



A short intro to Dart

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Goals

Why and what is Dart?

Explore Dart

Please stop me and ask questions!



Why?

Hard to write large web apps

Hard to write fast web apps

- chaotic performance (VM assumptions)

- performance wall

- startup performance

Javascript is here today and everywhere



What is Dart?

A pragmatic programming language for the web

Familiar syntax

Lexical scoping

Optional static types

Classes (single-inheritance, interfaces)

Toolable

Compile to Javascript for compatibility

Runs crazy-fast on a VM



Explore Dart

Hello ~~World~~ Dart

<http://try.dartlang.org/s/g0YN>

Fibonacci

<http://try.dartlang.org/s/PbId>



Syntax sugar

String interpolation, foreach, closure syntax:

<http://try.dartlang.org/s/pbAd>

Getters/setters:

<http://try.dartlang.org/s/q5Ed>

Many more examples...



Basically static at runtime

No modifying object structure at runtime
Javascript's adding of methods, properties

No eval()

Tools can do static analysis for fun and profit

Leads to faster, saner code



Lexical scoping

Aka: scoping rules that make sense

No global scope

blocked scoping all the way up

No closure scoping issues

<http://try.dartlang./s/Eqsd>

(compare to <http://jsfiddle.net/v7gjv/296>)



Optional types

Light and scripty; has rigor if you want

Types example:

<http://try.dartlang.org/s/2Jld>



Classes

Point example:

<http://try.dartlang.org/s/9V0N>

Interfaces are similar to Java:

dartlang.org/interfaces



Isolates

Dart is single-threaded

Has actor-like concurrency model: **Isolates**

No shared state, message passing

An Isolate is conceptually a process

More to come in this space

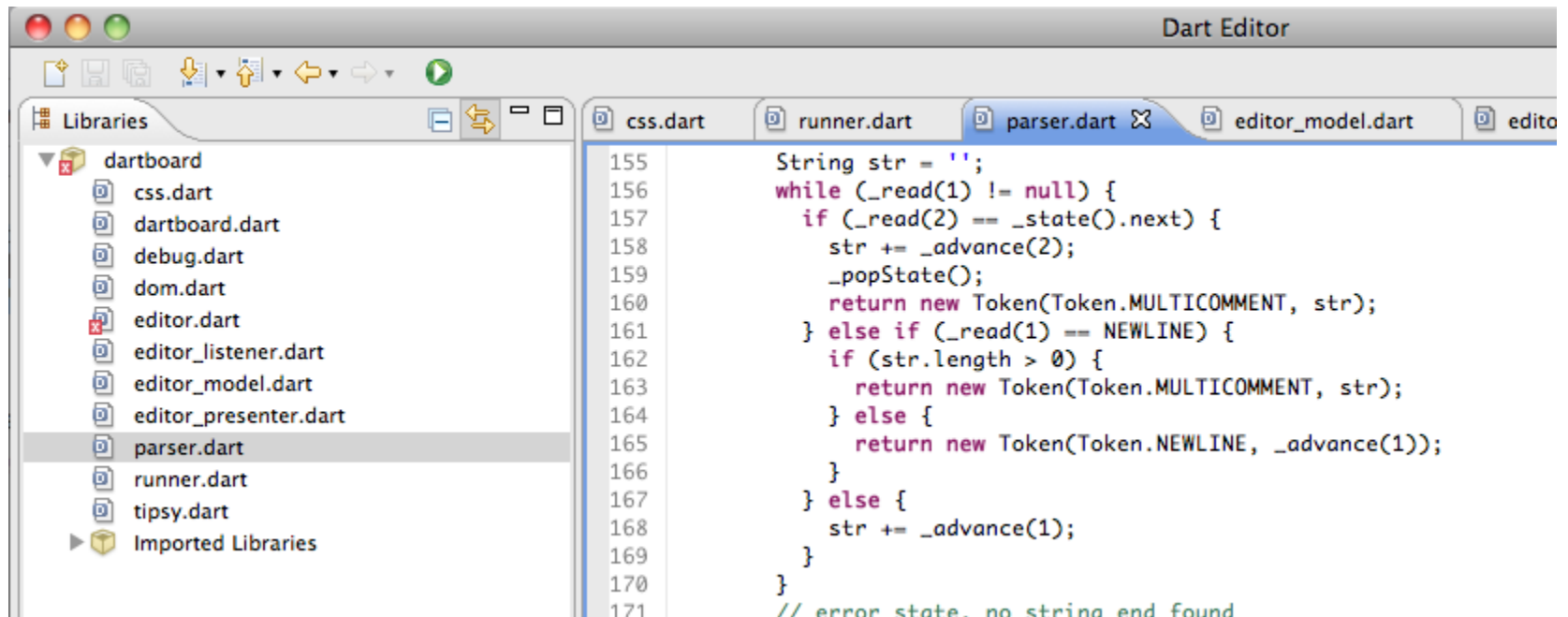
Isolate example:

<http://try.dartlang.org/s/J08Q>



Toolable

Dart Editor:



Is this a toy? I want real apps.

Total

<http://total-dart.appspot.com>

Swarm

<http://swarm>



Recap, links

Structured web programming language

Simple and powerful syntax

Works on JS, crazy-fast on a VM

Open source (still a tech preview!)

<http://www.dartlang.org>

Much more on the site

(html library, core library, samples, etc)

