Orion: Development Tools for the Web, on the Web
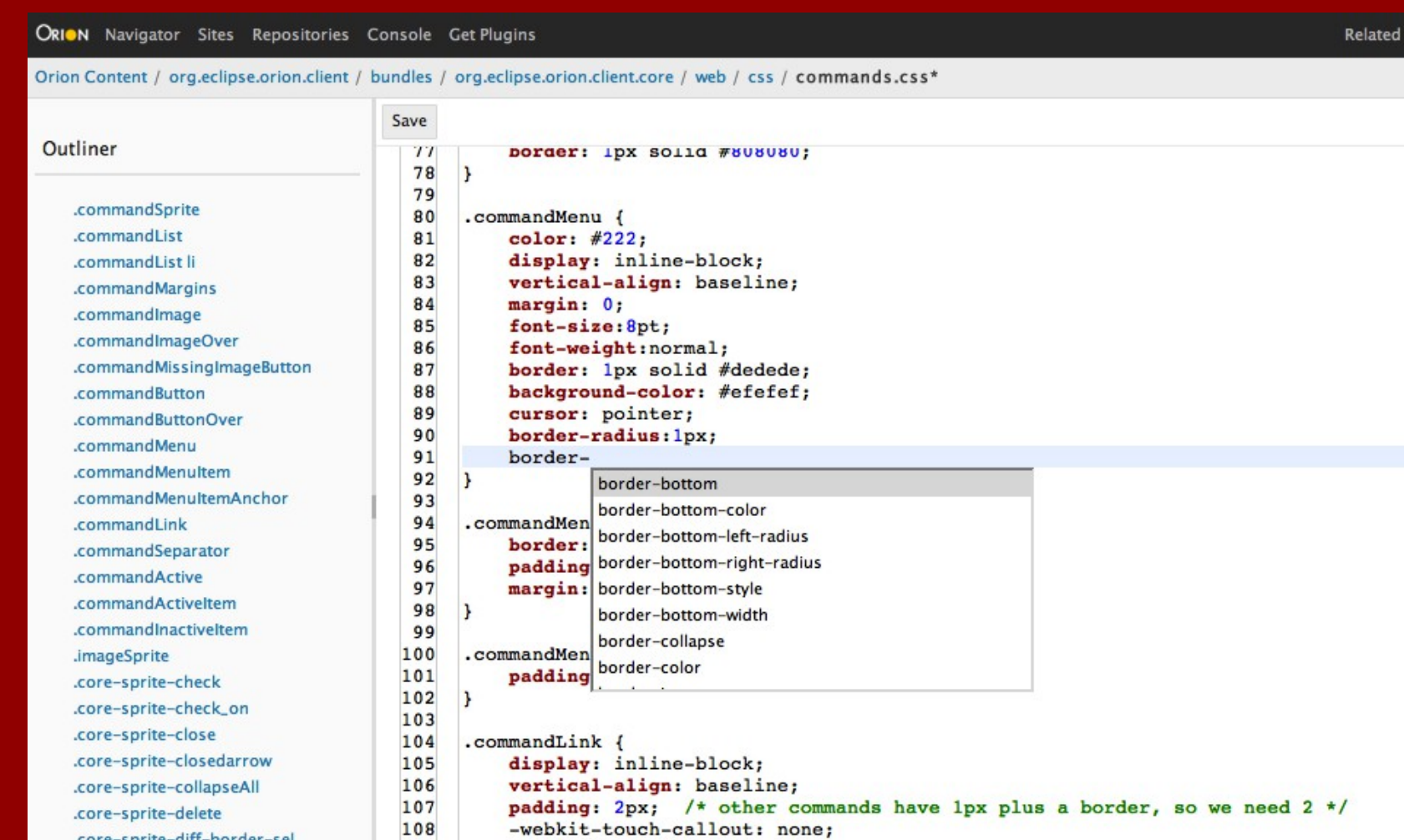
Wayne Beaton, The Eclipse Foundation
Susan McCourt, IBM

Demo coming...want to follow along?

- orionhub.org

Software development in a browser

- Not like a desktop IDE (the web is the platform)
- Promotes a page-oriented web experience
- Workflows across a set of linked web pages
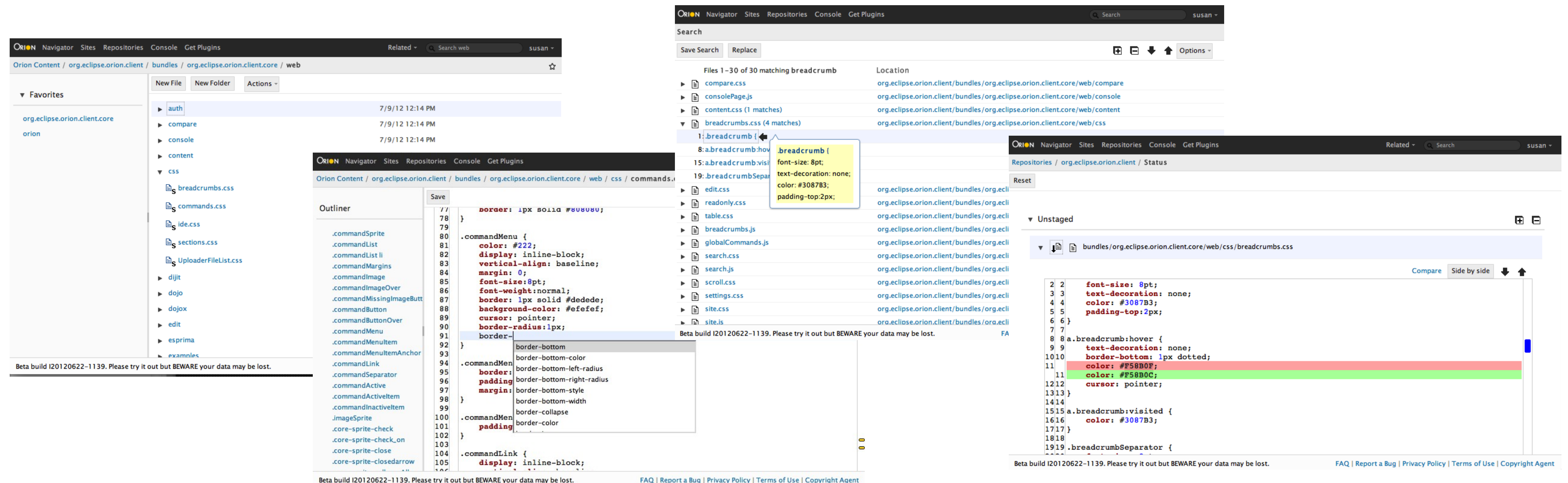
Core coding activities + extensions

- Platform provides basic tasks for web development
  - HTML, CSS, JS editing in a performant, robust editor
  - Version control (git) support
  - Global search, site hosting, unit testing
- Linking in additional features
  - Outward bound links via navigation bar, related pages, navigator
  - Inward bound links via URI Templates for invoking Orion functions
- Extend capabilities of existing pages
  - Editor capabilities, content manipulation, alternate editors
- Extend core capabilities
  - Content hosting (S3, WebDAV, HTML5 local files)
  - Authentication strategies

Orion 0.5 demo

- Project setup, navigation, editing HTML, CSS, JS
- Site hosting
- Using plugins
- Version control (git) support

Plugins: Extending the system

- Users install plugins from other domains
  - Pages request necessary micro-services from plugin/service registry
  - Plugins loaded as needed (non-visual iframes)
  - Don't call us, we'll call you (today)
  - Authentication, licensing (1.0)
- UI extension points
  - Narrowly defined contributions
  - Semantic in nature (for flexibility in changing our UI)
- Core extension points
  - Alternate file systems
  - Authentication strategies

Plugins: Micro Services Examples

- Declarative behavior - "Related" links menu

```
window.onload = function() {
    var provider = new eclipse.PluginProvider();
    provider.registerServiceProvider("orion.page.link.related", null, {
        nameKey: "Git Status",
        id: "eclipse.git.status2",
        tooltipKey: "Go to Git Status",
        nls: "git/nls/gitmessages",
        validationProperties: [{
            source: "StatusLocation|Clone:StatusLocation",
            variableName: "GitStatusLocation"
        }],
        uriTemplate: "{OrionHome}/git/git-status2.html#{GitStatusLocation}"
    });
}
```

Plugins: Micro Services Examples

- Asynchronous javascript implementation – i18n validator

```javascript
provider.registerServiceProvider("orion.edit.validator", {
    checkSyntax: function(title, contents) {
        var problems = [];
        // a bunch of implementation detail finding and pushing problems...
        problems.push({
            reason: "Non externalized string literal " + strings[j][0],
            line: i + 1,
            character: strings[j].index + 1,
            end: strings[j].index + strings[j][0].length,
            severity: "warning" });
        }
        return { problems: problems };
    }},{
    contentType: ["application/javascript"]
    }
);
```
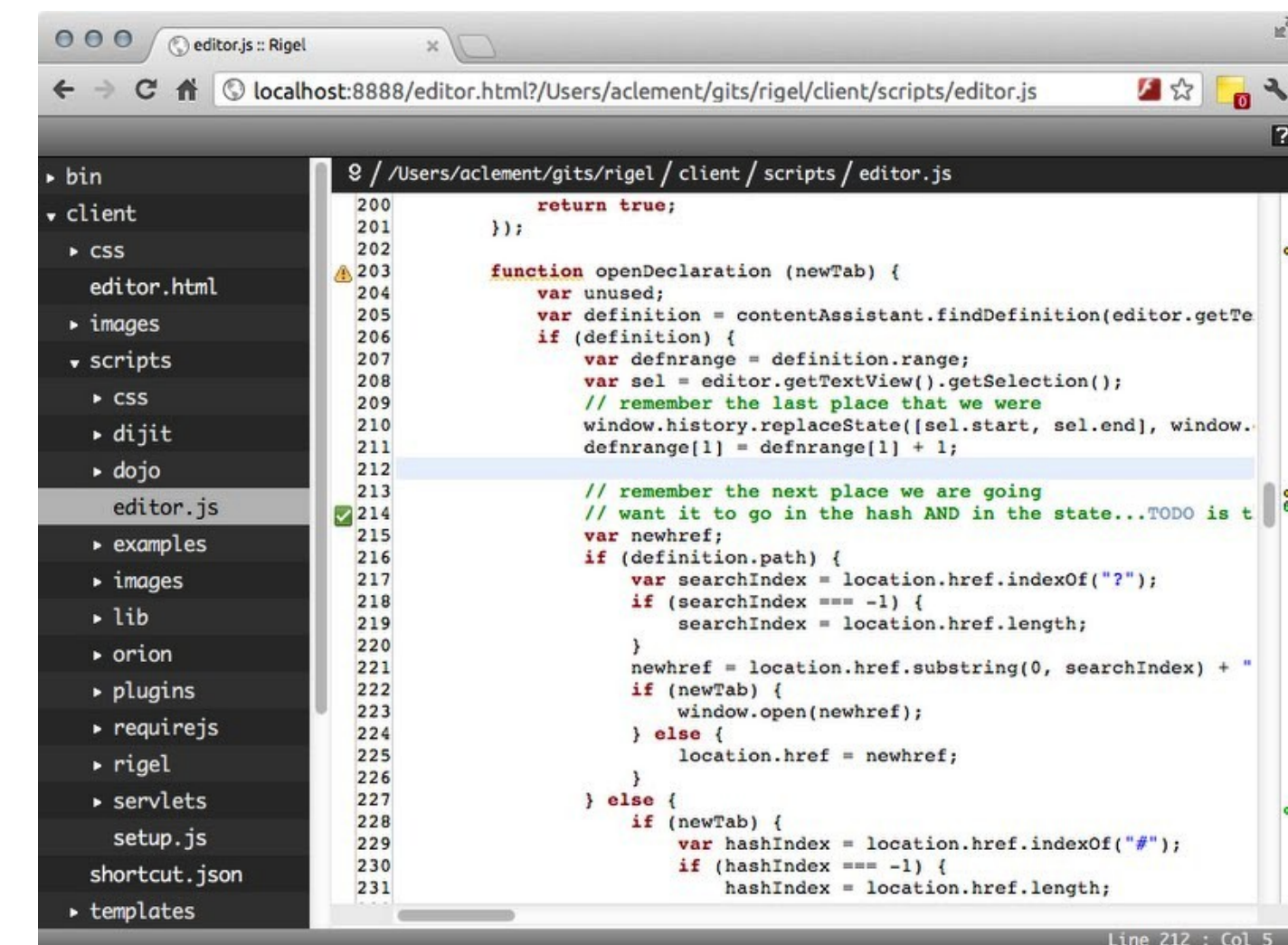
Consuming Orion: the editor

- Mozilla Dev Tools (Scratchpad)
  - http://blog.mozilla.org/devtools/2011/08/15/introducing-scratchpad/
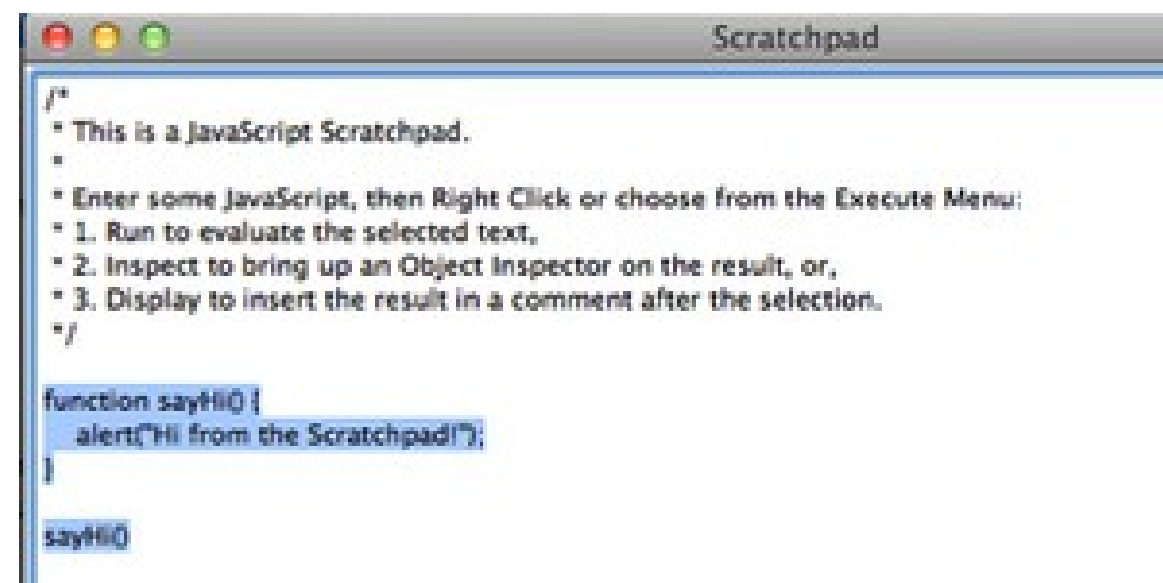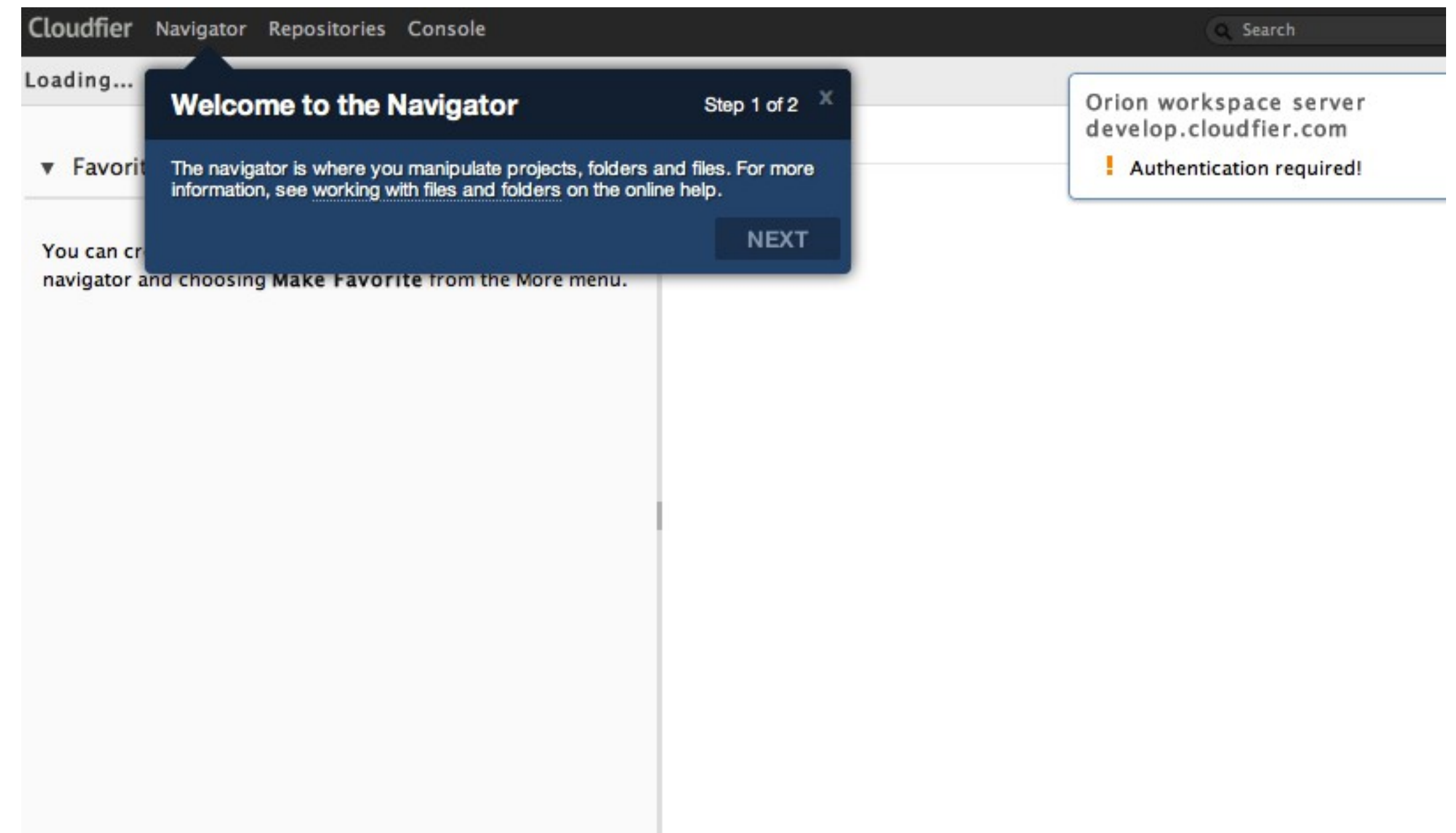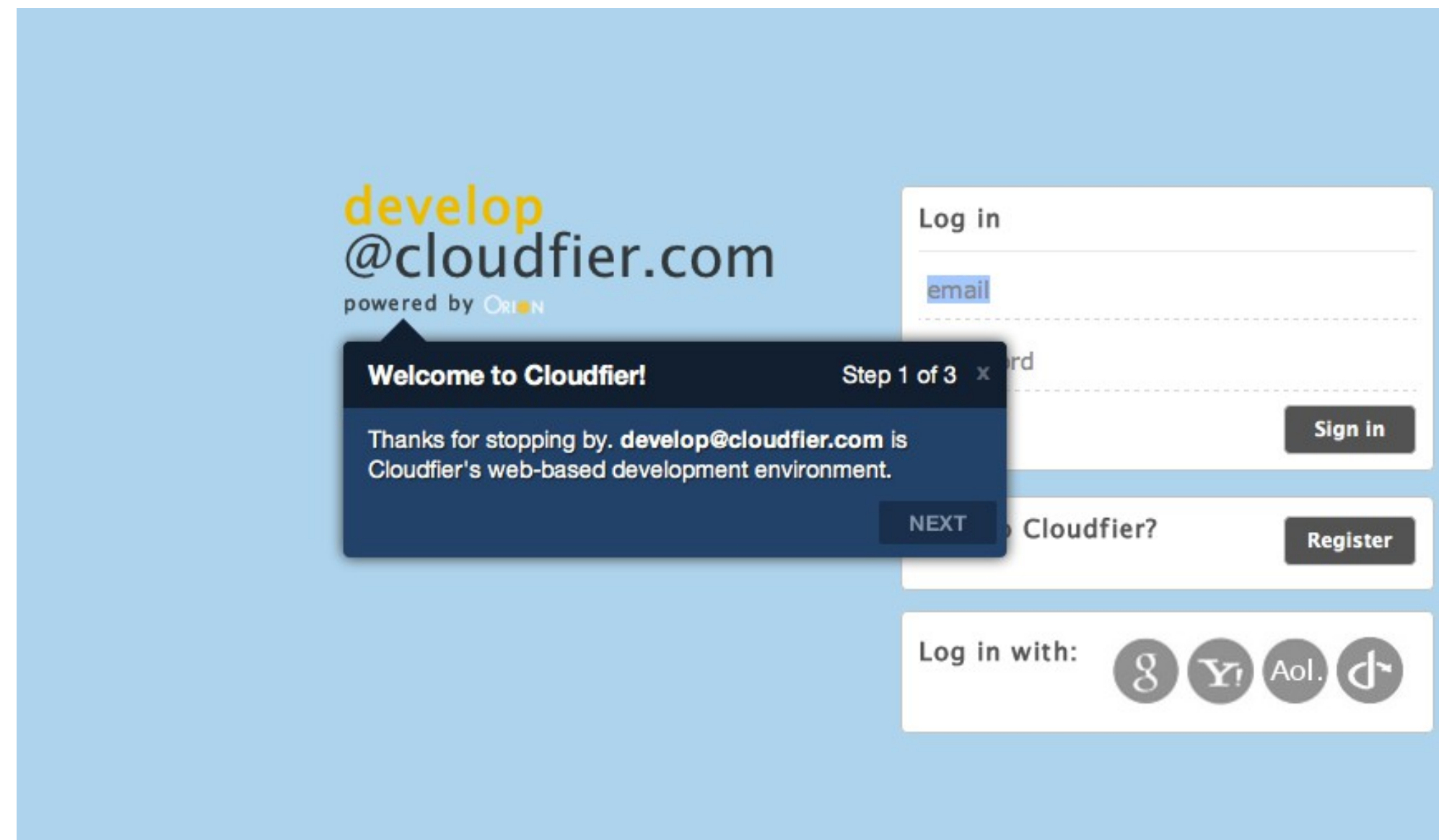

- Rigel (VMWare)
  - Lightweight editing of local files
  - Node app serving up local files
  - Content assist and navigation based on commonjs or Amd module systems

Consuming Orion: extending and rebranding

- Cloudfier - http://cloudfier.com/

Contributing to Orion

- (Wayne slideware for who is involved in Orion, new contributors, communication channels, bugs, patches, IP)

Coming in Orion 1.0

- Robustness
  - Performance, consumability of components, code quality, API
  - Finish up accessibility, i18n
  - Reevaluate js framework usage

- Key missing features (not committed yet)
  - Theme Builder (LESS)
  - Offline support (investigating)
  - Consumable (and relocatable) Navigator
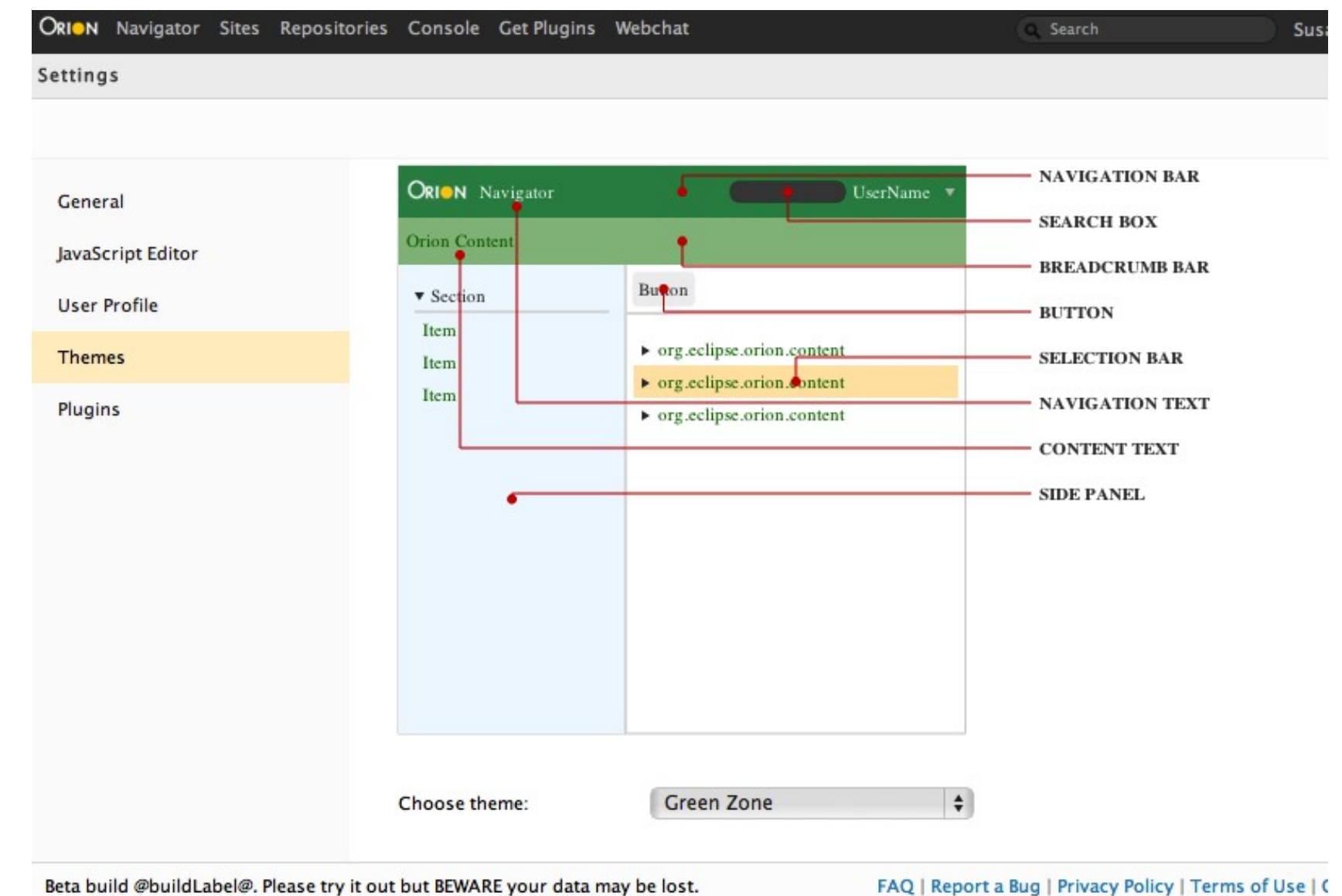
Learning more

- orionhub.org - Kick the tires
- @orionhub on twitter
- http://wiki.eclipse.org/Orion
  - Downloading builds, git repos, contributions
  - Architecture and programmer doc
  - User doc
- planetorion.org – news and articles