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JSR344 (JSF 2.2) Status Update to JCP EC
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The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

My Plan For Your Time **Investment**

Technical

- JSR Summary and Scope

- Big Ticket Features

- Medium Sized Features

- Bug Fixes

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My Plan For Your Time **Investment**

Transparency

- How I run JSRs
  - What works Well, Puzzlers
- How features are suggested
- Transparency Tools
- Roadmap

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Technical Content

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What is JSF? Why is it Important?
JSR Summary: Abstractions Endure

SINCE 2004, JSF HAS BEEN THE STANDARD WEB APP FRAMEWORK FOR THE JAVA PLATFORM. JSF WAS DESIGNED TO BE A UI COMPONENT FRAMEWORK THAT SEPARATES UI SEMANTICS FROM RENDERING.

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Technical Content
JSR Scope

- "Bring the best ideas in web application development to the Java EE Platform"
    - Maximize Productivity
    - Minimize Complexity
- Categories listed on JSR
    - Ease of Development
    - New Features
    - Fixes

Technical Content
Six Big Ticket Features http://bit.ly/JCP_20120911_BIG_TICKET

- Faces Flows

- HTML5 Friendly Markup Support

  – Pass through attributes and elements

- Multi-Templating

- Cross Site Request Forgery Protection

- Loading Facelets via ResourceHandler

- File Upload Component

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Technical Content
Faces Flows

- Lack of formal way to group pages leads to maintenance problems
  - Hard to understand navigation
  - Like a large program that is a single function with lots of goto statements
- Faces Flows goals
  - Allow grouping related views together
  - Allow building applications as composites of modules of functionality

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Technical Content

Faces Flows

- JSF Navigation Story Recap
  - Defines a graph of VDL views
  - XML rule base defines relationship between views
    - Implicit rules added in JSF 2.0

```
<navigation-rule>
  <description>global navigation rules/description>
  <from-view-id>*</from-view-id>
  <navigation-case>
      <description>Go to Edit Project Page</description>
      <from-outcome>editProject</from-outcome>
      <to-view-id>/project/edit.jsf</to-view-id>
  </navigation-case>
</navigation-rule>
```

Technical Content
Faces Flows

- Faces Flows builds on the existing JSF navigation story and adds
  - Several node types in addition to VDL views
  - Well defined start and end-node concept
  - Scope concept
  - Ability to package a flow as a module and enclose it in a self-configuring jar
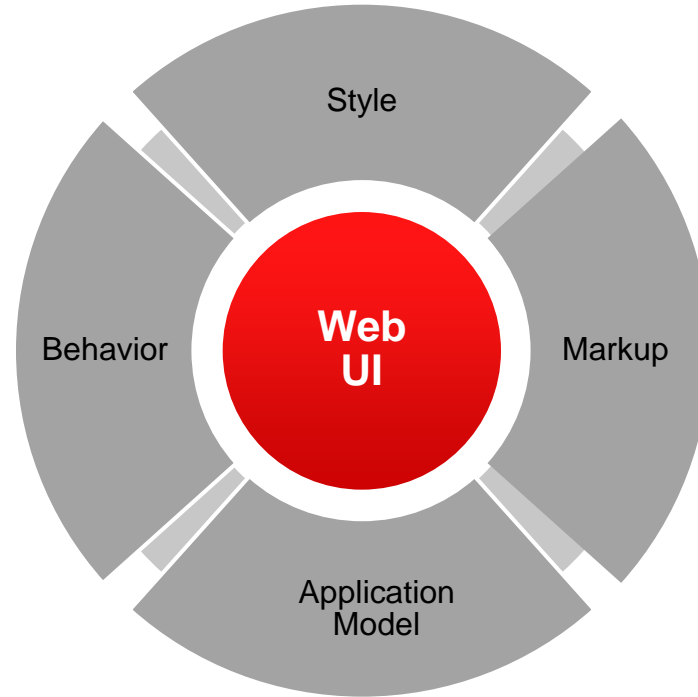- Still described in XML

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Technical Content
Faces Flows

- Two main varieties of flows

  - Unbounded (No specific start or end, not within a specific flow)

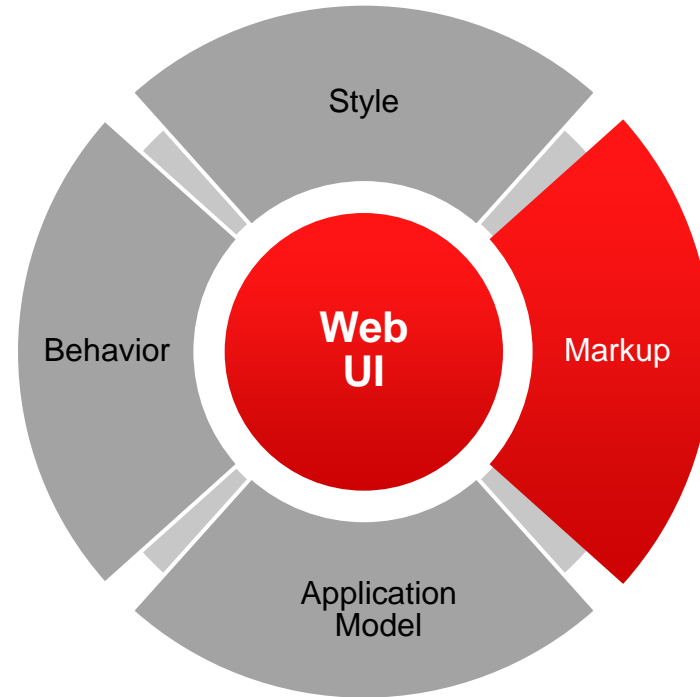 - Bounded (with explicit start node and end node(s))

Technical Content

What's in an HTML5 UI?

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Technical Content

What's in an HTML5 UI?


```
<html>
   <input />
   <button />
   <audio controls />
   <video />
   <img />
</html>
```
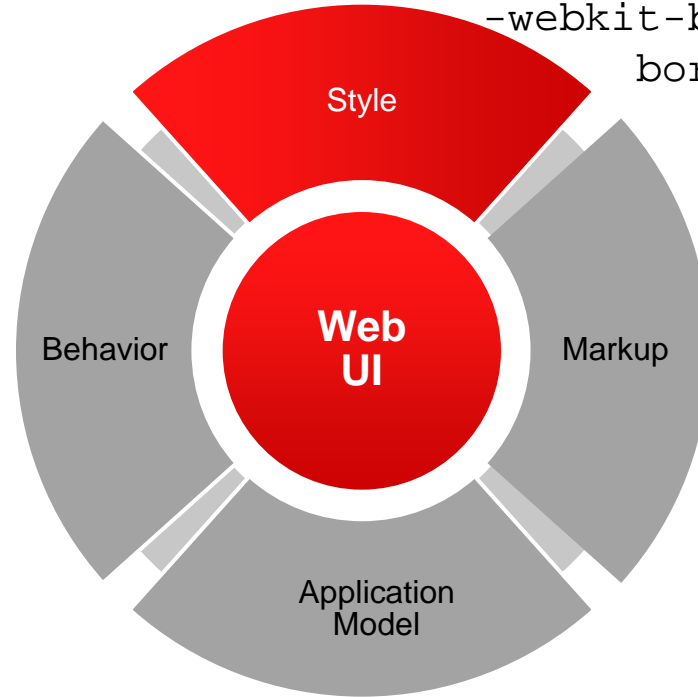
Technical Content

What's in an HTML5 UI?

```
border:groove 5px #000000;
-moz-border-radius: 34px;
       -webkit-border-radius: 34px;
           border-radius: 34px;
```
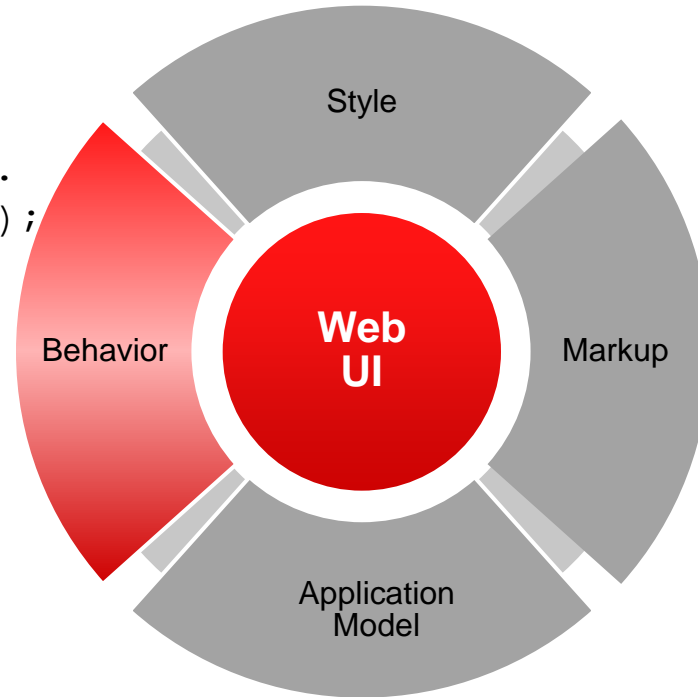
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Technical Content

What's in an HTML5 UI?
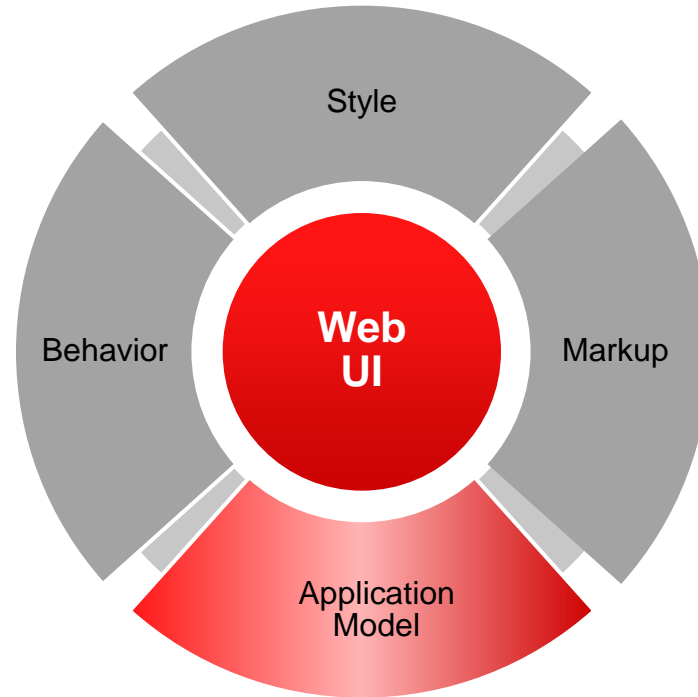
```
navigator.geolocation.
  getCurrentPosition();
window.JSON;
window.WebSocket;
```

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Technical Content

What's in an HTML5 UI?

Significant Server Side Logic

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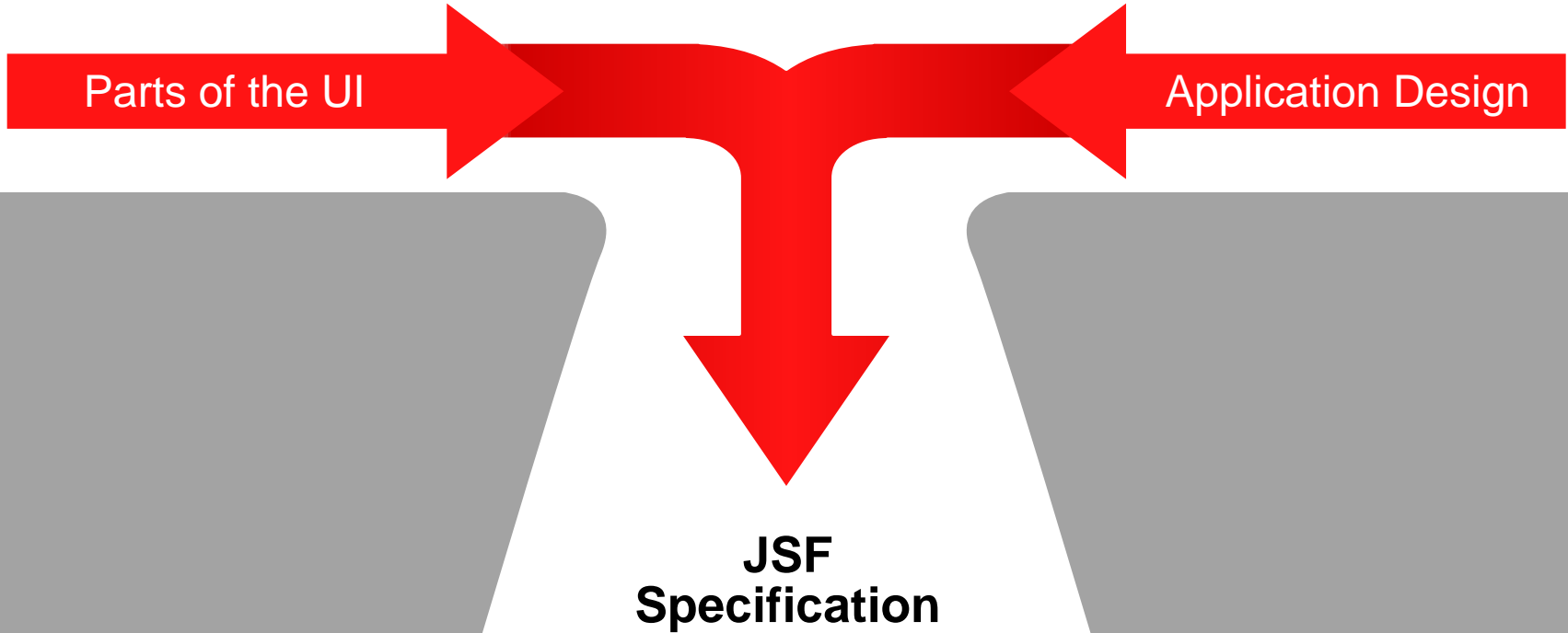
Technical Content

The power is in the developer's hands

- Markup
  - JSF View Declaration Language
- Style and Behavior
  - JSF Resource Handler
- Application Model
  - The strength of Java EE

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Technical Content

View Declaration Language

- An HTML-like syntax for declaring a user interface
- The ability to mix pure HTML with JSF components in the same declaration
  - Some of the elements in the declaration have a server-side representation: a UIComponent + Renderer pairing
  - The rest of the elements in the declaration are either for server-side templating or pure HTML
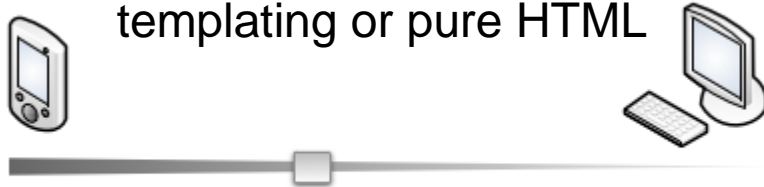
All UI State in client   All UI State on server

JSF 2.2 HTML5 Friendly Markup
Let the elegance of HTML shine through

```
<input type="tel" jsf:id="phone"
  jsf:value="#{bean.mobileNumber}" />

<input type="range" jsf:id="values"
  jsf:value="#{bean.value}" />

<button type="button" data-value="MyData"
  jsf:actionListener="#{bean.buttonClicked}"/>

<progress><h:outputText id="progress"
    value="#{bean.progress}"/></progress>

<h:inputText value="#{bean.input}">

  <f:passThroughAttribute name="data-value"
      value="#{bean.dataValue}" /></h:inputText>
```

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JSF 2.2 HTML5 Friendly Markup

Let the elegance of HTML shine through

- Before JSF 2.2
  - JSF tags hide complexity of underlying HTML+script+css+images
  - JSF "Renderer":
    - encode: markup to browser
    - decode: name=value from browser
- JSF 2.2
  - Pure HTML+script+css+images in the JSF page
  - JSF Renderer handles decode from browser
    - Leverage the strength of the JSF lifecycle
    - Leverage the expressiveness of HTML5

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Style and Behavior

Leverage the JSF ResourceHandler

- To JSF, CSS and JavaScript are just another kind of resource delivered to the browser, along with the markup

- The JSF ResourceHandler lets you create libraries of localized resources and declare dependencies on them from your UI components.

- Want to use CSS3? Sure, go ahead!

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Application Model

Where JSF has always shined

- Data Conversion
- Validation
- Database Integration (Persistence Layer)
- Security
- Expression Language
- Request Processing Lifecycle
- Event System

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Technical Content
Other Big Ticket Features

- Multi-Templating

  – Multi Templating : Entire Application :: Facelets : Single Page

- Cross Site Request Forgery Protection

  – POST-back is a virtue. Add protection for GET-based requests

- Loading Facelets Via ResourceHandler

- File Upload Component

  – Because we can depend on Servlet 3.0!

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Technical Content
28 Medium Sized Features http://bit.ly/JCP_20120911_MEDIUM

- Components/Renderers
  - Component Managed EL Context
  - WindowId

- Facelets
  - HTML5 DOCTYPE is the default
  - Programmatic Composite Component creation
  - FaceletFactory API

- Lifecycle
  - View Actions

Technical Content
28 Medium Sized Features http://bit.ly/JCP_20120911_MEDIUM

- Managed Beans
  - Everything is CDI injectable
  - CDI ViewScoped
- Resources
  - Relative ResourceHandler

Technical Content

44 Bug Fixes http://bit.ly/JCP_20120911_BUG_FIXES

- Components/Renderers

- Ajax

- Specification errors and clarifications

- EL

- Facelets

- Lifecycle

- Resources

Transparency Content

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JSR-344
IS NOW
ON JCP 2.8

EXALOGIC

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My Plan For Your Time **Investment**

Technical

- JSR Summary and Scope

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My Plan For Your Time **Investment**

Transparency

- How I run JSRs
  - What works Well, Puzzlers
- How features are suggested
- Transparency Tools
- Roadmap

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Transparency Content
How I run JSRs

- What works well
  - Spec lead drives all aspects of development, pulling expertise from EG for specific targeted questions.
  - Minimize time commitment from EG members by being very informal in what they put on the EG list.
    - Simple emails turn into formal feature requests
    - Discussion digressions generate new ideas
  - Public Issue Tracker
    - JSF has had one since 2004
    - Still a good idea

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Transparency Content
How I run JSRs

- What works well
  - What worked well in iteration N may not work at all in N+1
  - Example, JSR 314, JSF 2.0
    - Ajax sub-group
    - Composite component sub-group
  - JSR-344 JSF 2.2
    - Hard to get traction even on single-thread development effort

Transparency Content
How I run JSRs

- Puzzlers

  - How to get more done by delegating to EG members?

    - Who has the time?

    - Does it really allow parallel work?

    - Things fall off a cliff.

  - How to stay on schedule?

    - JSR schedule stated PFD in Q4CY2011

    - Managing the tension between stated JSR goals and what seems important to the EG at any given moment

  - Inconsistently responsive EG

  - Inconsistently available Spec Lead

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Transparency Content

- Held public vote at beginning of JSR
  - http://bit.ly/JCP-20120911_JSF_2_2_VOTES
- Public Issue Tracker
- Email from to EG List
- Need to fit into existing JSR charter
- Needs to fit into existing committed schedule

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Transparency Content
Tools

- Public java.net projects
  - spec *http://jsf-spec.java.net/*
  - impl *http://jsf.java.net/* Open Source: GPL+Classpath Exception
- Mailing Lists
  - `jsr344-experts@javaserverfaces-spec-public.java.net`
    - Public readable archive, JSPA signed member read/write
  - `users@javaserverfaces-spec-public.java.net`
    - Public readable archive, any java.net member read/write
    - All mail sent to jsr344-experts is sent to `users`

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Transparency Content
Tools

- Issue Tracker
  - spec *http://jsf-spec.java.net/issues/*
  - impl *http://jsf.java.net/issues/*
- Wiki: Used in 2.0, not using in 2.2.
- Public Gantt Chart
  - http://jsf-spec.java.net/planning/
- Nightly spec snapshot from Hudson
- Google+ Hangouts

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Transparency Content
Tools http://jsf-spec.java.net/planning/

| ID		Task Name	Start	Finish	Duration	Planned Deadline	W	T	F
41	✓	**2.2 Sprint 13 Faces Flows, HTML 5**	**5/16/2012**	**7/27/2012**	**48 days?**	**NA**			
42	✓	730-Add elements to faces-config schema for in-\	7/27/2012	7/27/2012	1 day	NA			
43	✓	949-WindowId send cleanup request to EG	5/17/2012	5/17/2012	1 day?	NA			
44	✓	971-MultiTemplating write proposal to EG	5/24/2012	5/24/2012	1 day	NA			
45	✓	971-MultiTemplating prototype	5/24/2012	5/24/2012	1 day?	NA			
46	✓	1089-Datexxx Attributes	5/16/2012	5/17/2012	2 days	NA			
47	✓	533-ConfigurationAsDOM	5/30/2012	5/30/2012	1 day	NA			
48	✓	Deliver Expert Group Draft in lieu of PRD	7/27/2012	7/27/2012	0 days	NA			
49		**Account for Java EE 7 Replan**	**7/27/2012**	**9/11/2012**	**33 days**	**NA**			
50	✓	Schedule adjustments	7/27/2012	8/23/2012	20 days	NA			
51		Prepare for JCP EC meeting	8/24/2012	9/11/2012	13 days	NA			
52		**2.2 Sprint 14 HTML 5 in shape for JavaOne**	**9/12/2012**	**9/17/2012**	**4 days**	**NA**			
53		1111-Pass Through Elements: Merge Frank's proto	9/12/2012	9/17/2012	4 days	NA			
54		1075-Metadata	9/12/2012	9/14/2012	3 days	NA			
55		991-Input HTML5 attributes	9/12/2012	9/13/2012	2 days	NA			
56		**Sprint 15 Plan JavaOne EG Draft Release**	**9/18/2012**	**9/25/2012**	**6 days?**	**NA**			
57		Incorporate work from EG on 1160-ClearInputValu	9/18/2012	9/20/2012	3 days	NA			
58		Collect completed issues	9/18/2012	9/19/2012	2 days	NA			
59		Update spec	9/20/2012	9/24/2012	3 days	NA			
60		Release on java.net spec area	9/25/2012	9/25/2012	1 day?	NA			
61		**Sprint 16 FacesFlows in shape for Public Review**	**10/8/2012**	**10/9/2012**	**2 days?**	**NA**			
62		Faces Flow parameters	10/8/2012	10/8/2012	1 day?	NA			
63		Specification for Navigation-Handler	10/9/2012	10/9/2012	1 day?	NA			
64		**Sprint 17 Multi-Templating in shape for Public Re**	**10/10/2012**	**10/10/2012**	**1 day?**	**NA**			
65		Reactivate EG discussion	10/10/2012	10/10/2012	1 day?	NA			
66		**Sprint 19 HTML5 in shape for Public Review**	**10/11/2012**	**10/11/2012**	**1 day?**	**NA**			
67		Clean up from JavaOne push	10/11/2012	10/11/2012	1 day?	NA			
68		**Sprint 20 Public Review Release**	**10/12/2012**	**10/15/2012**	**2 days?**	**NA**			
69		Collect completed issues	10/12/2012	10/12/2012	1 day?	NA			
70		Update spec	10/15/2012	10/15/2012	1 day?	NA			
71									
72		**Back End JCP Tasks**	**4/18/2012**	**3/6/2013**	**213 days**	**NA**			
73	✓	Date Adjustment	4/18/2012	10/26/2012	120 days	NA			
74		Public Review First Draft to Expert Group	10/26/2012	10/26/2012	0 days	10/31/2012			
75		Expert Group Reviews PR Draft	10/29/2012	11/2/2012	5 days	11/6/2012			
76		Public Review Released to JCP	11/2/2012	11/2/2012	0 days	11/9/2012			
77		Public Review posted on JCP site	11/3/2012	11/9/2012	7 days	11/14/2012			
78		Public Review	11/10/2012	12/13/2012	30 days	1/3/2013			
79		Public Draft Specification Approval Ballot	12/14/2012	1/2/2013	14 days	1/4/2013			
80		Prepare Proposed Final Draft	1/3/2013	1/18/2013	12 days	1/23/2013			
81		Proposed Final Draft to EG	1/18/2013	1/18/2013	0 days	1/23/2013			
82		Expert Group Reviews PFD Draft	1/21/2013	2/6/2013	13 days	2/10/2013			
83		Final Draft Released to JCP	2/7/2013	2/11/2013	3 days	2/18/2013			
84		JCP initiates Final Approval Ballot	2/12/2013	2/14/2013	3 days	2/21/2013			
85		Final Approval Ballot	2/15/2013	3/6/2013	14 days	3/27/2013			

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Transparency Content

Tools

- Let's take a look at the API

http://maven.java.net

javax.faces-api

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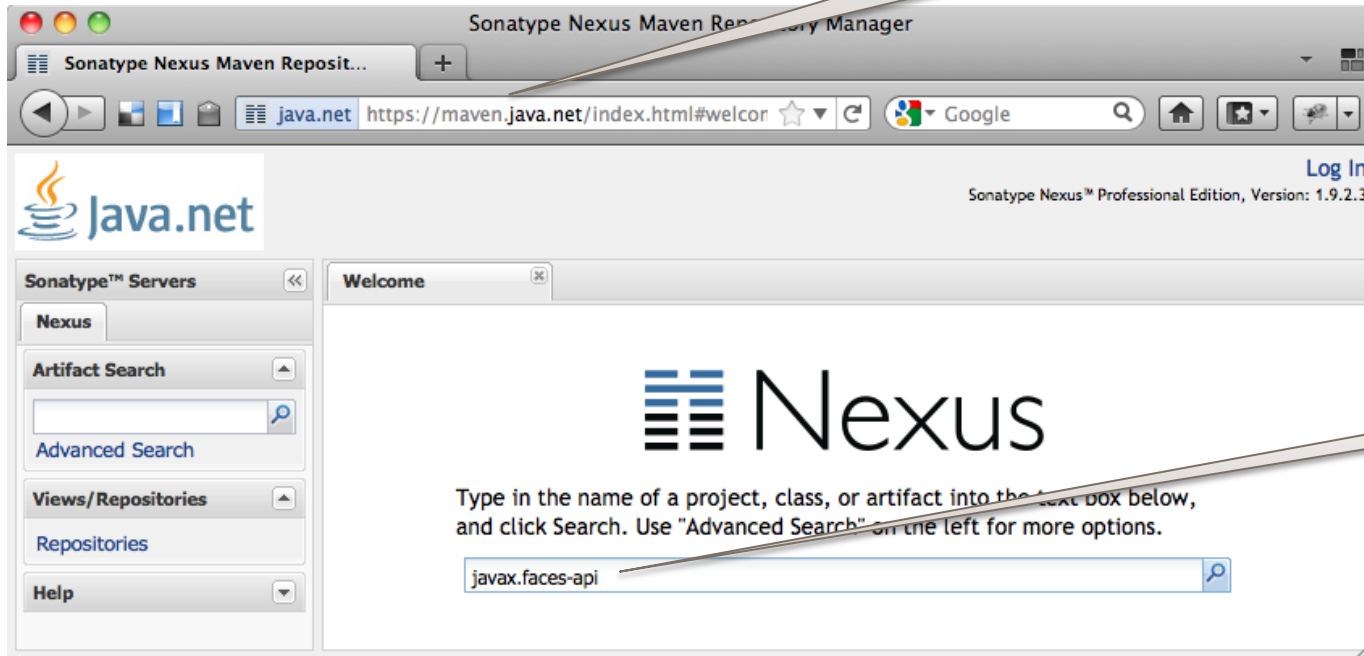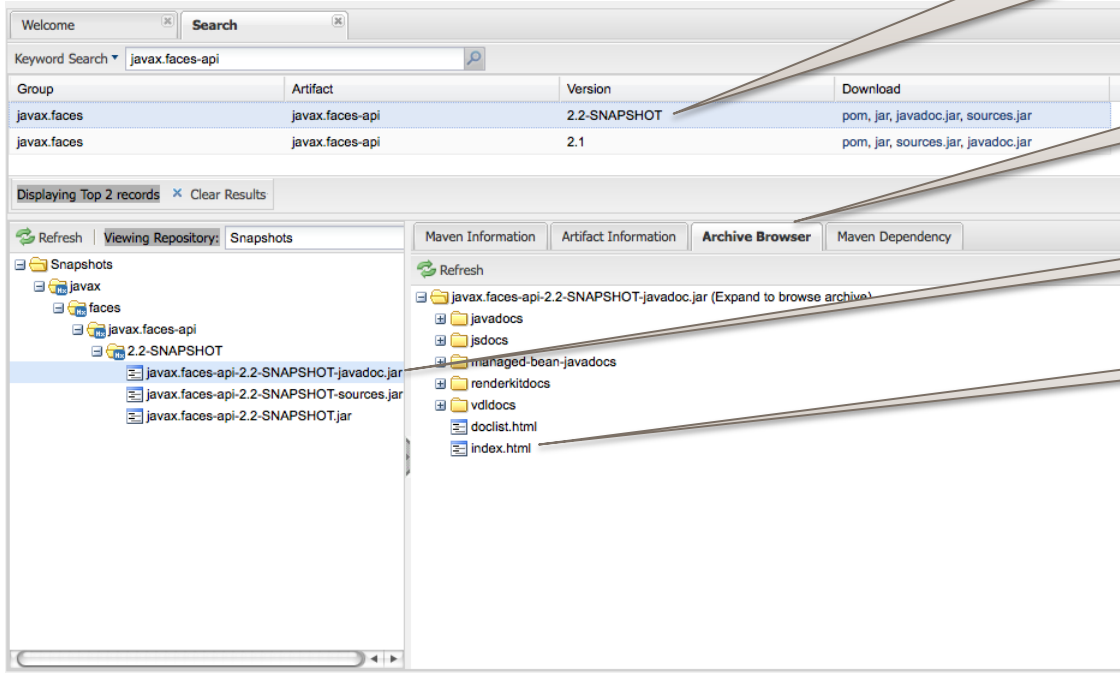
Transparency Content

Tools

- Let's take a look at the API

2.2-SNAPSHOT

Archive Browser

-javadoc.jar

index.html

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Where is JSF in its Lifecycle?
JSR Timeline

- JSR 127
  - JSF 1.0 11 March 2004
  - JSF 1.1 27 May 2004
- JSR 252
  - JSF 1.2 11 May 2006
  - JSF 1.2 Maintenance Release 1 19 December 2006
  - JSF 1.2 Maintenance Release 2 13 June 2008
  - JSF 1.2 Maintenance Release 3 25 August 2008

- JSR 314
  - JSF 2.0 1 July 2009
  - JSF 2.1 16 July 2010
  - JSF 2.1 Maintenance Release 2 22 November 2010
- JSR 344
  - Started 14 April 2011
  - Early Draft Review released 8 December 2011
  - Working toward Public Review Draft

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Where is JSF in its Lifecycle?

Achievements

- JSF 2.0 was the last BIG FEATURE release for JSF

- From now on, JSF will be maintained using smaller, more frequent releases.

  - JSF 2.1, released Q4 2010, JCP Minor Revision

  - JSF 2.2, slated for release in 2012, full JSR

    - Requires JavaEE 6, will release before JavaEE 7

  - JSF 2.3, will target JavaEE 7

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Where is JSF in its Lifecycle?

Roadmap

- JSF 2.2

    – Public Review Draft by December 2012

    – No need for Renewal Ballot

        - Early Draft Review published on 8 December 2011!

Where is JSF in its Lifecycle?
Roadmap

- Java EE 7 Roadmap
  - https://blogs.oracle.com/theaquarium/entry/java_ee_7_roadmap
  - JavaEE 7 complete in *Spring 2013*
- JSF 2.2
  - Releasing on Java EE 7 schedule
  - Will still run on Java EE 6 containers
    - Any features that happen to depend on EE 7 will gracefully degrade. Example: JSR-353 JSON parsing

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Questions & Answers

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