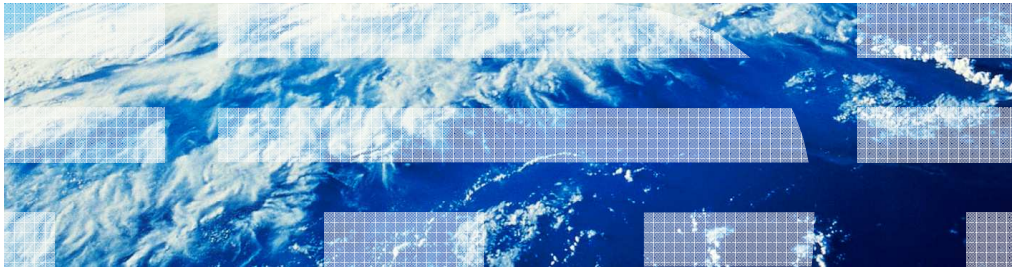

IBM WebSphere Application Server V8.5

Dojo Toolkit



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This presentation describes support for Dojo Toolkit 1.8 included in IBM WebSphere Application Server V8.5.0.1

Overview

Dojo Toolkit is a powerful and flexible modular Ajax software development kit. It is broken down in to three major layers: Dojo Core, Dijit, and DojoX. In this version of WebSphere Application Server, IBM is providing you with the Dojo Toolkit version 1.8 and additional modules like the Gridx module (a fast rendering, plug-in based grid component) and the cometd Dojo bindings (allows Dojo applications to connect to cometd servers). After a short Dojo Toolkit introduction this presentation will focus on the 1.8 update.

Dojo Toolkit

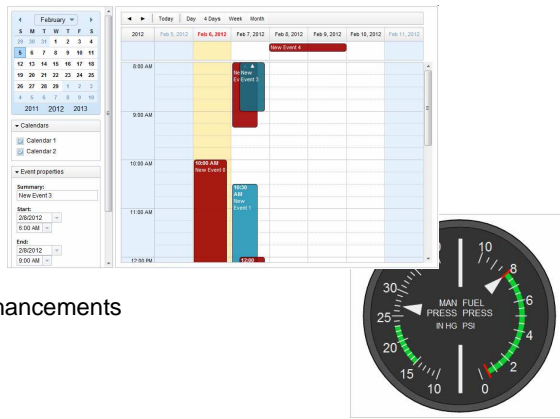
- A JavaScript / HTML5 toolkit to build web applications
- The UI is fully built client side and his data-format (JSON, XML...) agnostic
- Well suited for professional applications development with globalization, accessibility, object oriented programming support
- Contains three main packages:
 - dojo:
 - script module loader and build tool
 - DOM query and manipulation
 - JavaScript, XHR... utilities
 - dijit
 - UI framework
 - basic & advanced UI components (buttons, lists, spinner, trees...)
 - UI layouts (accordions, tabs...)
 - dojox (extensions to dojo & dijit)

The Dojo toolkit is a JavaScript HTML5 toolkit for building ajax-based web applications. When you develop with the Dojo toolkit your user interface is entirely built client-side. The various Dojo widgets are able to connect to any form of data including JSON, XML and others. With its integrated globalization, accessibility and oriented programming supports the Dojo toolkit is well suited for professional application development.

The Dojo toolkit contains three main packages: the dojo package, the dijit package and the dojox package. The dojo package, provides the core functionalities of the toolkit like the script module loader, the build tool, and the HTML DOM query and manipulation utilities which are various JavaScript utilities (for example, there is a utility that provides the ability to perform Ajax requests to the server). The dijit package provides a user interface framework and some basic and advanced user interface components like buttons, lists, spinner, trees and more. It also provides user interface layouts like accordions, tabs and others. You can build you own components on top of the framework if needed. The dojox package provides extensions to both dojo and dijit packages. Among the most useful extensions you will find a charting component, a fully-featured calendar component, a gauges framework, and a specific module for deploying mobile web applications called dojox/mobile.

What's new in Dojo Toolkit 1.8

- Dojo Toolkit 1.8 provides support for the latest browser versions up to IE9, Firefox 12, Chrome 21 and on mobile iOS 5, Android 4 and BlackBerry 7.
- New components:
 - dojo/request
 - dojo/router
 - dojo/promise
 - dojox/calendar
 - dojox/dgauges
 - dojox/treemap
- New features:
 - dojo/parser enhancements
 - various dijit enhancements
 - dojox/gfx and dojox/charting enhancements
 - dojox/mobile (see next slide)



Dojo Toolkit 1.8 provides support for the latest browser versions up to IE9, Firefox 12, Chrome 21 and on mobile iOS 5, Android 4 and BlackBerry 7. Several new components are available in this release. A new cross-platform Ajax component, `dojo/request`, is designed to be more flexible and extensible than the existing `dojo/_base/xhr` component (now deprecated). The component `dojo/router` enables client-side applications to register and navigate between discrete “pages” that change based on the current browser URL. Similar to the navigation of a “traditional” server-side application. The component `dojo/promise` is a redesigned promises implementation which deprecates `dojo/_base/Deferred`. Notable features of the new promise include improved instrumentation and error handling, an easier-to-use API, and a reduced footprint for applications that only need a subset of its features. `dojox/calendar` a new full featured visual calendar for mobile and desktop with day, week, month and year view and ability to edit events. Component `dojox/dgauges` is a new and easily extensible gauges framework with a set of predefined gauges working both on mobile and desktop. Finally, component `dojox/treemap` is a data visualization component to help analyze and drill down into complex sets of data.

In addition to the new components several existing components have been improved. In particular the `dojo/parser` now accepts AMD module identifiers in the `data-dojo-type` attribute. It also includes a new asynchronous mode that allows modules to be automatically required based on the `data-dojo-type` attribute if they haven't been explicitly required yet and the ability to dynamically mix one or several classes into the main class using the `data-dojo-mixins` attribute. The dijit components also contains several new features including the support of the new `dojo/store` in the Tree widget. Finally some `dojox` modules were also improved, in particular, `dojox/gfx` with the new clipping support and `dojox/charting` with the ability to support drop shadows across the various plot types and the ability to manage data point styling through custom functions.

What's new in Dojo Mobile 1.8

- dojox/mobile or Dojo Mobile is a dojox package that helps you build application for mobile using web techniques.
- New components:
 - TreeView
 - EdgeToEdge/RoundRectStoreList
 - SearchBox
 - Accordion
 - GridLayout
 - IconMenu
 - DatePicker
 - TimePicker
 - Audio/Video
 - Badge
 - ProgressBar
 - ...
- Use dojox/mobile/migrationAssist



Dojo Mobile, or dojox/mobile, is a dojox package that helps you build applications for mobile using web techniques and Dojo APIs. The application can then run as a regular Web Application or as a native application wrapped into a container like IBM Worklight container.

Dojo Mobile 1.8 provides several new components. The list here is not exhaustive but shows the most important components. TreeView is a new List widget to connect to dojo/store. GridLayout automatically arranges widgets in a grid that adapts to the mobile phone or table orientation. Audio and video are HTML5 components. So are the badge and progress bar components. You will find the complete list of new components in the release notes, listed in the references at the end of this presentation. In order to help you migrate from the previous Dojo Mobile version, the package provides a migrationAssist module that will warn you about API changes.

Summary

In summary, Dojo Toolkit 1.8 provides you with a wide range of new features for you to use. In particular, the Dojo Mobile package is vastly improved. Only the dojox/mobile module might require migration steps for compatibility. See the release notes listed in the reference for details.

References

- Dojo Toolkit 1.8 reference guide
<http://dojotoolkit.org/reference-guide/1.8/>
- Dojo Toolkit 1.8 release notes
<http://dojotoolkit.org/reference-guide/1.8/releasenotes/1.8.html#releasenotes-1-8>
- Gridx documentation
<https://github.com/evanhw/gridx/wiki>

The following references gives you a lot more additional information about **Dojo Toolkit 1.8** and the other components provided with the toolkit. Be sure to read the release notes if you are upgrading from a previous version of Dojo Toolkit.



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