Introduction to ExtJS

An overview of the ExtJS
JavaScript Framework

Why ExtJS?

- Previously YUI-Ext
- Intrusive versus Unobtrusive
- Documentation
- Community
- Dual Licensing Model
  - GPL
  - Commercial with Support

API Overview

- Support Libraries
  - DOM selection/manipulation
  - Events
  - Utilities
  - AJAX
- Layouts and Containers
- Forms
- Data Stores

Sample – DOM Manipulation

- No more Document.getElementById

```html
<div id="content"></div>

<script type="text/javascript">
  var e = Ext.get('content');
  e.addClass('bold');
  e.update('Hello World!');
</script>
```

- Also includes common effects
  - Fade, blur, focus, hide, show

Sample - Events

- Unobtrusive JavaScript

```html
<button id="eraser">Eraser</button>

<script type="text/javascript">

   var e = Ext.get('eraser').on('click',hideMe);

   function hideMe() {
      Ext.get(this).hide(true);
   }

</script>
```

Sample - AJAX

- Ability to load elements via AJAX call, including automatic refresh
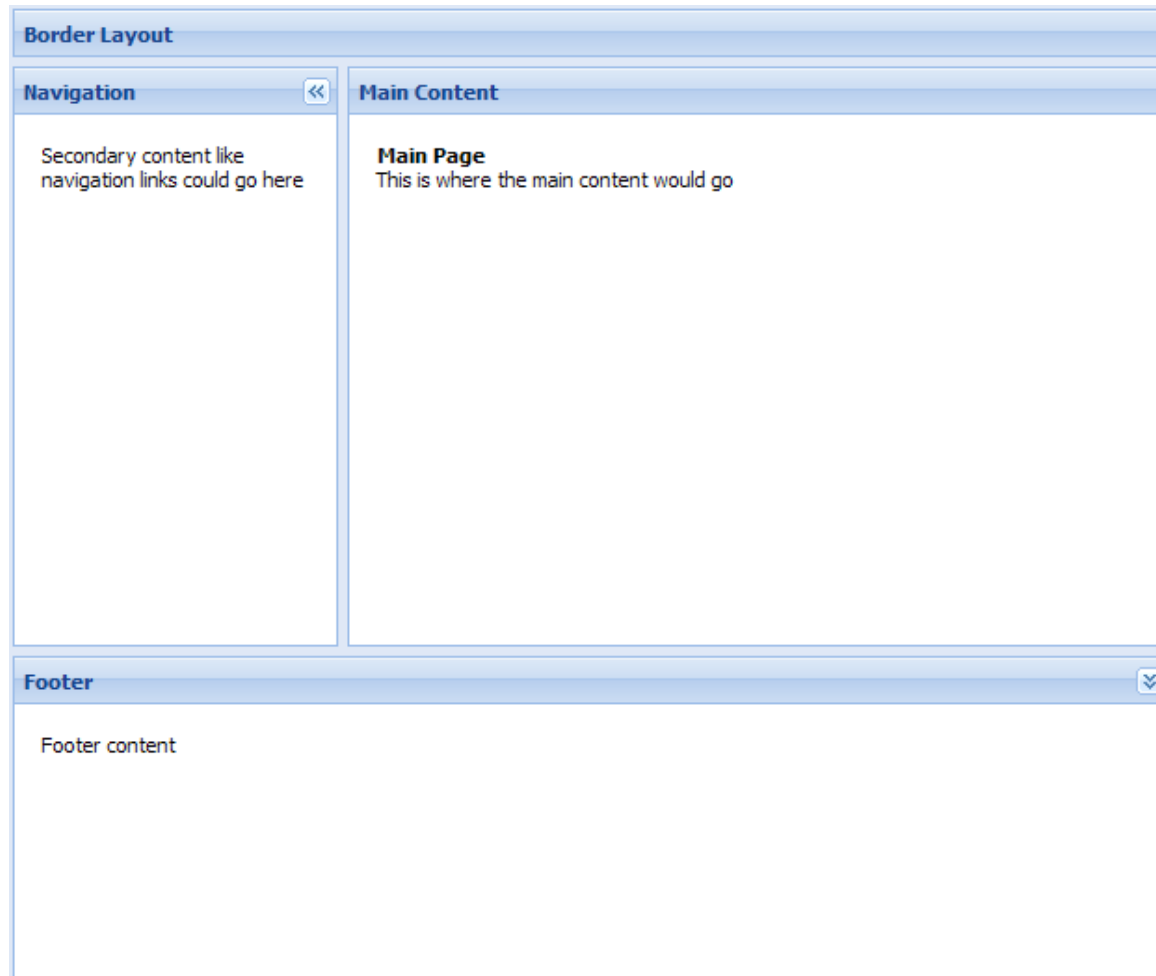
```html
<div id="content"></div>

<script type="text/javascript">

  Ext.get("content").load({url: "inner.html"});

</script>
```
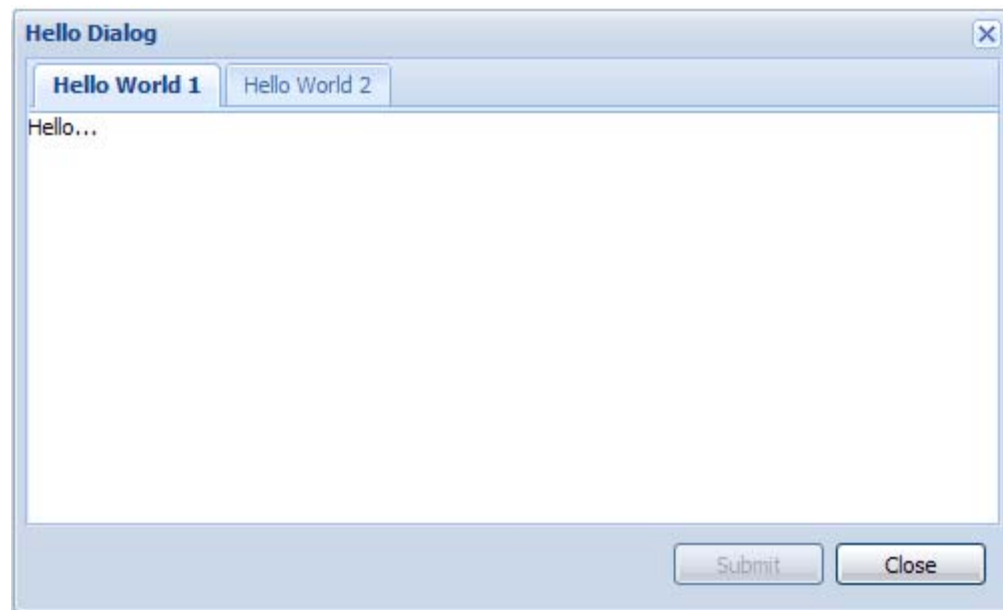
Sample - Layouts

Border Layout

Navigation «	**Main Content**
Secondary content like navigation links could go here	**Main Page** This is where the main content would go

Footer ⌄

Footer content

Sample - Containers

- Most all common paradigms
  - Windows, Panels, Tabs, Accordion

Sample - Grid
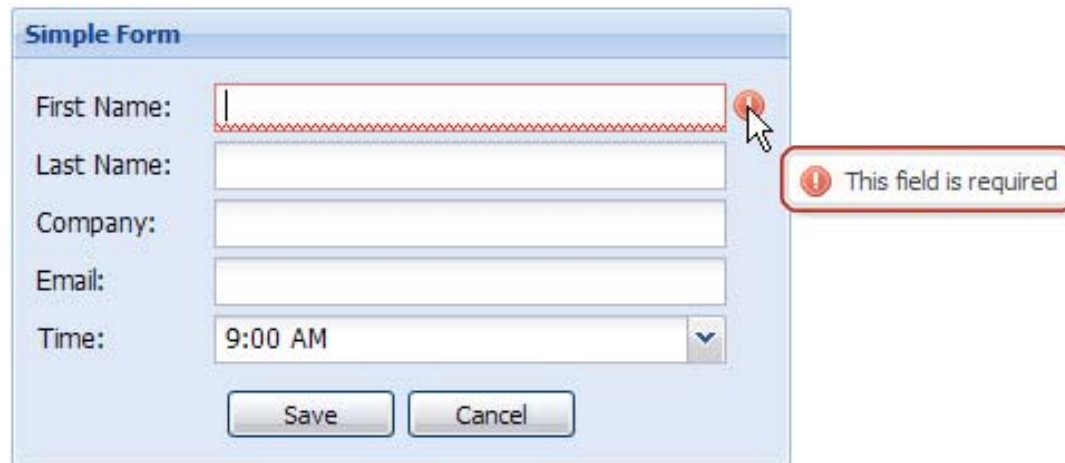
- Feature rich grid class
  - Sorting
  - Column hiding
  - In-cell editing
  - Customer rendering / formatting
  - Bound to Data Store
  - Plug-ins (grouping, summaries, expands)

Sample – Grid (cont)

Sample - Forms

- Rich forms support
  - Tied to MVC framework
  - Excellent validation support

Sample – Data Stores

- Model implemented as Data Store

```javascript
<script type="text/javascript">
  var store = new Ext.data.JsonStore({
    url: '/countries.json',
    root: 'rows',
    totalProperty: 'count',
    fields: [
      {name: 'code', mapping: 'code', type: 'string'},
      {name: 'name', mapping: 'name', type: 'string'},
      {name: 'population', mapping: 'population', type: 'int'}
    ],
    sortInfo:{field: 'code', direction: "ASC"}
  });
</script>
```

```json
{count: 2, rows: [
  {"code": "ABW" , "name": "Aruba","population": 103000},
  {"code": "AFG", "name": "Afghanistan","population": 22720000}
]}
```

Backend Integration

- XML
- JSON
- Script Tag Proxy
  - Allows for Cross Domain calls
  - Requires callback semantic from client

Other Coolness

- Skins
- Desktop
- Drag and Drop
- Templates
- Namespaces
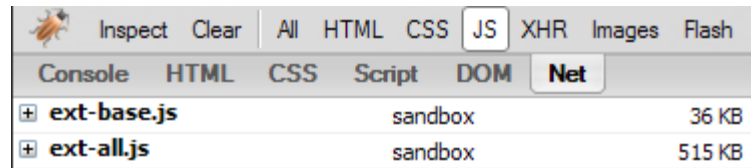- Browser History management
- Google Maps Integration

Compared To…

- Flex and Silverlight
- DOJO
- YUI
- GWT
- Prototype/Scriptaculous
- JQuery
- Tibco GI

Library Size

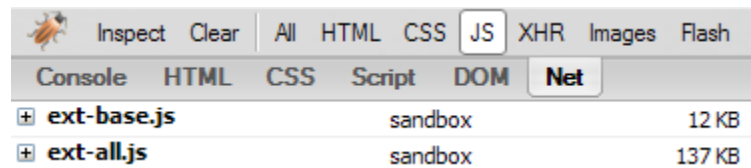- ## Without Compression

- ## With Compression

Product Roadmap

- Just released v2.2
- V3.0 Planned for end of year:

Ext JS 3.0 (Winter 2008/Early 2009)

▸ Update the Ext event registration model

▸ Flash Charting API

▸ Comet/Bayeux support

▸ Integrated client-server data binding/marshaling for Ext components

▸ ListView component

▸ Enhanced Button and Toolbar components

▸ ARIA/Section 508 accessibility improvements

▸ CSS updates for reset style scoping and easier custom theming

▸ Ext.Ajax enhancements

Resources

- [ExtJS Home](#)
- [Mozilla Developer Center](#)
- [JavaScript: The Good Parts](#) (Douglas Crockford)
- [JavaScript: The Definitive Guide](#) (David Flanagan)

Questions?