

Ext JS Overview



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Nov/2010

About me





Ext JS

+

JQT

jQTouch

+



Raphaël

=

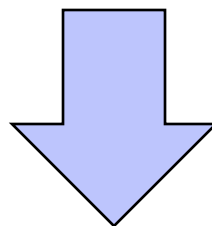


Sencha



YUI Lacked:

- Easy to use API
- Real World Widgets



Ext JS



Why Ext JS?

Windows looks like OS windows – support dragging/resizing/closing

Grid Window

	Company	Price	Change	% Change
1	3m Co	\$71.72	0.02	0.03
2	Alcoa Inc	\$29.01	0.42	1.47
3	American Express Company	\$52.55	0.01	0.02
4	American International Group, Inc.	\$64.13	0.31	0.49
5	AT&T Inc.	\$31.61	-0.48	-1.54
6	Caterpillar Inc.	\$67.27	0.92	1.39
7	Citigroup, Inc.	\$49.37	0.02	0.04
8	Exxon Mobil Corp	\$68.10	-0.43	-0.64
9	General Electric Company	\$34.14	-0.08	-0.23
10	General Motors Corporation	\$30.27	1.09	3.74
11	Hewlett-Packard Co.	\$36.53	-0.03	-0.08
12	Honeywell Intl Inc	\$38.77	0.05	0.13
13	Intel Corporation	\$19.88	0.31	1.58
14	Johnson & Johnson	\$64.72	0.06	0.09
15	Merck & Co., Inc.	\$40.96	0.41	1.01
16	Microsoft Corporation	\$25.84	0.14	0.54
17	The Coca-Cola Company	\$45.07	0.26	0.58
	... & Gamble Company	\$61.91	0.01	0.02
	... res, Inc.	\$45.45	0.73	1.63

Accordion Window

Online Users

Friends

- Jack
- Brian
- Jon
- Tim
- Nlge
- Fred
- Bob

Family

- Kelly
- Sara
- Zack
- John

Settings

Even More Stuff

My Stuff

Tab Window

Tab Text 1 | Tab Text 2 | Tab Text 3 | Tab Text 4

Something useful would be in here.

Window 6

Something useful would be in here.

Jack Slocum

- Grid Window
- Tab Window
- Accordion Window
- Bogus Submenu
- Window 6

Settings

Logout

Bogus Window 1

Bogus Window 2

Bogus Window 3

Bogus Window 4

Bogus Window 5

Start

Accordion...


Grid Window

Tab Window

Window 6



Good Documentation

 **Sencha** Ext JS API Documentation

examples | sencha.com

Find a Class

API Documentation

- Ext
 - chart
 - data
 - dd
 - direct
 - form
 - grid
 - AbstractSelectionModel
 - ActionColumn
 - BooleanColumn
 - CellSelectionModel
 - CheckboxSelectionModel
 - Column
 - ColumnModel
 - DateColumn
 - EditorGridPanel
 - GridDragZone
 - GridPanel**
 - GridView
 - GroupingView
 - NumberColumn
 - PivotAxis
 - PivotGrid
 - PivotGridView
 - PropertyColumnModel
 - PropertyGrid
 - PropertyRecord
 - PropertyStore
 - RowNumberer
 - RowSelectionModel
 - TemplateColumn
 - layout
 - list
 - menu
 - slider

API HomeGridPanel

Config Options | Properties | Methods | Events | Direct Link

Properties | Methods | Events | Config Options | Direct Link

Observable | Component | BoxCol

Class Ext.grid.GridPanel

Package: Ext.grid
Defined In: GridPanel.js
Class: GridPanel
Subclasses: EditorGridPanel,PivotGrid
Extends: Panel

This class represents the primary interface of a component based grid control to represent data in a tabular format of rows and columns. The GridPanel is composed of the following:












- **Store** : The Model holding the data records (rows)
- **Column model** : Column makeup
- **View** : Encapsulates the user interface
- **selection model** : Selection behavior

Example usage:

```
var grid = new Ext.grid.GridPanel({
    store: new Ext.data.Store({
        autoDestroy: true,
        reader: reader,
        data: xg.dummyData
    }),
    colModel: new Ext.grid.ColumnModel({
        defaults: {
            width: 120,
            sortable: true
        },
        columns: [
            {id: 'company', header: 'Company', width: 200, sortable: true, dataIndex: 'company'},
            {header: 'Price', renderer: Ext.util.Format.usMoney, dataIndex: 'price'},
            {header: 'Change', dataIndex: 'change'},
            {header: '% Change', dataIndex: 'pctChange'},
            // instead of specifying renderer: Ext.util.Format.dateRenderer('m/d/Y') use xtype
            {
                header: 'Last Updated', width: 135, dataIndex: 'lastChange',
                xtype: 'datecolumn', format: 'M d, Y'
            }
        ]
    })
});
```

Community Support

Sencha Forum

Ext JS Premium Forums			Last Post
	Ext: Premium Help (24 Viewing) Expedited help for Ext JS Premium Subscription members	Threads: 9,560 Posts: 47,816	cross-domain not working in... by salgaf Today 8:24 AM
	Ext: Feature Requests (3 Viewing) Request new features or modifications to existing ones	Threads: 1,461 Posts: 6,874	Tab Strip - hidden: true by Hacker-CB Today 2:21 AM
Sencha Touch Forums			Last Post
	Sencha Touch: Help & Discussion (19 Viewing) Community help and discussion with using Sencha Touch	Threads: 2,258 Posts: 9,520	How do you scroll to the top... by lte77 Today 8:29 AM
	Sencha Touch: Bugs (2 Viewing) Report bugs in Sencha Touch	Threads: 494 Posts: 2,081	[RC1] Reload a list after... by dbottillo Today 7:51 AM
	Sencha Touch: Feature Requests Request new features or modifications to existing ones	Threads: 163 Posts: 545	Sencha Touch in Skyfire by Ralph Haygood Yesterday 1:41 PM
	Sencha Touch: Examples and Showcases Post links to show what you have done with Sencha Touch	Threads: 65 Posts: 330	Ext.ux.touch.SwipeTabs by sander Today 7:50 AM
	Sencha Touch: App Contest (1 Viewing) Compete for huge cash and prizes by entering your best Sencha Touch app by Oct 27.	Threads: 16 Posts: 68	Top 10 list available by blessan Yesterday 11:26 PM
Ext General Forums			Last Post
	Ext: Open Discussion (15 Viewing) Discussion about current development, screenshots, getting involved, etc.	Threads: 3,817 Posts: 29,835	Ext to Sencha Namespace? by scarsick Today 7:48 AM
	Ext: Examples and Extras (18 Viewing) Post links to show what you have done with Ext	Threads: 1,257 Posts: 14,369	tobiugrid - High Performance... by tobiu Today 8:13 AM
	Gxt: Open Discussion Discussion about current development, screenshots, getting involved, etc.	Threads: 838 Posts: 3,799	HtmlEditor by bmkrishna.adnala Yesterday 12:33 AM
Ext JS Community Forums (3.0)			Last Post
	Ext: Help (43 Viewing) Community help forum for Ext JS version 3.0.	Threads:	Cascading ComboBox filter... by dwick

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\$2,695

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20 Pack 

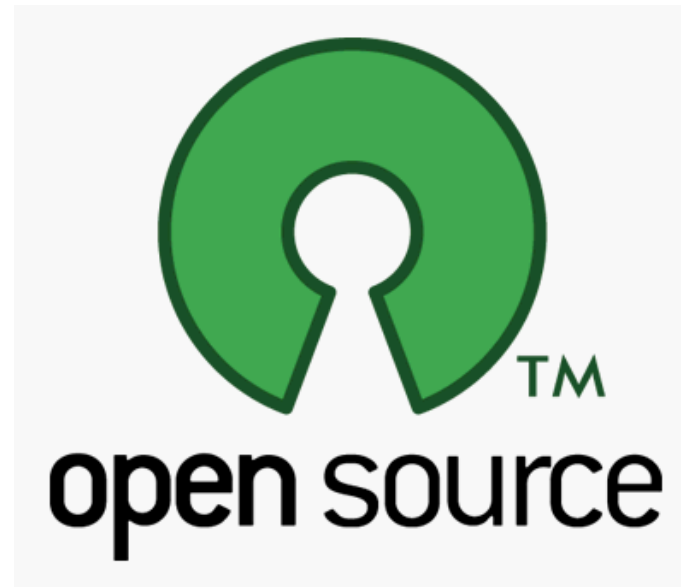
Ext JS License + **Premium Support**

\$9,995

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Cross Browser





Adapters



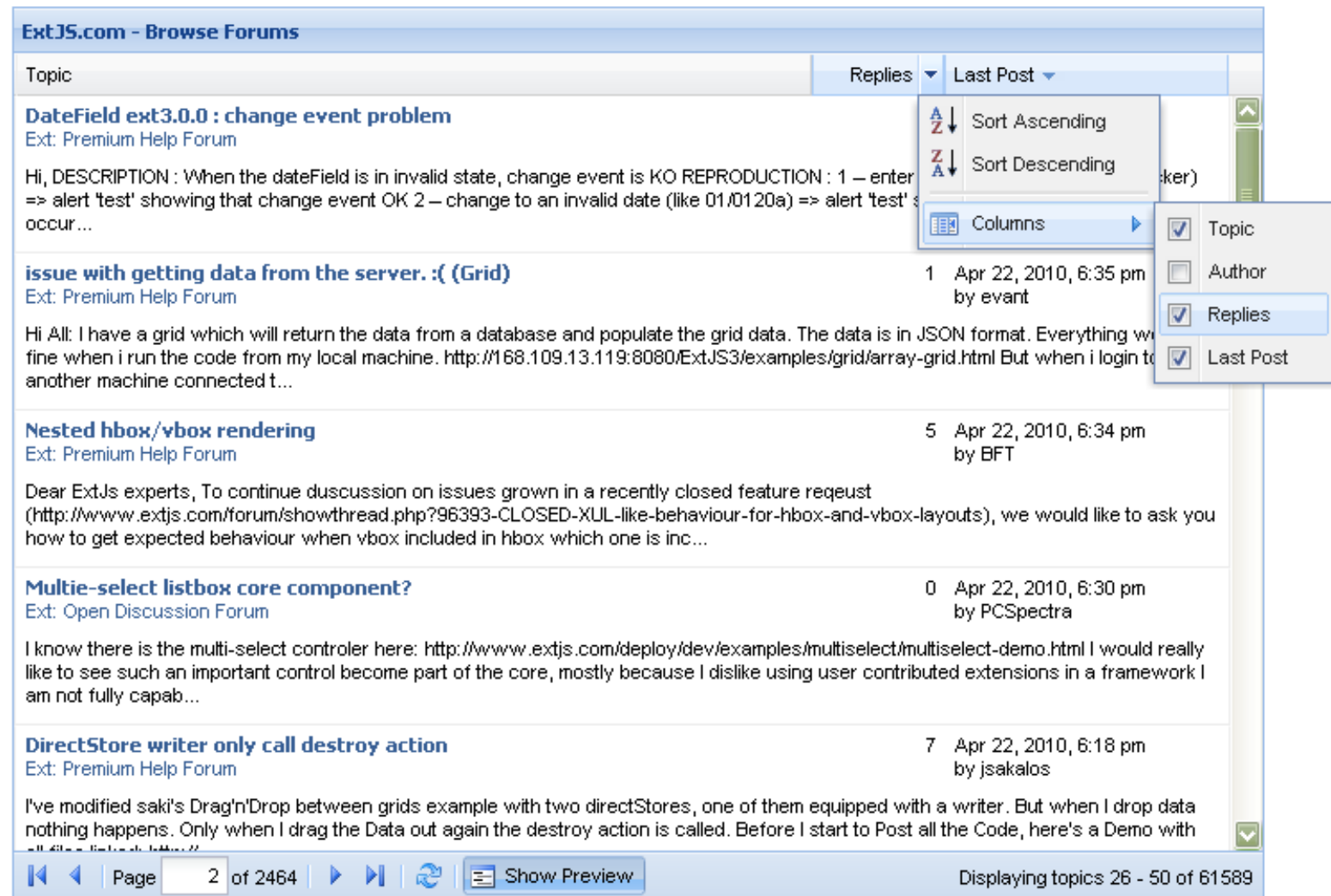


Widgets

Data Grid

support paging/filtration/sorting/grouping/editor/RESTful

Easy to load/save data to server in different formats – xml/json



The screenshot displays the ExtJS.com forum interface. At the top, there's a header bar with the site name. Below it, a table lists forum topics. The columns are 'Topic', 'Replies', and 'Last Post'. A dropdown menu is open over the 'Replies' column, showing options for 'Sort Ascending', 'Sort Descending', and 'Columns'. The 'Columns' option is selected, and a sub-menu is open showing checkboxes for 'Topic', 'Author', 'Replies', and 'Last Post'. The 'Replies' checkbox is checked. The forum topics listed include 'DateField ext3.0.0 : change event problem', 'issue with getting data from the server. :((Grid)', 'Nested hbox/vbox rendering', 'Multie-select listbox core component?', and 'DirectStore writer only call destroy action'. The bottom of the page shows a pagination bar indicating 'Page 2 of 2464' and a 'Show Preview' button.

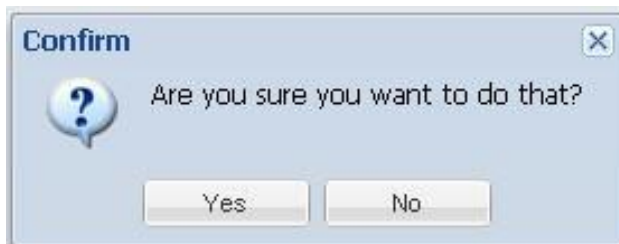
Topic	Replies	Last Post
DateField ext3.0.0 : change event problem Ext: Premium Help Forum Hi, DESCRIPTION : When the dateField is in invalid state, change event is KO REPRODUCTION : 1 – enter => alert 'test' showing that change event OK 2 – change to an invalid date (like 01/0120a) => alert 'test' occur...		
issue with getting data from the server. :((Grid) Ext: Premium Help Forum Hi All: I have a grid which will return the data from a database and populate the grid data. The data is in JSON format. Everything works fine when i run the code from my local machine. http://168.109.13.119:8080/ExtJS3/examples/grid/array-grid.html But when i login to another machine connected t...	1	Apr 22, 2010, 6:35 pm by evant
Nested hbox/vbox rendering Ext: Premium Help Forum Dear ExtJs experts, To continue discussion on issues grown in a recently closed feature request (http://www.extjs.com/forum/showthread.php?96393-CLOSED-XUL-like-behaviour-for-hbox-and-vbox-layouts), we would like to ask you how to get expected behaviour when vbox included in hbox which one is inc...	5	Apr 22, 2010, 6:34 pm by BFT
Multie-select listbox core component? Ext: Open Discussion Forum I know there is the multi-select controller here: http://www.extjs.com/deploy/dev/examples/multiselect/multiselect-demo.html I would really like to see such an important control become part of the core, mostly because I dislike using user contributed extensions in a framework I am not fully capab...	0	Apr 22, 2010, 6:30 pm by PCSpectra
DirectStore writer only call destroy action Ext: Premium Help Forum I've modified saki's Drag'n'Drop between grids example with two directStores, one of them equipped with a writer. But when I drop data nothing happens. Only when I drag the Data out again the destroy action is called. Before I start to Post all the Code, here's a Demo with all files attached to this post.	7	Apr 22, 2010, 6:18 pm by jsakalos

Page 2 of 2464 | Show Preview | Displaying topics 26 - 50 of 61589



Window

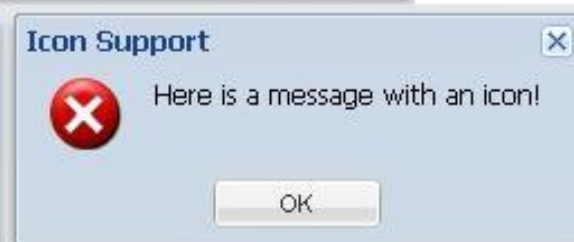
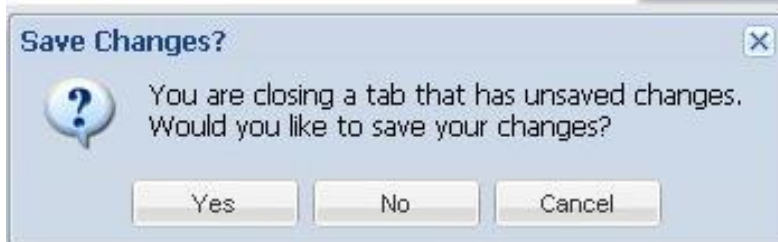
Confirm



Prompt

Icon Alert

Yes, No, Cancel



Progress Dialog



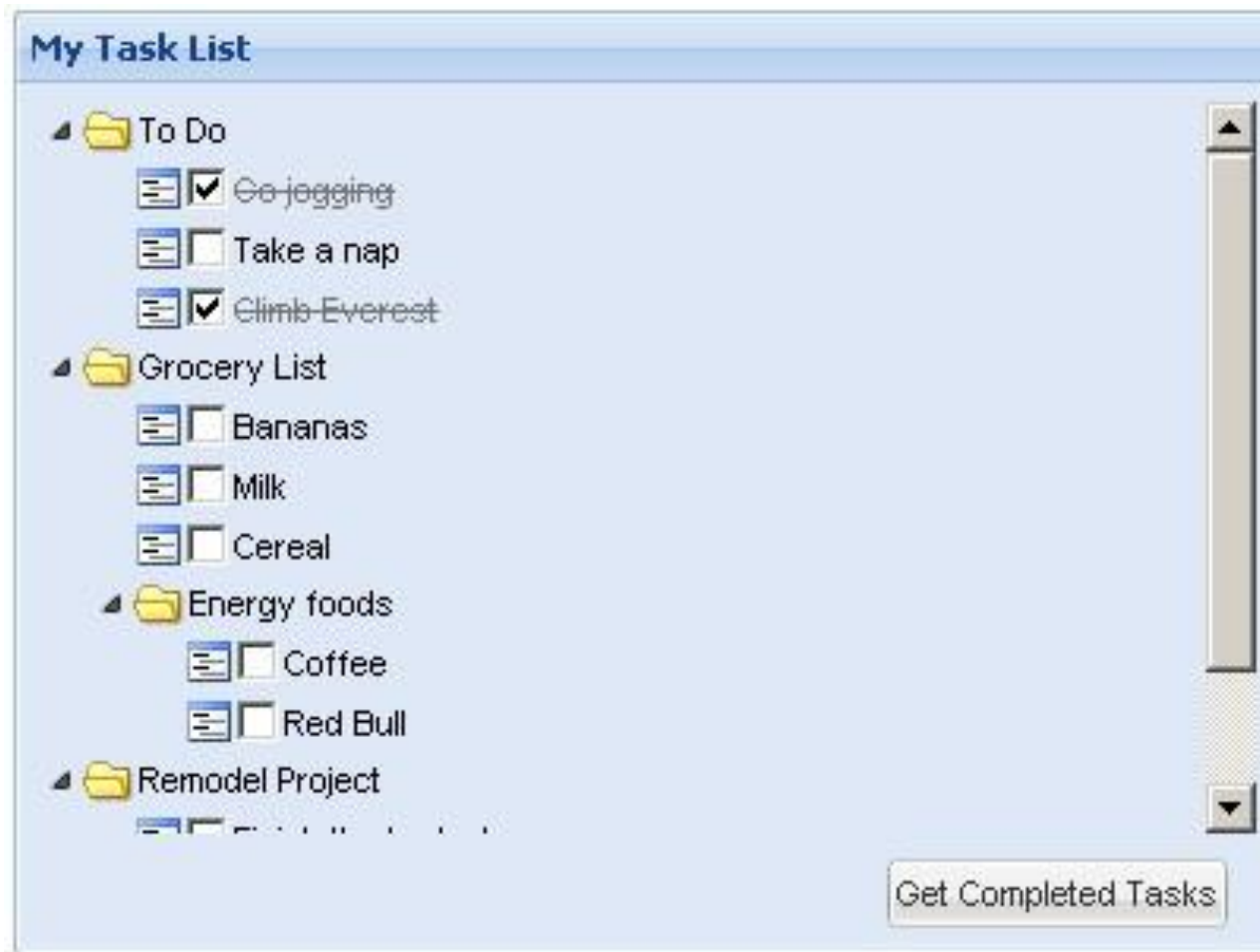
Wait Dialog

Window with components



Tree Panel

support drag and drop/multiple trees/reordering/checkbox
Easy to load/save data to server in different formats – xml/json



Combo Boxes

support autocomplete/typing/ajax/search/advanced template
Easy to load/save data to server in different formats – xml/json

Search the Ext Forums

extjs

Create a form with PHP+Extjs Hi , i need a form register [PHP+extjs]... Plase Help me...(((:(:(:(:(link Form : http://www.extjs.com/deploy/dev/examples/statusbar/statusbar-ad...	May 26, 2010 by GuideMaster
ExtJS IE8 / IE7 under RDC (Remote Desktop Connection): thick borders+invisible resize i'm using window server r2 2008 in my laptop.extjs(web) and adobe air +extjs work fine.only ie 8 font more smaller. there was a bug using ie 8 on g...	Mar 30, 2010 by alien3d
ext vs jquery vs together It's funny, that internet browser+ExtJS tries to be an operating system. It's funny, that operating systems try to be browsers (webOS). It's disturbin...	Oct 20, 2009 by MartiCode
ext vs jquery vs together I would frankly suggest that you want to pick one way to do things, and then work within that one framework for that application ... I second that. ...	Oct 20, 2009 by Artur Bodera (Joust)
ExtJs and Struts 1.x integration Hi, Can somebody give me sample application struts+extjs at nisu83@gmail.com. Thanks.	May 22, 2009 by nisu83
Desarrolladores - En espa Hola, estoy tratando de mejorar los que hago a diario, por esto estoy viendo con bueno ojos a ExtJS. Yo trabajo con Java+Tomcat+Oracle, uso iBatis par...	Mar 9, 2009 by saamondino

Page 1 of 2

Idaho

Idaho
Illinois
Indiana
Iowa

Forms

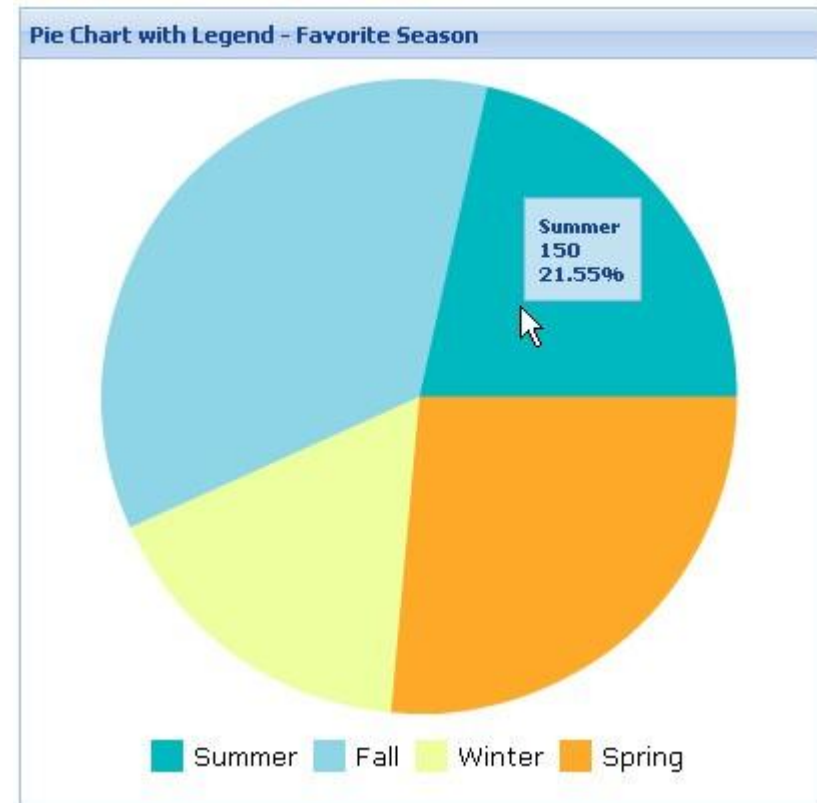
support ajax/file upload, calendar, etc

Easy to load/save data to server in different formats – xml/json

The screenshot shows a web form titled "Inner Tabs". It contains four input fields: "First Name:", "Last Name:", "Company:", and "Email:". Below these fields are three tabs: "Personal Details", "Phone Numbers", and "Biography". The "Biography" tab is currently selected. Inside the "Biography" tab, there is a rich text editor. The editor's toolbar includes a font face dropdown (set to "Tahoma"), bold, italic, underline, font size, text color, background color, bulleted list, numbered list, link, unlink, and a help icon. The text area of the editor contains two lines of placeholder text: "dfgsdfa" and "sdfgsdfgsdfgsdfa". A color selection palette is open over the text area, displaying a grid of 30 color swatches. A mouse cursor is pointing at one of the colors in the palette. At the bottom right of the form, there are "Save" and "Cancel" buttons.

Charts

Dynamic – supports reloading on run time
Requires Flash





Calendar

Google Calendar – same functions Ext JS 3.3+

11 Ext JS Calendar

October 31 - December 4, 2010

November 2010

Day Week Month

S	M	T	W	T	F	S	Sun	Mon	Tue	Wed	Thu	Fri	Sat
31	1	2	3	4	5	6	Oct 31, 2010	Nov 1	2	3	4	5	6
7	8	9	10	11	12	13	A long one...	10:00am Vacation					
14	15	16	17	18	19	20							
21	22	23	24	25	26	27							
28	29	30	1	2	3	4							
5	6	7	8	9	10	11							
Today													
							7	8	9	10	Today 4:59 pm	12	13
							A long one...	Jenny's final exams	1:00pm Board meeting ☀	Sarah's birthday	9:00am Haircut	11:30am Lunch with Matt ☀	7:00pm Movie night ☀
											+1 more...		
							14	15	16	17	18	19	20
							A long one...	School holiday ☀					
							21	22	23	24	25	26	27
							28	29	30	Dec 1	2	3	4

Edit Event

Title: Jenny's final exams

When: 11/9/2010 to 11/13/2010 ☒ All day

Calendar: School

[Edit Details...](#) [Save](#) [Delete](#) [Cancel](#)



Themes

Easy to customize

The screenshot displays a dark-themed user interface with several components:

- Top Navigation:** A series of small image thumbnails at the very top of the page.
- Basic Panel:** A simple panel containing the text "Some content".
- Masked Panel:** A panel with a grey background and a "Loading..." button.
- Framed Panel:** A panel with a thin border containing the text "Some content".
- Window:** A panel with a title bar, a toolbar, and a "Submit" button.
- Form Widgets:** A large section containing various input fields and controls:
 - Plain Label
 - TextField: "Enter a value"
 - ComboBox: A dropdown menu.
 - DateField: A date picker.
 - TimeField: A time picker.
 - NumberField: A numeric input field.
 - TextArea: A multi-line text input field.
 - Checkboxes: "Foo" (checked) and "Bar" (unchecked).
 - Radios: "Foo" (selected) and "Bar" (unselected).
 - A rich text editor toolbar with a font family dropdown set to "Tahoma".
 - A tooltip that appears when hovering over the toolbar.
 - A note about the HTML editor IFrame requiring a refresh.
 - Fieldsets: "Plain Fieldset" and "Collapsible Fieldset".
- Basic Panel With Toolbars:** A panel with a toolbar containing "Toolbar & Menus", "Button", "Menu Button", "Split Button", and a "Toggle" button. It also has a "Bottom Bar".
- BorderLayout Panel:** A panel demonstrating a BorderLayout layout with regions labeled "North", "West", "Center", "East", and "South".
- GridPanel:** A panel displaying a data table with a toolbar and pagination controls.

Company	Price	Change	% Chan...	Last Upd...
3m Co	\$71.72	0.02	0.03	09/01/2010
AT&T Inc.	\$31.61	-0.48	-1.54	09/01/2010
Alcoa Inc	\$29.01	0.42	1.47	09/01/2010
Altria Group Inc	\$83.81	0.28	0.34	09/01/2010



What Else Ext JS Can Do?

- Ajax support
- Dom traversing
- Dom manipulation
- Event Handling
- Selectors
- OOP emulation
- Animation

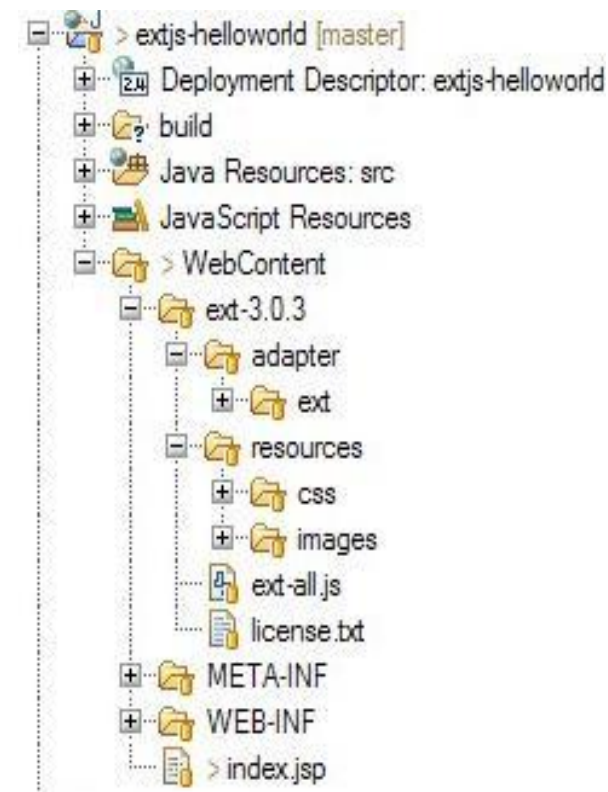


Getting Started



Hello World using Eclipse IDE – Java project

- **Download:**
<http://sencha.com/products/extjs/download.php>
- **Create a Dynamic Web Project.**
- **Under WebContent folder, create a folder where all ExtJS files will be located (I named it ext-3.0.3). Paste adapter and resources folders under your extjs folder. Also, paste this file: *ext-all.js* under *ext-3.0.3*:**



```
<html>
<head>

  <!-- Ext relies on its default css so include it here. -->
  <!-- This must come BEFORE javascript includes! -->
  <link rel="stylesheet" type="text/css" href="/extjs-helloworld/ext-3.0.3/resources/css/ext-
all.css" />

  <!-- Include here your own css files if you have them. -->

  <!-- First of javascript includes must be an adapter... -->
  <script src="/extjs-helloworld/ext-3.0.3/adapter/ext/ext-base.js"></script>

  <!-- ...then you need the Ext itself, either debug or production version. -->
  <script src="/extjs-helloworld/ext-3.0.3/ext-all.js"></script>

  <!-- Include here your extended classes if you have some. -->

  <!-- Include here you application javascript file if you have it. -->

  <title>Getting Started with Extjs</title>

  <!-- You can have onReady function here or in your application file. -->
  <!-- If you have it in your application file delete the whole -->
  <!-- following script tag as we must have only one onReady. -->

  <script type="text/javascript">

    // Path to the blank image must point to a valid location on your server
    Ext.BLANK_IMAGE_URL = '/extjs-helloworld/ext-3.0.3/resources/images/default/s.gif';

  </script>

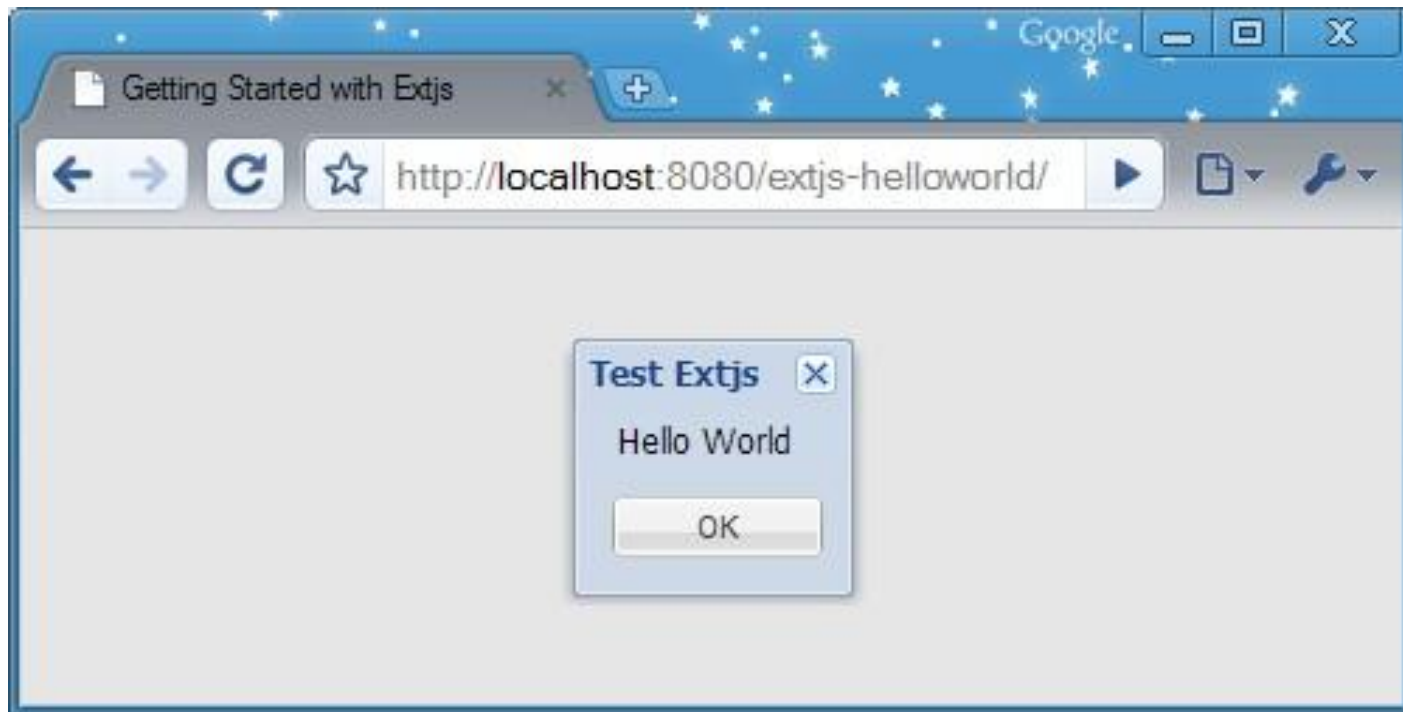
</head>
<body>

</body>
</html>
```

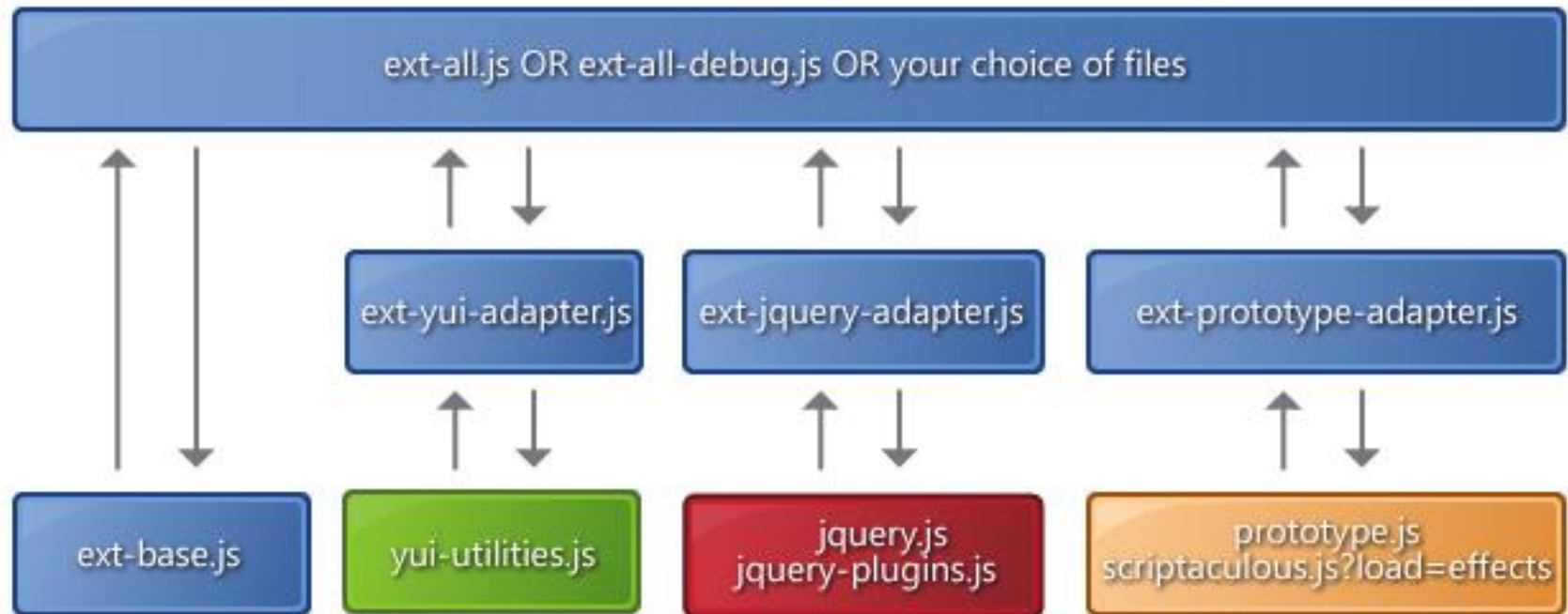


Hello World

```
<script type="text/javascript">  
  
  // Path to the blank image must point to a valid location on your  
server  
  Ext.BLANK_IMAGE_URL = '/extjs-helloworld/ext-  
3.0.3/resources/images/default/s.gif';  
  
  Ext.onReady(function(){  
    Ext.Msg.alert('Test Extjs', 'Hello World');  
  });  
  
</script>
```

Ext JS and Base Library Relations





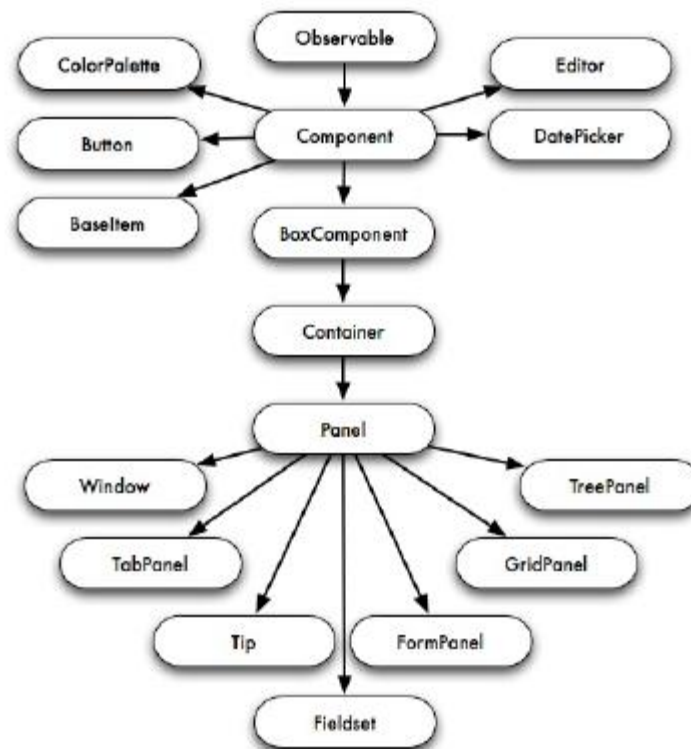
Main Ext JS Classes

- **Component**
- **Panel**
- **Container**
- **Store**

Component

- All widgets extends component class
- Provide base widget functions like
 - enable()/disable()
 - show()/hide()
 - addClass()/removeClass()
 - update(data/html) – update content area
 - getEl() return element
 - getId()
 - getXType()
 - render(target)
 - focus()
- XType – alternate way to define component
 - Lazy component creation
 - ◆ `var panel1 = {`
 - ◆ `xtype : 'panel',`
 - ◆ `title : 'Plain Panel',`
 - ◆ `html : 'Panel with an xtype specified'`
 - ◆ `}`
 - ◆ `var myPanel = new Ext.Panel({`
 - ◆ `renderTo : document.body,`
 - ◆ `height : 50,`
 - ◆ `width : 150,`
 - ◆ `title : 'Panel',`
 - ◆ `frame : true`

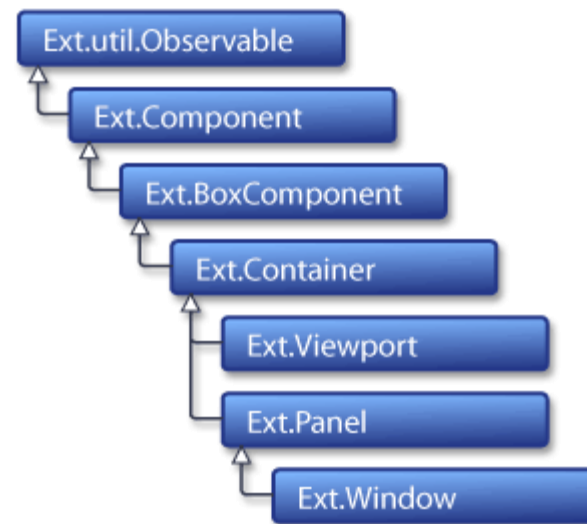
- Components are managed by Ext.ComponentMgr
 - get(componentId)
 - registerType(xtype, object) (shorthand Ext.reg())





Containers

- handle the basic behavior of containing items, namely adding, inserting and removing items
- Main functions
 - add()
 - remove()/removeAll()
 - insert()
 - find()/findBy()/findById()/findByType
 - doLayout()
 - get(index or id)/getComponent(component or index or id)
- Main prop
 - Items - MixedCollection of children components



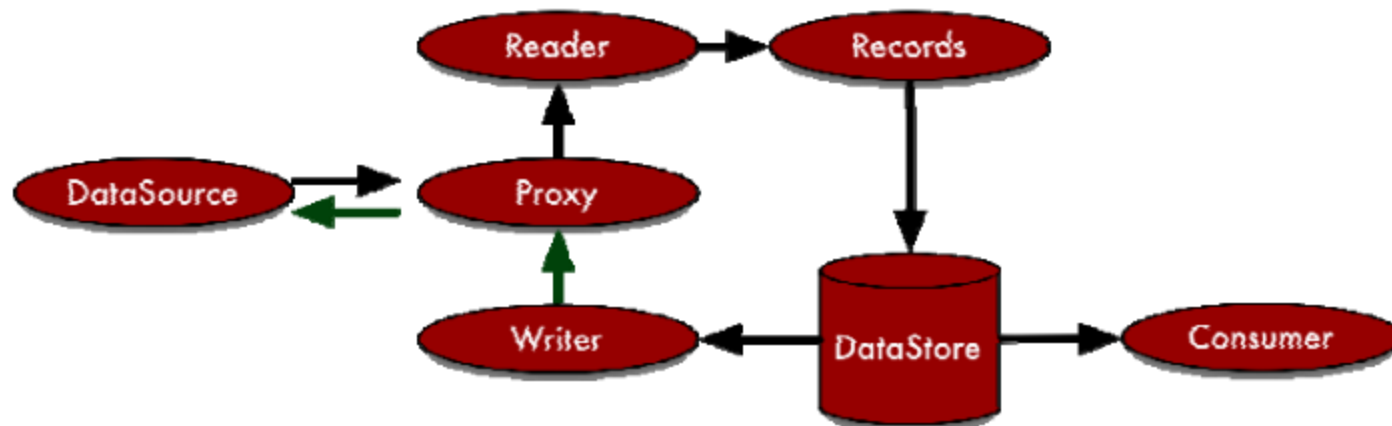


Panels

- Main panel functions/prop/conf prop
 - load()
 - `panel.load({`
 - `url: 'your-url.php',`
 - `params: {param1: 'foo', param2: 'bar'}, //`
`or a URL encoded string`
 - `callback: yourFunction,`
 - `scope: yourObject, // optional scope for`
`the callback`
 - `discardUrl: false,`
 - `nocache: false,`
 - `text: 'Loading...'`
 - `timeout: 30,`
 - `scripts: false`
 - `});`
 - body – prop
 - html – conf prop
 - autoLoad – conf prop
- Panel subclasses
 - TabPanel
 - Window
 - FormPanel
 - GridPanel
 - TreePanel
- Toolbar and Bottombar

Stores

- Data storage/Loading
- Store contains records object which contain a server data directly
 - Store is able to insert/update/add records
- SubClasses
 - ArrayStore: Store + ArrayReader – plain js array can be loaded into the array store
 - DirectStore: Store + DirectProxy + JsonReader - CRUD operation is going thought custom js method
 - GroupingStore: store for grid rows grouping
 - JsonStore: Store + JsonReader
 - XmlStore: Store + XmlReader



Stores

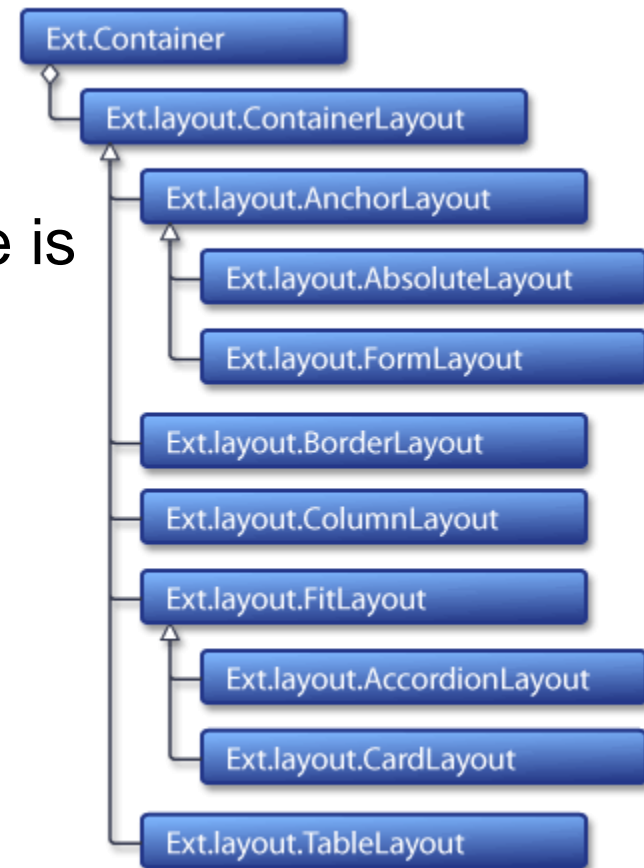
- Main exchange format: XML and JSON
- Easy to integrate – any language/framework with XML or JSON support:





Layout Manager

- Layouts manages by containers – there is no need to create Layouts directly
- The most useful are Fit, VBox, HBox, Border
 - Only VBox, HBox, Border layouts supports margins
- Flex prop of VBox, HBox
- BorderLayout must have center item
- Table layout does not support resizing of items





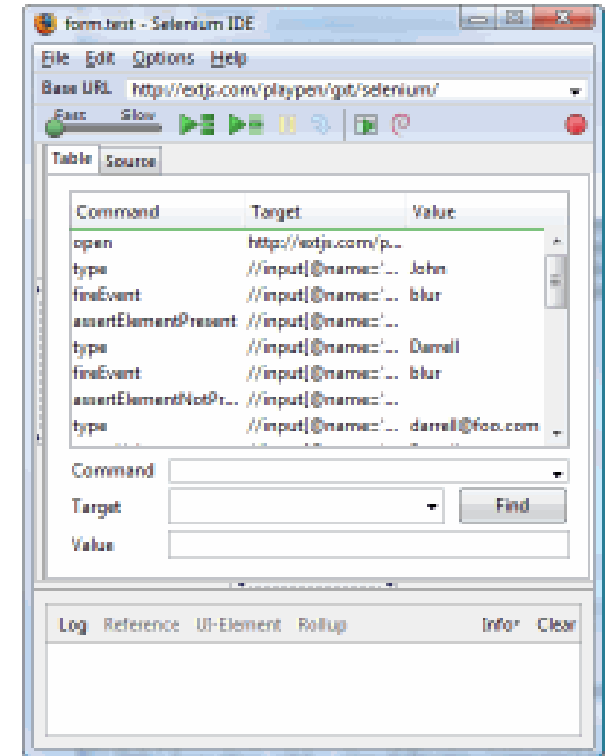
Demo: CRUD Grid + Spring + Hibernate

- <http://github.com/loiane/extjs-crud-grid-spring-hibernate>



Selenium IDE

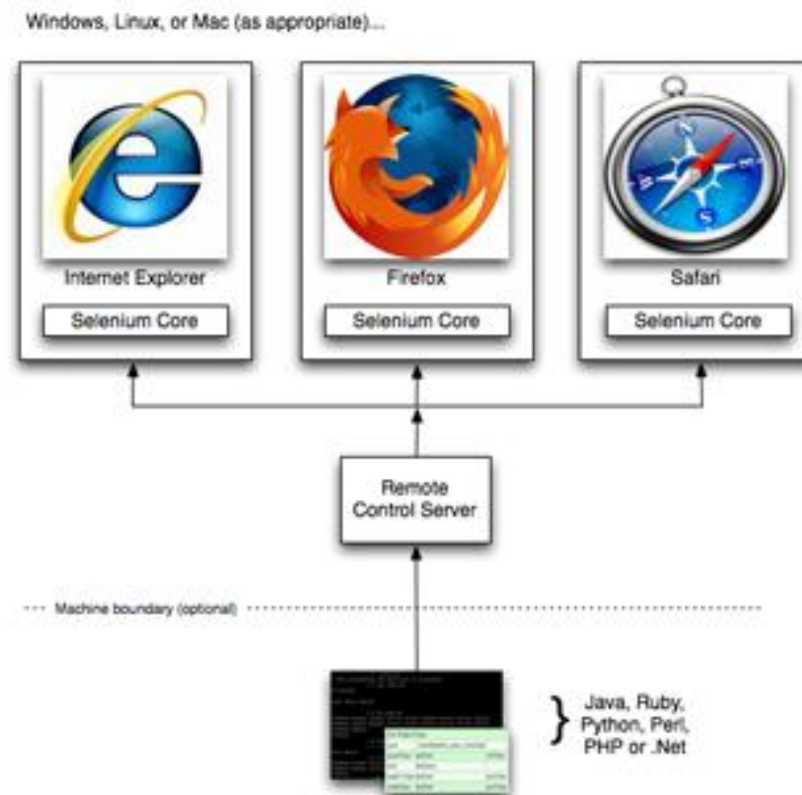
- **Firefox Extension**
- **List of Commands**
- **Selenium Locators – Xpath Expressions**
- **Example expressions look like this:**
 - `//input[@name='name']`
 - `//input[@name='name' and contains(@class, 'x-form-invalid')]`
 - `//input[@name='company']/following-sibling::img`
 - `//div[@id='Apple']`
 - `//div[@class='x-combo-list-item'][3]`
- **Examples using CSS selectors:**
 - `css=html:root`
 - `css=div#structuralPseudo :nth-last-child(2)`
 - `css=a[class~="class2"]`





Executing Tests with Selenium Remote Control (RC)

- Programming Language
- HTTP Proxy





Java Test

```
public class SeleniumTestCase extends SeleneseTestCase {

    private selenium selenium;

    public void setup() {
        selenium = new DefaultSelenium("localhost", 4444, "*iexplore", "http://extjs.com");
        selenium.start();
    }

    public void testForm() {
        selenium.open("http://extjs.com/playpen/gxt/selenium/");
        pause(500);
        selenium.type("//input[@name='name']", "John");
        selenium.fireEvent("//input[@name='name']", "blur");
        assertTrue(selenium.isElementPresent("//input[@name='name' and contains(@class, 'x-form-invalid')]"));
        selenium.type("//input[@name='name']", "Darrell");
        selenium.fireEvent("//input[@name='name']", "blur");
        assertFalse(selenium.isElementPresent("//input[@name='name' and contains(@class, 'x-form-invalid')]"));
        selenium.type("//input[@name='email']", "darrell@foo.com");
        assertEquals("Darrell", selenium.getValue("//input[@name='name']"));
        assertEquals("darrell@foo.com", selenium.getValue("//input[@name='email']"));
        selenium.focus("//input[@name='company']");
        selenium.click("//input[@name='company']/following-sibling::img");
        assertEquals("43", selenium.getXPathCount("//div[@class='x-combo-list-item']"));
        selenium.click("//div[@id='Apple']");
        assertEquals("Apple Inc.", selenium.getValue("//input[@name='company']"));
        selenium.click("//input[@name='birthday']/following-sibling::img");
        selenium.click("//button[contains(text(), 'Today')]");
        assertTrue(selenium.getValue("//input[@name='birthday']").matches("^\\\\s\\\\s*$"));
        selenium.check("//input[@value='Classical']");
        assertEquals("on", selenium.getValue("//input[@value='Classical']"));
        selenium.check("//input[@value='Blue']");
        assertEquals("on", selenium.getValue("//input[@value='Blue']"));
    }

    public void tearDown() {
        selenium.stop();
    }

}
```



Important!

- Selenium tests for ExtJS should rely on CSS selectors. For every button, grid, label, tab or any significant UI element, simply chose to use the c/s attribute and specify a CSS class.

```
new Ext.Button({  
    text: 'Send',  
    cls: 'seleniumSendBtn', //classes separated by space  
    scope: this,  
    handler: function(){ ... }  
})
```

- This is how a basic button that is used in automation testing looks like:

```
//table[contains(@class,'seleniumSendBtn')]
```



Use Ext JS

- **Complex UI**
- **Features**

DO NOT Use Ext JS

- **Simple UI**
- **Single Component**

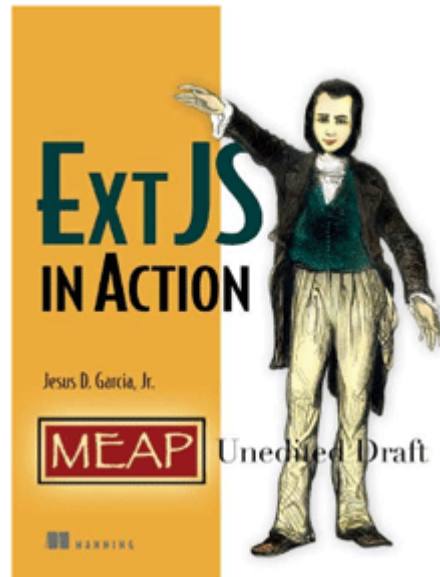
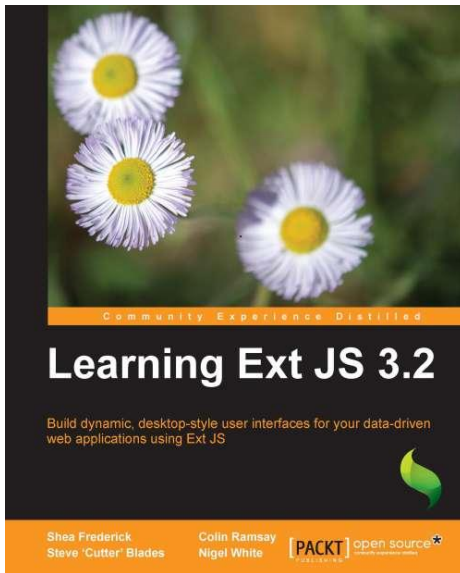


Resources

- <http://www.sencha.com>
- <http://www.extjs.com.br> – **Brazilian forum**



Books







Contact

- **English blog:** <http://loianegroner.com>
- **Portuguese-Brazil blog:** <http://loiane.com>
- **Twitter:** @loiane



धन्यवाद

Hindi

謝謝

Traditional Chinese

תודה רבה

Hebrew

Спасибо

Russian

Merci

French

Obrigado

Brazilian
Portuguese

Gracias

Spanish

Danku

Dutch

شكرا

Arabic

Thank You

English

Grazie

Italian

谢谢

Simplified
Chinese

Danke

German

தேனியு

Tamil

ありがとうございます

Japanese

ขอบคุณ

Thai

고맙습니다

Korean