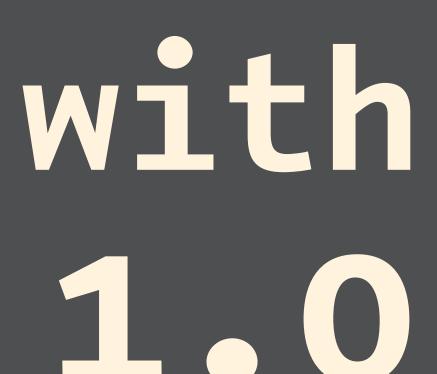
- Notifications Off
- Phone silenced and in DND mode
- Check presenter notes
- Start screen capture

# Developing with WatchKit 1.0



Developing with WatchKit 1.0 Curt Clifton, The Omni Group

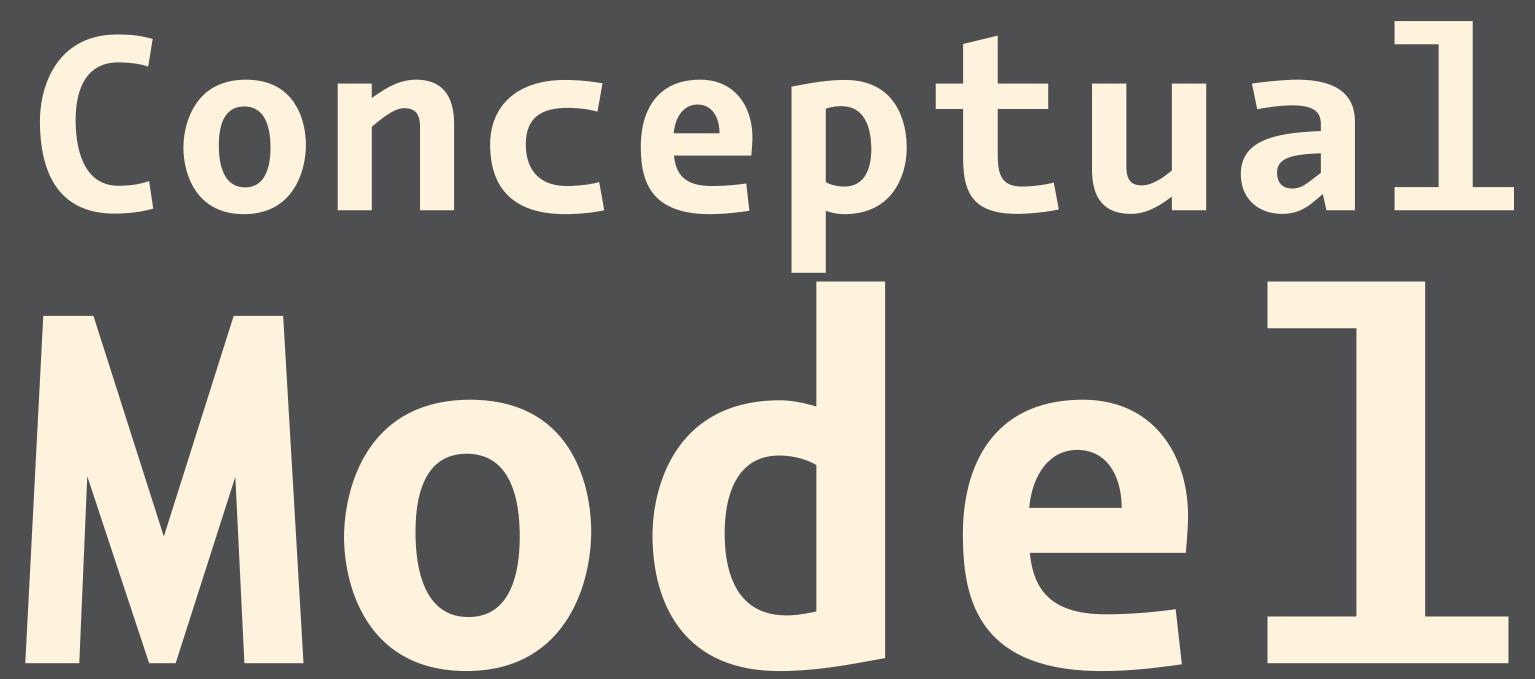
@curtclifton curtclifton.net

### Outline

- Conceptual model
- Sample app
- Syncing data with #Watch
- Some challenges
- Other resources
- Wish list

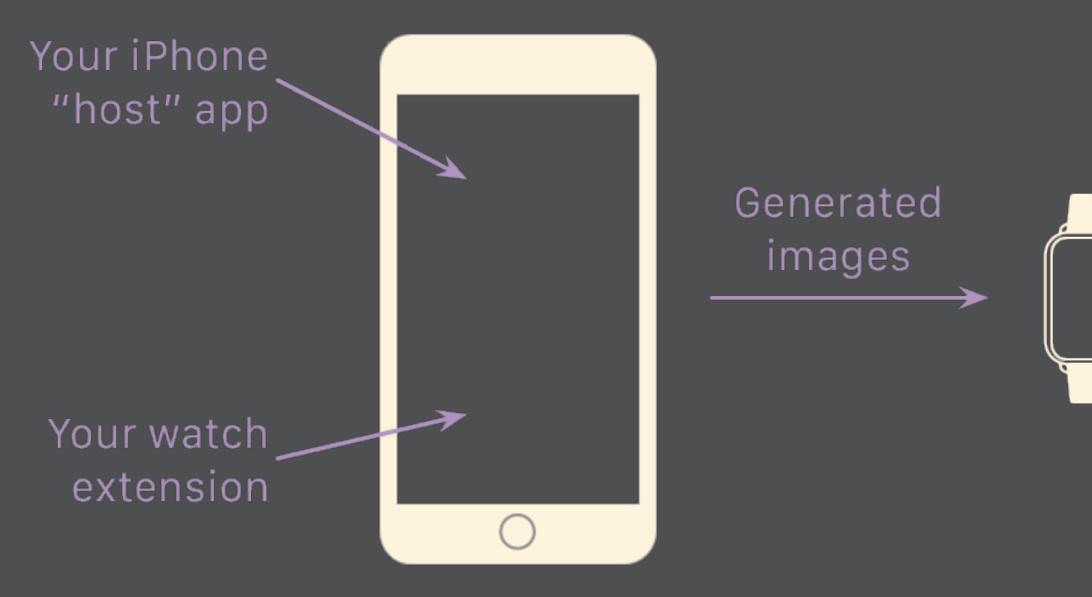
Curt Clifton—The Omni Group. Jan 8, 2015, Seattle Xcoders

4



## In WatchKit 1.0 your code runs in an extension on the iPhone.

## In WatchKit 1.0 your code runs in an extension on the iPhone.



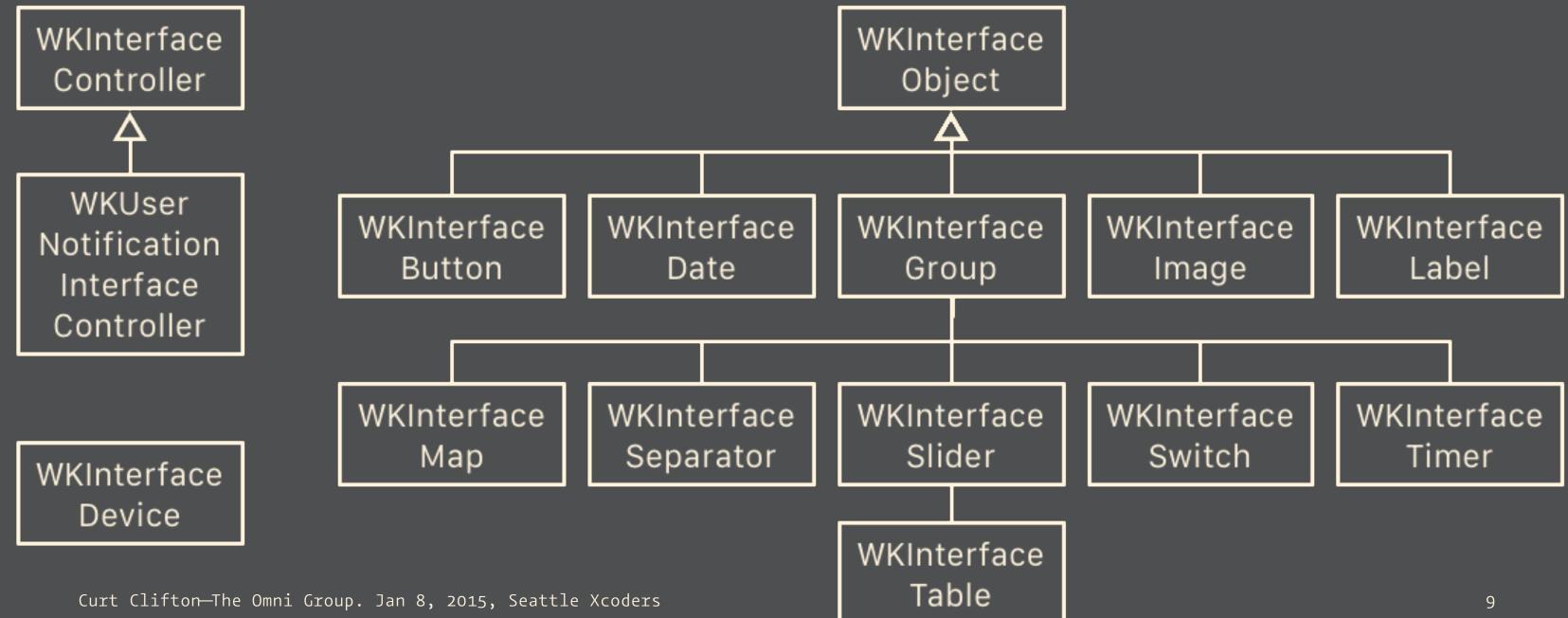
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### Only Apple's code! (for now?)

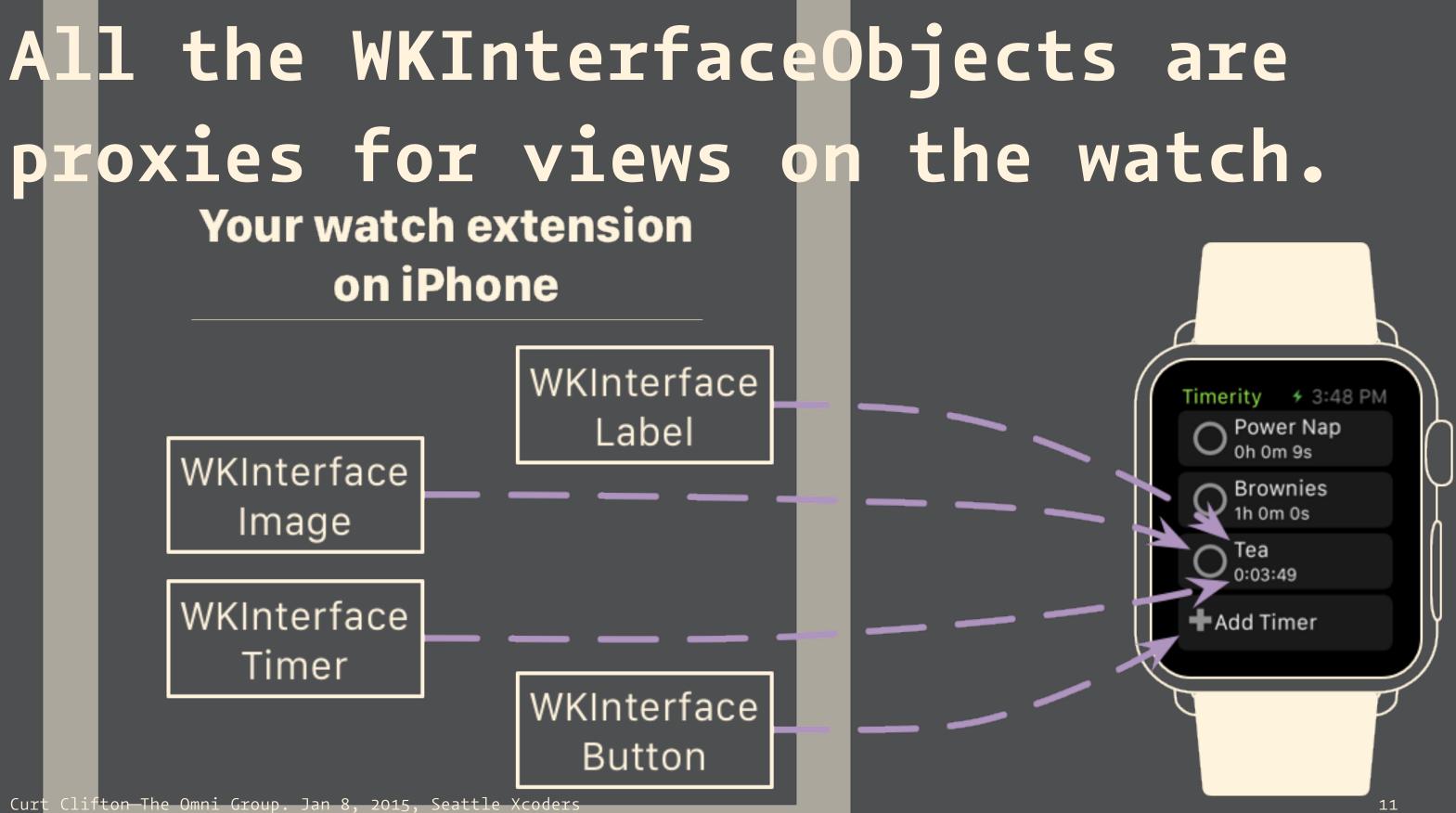
Your image assets & compiled storyboard

## All the WatchKit classes fit on one slide that you can read.

## All the WatchKit classes fit on one slide that you can read.



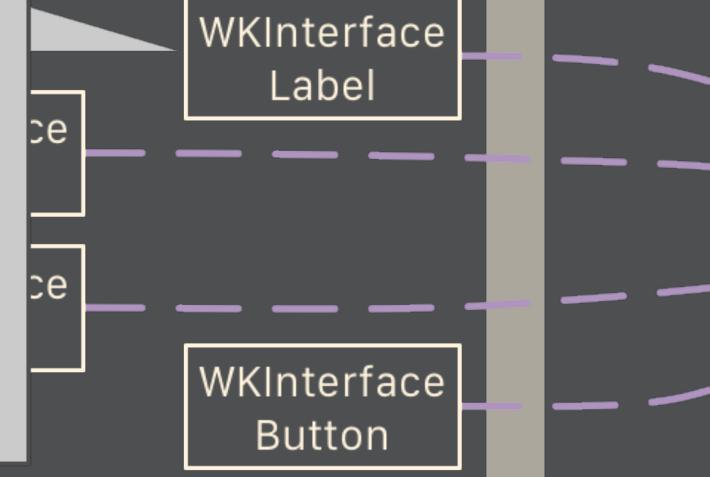
# All the WKInterfaceObjects are proxies for views on the watch.



## All the WKInterfaceObjects are proxies for views on the watch. Your watch extension on iPhone

interfaceProperty

- -setHidden:
- -setAlpha:
- -setWidth:
- -setHeight:
- -setAccessibility...:
- -setText:
- -setTextColor:
  -setAttributedText:





## Conceptual Model

- In WatchKit 1.0 your code runs in an extension on the iPhone.
- All the WKInterfaceObjects are proxies for views on the watch.











Your watch extension is a separate process from your iPhone app; you just signed up for data syncing.

Watch apps die easily; network operations are right out.<sup>1</sup>

<sup>1</sup> Monty Python and the Holy Grail

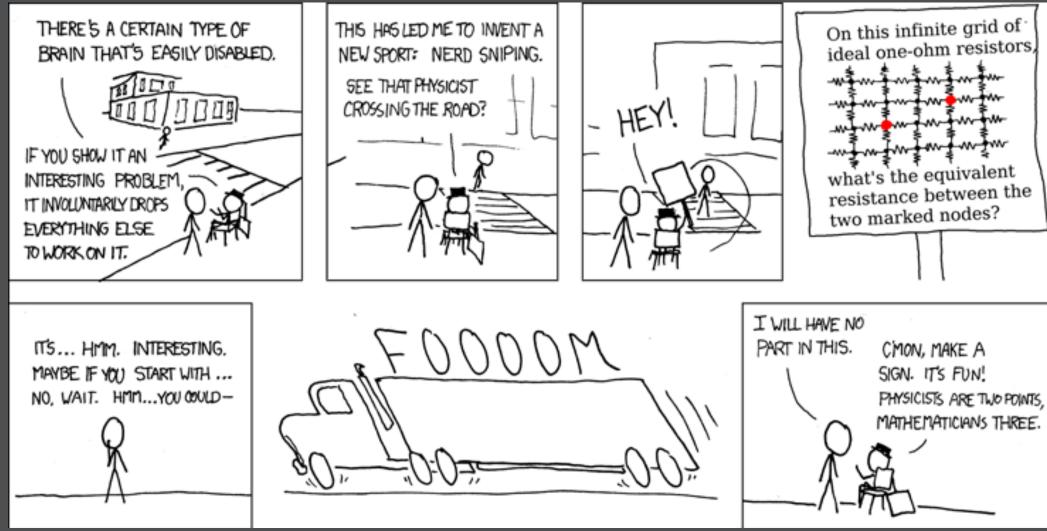


## What's a developer to do?

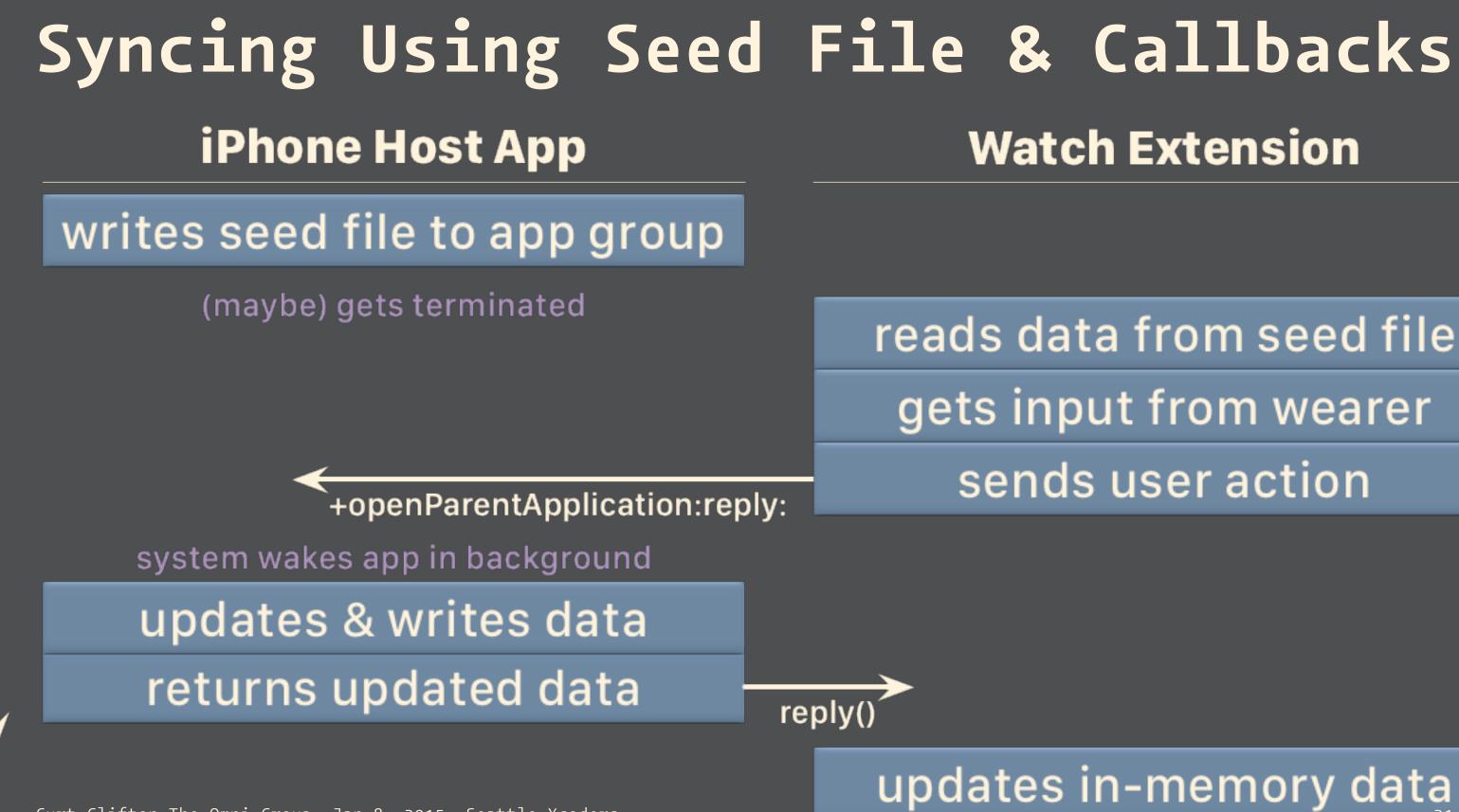
- File coordination? <u>Nope</u>.
- <u>App Group entitlement and user defaults</u>
- Shared CoreData database
- Shared SQLite database
- Seed file & callbacks

## Cartoon of the Day

### Cartoon of the Day<sup>2</sup>



<sup>2</sup> https://xkcd.com/356/



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time

# Watch Extension

## reads data from seed file gets input from wearer sends user action

## updates in-memory data

## Syncing Data with *Watch*

- Your watch extension is a separate process from your iPhone app; you just signed up for data syncing.
- Watch apps die easily; network operations are right out.<sup>1</sup>

### Monty Python and the Holy Grail

# Debugging Watch Apps

- Run iPhone app first
- Open Watch "external display"
- Launch the WatchKit app
- In the simulator, tap the iPhone app
- In Xcode, connect to the iPhone app
- Use Console to watch Simulator's system log



# Challenges



## Challenges

- Sending UI commands to non-active controls
- Using shared frameworks
- Selecting watch menu items crashes the simulator eventually
- No auto layout?
- Notifications while watch app is running?



# Resources



From Apple

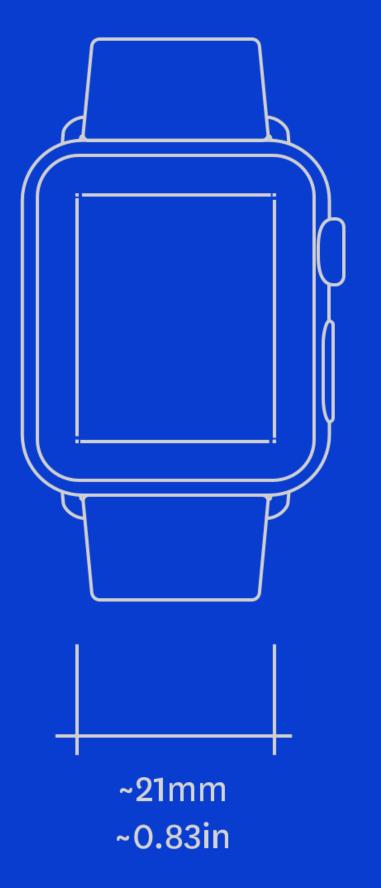
### — <u>Marketing site</u>

## Dev and design resources

### From Others

- <u>"A Day with Watch"</u> Craig Hockenberry
- "As I Learn WatchKit" David Smith
- <u>To-scale Watch Mockup PDF</u> Thibaut Sailly

~26.4mm ~1in



### Bezel

### Free from Troy Gaul

### Combine with <u>Xscope Mirror</u>

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erride func awakeWithContext(context: Any Apple Watch 42mm etTitle(NSLocalizedString("Timerity", comr Timerity **4** 9:46 \_reloadTable() latabaseReloadCallbackID = timerDB.regist if let strongSelf = self { // TODO: should b strongSelf.\_reloadTable() 0h 0m 9s erride func willActivate() / This method is calle 1h 0m 0s uper.willActivate() NSLog("%@ will aq Timerity + 9:46 PM Tea sActive = true Power Nap reloadTablelfNee 0h 0m 9s 0h 4m 0s \_processPendingR forEachRowConti Brownies if let timerRowC 1h 0m 0s timerRowCon Add Timer Теа 0h 4m 0s +Add Timer erride func didDea is no longer visible // This method is can **VSLog("%@ did deactiv** sActive = false forEachRowController() ? TimerTableRowController { if let timerRowControll timerRowController.didDeactivate() 29

## Power Nap

Brownies



## Wish List

- Direct access to the Taptic Engine
- iPhone-free 3<sup>rd</sup> party code
- API for digital crown
- Animated state changes
- Interactive Glances



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