

COCOAHEADS PARIS

MAY 2021 (ONLINE EDITION)

SWIFT RESULT BUILDERS + FFMPEG

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FFMPEG

- ▶ Swiss army knife for video encoding and transformation
- ▶ Video compositing with `-filter_complex` option

```
ffmpeg -i "wwdc2020.mp4" -i "wwdc1990.mkv" -i "cocoaheads.png" -filter_complex  
"[0][1]overlay=1200.0:100.0[s0];[s0][2]overlay=1200.0:100.0[s1]" -map "[s3]"  
output.mp4
```

SWIFT RESULT BUILDERS

- ▶ Introduced with Swift 5.4
- ▶ Makes creating Domain Specific Languages easier
- ▶ Used in SwiftUI

@RESULTBUILDER

```
@resultBuilder
```

```
struct VideoComposer {  
    static func buildBlock(_ components: Component...) -> Component {  
        // implement here...  
    }  
}
```

```
func composeVideo(@VideoComposer _ content: () -> Component) -> Result {  
    // content() returns a root component.  
    // generate result here  
}
```

DEMO

RESOURCES

- ▶ Antoine van der Lee (AutoLayout)
 - ▶ <https://www.avanderlee.com/swift/result-builders/>
- ▶ Joshua Homann (NSAttributedString)
 - ▶ <https://github.com/joshuahomann/AttributedStringBuilder>
- ▶ David Roman (NSAttributedString)
 - ▶ <https://swiftpackageindex.com/davdroman/TextBuilder>
- ▶ John Sundell (HTML)
 - ▶ <https://github.com/JohnSundell/Plot>
- ▶ Jérémy Marchand (regex)
 - ▶ <https://swiftpackageindex.com/kodlian/SwiftRegexDSL>

QUESTIONS