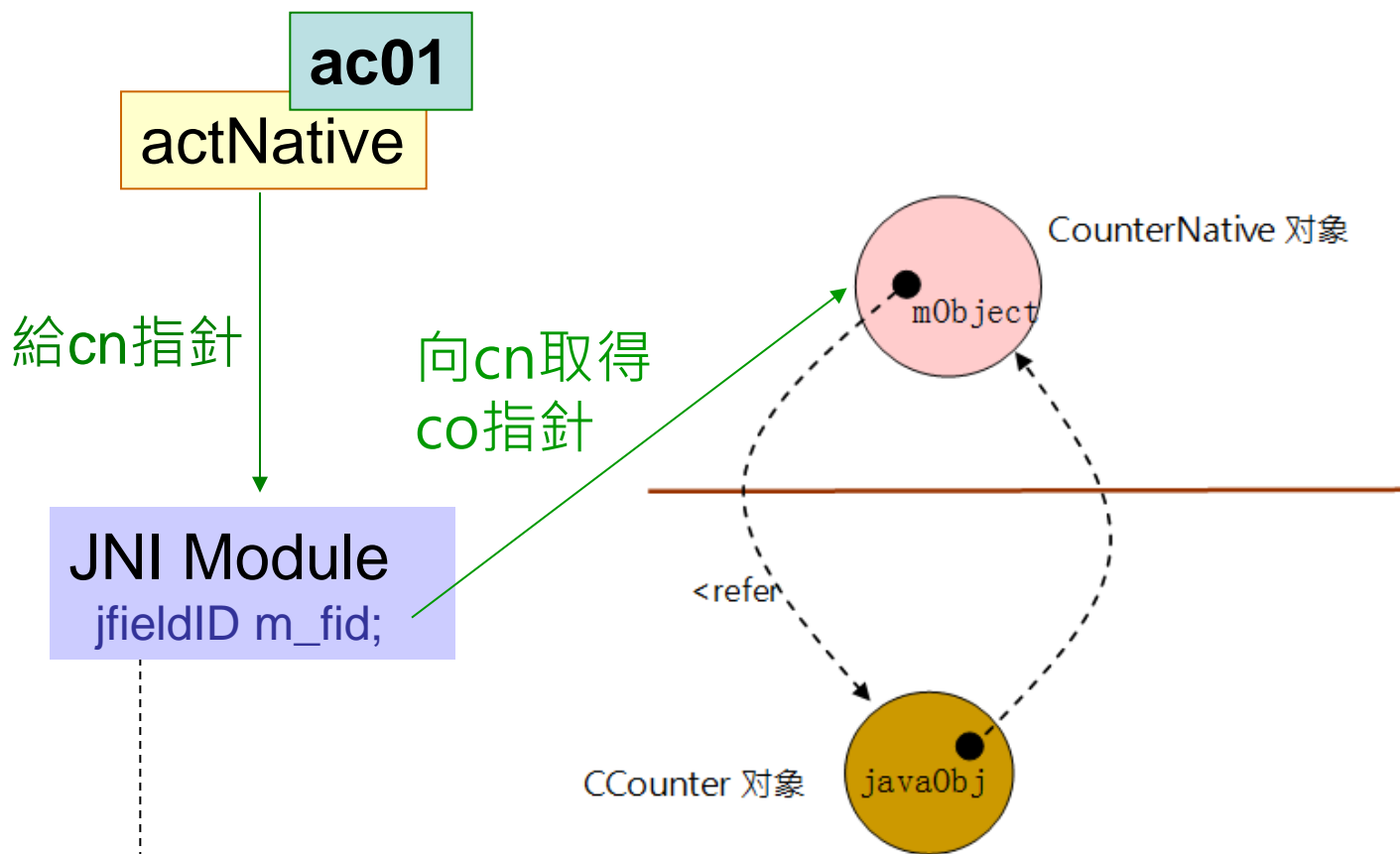
JNI Module
jfieldID m_fid;

nativeSetup()

```
jclass clazz = (jclass)env->GetObjectClass(thiz);  
jfieldID m_fid = env->GetFieldID( clazz,  
                                     "mObject", "I");
```



```
// ac01.java
// .....
@Override public void onClick(View v) {
    int sum;
    switch(v.getId()){
    case 101:
        sum = actNative.nativeExec( cn );
        setTitle("Sum = " + sum);
        break;
    case 103:
        finish(); break;
    }
}
@Override public int onNumber() { return 17; }
}
```



```
jlong co =  
(jlong)env->GetObjectField(cnObj, m_fid);
```

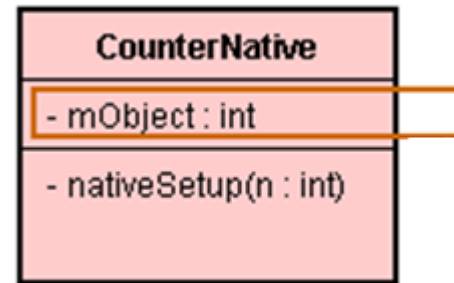
静态对静态

JNI Module

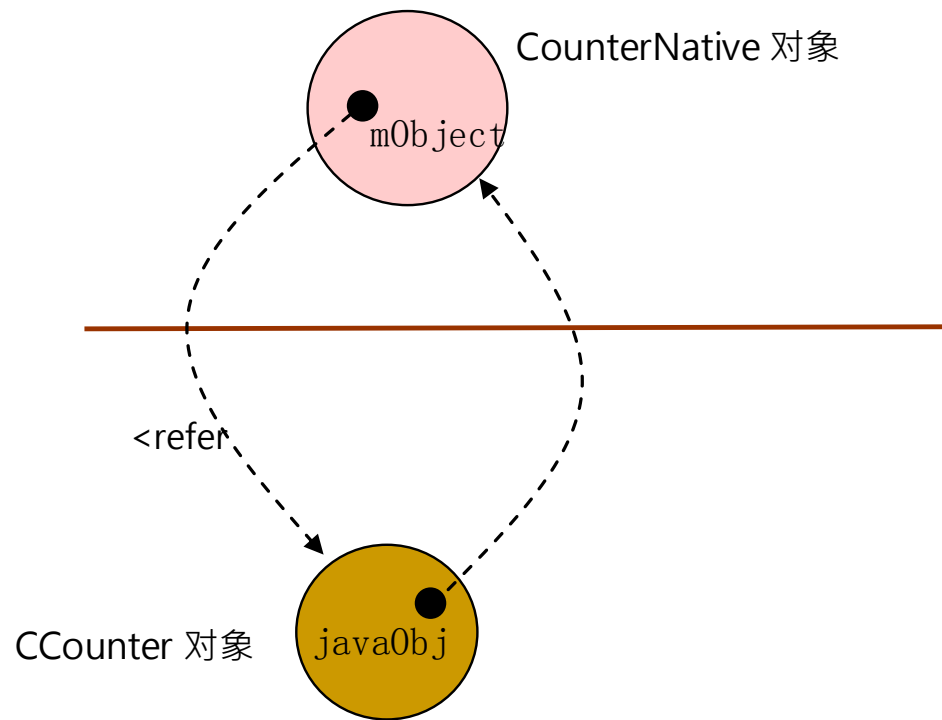
jfieldID m_fid;

nativeSetup()

```
jclass clazz = (jclass)env->GetObjectClass(this);  
jfieldID m_fid = env->GetFieldID( clazz,  
                                   "mObject", "I");
```



动态对动态



Thanks...



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