

Тест-драйв SwiftUI



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Контур

Что установить?

Xcode 13, iOS 15+. (KMM)

Github repo: [konturmobile/MobileUpdateWorkshop](#)

branch: [step8/ios](#)

SwiftUI

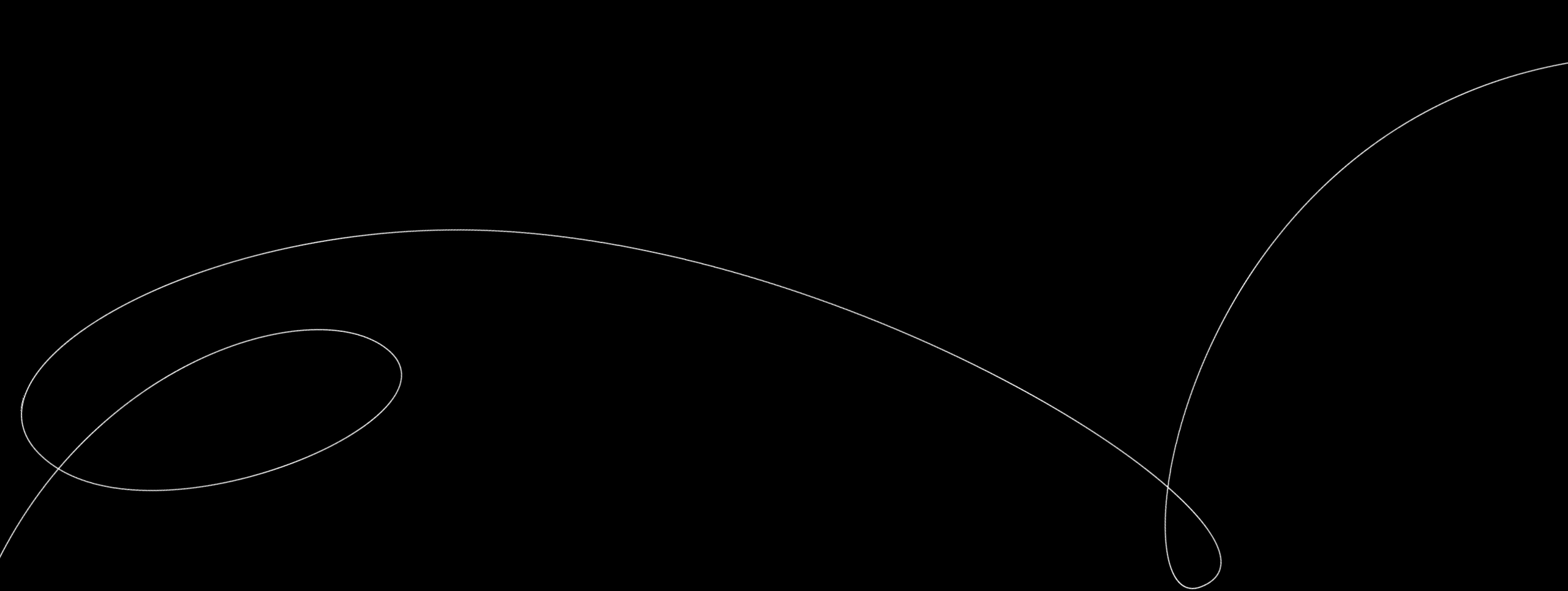
Views/Game/NonStarted/
PlayerEditView.swift

```
struct PlayerEditView: View {  
    @State var name: String = "Olympiad winner"  
    var body: some View {  
        VStack(alignment: .leading) {  
            HStack {  
                Text("Treasure Hunter")  
                    .foregroundColor(.red)  
                Spacer()  
                Button("🎲",  
                    action: { name = random() })  
                    .buttonStyle(.bordered)  
                    .controlSize(.mini)  
            }  
            TextField("Name", text: $name)  
                .textFieldStyle(.roundedBorder)  
        }  
    }  
}
```

Treasure Hunter



Olympiad winner



KMMM



Gradle 💕💕

Framework Integration

iosApp/iosApp.xcodeproj

```
// Build Phase Step before Compile Sources
```

```
./gradlew :shared:embedAndSignAppleFrameworkForXcode
```

```
// Build Settings
```

```
FRAMEWORK_SEARCH_PATHS = $(SRCROOT)/../shared/build/xcode-  
frameworks/$(CONFIGURATION)/$(SDK_NAME)
```

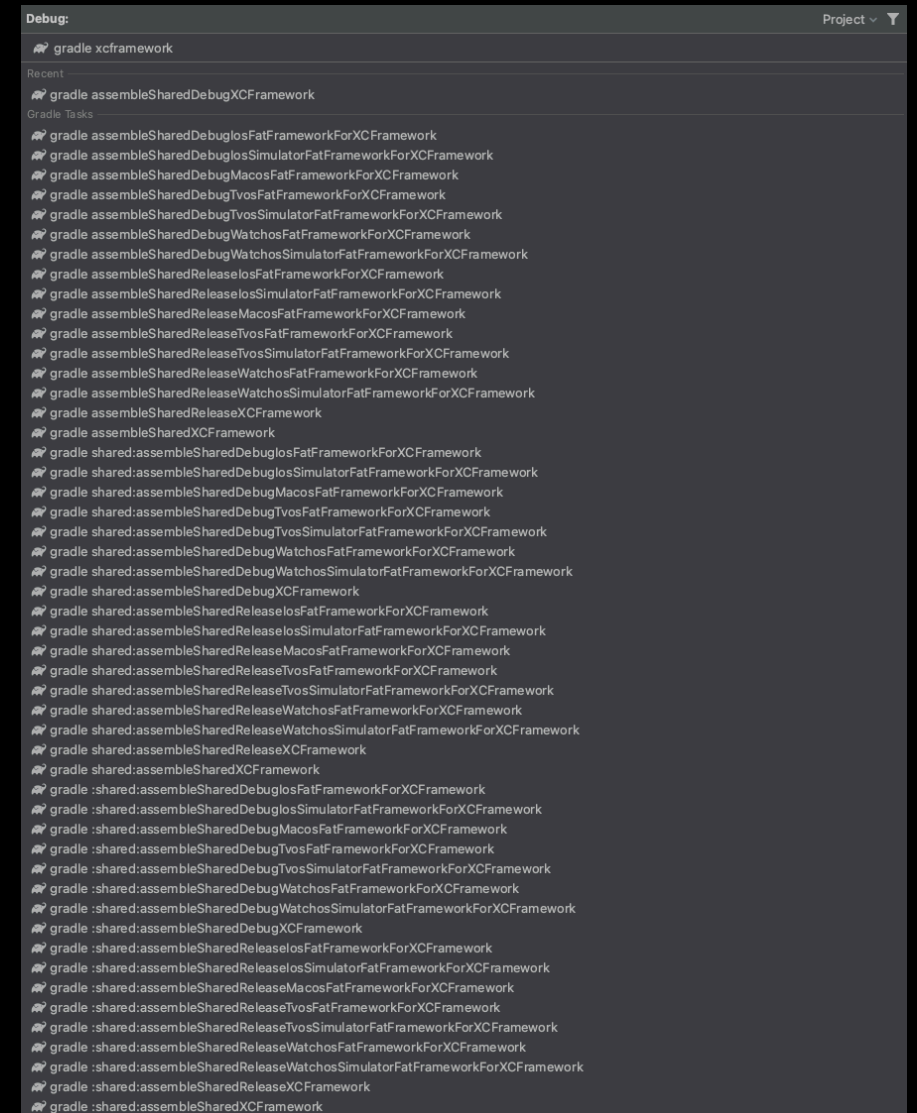

Framework Integration

Makefile

```
// XCFramework build commands
./gradlew assembleSharedDebugXCFramework
```

```
// then add *.xcframework to
// Frameworks, Libraries and
// Embedded Content
```

```
make xcf-debug // runs gradle + cp
```



Framework Integration

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```

```
// Build Settings
```

```
FRAMEWORK_SEARCH_PATHS = $(SRCROOT)/../shared/build/xcode-  
frameworks/$(CONFIGURATION)/$(SDK_NAME)
```


Coroutine flow

commonMain/kotlin/.../
MainScreenState.kt

```
class MainScreenState() {  
    private val coroutineScope =  
CoroutineScope(SupervisorJob() + Dispatchers.Main)  
  
    private val _state = MutableStateFlow(MainScreenState())  
    val state = _state.asStateFlow()  
  
    ...  
}
```

Coroutine flow

MainScreenStore().state: `Kotlinx_coroutines_coreStateFlow`

MainScreenStore().state.value: `Any?`

Coroutine flow

iosMain/kotlin/ru/kontur/kickerchamp/
CFlow.kt

```
fun interface Closeable {
    fun close()
}

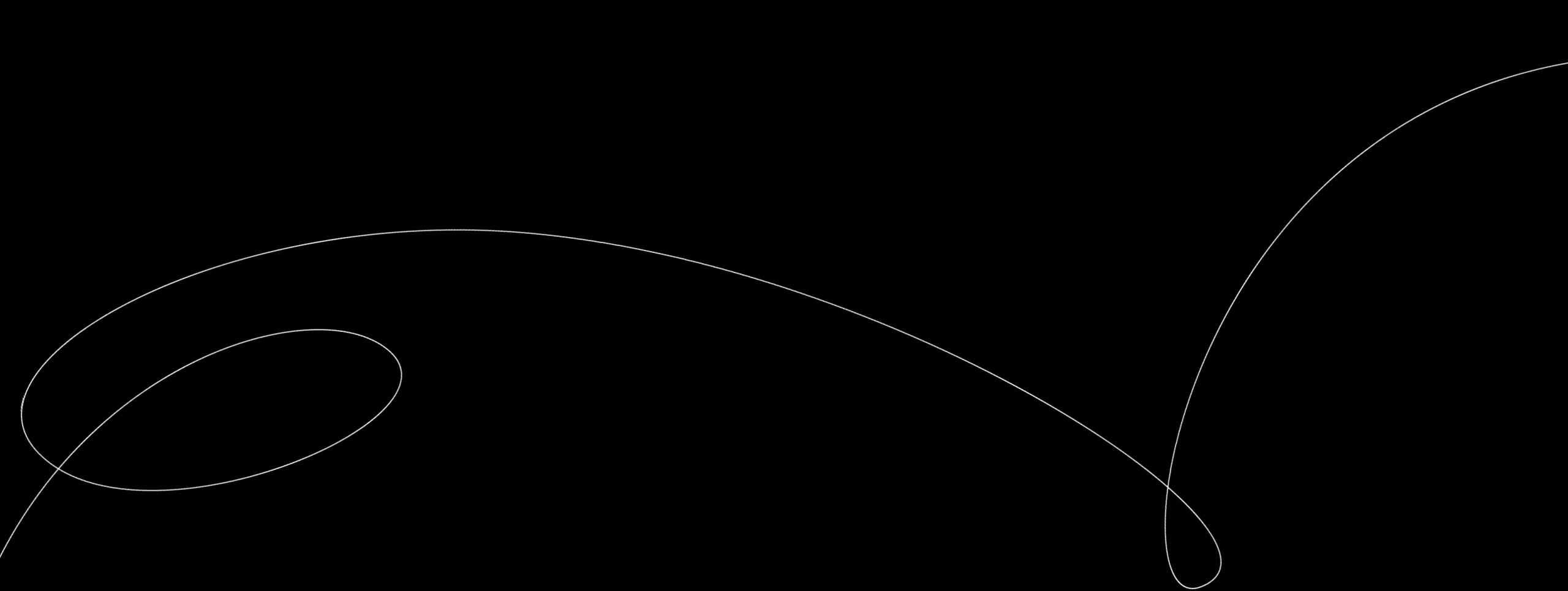
class CFlow<T: Any> internal constructor(private val origin: Flow<T>) :
    Flow<T> by origin {
    fun watch(block: (T) → Unit): Closeable {
        val job = Job()
        onEach { block(it) }.launchIn(CoroutineScope(Dispatchers.Main + job))
        return Closeable { job.cancel() }
    }
}

internal fun <T: Any> Flow<T>.wrap(): CFlow<T> = CFlow(this)
fun MainScreenStore.watchState() = state.wrap()
```

Coroutine flow

iosApp/iosApp/Model/
MainScreenStoreModel.swift

```
private var stateWatcher: Closeable?  
  
init() { subscribe() }  
  
deinit { stateWatcher?.close() }  
  
stateWatcher = store.watchState()  
    .watch { state: MainScreenState in }
```



Swift

Sealed class ≠ Enum

commonMain/.../
MainScreenState.kt

```
sealed class GameState {  
    data class NonStarted(  
        val isStartButtonEnabled: Boolean = false  
    ) : GameState()  
}
```

Sealed class ≠ Enum

commonMain/.../
MainScreenState.kt

// Obj-C code

```
class GameState {  
    class NonStarted: GameState {  
        let isStartButtonEnabled: Bool  
    }  
}
```


Sealed class ≠ Enum

iosApp/Model/
MainScreenState+Extensions.swift

```
enum MainGameState: Hashable {  
    case nonStarted(NonStarted); struct NonStarted: Hashable {  
        let isStartButtonEnabled: Bool  
    }  
    init(_ gameState: GameState) {  
        if let nonStarted = gameState as? GameState.NonStarted {  
            self = .nonStarted(.init(  
                isStartButtonEnabled: nonStarted.isStartButtonEnabled  
            ))  
        } else {  
            fatalError("Unknown sealed class instance \(gameState)")  
        }  
    }  
}
```



Демо

2:21

KickerChamp

Blue Team

Blue Defender

Name

Blue Forward

Name

Red Team

Red Defender

Name

Red Forward

Name

Start game

High Scores

2:21

Game ongoing

Blue Team

0

—

+

Red Team

0

—

+

2:21

Finished game

Blue wins!

Start new game

Revenge

High scores

2:21

< Finished game

#	Игрок	W	GD
1	X-Ray132	4	+30
2	Bravo89	4	+30
3	Charlie946	3	+29
4	Whiskey109	3	+29
5	India984	2	+20
6	Charlie166	2	+20
7	Foxtrot863	2	+20
8	India619	2	+20
9	India680	2	+18
10	Alfa402	2	+18
11	Charlie	2	+17
12	Oscar	2	+17
13	Romeo9	0	+10



Где почитать?

Документация Xcode! С проектами-примерами и туториалом.

WWDC видео про SwiftUI. Много хороших. Apple Developer app поможет.

Качественные блоги с начальными темами и быстрыми решениями. Гугли!

[objc.io](#) — книга Thinking in SwiftUI, видео.

[pointfree.co](#) — целый UDF фреймворк на Combine, видео.

Подробнее в README репозитория.

Спасибо за внимание!
Вопросы?

Контур

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