## MODULAR VS MONOLITH

#### TIM OXLEY

## GOOD MORNING!

## WHO AM 12



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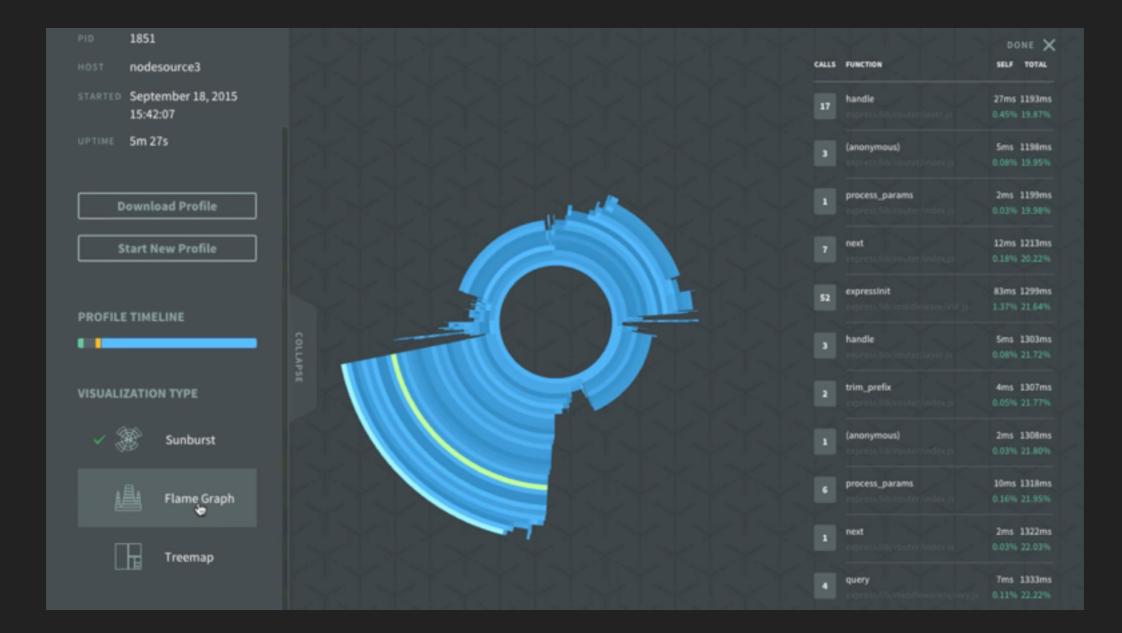
# FULL STACK DEVELOPER

REACT ES6/BABEL WEBPACK EXPRESS LEVELDB/POUCHDB









#### NODESOURCE.COM

CAMPJS CONFERENCE AUSTRALIA SINGAPOREJS MEETUP SINGAPOREJS BOOK CLUB NODEUP PODCAST NODESCHOOL

# MODULAR VS MONOLITH

## OVER-ENGINEERING IS COMMON AND AWFUL

## ME IN 2012

## ME IN 2012: "Avoid Frameworks"

#### ME IN 2012: "BUILD LIBRARIES INSTEAD"

#### **BUILDING A LIBRARY**

- Reusable!
- More robust!
- Higher quality code!
- Better documentation!
- Better tests!

#### ME IN 2015: "Yes but, note this one major caveat..."

# NOTHING FOR



#### NODE.JS: CULTURE OF EXTREME MODULARITY

#### BUILDING APPLICATIONS VS Consuming libraries

### BUILDING APPLICATIONS IS VERY DIFFERENT TO CONSUMING LIBRARIES

### DON'T PAY COST OF MODULARISATION BEFORE YOU KNOW YOU NEED IT

### ASSUME YOUR FIRST ATTEMPT IS GOING TO BAD

#### LEARN HOW BAD YOUR FIRST ATTEMPT IS GOING TO BE AT A CODE RETREAT

## BUILD THE SIMPLEST THING THAT WILL WORK

#### WHAT PROBLEM AM I TRYING TO SOLVE? IS THIS THE SIMPLEST THING THAT WILL WORK?

## DEFER DECISIONS

#### THE WRONG STRUCTURE CAN BE MORE COSTLY THAN NO STRUCTURE AT ALL

### DRAW IN PENCIL BEFORE You draw in ink

# FLAT IS BETTER THAN NESTED

#### FLAT IS BETTER THAN NESTED

- At the statement level: avoid nested if/else.
- At the function level: avoid nested callbacks (i.e. pyramid of doom)
- > At the class level: avoid nested inheritance hierarchies.
- At the file level: avoid nested directories.

WHEN PRESENTED WITH THE OPTION OF A FLAT STRUCTURE OR A NESTED STRUCTURE, PICK THE FLAT STRUCTURE. PROBABLY.

#### HIDING COMPLEXITY IS NOT THE SAME AS REMOVING COMPLEXITY

#### NESTING DECREASES LOCAL COMPLEXITY WHILE IT ALSO INCREASES GLOBAL COMPLEXITY

### MODULARISATION AND Abstraction are a form of nesting

### BUILD THE SIMPLEST THING THAT WILL WORK.

## THE SIMPLEST THING IS PROBABLY FLAT.

# AVOID PREMATURE MODULARISATION

## MONOLITH FIRST

## OPEN SOURCE LATER

# THANK YOU!

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