# Research on Packing of ios

* XCode Version: 14.0.1

# Packing

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| **Packing** |
| 1. **“Build->Standlone->iOS”** click the button.     2. Copy two frameworks(rocksdb.framework and secp256k1.framework) in the Sibling directory of **".xcodeproj"**. 2. Open the project with XCode,    1. Select a license and profile to project for the archive.    2. Distribute license is used to pack a .ipa file. 3. Make sure **Target->UnityFramework→Link Binary With Libraryies** have **libgrpc.a** and **libgrpc\_csharp\_ext.a**. (If don't have one, please add a static library of grpc. (**libgrpc.a**)) 4. Close the Bitcode of **Unity-iPhone** and **Unity Framework** in **Target->UnityFramewok→Build Options→Enable Bitcode (No)** 5. Make sure have added Framework to Project in **Target->Unity-iPhone→Build Phases→Embed Frameworks**.(Because it needs to be uploaded to TestFlight, it must pass its detection.)    1. Copy two frameworks to the sibling directory of .xcodeproj file.    2. **Target->Unity-iPhone→Build Phases→Embed Frameworks**.    4. Press "+" button to add framework    5. Press "Add Other..." to choose rocksdb.framework and secp256k1.framework. 6. Add **Key:*Application does not run in background* Value**: ***NO*** to the Info.plist. 7. Find **{Your .xcodeproj** path}→Classes→Native→GenericMethods7    1. Find function:   Unsafe\_Unbox\_TisIl2CppFullySharedGenericAny\_mF6CD1F81A0CA0414C3EA88A19A4BB220865E8182\_gshared   * 1. Cast the reture value(void\*) to (   Il2CppFullySharedGenericAny\* )      1. XCode→ Product→ Archive start archiving 2. Press Distribute App.     2. Ad Hoc: It can be used to install to your device that in the device list of "developer.apple.com"    3. App Store Connect 3. You don't need to rebuild from bitcode, it takes a long time. 4. Choose a profile for the app. 5. Export the "ipa" file. |

# Common Problems

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| **Problem** |
| 1. **Suppose the static library of grpc can not be linked correctly.** e.g. undefined symbol of "deflate".    1. **Error:**    3. Make sure the libgrpc.a linked in UnityFramework.    4. grpc\_csharp\_ext\_dummy\_stubs.c This file is used to avoid the link error, there is space realized of grpc. If the project doesn't call those functions, which is always right. 2. libgrpc\_csharp\_ext.a does not contain bitcode.    1. **Error**:    3. **Solution**: Disable the bitcode in UnityFramework->BuildSetting->BuildOption→Enable Bitcode→false. 3. libgrpc.a can not link correctly.    1. **Error:**    3. **Solution: Add libgrpc.a in UnityFramework Build Phases→Link Binary With Libraries. Add static library to this list.** 4. The profile**file is different in Signing&Capabilities and Build Settings**    1. **Error:**    3. **Solution: Make sure Signing&Capabilities and BuildSettings->Signing→Provisioning Profile has the same config.** 5. **Command Ld failed with a nonzero exit code.**     2. **Solution: Close the bitcode of Unity-iPhone.** |