



RecordKeep

Build Guide

Complete guide to building macOS and Android releases

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Business Management System



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Prerequisites: Make sure you have Flutter installed and configured on your Mac.

Step 1: Navigate to Project Root

1 Open Terminal

Press `Cmd + Space`, type "Terminal", and press Enter

2 Navigate to your project folder

```
# Replace with your actual project path  
cd /Users/neiljones/RecordKeep_AppBuild
```

3 Verify you're in the right location

```
ls
```

```
# You should see: lib/ android/ ios/ macos/ pubspec.yaml
```

Step 2: Clean Previous Builds

⚠️ Important: Always clean before building a release to avoid stale artifacts.

1 Run Flutter clean

```
flutter clean
```

```
# This removes all build artifacts and caches
```

Step 3: Install Dependencies

 **Note:** This step is REQUIRED before building. It downloads all packages your app needs.

1 Get Flutter packages

```
flutter pub get
```

```
# Downloads all dependencies from pubspec.yaml  
# Takes 10-30 seconds
```

 **Success:** You should see "Got dependencies!" message

Step 4: Build macOS Release

1 Build macOS app

```
flutter build macos --release
```

Builds optimized macOS app
Takes 2-5 minutes

2 Wait for completion

You'll see progress messages. Wait for "Built
build/macOS/Build/Products/Release/recordkeep.app"

 Your macOS app is located at:

`build/macOS/Build/Products/Release/recordkeep.app`

What you get:

- **Universal Binary:** Works on both Intel and Apple Silicon Macs
- **Size:** ~30-50 MB
- **Ready to distribute:** Just copy the .app file

 To open the build folder:

```
open build/macOS/Build/Products/Release
```



Step 5: Build Android APK

1 Build universal APK (recommended)

```
flutter build apk --release
```

Builds one APK that works on all Android devices
Takes 3-7 minutes



Your Android APK is located at:

`build/app/outputs/flutter-apk/app-release.apk`

Alternative: Build split APKs (smaller files)

Build separate APKs per CPU architecture

```
flutter build apk --split-per-abi --release
```

Creates 3 APKs (one per CPU type)



Split APKs output:

- `app-armeabi-v7a-release.apk` - 32-bit ARM (older phones)
- `app-arm64-v8a-release.apk` - 64-bit ARM (most modern phones)
- `app-x86_64-release.apk` - Intel/AMD (emulators)

 To open the APK folder:

```
open build/app/outputs/flutter-apk
```

Build Comparison

Build Type	Command	Output	Size
macOS	<code>flutter build macos</code>	1 universal .app	~30-50 MB
Android (Universal)	<code>flutter build apk</code>	1 APK (all devices)	~40-60 MB
Android (Split)	<code>flutter build apk --split-per-abi</code>	3 APKs (per CPU)	~15-20 MB each

⚡ Complete Build Workflow

🎯 Copy and paste this entire workflow:

Build Both macOS and Android:

```
# Navigate to project
cd /Users/neiljones/RecordKeep_AppBuild

# Clean previous builds
flutter clean

# Get dependencies
flutter pub get

# Build macOS
flutter build macos --release

# Build Android
flutter build apk --release

# Open output folders
open build/macos/Build/Products/Release
open build/app/outputs/flutter-apk
```



Troubleshooting

Problem: "Flutter command not found"

Solution: Flutter is not in your PATH. Run:

```
export PATH="$PATH:`pwd`/flutter/bin"
```

Problem: "No connected devices"

Solution: This is normal for release builds. The `--release` flag builds without needing a device.

Problem: Build fails with errors

Solution: Try these steps:

1. Run `flutter clean`
2. Delete `pubspec.lock`
3. Run `flutter pub get`
4. Try building again

Problem: macOS build says "Pods not found"

Solution: Install CocoaPods:

```
sudo gem install cocoapods
```

Pro Tips

- **Check build size:** `du -sh build/macos/Build/Products/Release/recordkeep.app`
- **Test the app:** Double-click the .app file to run it before distributing
- **Version control:** Never commit the `build/` folder to git
- **Clean regularly:** Run `flutter clean` before each release build
- **Build logs:** Add `-v` flag for verbose output: `flutter build macos -v`

macOS App:

- Zip the .app file: Right-click → Compress
- Share the .zip file
- Users: Unzip and drag to Applications folder

Android APK:

- Share the .apk file directly
- Users: Enable "Install from Unknown Sources" in Settings
- Users: Open the .apk file to install

 **Note:** For official distribution, you'll need:

- **macOS:** Apple Developer account + code signing
- **Android:** Google Play Console account + signed APK/AAB