

Dojo 0.9 + EXTJS

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dōjō
the javascript toolkit
sschuster.net

Topics

- Dojo 101 - What is Dojo?
- Dojo 0.9
 - Dojo
 - Dijit
 - Dojox

Dojo 101 - What is Dojo?

Dojo 101 - What is Dojo?

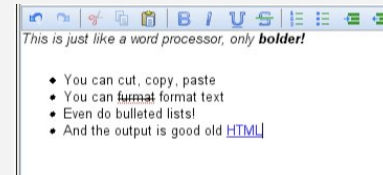
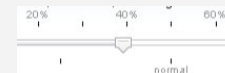
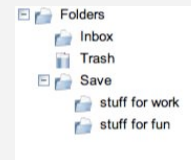
- Dojo is a JavaScript library
 - Abstracts browser differences
 - Adds language features
 - Adds JS Utilities
 - Provides widgets
 - ...
- One of the many wannabe JS-stdlibs

Dojo usage examples

- XmlHttpRequests
- DOM Animation
- Event handling
- Drag & Drop
- Advanced Math / Crypto
- GFX
- Browser Back Handling
- Logging/Debugging

Widget examples

- Container/Accordion/Tabs
- Date/Time picker
- Color picker
- Tree
- Tooltips
- Sliders
- Input Suggest
- Editor



dojo.require

That's too much stuff for one big JS



dojo.require

- Supports dynamic loading as well as custom builds
- Namespacing
- Extensible

Dojo 0.9

Dojo 0.9

- Dojo 0.4 had no differentiation - dojo.**everything**
- For 0.9 dojo was splitted into three projects
 - **Dojo**
 - JavaScript Base System
 - **Dijit**
 - Dojo Widget System
 - **Dojox**
 - Dojo “Sandbox” = Experimental components

Dojo 0.9 - Design Goals

- Focus on the browser as platform
 - Smaller codebase
 - Performance optimizations
- No API magic
- Get rid of legacy stuff
- Create a more distinct structure
 - e.g.: One unified dojo.js

Dojo 0.9 - Trade-Offs

- Totally backwards **in**compatible
- Removal of rarely used functionality
 - e.g.: dojo.event's before & around advice
 - Could make it hard to port 0.4 apps
- Removal of redundant API calls

Dojo Base

Dojo Base

- Contains stable non-widget base functionality
- Namespace: dojo
 - Plays nice with other libs
 - Many 0.4 sub-namespaces disappeared, like:
 - lang
 - event
- Small dojo.js base file

dojo.js

- Contains:
 - Event System
 - XMLHttpRequest
 - DOM-Query method
 - Basic effects
 - Array Utilities
 - Color Utilities
 - HTML/JSON

In 0.9 all this functionality is implemented directly within the dojo namespace

Additional Dojo Base components

- Not included in dojo.js
 - dojo.data
 - dojo.string
 - dojo.number
 - dojo.date
 - dojo.currency
 - Additional effects

dojo.js

dojo.js 0.9
52kb

dojo.js 0.4.3-ajax
152kb

Available on the edge-cached AOL CDN

gzipped ~50%

Dojo Base - Summary

- Delivers all pure JS functionality needed
 - + “best” packaging system
 - + custom build system
 - + stable
 - + fast
 - + extensible

Dijit

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Dijit

- The widget project of Dojo
- Dijit started with 0.9
- Probably the biggest construction site in 0.9
- Widget features:
 - Themes
 - A11Y and I18N (Accessible and International)
 - Unified data interface (dojo.data)
 - Markup based declaration

Themes

The image displays two side-by-side screenshots of the Dojo Toolkit's 'Buttons' widget, illustrating the 'Tundra' and 'Soria' themes. The 'Tundra' theme (top) features a light blue and white color scheme with a subtle gradient. The 'Soria' theme (bottom) uses a darker blue and white color scheme with a more pronounced gradient. Both themes show a 'Simple, drop down & combo buttons' example with buttons for 'Create', 'Edit', 'Save', and 'Disabled'. The 'Soria' theme also includes a 'Sizing' section with a dropdown menu and a text area for exploring the theme.

Popups and Alerts
Dojo Tree from Store
Calendar
August
S M T W T F S
29 30 31 1 2 3 4
5 6 7 8 9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29 30 31 1
2 3 4 5 6 7
2006 2007 2008
Color Picker

Form Feel Various Dijits **Buttons** Editable Text DnD Closable X

Simple, drop down & combo buttons

Buttons can do an action, display a menu, or both:

+ Create Edit Save Disabled

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Form Feel Various Dijits **Buttons** Editable Text DnD Closable X

Simple, drop down & combo buttons

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Sizing

Short button tall buttons big buttons small buttons These buttons size to their

You can explore this single page after applying a Theme for use in creation of your own theme

Info Alternate Themes Bottom 3 X

Tundra

Soria

A11Y & I18N



Unified data interface

- dojo.data provides an common interface
- Different DataStore implementations for different file formats
 - JSON
 - XML
 - OPML
 - Flickr
 - ...
- Widgets gets configured with a store
 - Any widget can connect to any data source

Markup declaration

- Parser NOT ENABLED by default
- Parser much faster than in 0.4
 - dojo.query based
- Widgets much faster than in 0.4
 - No more JS size calculation code
- Supports in markup event handler declaration

```
<div dojoType="dijit.Tree" ...*properties*...>  
  <script type="dojo/connect" event="onClick" args="item">  
    ...*Event handler coder*...  
  </script>  
</div>
```

Dojox

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Dojox

- Experimental components
 - GFX
 - Offline
 - 0.4 components in progress
 - And many more (Experimental / In development)

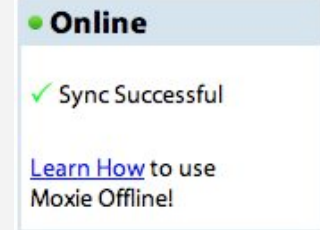
GFX

- Unified API for:
 - SVG (FF, Opera, Safari 3)
 - VML (IE)
- Related projects
 - dojox.charting
 - dojox.gfx3d (GSOC)



Offline

- Higher level API for Google Gears
 - Events for state changes
 - Events for sync actions
 - Status widget
 - SQL layer including encryption methods
 - DB based key/value storage
 - Automatic caching (slurp)



0.4 components

- Collections
- Old widgets (layout + misc like Fisheye)
- Validation
- Flash cookie storage

Experimental / In development

- Various DataStores
- Comet Client
- Wires
- Slideshow
- ...

Thank you for your attention

