

# Google Dart

[dartlang.org](http://dartlang.org)

# For the impatient

Can we use Dart yet?

- Not for production.
- Joe, please don't sell clients on the idea.

Why is Google making Dart?

- Javascript is slow
- Writing tools for Javascript is hard
- Javascript is weird

# Javascript is slow

## What makes Javascript slow?

- The browser makes optimizations
  - Javascript can change at runtime
- Scope in Javascript is weird/inconsistent
  - Garbage collection can be difficult (Memory usage)

# Javascript isn't toolable

Why is it hard to write tools for Javascript?

- Javascript can be modified at runtime
  - Difficult to predict what will be used or is being used
- Current tools are designed for static langs.
  - A class doesn't change features after compilation

# Why is Dart fast?

If Javascript is slow, how is Dart faster?

- There is a Dart VM (very early code)
- Dart compiles to fast Javascript
  - V8, etc can make optimizations

# What tools can be written for Dart?

Developers can look forward to

- Intellisense
- Refactoring
- xUnit
- etc

# Features of Dart - NERD ALERT!

- Optional static typing
- Embedable VM
- Lambdas
- Single Inheritance with Interfaces
- Production mode and Development mode runtime
- DOM API
- Single Threaded (Workers using Isolate)
- No eval()
- First class functions
- And many more

# Things to do

- Download and build Dart
- Play with Dartboard
  - <http://try-dart-lang.appspot.com/>
- Play with the Total Dart App
  - <http://total-dart.appspot.com/>