Live Activities

Notifications that users *actually* enjoy.

Maxime de Chalendar
Swift Connection - 06/10/25 (dd/MM/yy)


Harajuku
Shibuya
Ebisu
San Francisco
Edmonton
SFO
YEG
9:59 PM
Arrives in 47m
12:59 AM
Now
Sunset
Dusk
5:50 PM
in 57m
8:12
10
20
Espresso
15s
35 MT
Picking up order
ETA 5:50
Dave
82 mmhg
5 min
45m left
ISS Flyover
in 15 min
7.2 mmol/L
↓ 2.2
1PM
2PM
NOW
Meter Remaining 1:37
Drop off in
Mic
24:15
1.8MI
STATUS
Out for delivery
ETA
15-30 min
Lap 5
Lap 4 1:16:36
Lap 3 1:17:24
Lap 2 1:18:15
Sector 2
87
7.2

Get started

Get started

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ActivityKit

Get started

ActivityKit

WidgetKit

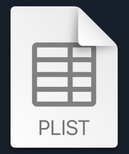
Set up your project

Set up your project

Info.plist

```
NSSupportsLiveActivities YES
```

Set up your project



Info.plist

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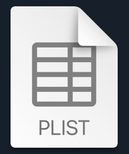
Push notifications capability

Set up your project



Info.plist

```
NSSupportsLiveActivities YES
```

Push notifications capability

Widget Extension Target

ActivityKit

Define your Activity

```
struct ConferencePlanningAttributes: ActivityAttributes {

    let name: String

    struct ContentState: Codable, Hashable {
        let activeTalk: String
        let upcomingTalk: String
        let upcomingTalkStart: Date
    }

}
```

Define your Activity

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```

Define your Activity

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struct ConferencePlanningAttributes: ActivityAttributes {

    let name: String

    struct ContentState: Codable, Hashable {
        let activeTalk: String
        let upcomingTalk: String
        let upcomingTalkStart: Date?
    }

}
```

Locally

Locally

```
let swiftConnection = ConferencePlanningAttributes(
    name: "Swift Connection"
)

let initialState = ConferencePlanningAttributes.ContentState(
    activeTalk: "Live Activities",
    upcomingTalk: "Swift on Linux on Mac",
    upcomingTalkStart: Date(timeIntervalSinceNow: 15 * 60)
)

let activity = try Activity.request(
    attributes: swiftConnection,
    content: .init(state: initialState, staleDate: nil)
)
```

Locally

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let swiftConnection = ConferencePlanningAttributes(
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let activity = try Activity.request(
    attributes: swiftConnection,
    content: .init(state: initialState, staleDate: nil)
)
```

Locally

```
let updatedState = ConferencePlanningAttributes.ContentState(
    activeTalk: "Swift on Linux on Mac",
    upcomingTalk: "🧀🍷 Swift Connection Party",
    upcomingTalkStart: Date(timeIntervalSinceNow: 15 * 60)
)

await activity.update(
    .init(state: updatedState, staleDate: nil),
    alertConfiguration: nil
)

await activity.end(
    …
)
```

Locally

```
let updatedState = ConferencePlanningAttributes.ContentState(
    activeTalk: "Swift on Linux on Mac",
    upcomingTalk: "🧀🍷 Swift Connection Party",
    upcomingTalkStart: Date(timeIntervalSinceNow: 15 * 60)
)

await activity.update(
    …
)

await activity.end(
    .init(state: finalState, staleDate: nil),
    dismissalPolicy: .default
)
```

```
typealias CPActivity = Activity<ConferencePlanningAttributes>
```

Remotely

Remotely

```
let tokenUpdates = CPActivity.pushToStartTokenUpdates

for await token in tokenUpdates {
    await sendPushToStartTokenToServer(token)
}
```

```
for await token in activity.pushTokenUpdates {
    await sendPushTokenToServer(token)
}
```

Remotely

```
let tokenUpdates = CPActivity.pushToStartTokenUpdates

for await token in tokenUpdates {
    await sendPushToStartTokenToServer(token)
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```

```
for await token in activity.pushTokenUpdates {
    await sendPushTokenToServer(token)
}
```

WidgetKit

Setup the Widget

```
struct ConferencePlanningLiveActivity: Widget {

    var body: some WidgetConfiguration {
        ActivityConfiguration(
            for: ConferencePlanningAttributes.self,
            content: { context in
                // Lock Screen UI
            },
            dynamicIsland: { context in
                // Dynamic Island UI
            }
        )
    }
}
```

Setup the Widget

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Setup the Widget

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                // Lock Screen UI
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            dynamicIsland: { context in
                // Dynamic Island UI
            }
        )
    }
}
```
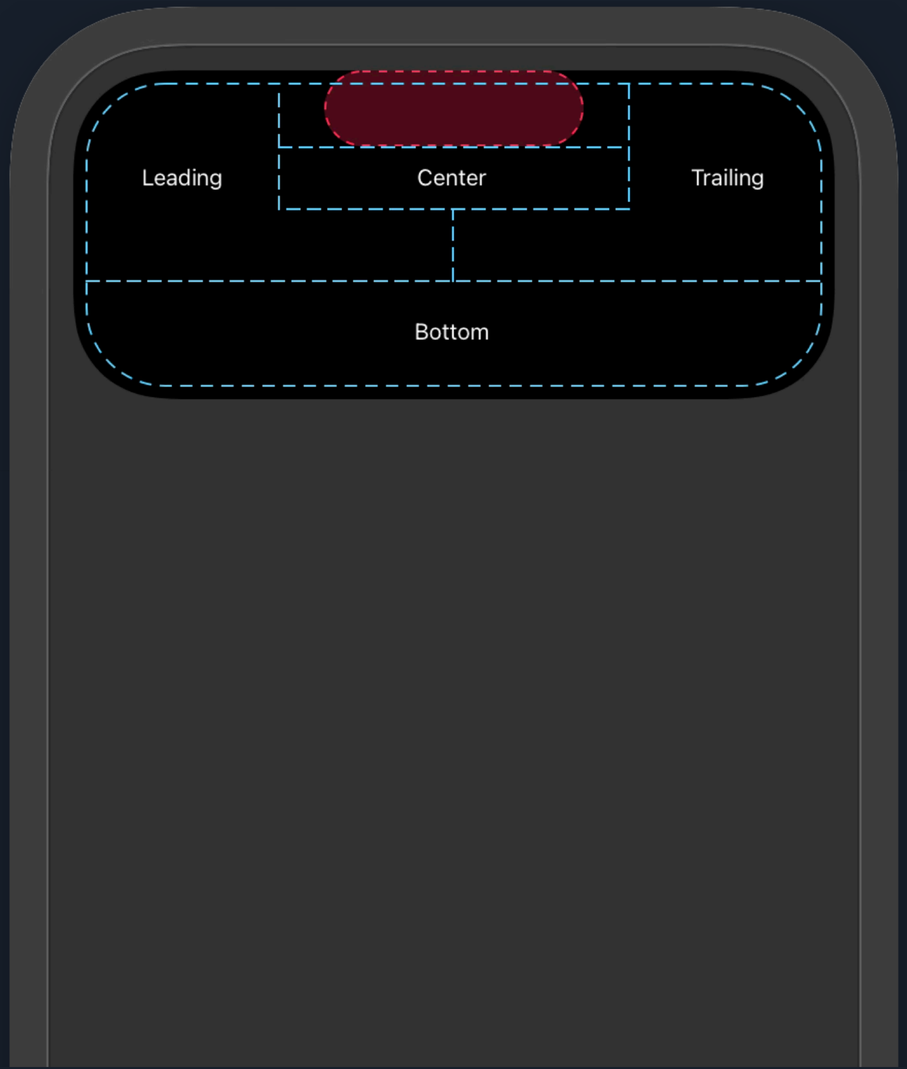
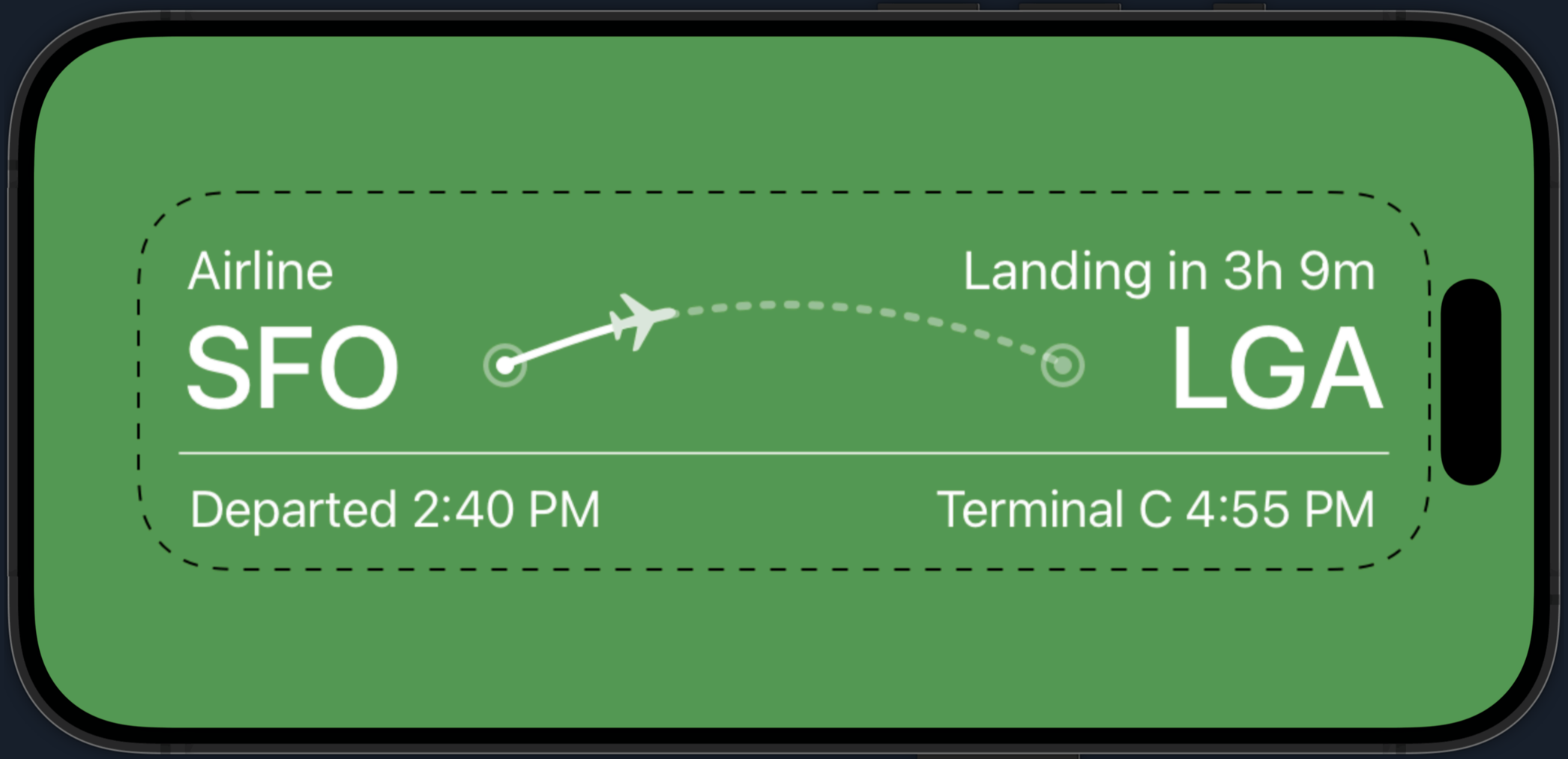

Dynamic Island

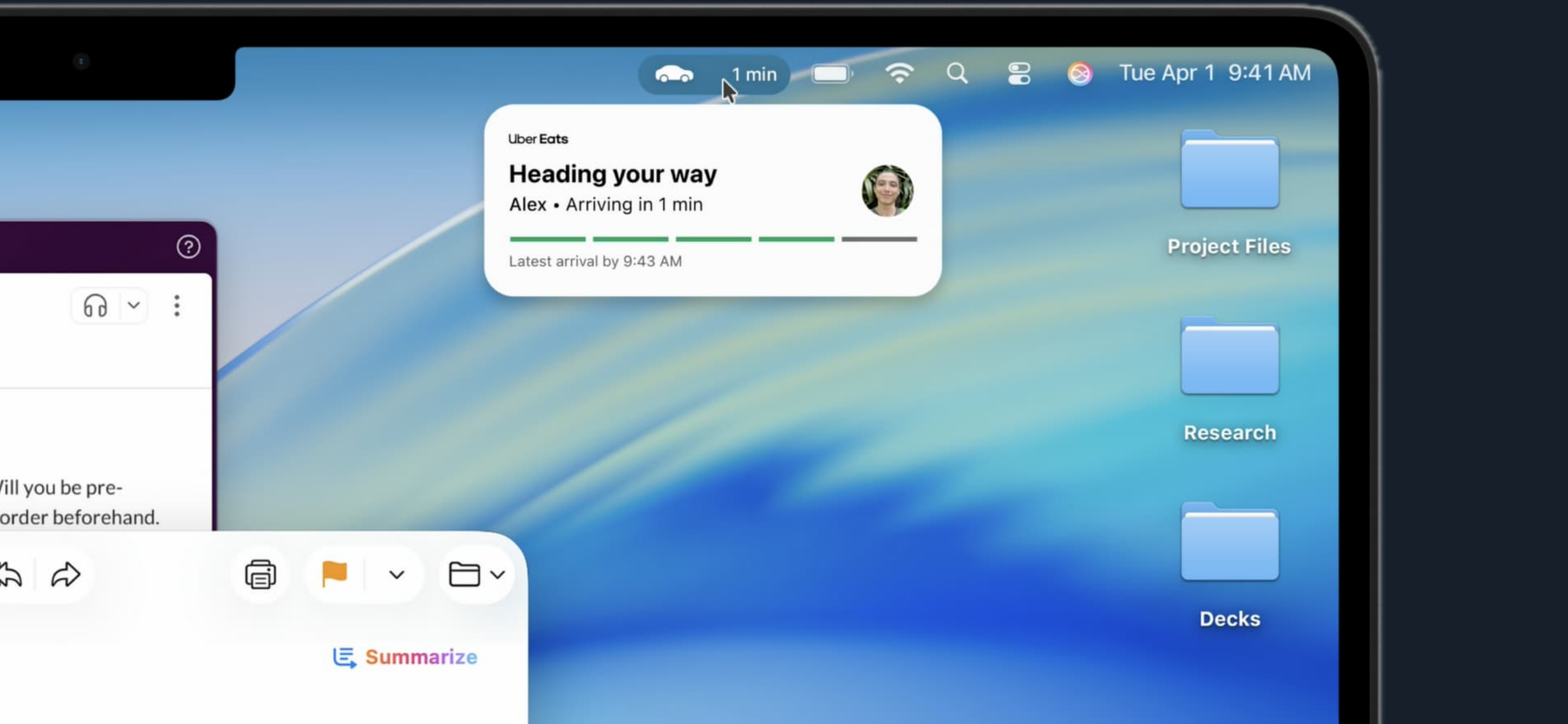

```
DynamicIsland(
    expanded: { },
    compactLeading: { },
    compactTrailing: { },
    minimal: { }
)
```

Dynamic Island




```
expanded: {

    DynamicIslandExpandedRegion(.leading) { }

    DynamicIslandExpandedRegion(.center) { }

    DynamicIslandExpandedRegion(.trailing) { }

    DynamicIslandExpandedRegion(.bottom) { }

}
```


Airline
SFO
Landing in 3h 9m
LGA
Departed 2:40 PM
Terminal C 4:55 PM


1 min
Tue Apr 1 9:41 AM
Uber Eats
Heading your way
Alex • Arriving in 1 min
Latest arrival by 9:43 AM
Project Files
Research
Decks
ill you be pre-
order beforehand.
Summarize


9:41
50°
9:41
5G
0.5 mi
Arrive at Apple Park
9:44 arrival 3 min 0.5 mi
JFK
7:05AM
ARRIVES IN
10m
SJC
9:51AM
OFF
AUTO
MAX
REAR
A/C
OFF


MON
JUN
10
Uber
Arriving
Now
3XEW0P4
8HW
I DAN
TIAW
112IPN

Troubleshooting

Troubleshooting

```
#Preview(
    as: .dynamicIsland(.expanded),
    using: ConferencePlanningAttributes(name: "Swift Connection"),
    widget: ConferencePlanningLiveActivity.init,
    contentStates: { /* [ConferencePlanningAttributes.ContentState] */ }
)
```

Troubleshooting

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- Use `OSLog` and macOS's `Console`
  - `liveactivitiesd`, `springboardd`, `apnd`

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- Enable frequent updates
  - `NSSupportsLiveActivitiesFrequentUpdates` `YES`

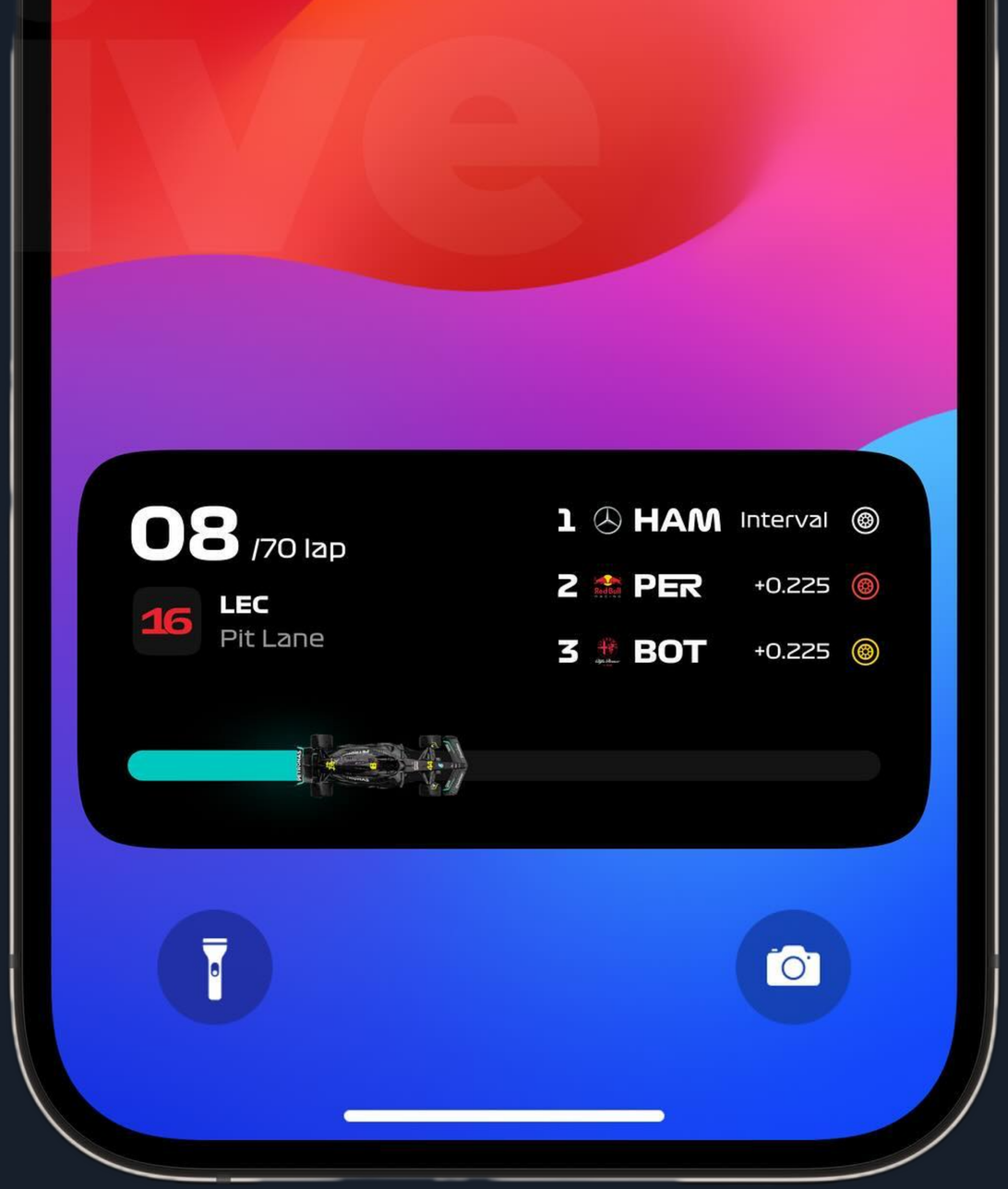
Troubleshooting

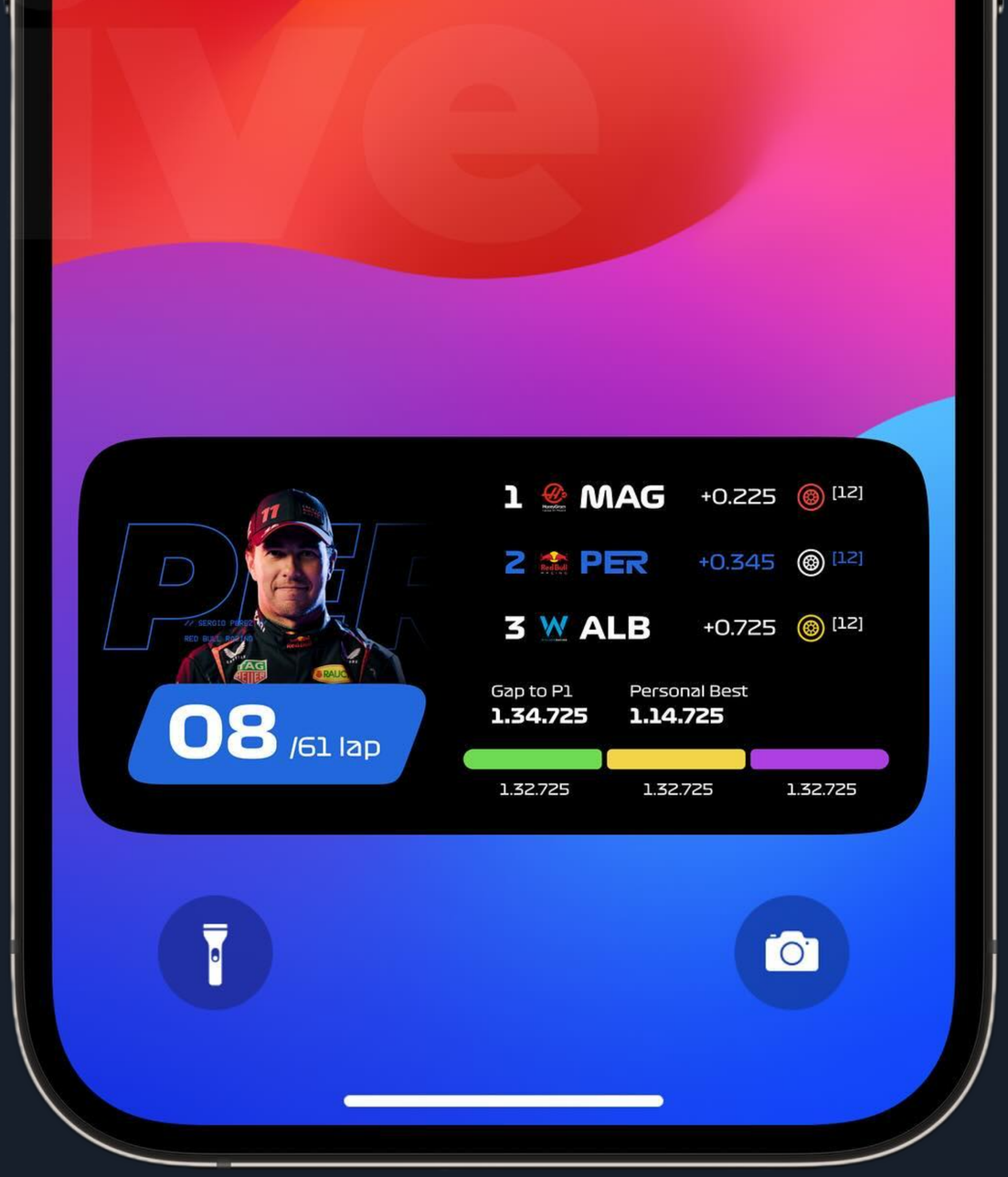
- Use `OSLog` and macOS's `Console`
  - `liveactivitiesd, springboardd, apnd`

- Enable frequent updates
  - `NSSupportsLiveActivitiesFrequentUpdates YES`

- Add your LiveActivityWidget to your WidgetBundle

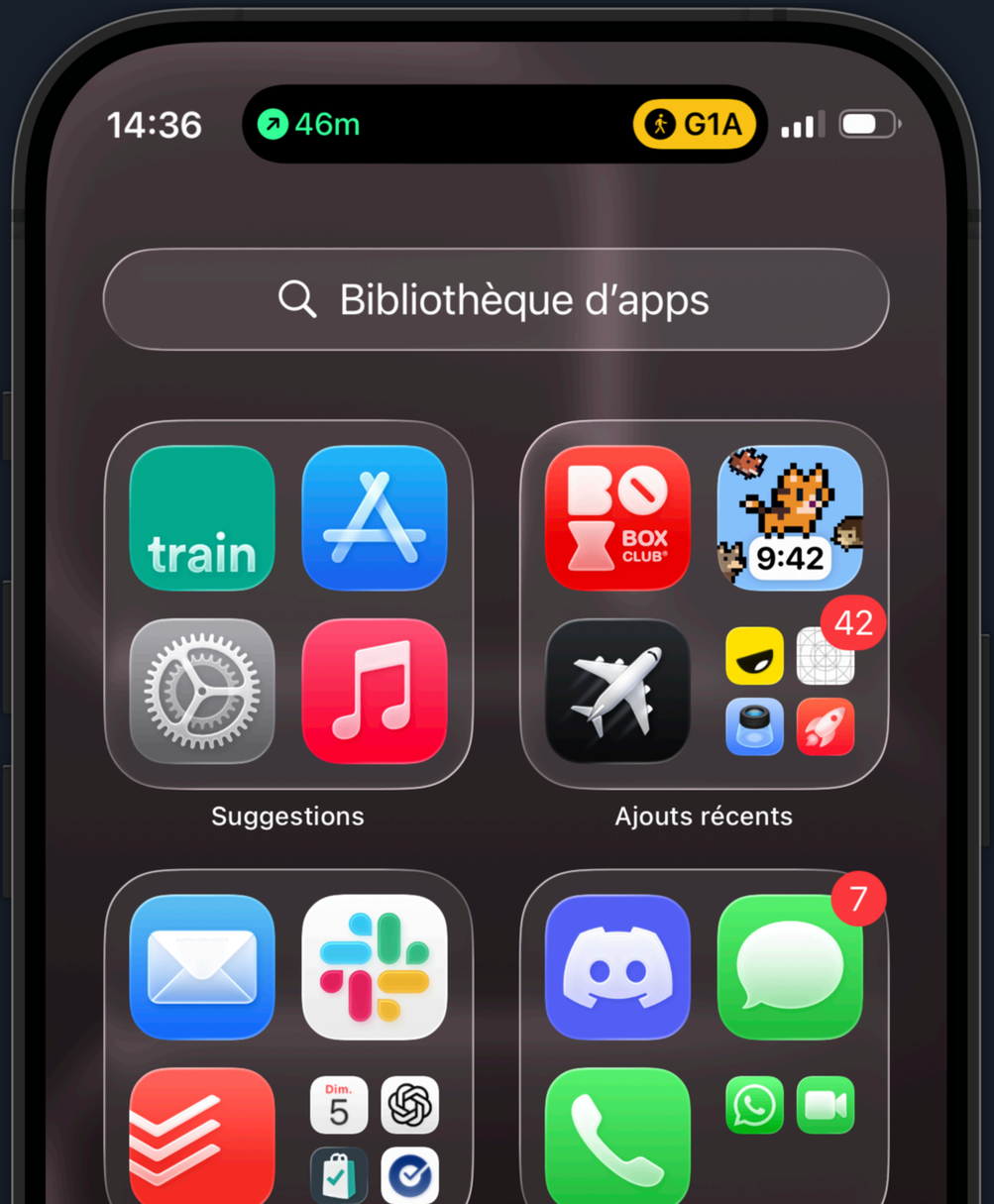
Why, When ?





Box Box Club: Formula Widgets

Flighty - Live Flight Tracker



Pixel Pals Widget Pet Game

Thank you!

Apple - WWDC23 Meet ActivityKit - ActivityKit documentation

Apple - WWDC23 - Design dynamic live activities - Human interface guidelines (**really** worth a read)

Alice Milo - Understanding Live Activities: visual micro-storytelling

TIL With Mohammad - Live activities - The missing doc (oh yeah you'll need this)

Me, myself and I - Sample code