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DRINK

JAVA™
TECHNOLOGY

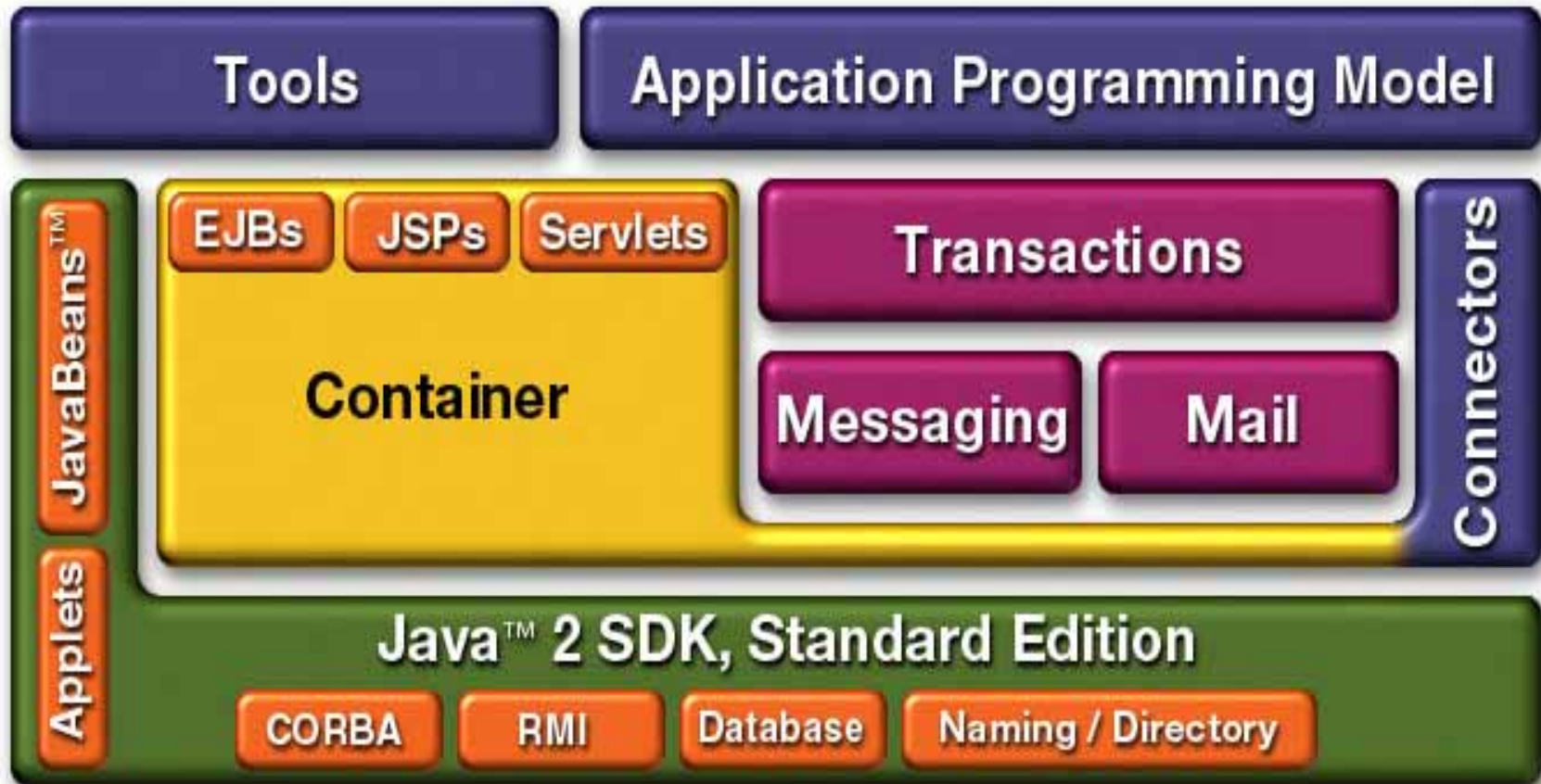
LIVE PLAY



JavaServer Pages™ Technology

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Java™ 2 Platform, Enterprise Edition (J2EE)



Why JSP Technology?

Creation of Dynamic Content

Use of Static Templates



Outline

- Overview
- JSP 1.0
- JSP 1.1
- Status
- Future

➡ <http://java.sun.com/products/jsp>

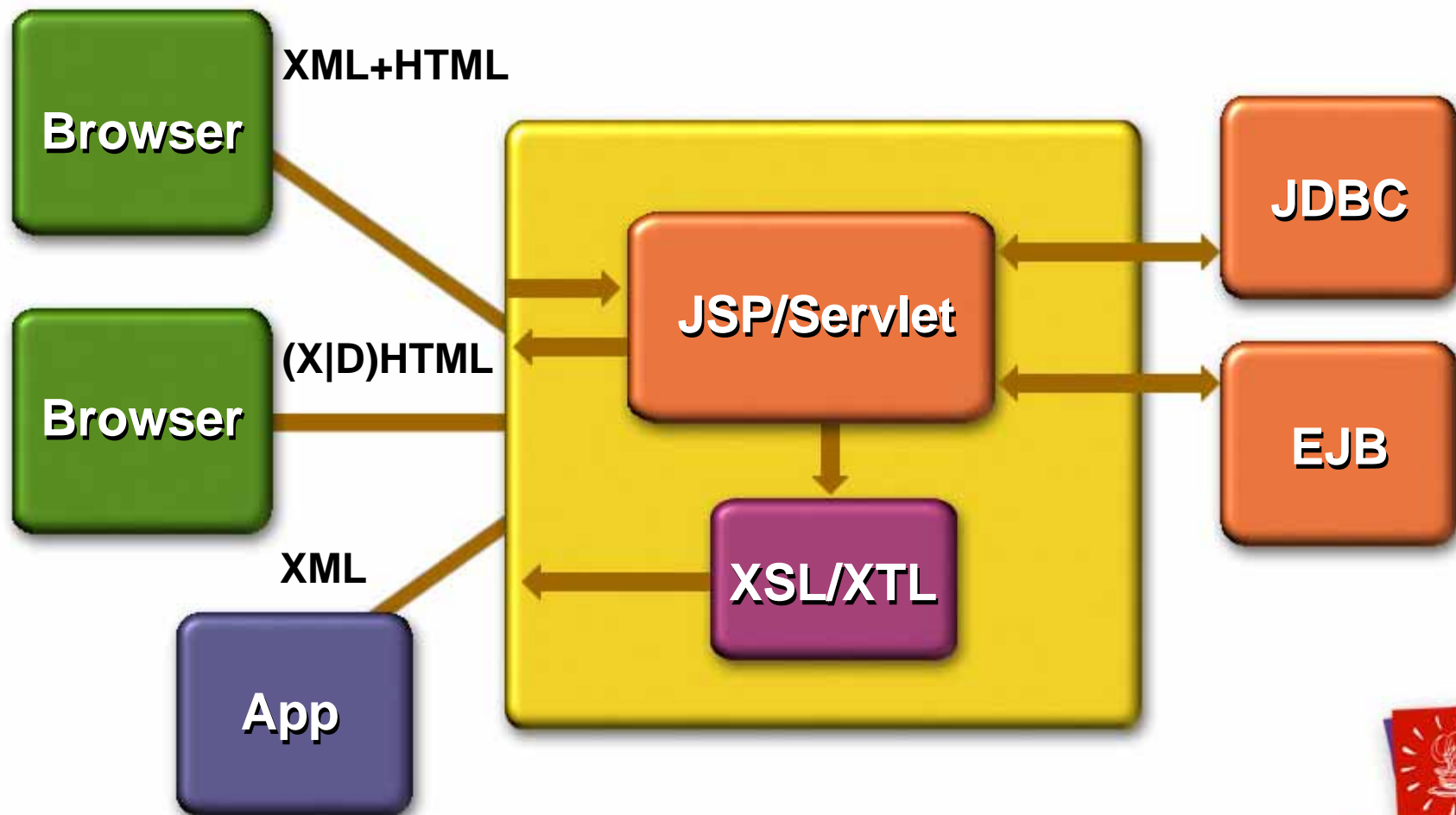


What Is JSP Technology?

- **Standard Web Access to J2EE**
- **Usable Independently of J2EE**
- **Built on Servlet semantics**
 - Easier to Author
 - Easier for Tools



Big Picture



Simple 2-tier



N-Tier



JSP Page Example

```
<html>  
<jsp:useBean id="clock" class="calendar.JspCalendar" />  
<ul>  
<li>Day of month: is <%= clock.getDayOfMonth() %>  
<li>Year: is <%= clock.getYear() %>  
</ul>  
</html>
```

JSP Elements

- **Static Template Text**
- **Standard Directives**
- **Scripting Elements**
- **Standard Actions**
- **Custom Tags**



Directives

- `<%@ directive attribute="value" ... %>`
- **page**
 - language
 - extends
 - imports
 - buffer
 - errorPage
 - isThreadSafe

Directives

- **include**
- **tag library**
 - uri: semantics
 - prefix: name collisions
 - “known libraries”
 - portable mechanism in JSP 1.1

Scripting Elements

- **Declarations**
 - `<%! int i; %>`
- **Scriptlets**
 - `<% myBean.setSomething("foo"); %>`
- **Expressions**
 - `<%= myBean.getResult(); %>`

Implicit Objects

- **Objects defined automatically**
 - request
 - response
 - session
 - application
 - out (buffered)

Standard Tags

- **useBean**
- **setProperty**
- **getProperty**
- **include**
- **forward**
- **plugin**



Custom Tags

- **Encapsulate functionality**
- **Easier to**
 - Author manually
 - Manipulate by tool
- **Provide**
 - Portable semantics (JSP 1.1)
 - Portable tool support (later)



Custom Tags—Example

```
<connection
  id="con1" ref="foo.xml"
  userid="<%= request.userid %>"/>

<query id="q1" connection="con1">
  SELECT account, balance ....
</query>

<ul>
  <foreach row="row" in="q1">
    <li>The balance for <%=row.account%> is
    <%=row.balance%>
  </foreach>
</ul>
```

Custom Tags—Features

- **Portable**
- **Nested Tags**
- **Body can have Scripting Elements**
- **Simple to Use**
- **Simple to Define**

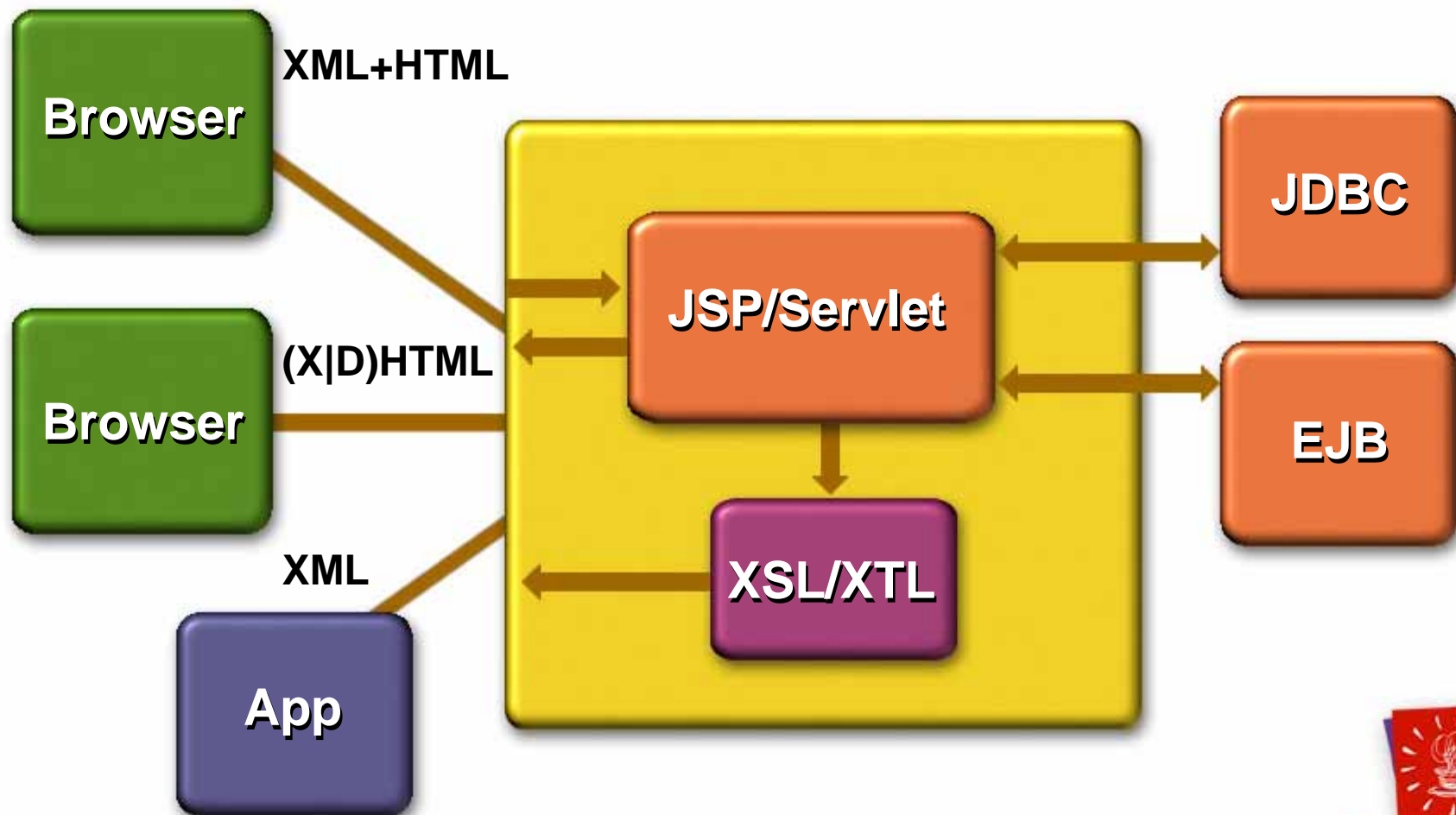


Scripts, Beans and Tags

- **Complementary**
- **Different Styles**
- **Scripts: Glue**
- **Beans: Generic java platform component**
- **Tags: Additional interface for use in page**



JSP and XML



Handling XML Content

- **JSP pages can:**
 - Accept XML in POST
 - Generate/manipulate XML through
 - Script, Beans, Tags
 - Tie into XSL/XSLT
 - Using Project-X and others
 - Output Filters in JSP 1.1

Representing as XML

- **Map from JSP page to XML doc**
 - Defined in 1.0
 - Activated in 1.1 (proposed)
- **Enables**
 - Authoring using XML tools
 - Transformation using XML concepts/tools
- **Exploring role of XSL/T**

JSP 1.1

- **Servlet 2.2**
 - Improved integration into J2EE 1.0
 - Packaging
 - Deployment
 - Security
 - Application support
 - Portable Packaging!
 - Output Filtering!

JSP 1.1

- **Being considered**
 - JSP as XML documents
 - Compiling JSP pages
 - Portable Tag Extension Runtime

Status

- **Designed using Java Platform process**
 - Expert group
 - Participants
 - Public
- **JSP 1.0 available now**
- **JSP 1.1 in expert review**
- **JSP 1.1 is in J2EE 1.0**



Industry Support

- **Web Servers**
- **Application Servers**
- **Web Authoring Tools**
- **Development Tools**



Major Partners

Developed with the help from many, including:

Adobe, Allaire, BEA, Bluestone, Caucho, Elemental, Forte, Fujitsu, Gefion, Gemstone, Halcyon, IBM, Inprise, Live Software, Macromedia, New Atlanta, Netscape, NetObjects, Novera, O'Reilly, Oracle, Persistence, Sybase, Symantec, Vignette

...and many more

Thanks to everybody!



Implementations

- **Reference Implementation**
 - EA2 now
 - FCS next month
- **Several other JSP Engines**
- **Several JSP Tools**
- **Apache**
- **Check our web site for up-to-date news**



JSP 1.1 Schedule

- **Expert Drafts—circulating now**
- **Public Draft 1—late June**
- **Public Draft 2—late July**
- **Public Release—mid August**
- **FCS—Fall**

Future Directions

- **Better Tag Library Tool Support**
- **Synergy with XML Std Extension and XSL/T**
- **Standard Libraries**
- **Event Handlers in JSP**
- **Other Scripting Languages?**
- **You tell us**



JSP @ J1

- Servlet talk (Wed. PM, Fri. PM)
- J2EE talks, specially APM (next talk)
- XML talk (Wed. PM, Thurs. PM)
- BOFs on Servlets and JSPs (Thurs. PM)
- JSP repeat talk (Fri. PM)

Summary

- **Generation of Dynamic Web Content**
- **Great Industry Support, and getting better!**
- **Your Gateway to J2EE 1.0**

➡ **<http://java.sun.com/products/jsp>**



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