



JavaOneSM
Sun's Worldwide Java Developer Conference



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Network-based Applications

Herb Jellinek
Steve Byrne



What *is* HotJava, Anyway?

- Web browser written entirely in Java™-based language
- Toolkit for building Web-aware applications
- Dessert topping
- Floor wax

What *is* HotJava, Anyway?

History



- HotJava alpha3 (1994-5)
 - Java™-based proof of concept
 - dynamic Web content (applets)
 - Didn't have:
 - Real security
 - A well-defined Applet API

What *is* HotJava, Anyway?

History



- HotJava 1.0 (1996)
 - Completely new implementation
 - Modular architecture
 - Customizable without source code
 - Multi-threaded for higher interactivity
 - State of the art: HTML 2.0+, applets, installable handlers

What *is* HotJava, Anyway?

The Future



- HotJava toolkit (1996-): class libraries for building web-aware applications
 - HTML parsing
 - Document editing, formatting, presentation (MVC-based)
 - Web navigation
 - Communications

What's a "Private-Label Browser," Then?



- What would you like it to be?



Why a Customized Browser?

- Horizontal applications
 - Corporate branding
 - eg: on-line services, ISPs
- Vertical applications/intranets
 - eg: medical imaging, securities trading
- Embedded applications
 - eg: **Java™-powered terminals**, data-entry stations



Can Customize to Suit...

- A group of people
 - Common look & feel; pages for a company, department, group
- A task or set of tasks
 - Remove extraneous options, add common
- An individual
 - Disabilities, general preferences



Customization Resources

- Can do a lot with no programming!
 - Need text editor, paint program
- Use source code, docs as reference
 - Write “drop-in” components
- Use source code as toolkit
 - No limits!



Customizing HotJava

Without Programming

- Messages
- Colors
- Menus
- Images
- User interface pages
- Miscellaneous settings

Customizing HotJava *Without Programming*



- Interactive examples
 - Title



Customizing HotJava: *Changing the Browser's Title*

Edit **properties** file

Change this:

```
hotjava.title=HotJava(tm)
```

To this:

```
hotjava.title=Herb's Browser
```

Done! – on *all* platforms

Customizing HotJava *Without Programming*



- Interactive examples
 - Title
 - Background color



Customizing HotJava: *Changing the Background Color*

Edit **properties** file

Change this:

```
hot java .background=0xB5B5B5
```

To this:

```
hot java .background=0xC0FF80
```

Customizing HotJava *Without Programming*



- Interactive examples
 - Title
 - Background color
 - Menus



Customizing HotJava: *Adding a Menu*

Add forms menu def'n to **properties**:

```
formsMenu=Forms \
```

```
|go http://srv/claim.html=Claim\
```

```
|go http://srv/bill.html=Billing\
```

```
|go http://srv/pay.html=Disburse
```



Customizing HotJava: *Adding a Menu*

Then add menu def'n to menu bar:

```
browsemenubar=\  
    filemenu:editmenu:gotomenu:\  
    formsMenu:helpmenu
```

Notice: removed options (**optionsmenu**)



Customizing HotJava

Without Programming

- Interactive examples
 - Title
 - Background color
 - Menus
 - Buttons



Customizing HotJava: *Changing the Toolbar Buttons*

Buttons are named:

`back, forward, home, reload,
stop, errors`

Button properties to be changed are:

`up, down, disabled, width, height`

Example: `button.home.up=home.gif`



Customizing HotJava

Without Programming

- Interactive examples:
 - Title
 - Background color
 - Menus
 - Buttons
 - User-interface pages:
 - remove **HotJavaApplet**, change graphics



Customizing HotJava: *Changing a UI Page*

Allow changing some proxies only

Modify **preferences-proxies.html**:

Delete

- **CachingProxyApplet**
- **GopherProxyApplet**
- **SocksProxyApplet**



Customizing HotJava

With Drop-in Components

- Requires no changes to source code
- Add new features to built-in pages
- HotJava™-powered applet: connects browser to UI
 - Subclass to add new features, then
 - Embed applets in new built-in pages
- New protocols, content types



Customizing HotJava

With Source Code

- Add:
 - New HTML tags, UI gadgets
- Change:
 - Browser, security mgr., page layout,...
- Remove:
 - Non-critical features



Customizing HotJava

With Source Code

- In short: Go wild!



Customizing HotJava

With Source Code

- Interactive example:

Add a clock (*okay, so that's not so wild*)



Private-Label Browsers

In Conclusion

- HotJava is highly customizable
- Can be customized for
 - Vertical,
 - Horizontal, or
 - Personal applications



Private-Label Browsers

In Conclusion

- Without source code, can be customized
 - Once for *all* platforms
 - By non-programmers
 - Programmers: protocol, content handlers



Private-Label Browsers

In Conclusion

- With source code can be more radical
- Consider as toolkit
- Add:
 - Tags
 - Drop-in components
 - More!