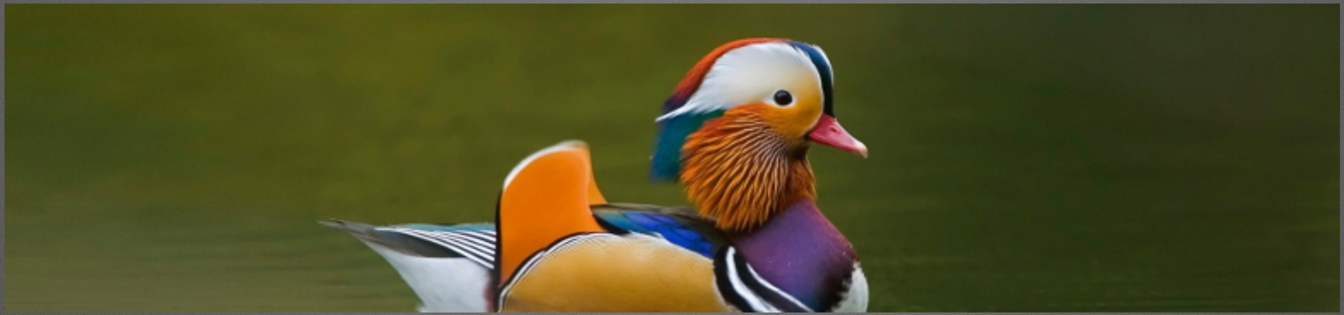


Quaxe, infinity and beyond

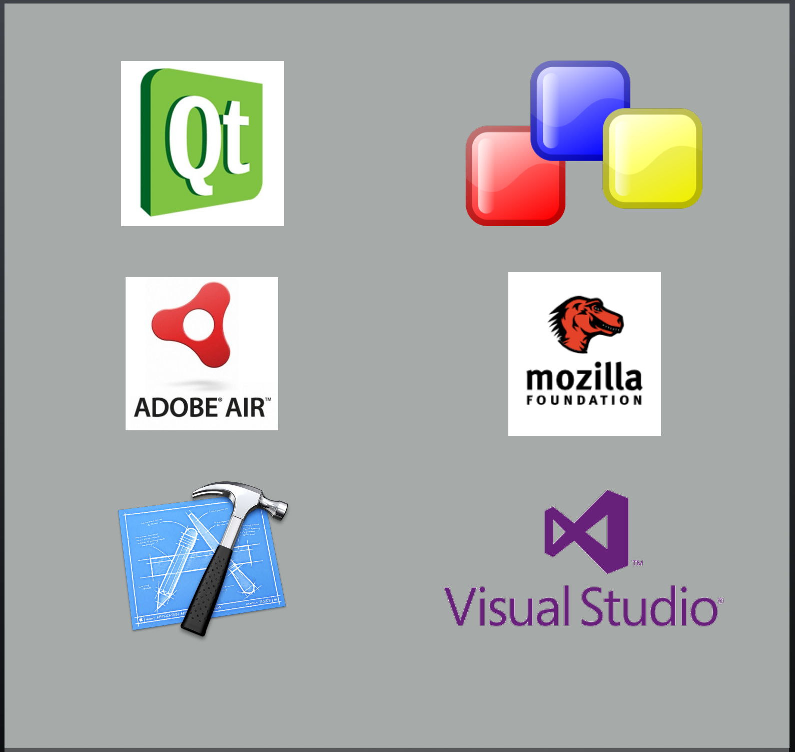
Daniel Glazman — WWX 2015

/usr/bin/whoami

- Primary architect and developer of the leading Web and Ebook editors Nvu and BlueGriffon
- Former member of the Netscape CSS and Editor engineering teams
- Involved in Internet and Web Standards since 1990
- Currently co-chair of CSS Working Group at W3C
- New-comer in the Haxe ecosystem

Desktop Frameworks

- Visual Studio
  (Windows only)
- Xcode
  (OS X only)
- Qt
- wxWidgets
- XUL
- Adobe Air



Mobile Frameworks

- Adobe PhoneGap/Air
- Xcode
  (iOS only)
- Qt Mobile
- AppCelerator
- Visual Studio

Two solutions but many issues

- Fragmentation desktop/mobile
- Heavy runtimes
- Can’t easily reuse existing c++ libraries
- Complex to have native-like UI
- Qt/QtMobile still require c++
- Qt’s QML is a weak and convoluted UI language

Haxe

- 9 years success of Multiplatform OSS language
- Strong affinity to gaming
- Wide and vibrant community
- Some press recognition
- Compiles to native on all platforms through c++ and java

- Dead code elimination
- But no native GUI…

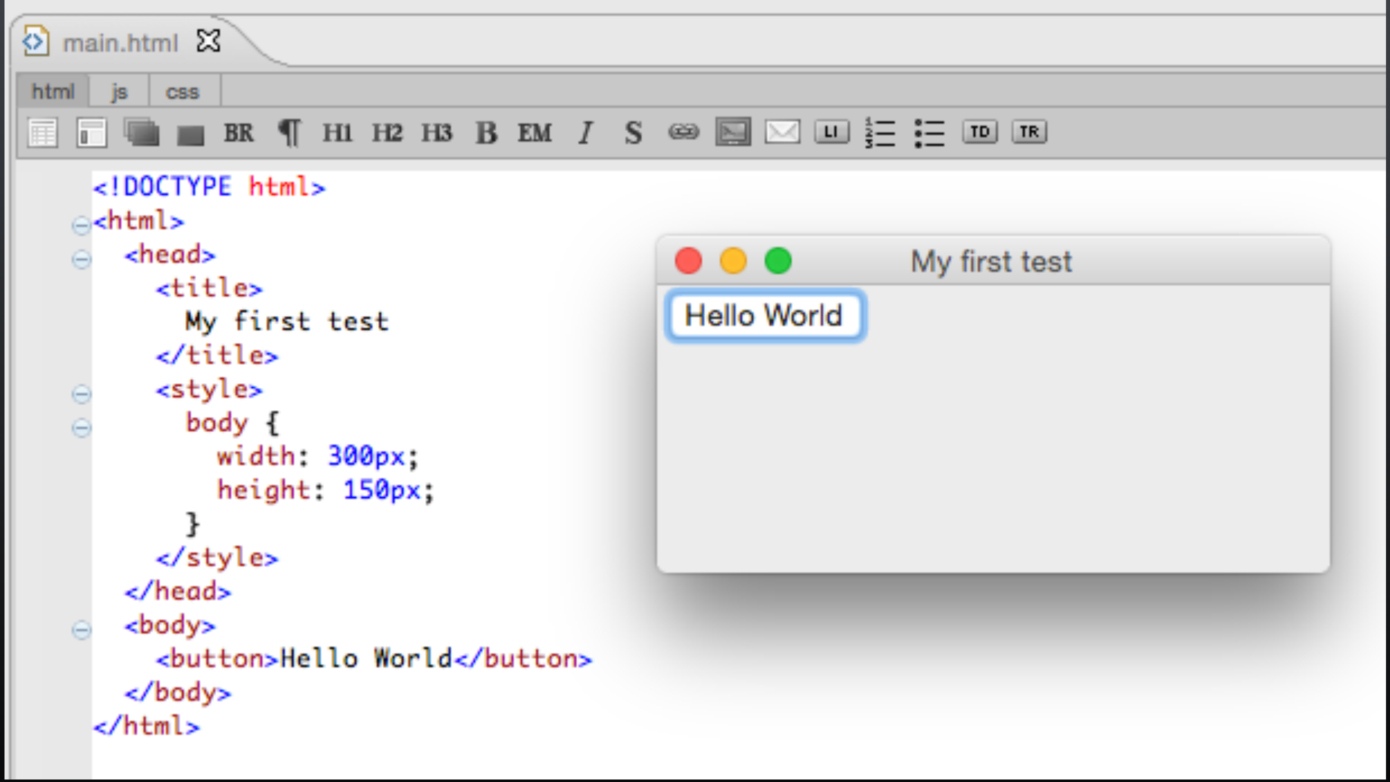
Best of all worlds

- Haxe + Qt/QtMobile
  - Multiplatform
  - Native apps, native performance through c++/Java
  - C++/Java lib reusability

Introducing Quaxe

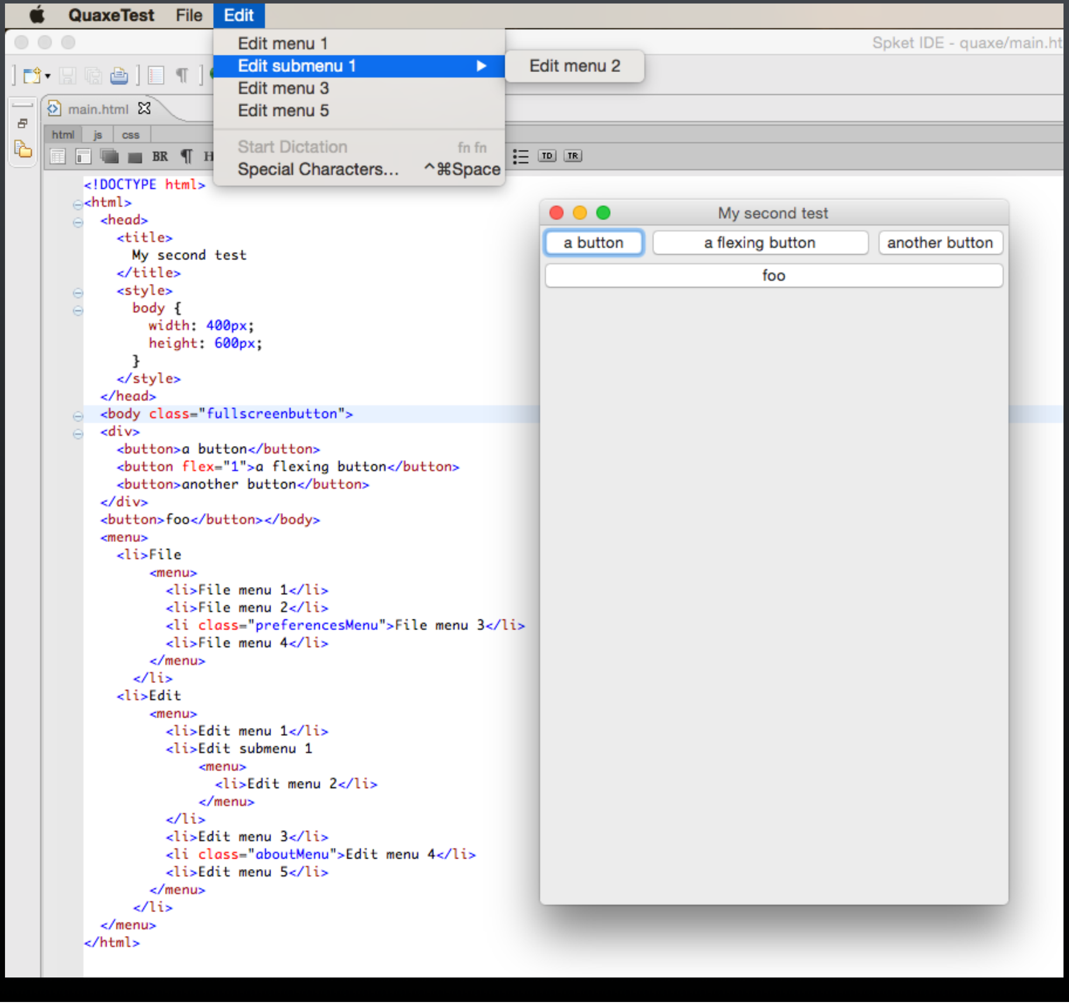
- Native apps w/o c++ complexity
- Highly dynamic applications on desktop and mobile
- Native-like UI through Qt
- HTML5-based UI, CSS-based styling
- Benefits from Haxe and Qt communities

Going from HTML5 to native



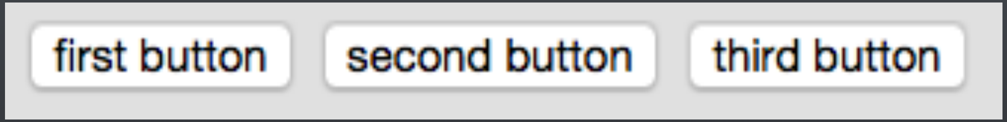
```
<!DOCTYPE html>
<html>
  <head>
    <title>
      My first test
    </title>
    <style>
      body {
        width: 300px;
        height: 150px;
      }
    </style>
  </head>
  <body>
    <button>Hello World</button>
  </body>
</html>
```

GUI completeness

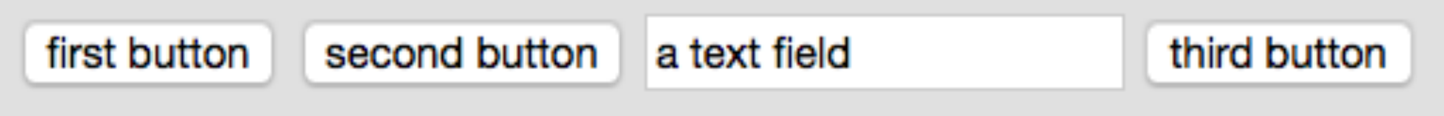


```
<!DOCTYPE html>
<html>
  <head>
    <title>
      My second test
    </title>
    <style>
      body {
        width: 400px;
        height: 600px;
      }
    </style>
  </head>
  <body class="fullscreenbutton">
  <div>
    <button>a button</button>
    <button flex="1">a flexing button</button>
    <button>another button</button>
  </div>
  <button>foo</button></body>
  <menu>
    <li>File
        <menu>
          <li>File menu 1</li>
          <li>File menu 2</li>
          <li class="preferencesMenu">File menu 3</li>
          <li>File menu 4</li>
        </menu>
      </li>
    <li>Edit
        <menu>
          <li>Edit menu 1</li>
          <li>Edit submenu 1
              <menu>
                <li>Edit menu 2</li>
              </menu>
          </li>
          <li>Edit menu 3</li>
          <li class="aboutMenu">Edit menu 4</li>
          <li>Edit menu 5</li>
        </menu>
      </li>
  </menu>
</html>
```

DOM dynamism in native UI



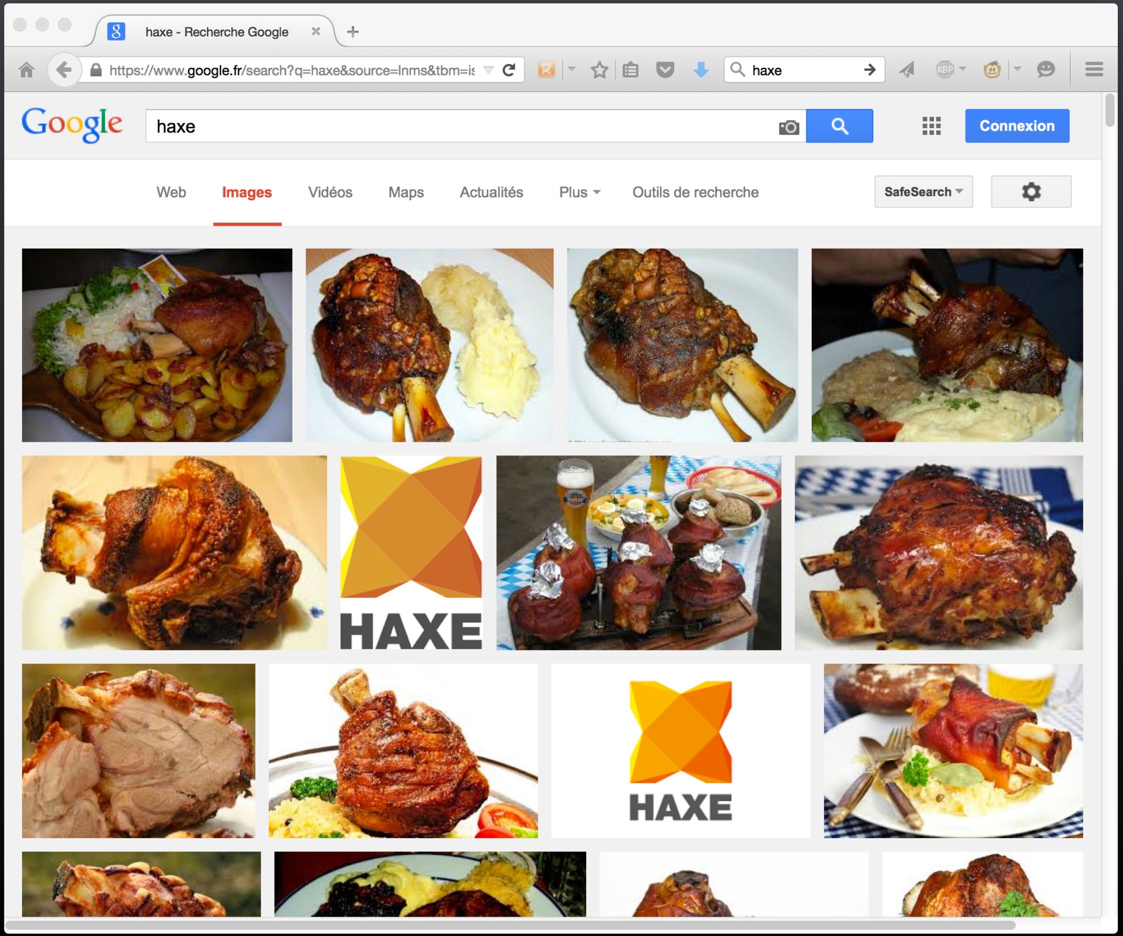
```
var b: Element = document.getElementById("thirdButton");
var t: Element = document.createElement("input");
t.setAttribute("type", "text");
t.setAttribute("value", "a text field");
b.parentNode.insertBefore(t, b);
```



Design Considerations

- Cross-platform – mobile and desktop targets
- 100% made in Haxe
  - Much better html/xml parser
  - Custom CSS Parser and CSS Rendering Engine
  - Conformance to W3C Web Standards
  - HTML5-based abstraction layer above Qt
  - DOM-based dynamism
- Lightweight build environment installable in minutes

But there are some issues…



The Haxe Foundation

- Finances unknown
- Global strategy unknown
- #HaxeFoundation { visibility: hidden; }
- Stability unknown

➡ Enough to make a potential investor flee

hxcpp

- A crucial component to Quaxe and IMHO one of the most crucial components to the Haxe ecosystem
- 1+ maintainer only
- Unclear if it is a project officially maintained by the Haxe Foundation (Cf. http://haxe.org/foundation/open-source.html) or not

➡ Enough to make a CTO have concerns

Community and communication

- Wide and alive
- But loosely organized
- This event (WWX2015), the largest Haxe event worldwide, is organized by a third-party, SilexLabs. Ahem…
- Not a single PR (Press Release) about Haxe in 9 years. Even the releases are not announced to the Press.

Examples

- jQuery and the jQuery Foundation
- XUL and Mozilla
- Qt and TrollTech/Nokia/Digia
- PhoneGap and Adobe
- SASS
- …

My €0.02…

- The Haxe Foundation does not communicate enough
- Haxe has to go beyond the fences of the gaming community
- hxcpp is a cornerstone of such a strategy

➡ Haxe+hxcpp could easily beat competitors and Haxe’s visibility could increase ten-fold

I would like or my investors would like…

- to have the financial report of the Haxe Foundation and have it every year
- to have details about the Haxe strategy 2015-2017
- to see the Haxe Foundation communicate more and organize the community better
- to hear about Haxe or hxcpp’s future if Nicolas or Hugh suddenly disappear (contingency plan)

➡ Be sure Haxe+hxcpp is a reliable choice from an industrial point of view

Thank you.

Daniel Glazman — WWX 2015