- 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

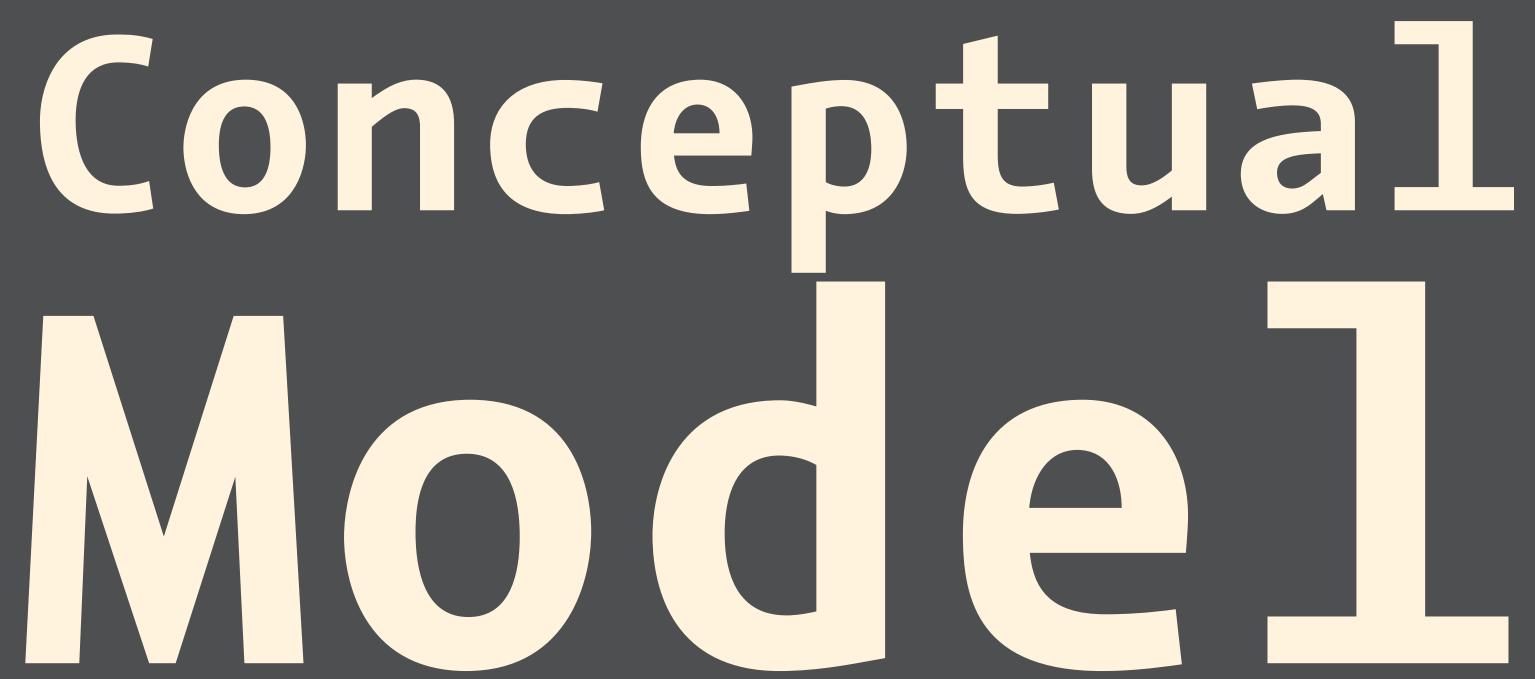
@curtclifton curtclifton.net

Outline

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

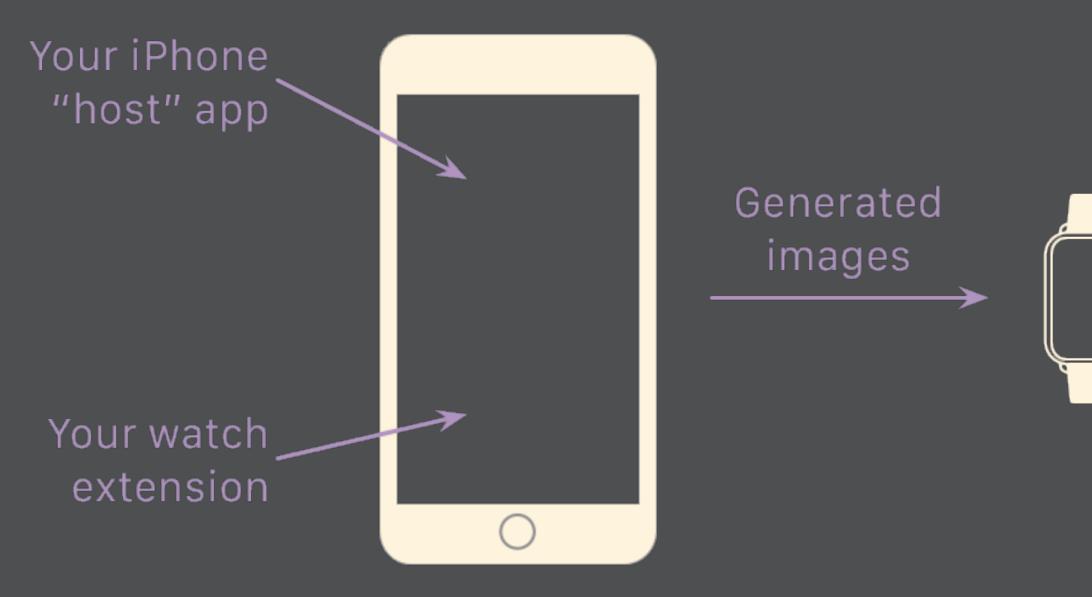
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4



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.



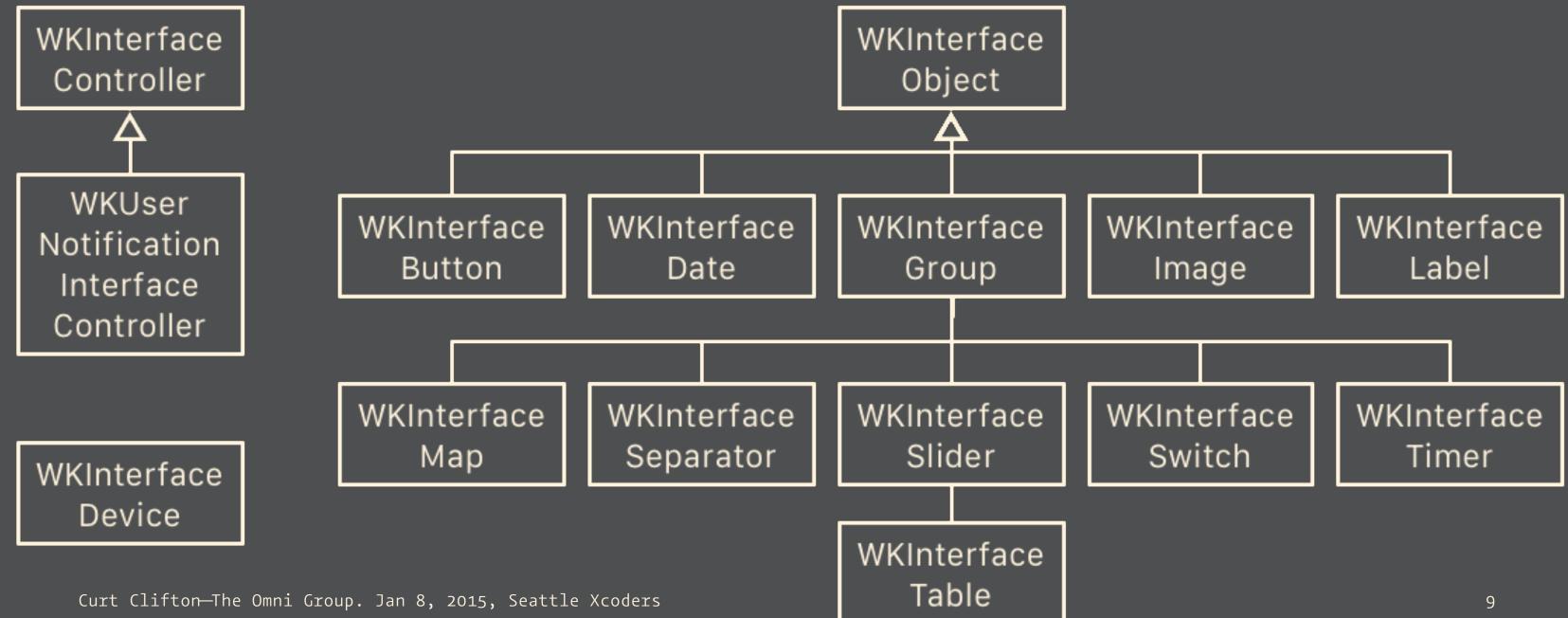
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Only Apple's code! (for now?)

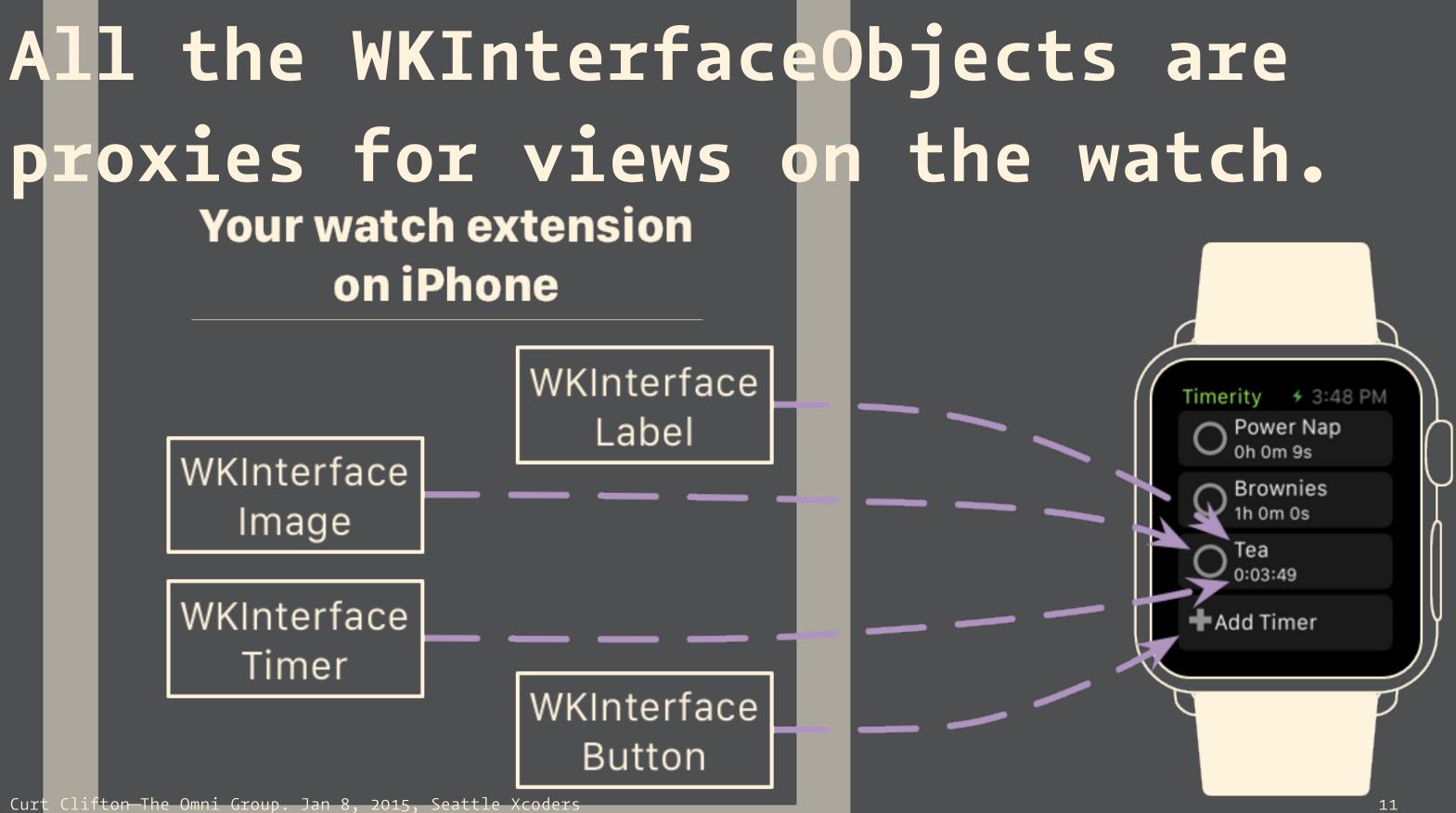
Your image assets & compiled storyboard

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

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



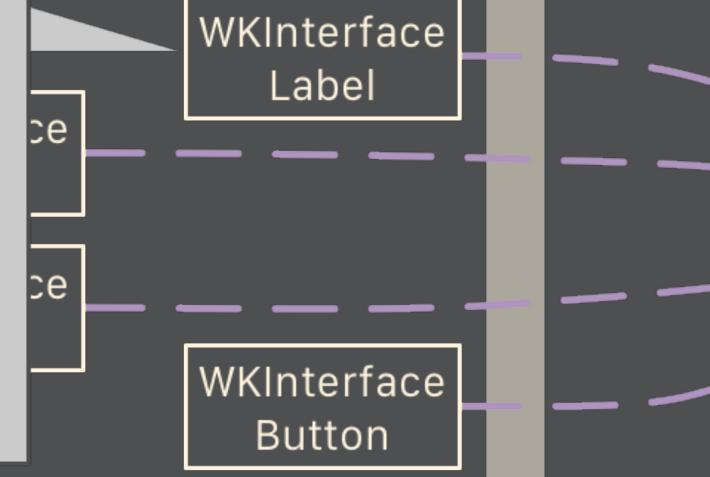
All the WKInterfaceObjects are proxies for views on the watch.



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.¹

¹ Monty Python and the Holy Grail

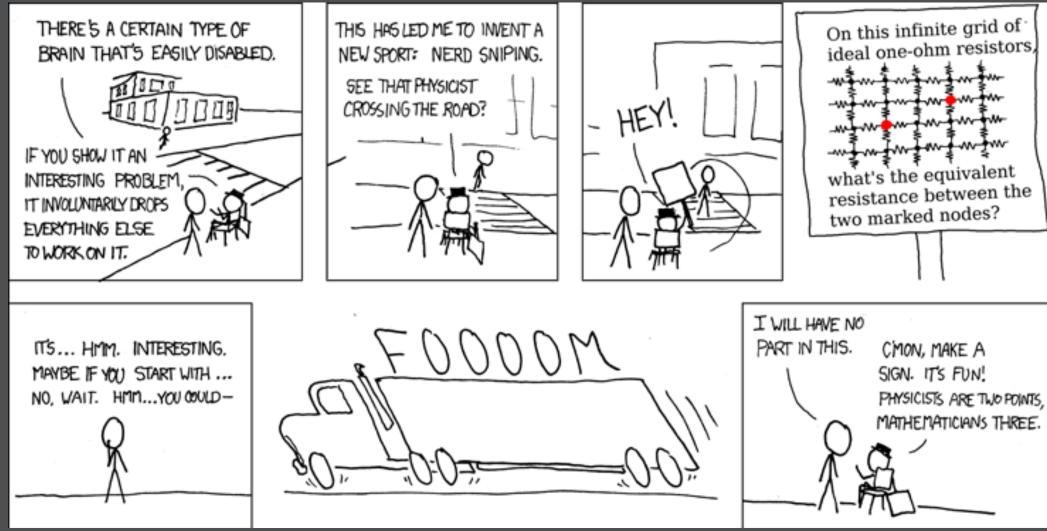


What's a developer to do?

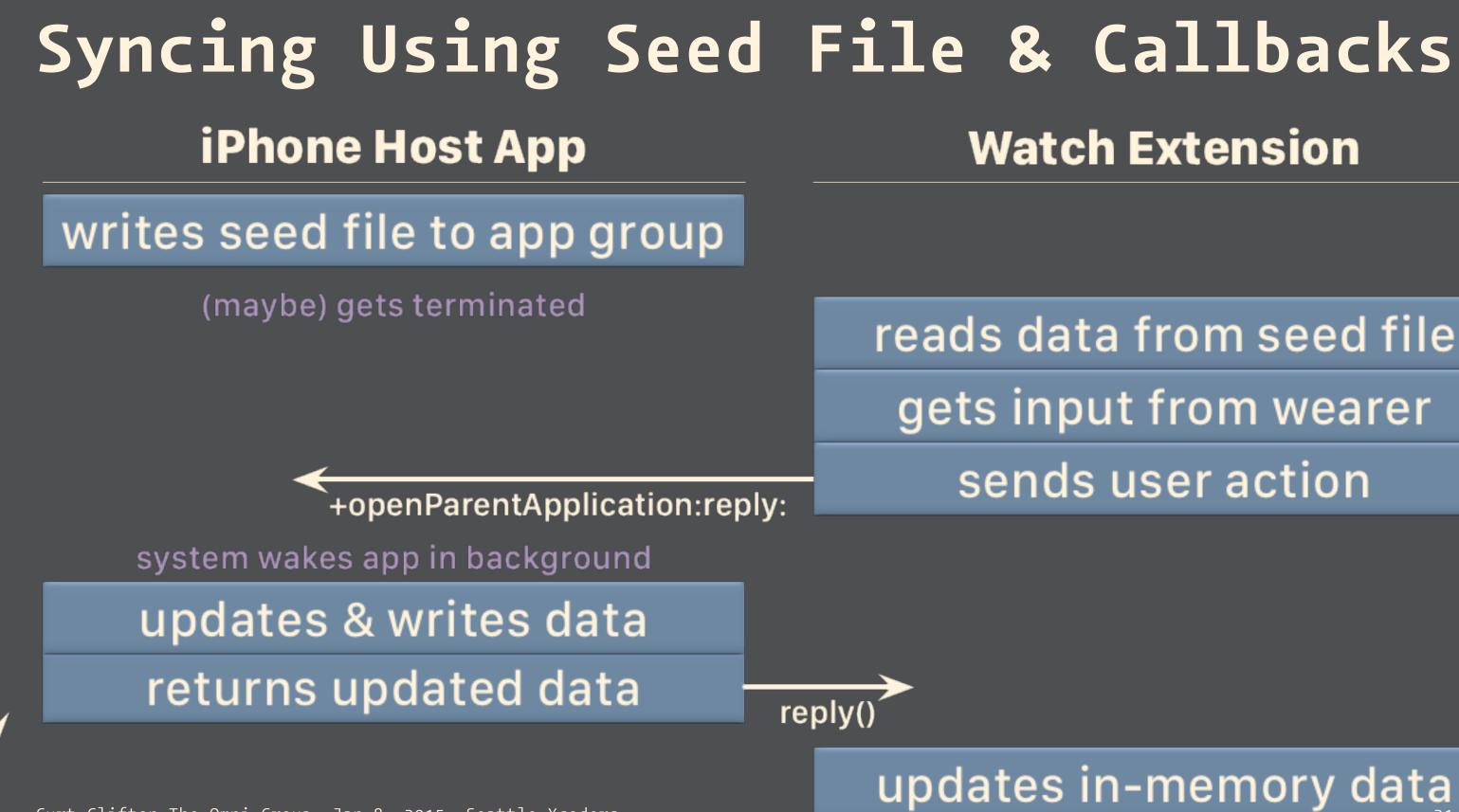
- File coordination? <u>Nope</u>.
- <u>App Group entitlement and user defaults</u>
- Shared CoreData database
- Shared SQLite database
- Seed file & callbacks

Cartoon of the Day

Cartoon of the Day²



² 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.¹

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

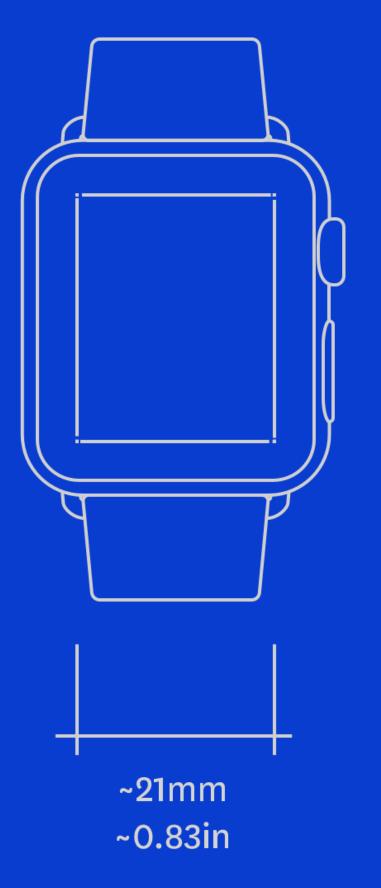
— <u>Marketing site</u>

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 3rd party code
- API for digital crown
- Animated state changes
- Interactive Glances



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