What’s New in watchOS

Session 205

Ian Parks, watchOS Engineering
watchOS 4
High Intensity Interval Training
OPEN GOAL
DOCK ORDERING

Recents

Favorites

Choose the apps you want to appear in the Dock, and how they are ordered.

FAVORITES

- Activity
- Timer
- Workout
- Calendar
- Music
- Reminders
- Stocks
- Home
- Messages
UI Flexibility
UI Flexibility

Performance
UI Flexibility
Performance
Background Processing
UI Flexibility
KidFit

10:09

Playground Shenanigans
Running, Climbing, Core

Hide & Seek
Running

Tag
Running
Turn Digital Crown to unlock and eject water
// Enable Water Lock

@IBAction func waterlockButtonPressed() {
    WKExtension.shared().enableWaterLock()
}

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@IBAction func waterlockButtonPressed() {
    WKExtension.shared().enableWaterLock()
}

Parenting Win!
Parenting Win!
// Enable Autorotate

override func willActivate() {
    WKExtension.shared().isAutorotating = true
}

/ Enable Autorotate

override func willActivate() {
    WKExtension.shared().isAutorotating = true
}

Double espresso, black, no sugar. Thank you.
Parenting Win!
Parenting Win!
// Vertical Paging Interface

func loadWorkout(workoutType: String) {
    WKInterfaceController.reloadRootPageControllers(
        withNames: ["workoutAchievement", "workoutSummary"],
        contexts: nil,
        orientation: .vertical,
        pageIndex: 0)
}
// Vertical Paging Interface

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        withNames: ["workoutAchievement", "workoutSummary"],
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}
// Scroll Position Callbacks and Setting Scroll Position

func interfaceOffsetDidScrollToBottom()
func interfaceOffsetDidScrollToTop()
func interfaceDidScrollToTop()

func scroll(to: WKInterfaceObject,
at: WKInterfaceScrollPosition,
animated: Bool)
// Scroll Position Callbacks and Setting Scroll Position

```swift
func interfaceOffsetDidScrollToBottom()
func interfaceOffsetDidScrollToTop()
func interfaceDidScrollToTop()

func scroll(to: WKInterfaceObject,
at: WKInterfaceScrollPosition,
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func scroll(to: WKInterfaceObject,
at: WKInterfaceScrollPosition,
animated: Bool)
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Planning a Great Apple Watch Experience

Grand Ballroom B

Thursday 5:10PM
Performance
Extension Process

App Process

Extension Process
System

App Process

UI Elements

Method Calls

Code
Background Processing
Workout Background Mode
Workout Background Mode

Hardware pause/resume
Workout Background Mode

Hardware pause/resume

Workout segments
Workout Background Mode

Hardware pause/resume

Workout segments

Workout routes
Workout Background Mode

Hardware pause/resume

Workout segments

Workout routes

What’s New in Health
Grand Ballroom B
Wednesday 5:10PM
Location Background Mode
Location Background Mode

Appears on wrist raise
Location Background Mode

Appears on wrist raise

Audio and haptics from background
Location Background Mode

Appears on wrist raise

Audio and haptics from background

Supports enabling water lock mode
Location Background Mode

Appears on wrist raise

Audio and haptics from background

Supports enabling water lock mode

CPU limited
Location Background Mode

Appears on wrist raise
Audio and haptics from background
Supports enabling water lock mode
CPU limited
Start from foreground
Location Background Mode

Appears on wrist raise

Audio and haptics from background

Supports enabling water lock mode

CPU limited

Start from foreground
In-line Audio Recording and Background Mode
In-line Audio Recording and Background Mode
In-line Audio Recording and Background Mode

Custom recording controls
In-line Audio Recording and Background Mode

Custom recording controls
In-line processing
In-line Audio Recording and Background Mode

Custom recording controls

In-line processing

Background recording
In-line Audio Recording and Background Mode

Appears on wrist raise

CPU limited

Start from foreground
In-line Audio Recording and Background Mode

Appears on wrist raise

CPU limited

Start from foreground
Core Bluetooth
Core Bluetooth

Limited to two peripherals
Core Bluetooth

Limited to two peripherals

Central support only
Core Bluetooth

Limited to two peripherals

Central support only

Minimum connection interval of 30ms foreground (120ms background)
Core Bluetooth

Limited to two peripherals

Central support only

Minimum connection interval of 30ms foreground (120ms background)

Background running apps can only connect (not scan)
Core Bluetooth

- Limited to two peripherals
- Central support only
- Minimum connection interval of 30ms foreground (120ms background)
- Background running apps can only connect (not scan)
- Peripherals disconnect when app is suspended
Core Bluetooth

Limited to two peripherals

Central support only

Minimum connection interval of 30ms foreground (120ms background)

Background running apps can only connect (not scan)

Peripherals disconnect when app is suspended
Frontmost App State
Frontmost App State
Frontmost App State

Extended frontmost time
//Enable Extended Frontmost

override func willActivate() {
    WKExtension.shared().isFrontmostTimeoutExtended = true
}

//Enable Extended Frontmost

override func willActivate() {
    WKExtension.shared().isFrontmostTimeoutExtended = true
}

Shopping list

- Flour
- Baking powder
- Salt
- Eggs
Frontmost App State

Extend runtime
Frontmost App State

Extend runtime

URLSession
Frontmost App State

Extend runtime

URLSession

WatchConnectivity
Frontmost App State

Extend runtime

URLSession

WatchConnectivity

Haptic playback
Frontmost App State

Extend runtime

URLSession

WatchConnectivity

Haptic playback

Notification handling
Summary

UI Flexibility
Summary

UI Flexibility
UI Flexibility
Summary

- New background modes
- Core Bluetooth
- Frontmost app state
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