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JavaOneSM

The Galilean Moons of Eclipse

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Agenda

Ganymede

New and Noteworthy

Components/Equinox/OSGi

Demo

Questions

What is Galileo?

Simultaneous release of 33+ Eclipse projects

Transparent and predictable development cycle

- Allow consumers to start their own integration

- Cross-project, and cross-product testing efforts

Not a unification of the projects

- Each project retains its identity

- Separate leadership, committers, project plan, ...

More Pragmatically...

Communication, Coordination

- Linkage to downstream use and requirements

- Staged, predicable release schedule

- Reduced functional redundancy

Collaboration

- Project teams working together

Build Aggregation

- Components collected together

- Single update site

Predictable Quality



Eleven Top Level Projects

Eclipse

Tools

Web Tools Platform

Test & Performance
Tools Platform

Business Intelligence
and Reporting Tools

Modeling

Data Tools Platform

Device Software
Development Platform

SOA Tools Platform

Technology

Eclipse RT

Galileo Projects (1/7)

The Eclipse Project

- Eclipse Platform

- Java™ Development Tools (JDT)

- Plug-in Development Environment (PDE)

Web Tools Platform (WTP)

Data Tools Platform (DTP)

Galileo Projects (2/7)

Tools

- C/C++ Development Tools (CDT)

- PHP Development Tools (PDT)

- Mylyn

- Graphical Editing Framework (GEF)

- Buckminster

- Business Intelligence and Reporting Tools (BIRT)

Galileo Projects (3/7)

Device Software Development Platform Project

- Target Management (TM)

- Tools for mobile Linux (TmL)

- Mobile Tools for Java (MTJ)

SOA Tools Platform (STP)

- SCA Tools

- BPMN

Test & Performance Tools Platform (TPTP)

- Platform, Test, Trace, Monitoring

Galileo Projects (4/7)

Modeling (1/2)

Eclipse Modeling Framework (EMF)

Query, Transaction, Validation, Teneo, Net4j, CDO

Eclipse Modeling Framework Technology (EMFT)

EMF Search, EMF Compare, Ecore Tools, Mint

Graphical Modeling Framework (GMF)

Galileo Projects (5/7)

Modeling (2/2)

Model Development Tools (MDT)

OCL, UML2, UML2 Tools, XSD

Model-to-Model Transformation (M2M)

ATL, QVTO

Model-to-Text (M2T)

JET, Xpand, Acceleo

Textual Modeling Framework (TMF)

Xtext

Galileo Projects (6/7)

Technology

Accessibility Tools Framework (ACTF)

Dynamic Languages Toolkit (DLTK)

Eclipse Packaging Project (EPP)

Java Workflow Tooling (JWT)

Memory Analyzer (MAT)

Subversive

Galileo Projects (7/7)

Eclipse RT

Equinox

Eclipse Communication Framework (ECF)

Eclipse Persistence Services Project (EclipseLink)

Rich Ajax Platform (RAP)

Riena

Swordfish

Eclipse Does Runtimes

Traditionally known for tools

The Eclipse Component Model, Equinox at heart

Many “runtime” projects

RCP, ECF, EMF, EclipseLink, RAP, Riena,
Swordfish, Gyrex

Nebula, Glimmer, Higgins, GEF, GEF3D

Open Financial Market Platform

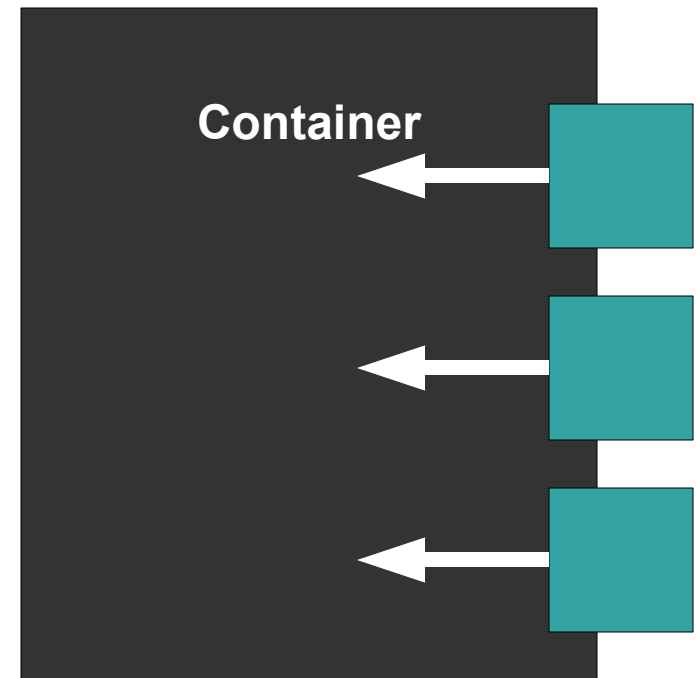
Open Healthcare Framework

Traditional Components

Components “plug-into”
container, but are
separate (think EJB)

Different component
strategies for standard,
enterprise, device
platforms

JAR files are not
components



Equinox/OSGi

Single component model for all platforms

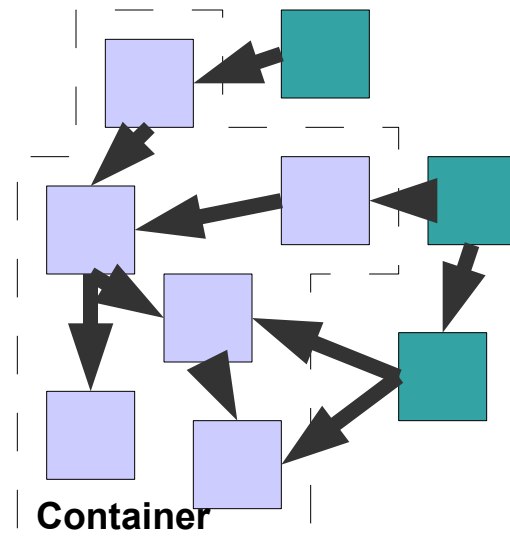
Application components indistinguishable from container components

Consistent management

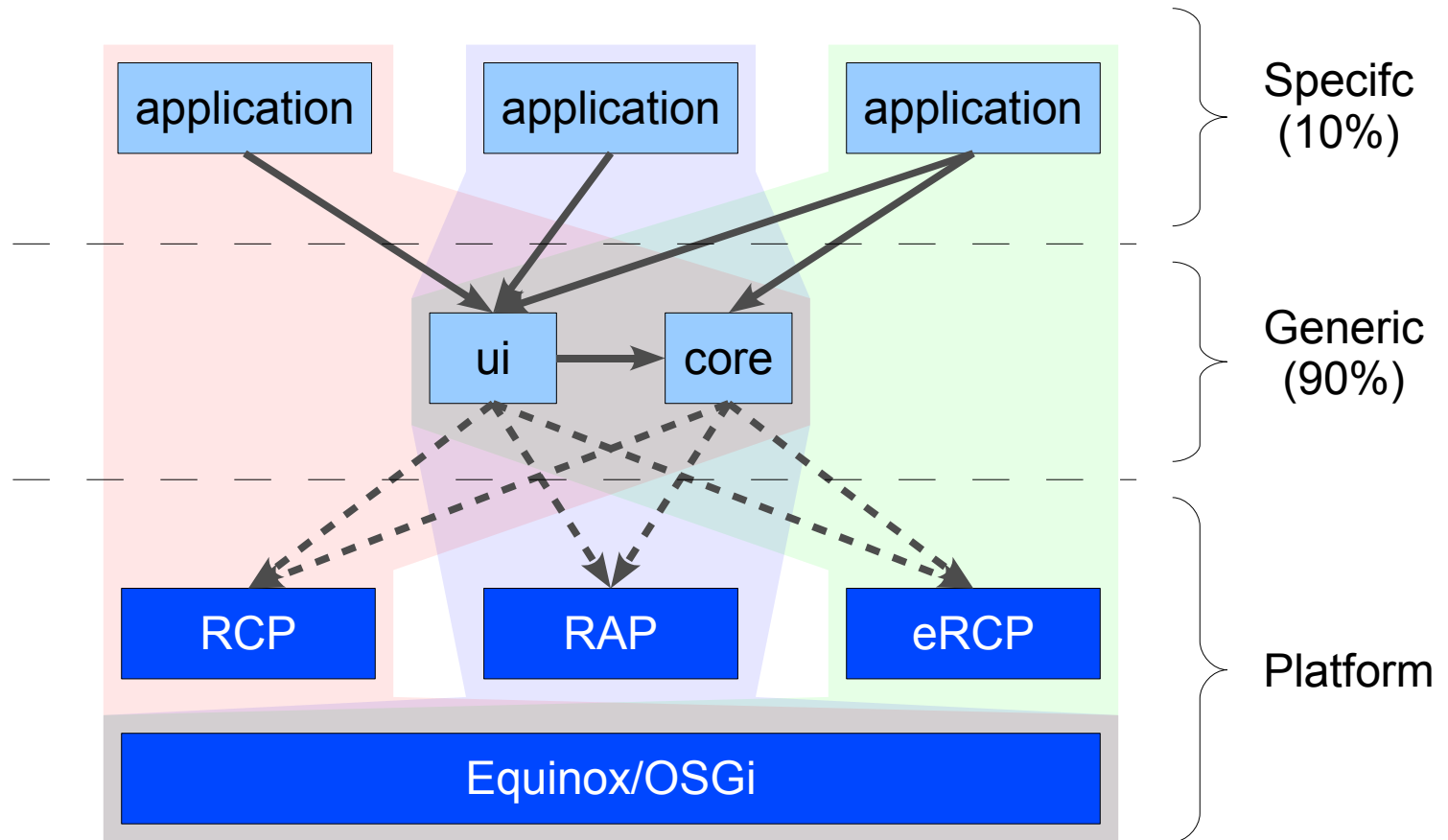
Explicit, declarative dependencies

Multiple version support

Dynamic loading/unloading



Shared Components Architecture

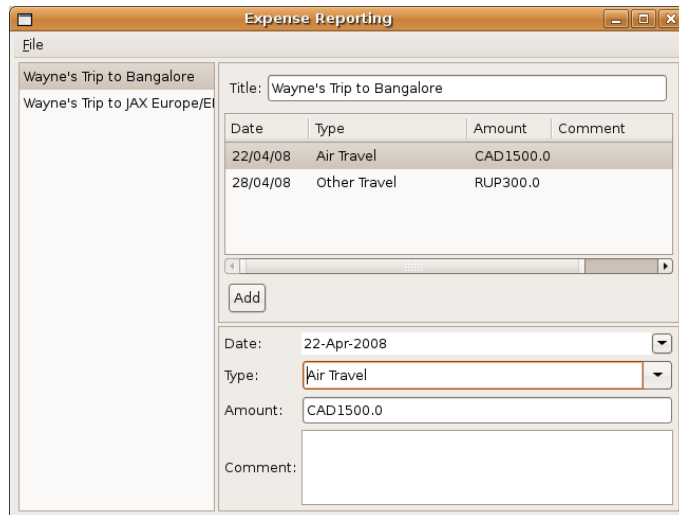


Single Sourcing: Shared Components

Client: Rich client via Eclipse RCP

Server: Rich Internet Application via Eclipse RAP

Embedded: Device via Eclipse eRCP



Expense Reporting

File

Wayne's Trip to Bangalore

Wayne's Trip to JAX Europe/E

Title: Wayne's Trip to Bangalore

| Date | Type | Amount | Comment |
|----------|--------------|-----------|---------|
| 22/04/08 | Air Travel | CAD1500.0 | |
| 28/04/08 | Other Travel | RUP300.0 | |

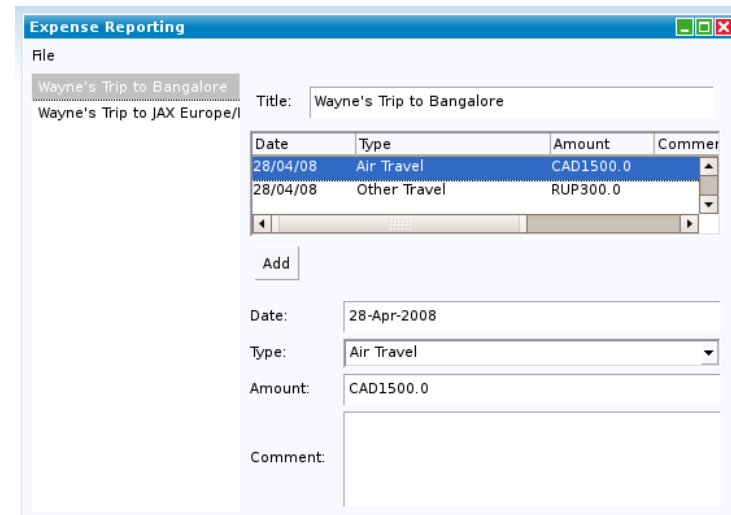
Add

Date: 22-Apr-2008

Type: Air Travel

Amount: CAD1500.0

Comment:



Expense Reporting

File

Wayne's Trip to Bangalore

Wayne's Trip to JAX Europe/E

Title: Wayne's Trip to Bangalore

| Date | Type | Amount | Commer |
|----------|--------------|-----------|--------|
| 28/04/08 | Air Travel | CAD1500.0 | |
| 28/04/08 | Other Travel | RUP300.0 | |

Add

Date: 28-Apr-2008

Type: Air Travel

Amount: CAD1500.0

Comment:

New and Noteworthy: Eclipse PDT

Lighter and Faster

Debugger integration

Zend Debugger, XDebug

Editor Improvements

Mark Occurrences, Override Indicators, Improved
Code Assist

More

Type hierarchy, Type and Method Navigation,
Buildpath Configuration

```
public function writeDate($date)
{
    if ($date instanceof DateTime) {
        $dateString = $date->format('U') * 1000;
    } elseif ($date instanceof Zend_Date) {
        $dateString = $date->toString('U') * 1000;
    } else {
```

New and Noteworthy: EclipseLink

Open-source Java persistence solution

Advanced features, performance and scalability for enterprise software developers

Across data sources, formats, and containers

- Object-Relational (JPA)

- Object-XML Binding (MOXy)

- Service Data Objects (SDO)

- Web Services for RDBMS (DBWS)

New and Noteworthy: ACTF

Framework for accessibility tools

Alternative interfaces for Persons with Disabilities

Assistive technology simulation tools

Compliance validation and usability visualization tools

Accessibility check plugins for IDEs

ACTF Support

Accessibility APIs such as Microsoft Active Accessibility (MSAA) and IAccessible2

Eclipse SWT

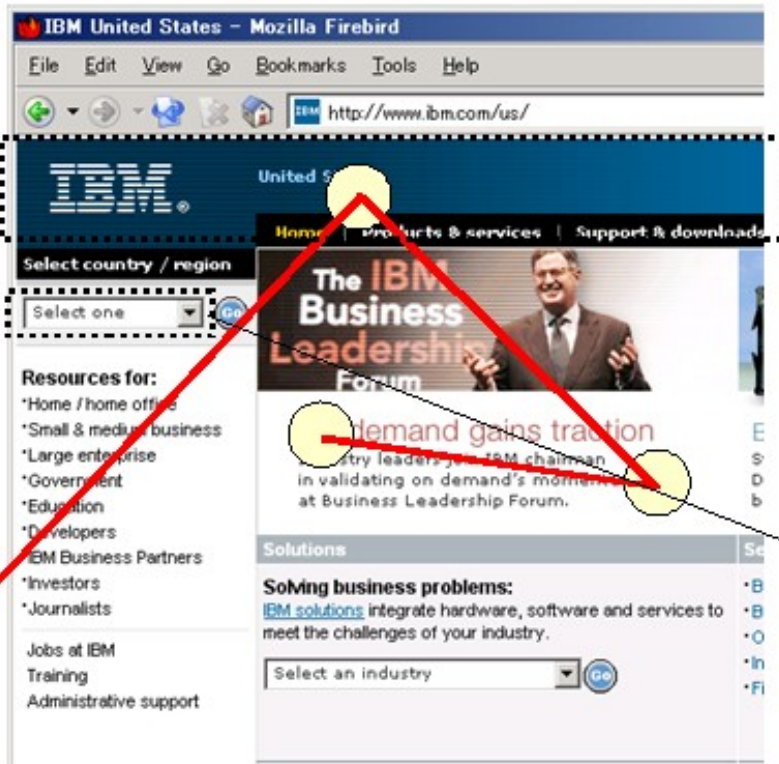
Flash, HTML, Java Swing

OpenDocument Format (ODF)

Customized validation rules by using XML configuration files or Java APIs

Sighted

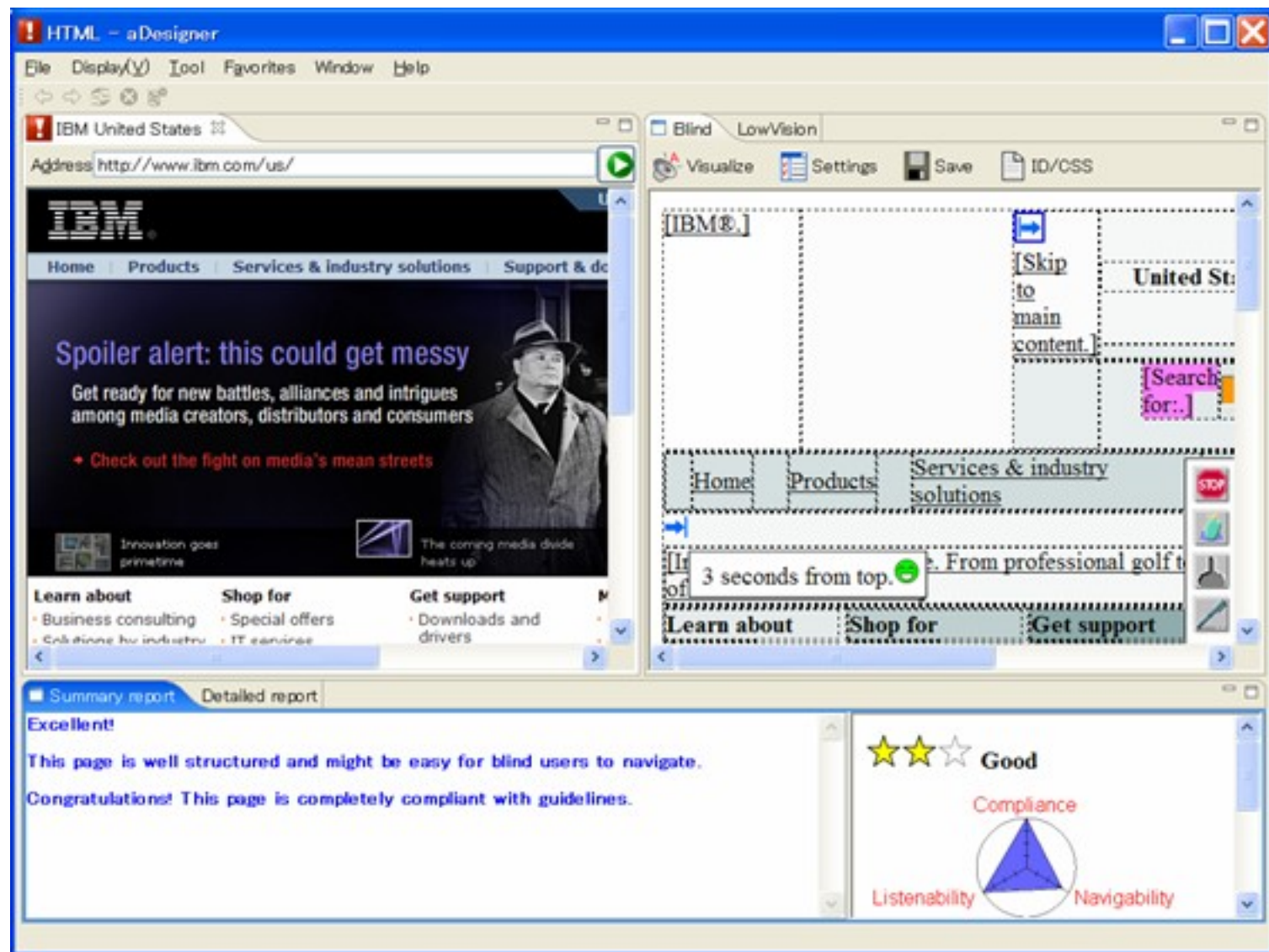
Blind



- [IBM.]
- [Skip to main content.] United States
- (Start of form 1.)
- [Text.]
- [Search: Image Button.]
- (End of form 1.)
- Home | Products & services | Support & downloads
- | My account
- Select country / region
- (Start of form 2.)
- (Start of select menu with 10 items.)
- Select one [Selected.]
- Canada [Off.]
- China [Off.]
- France [Off.]
- Germany [Off.]
- Italy [Off.]
- Japan [Off.]
- United Kingdom [Off.]
- United States [Off.]
- Full country list [Off.]

Eye-movement-based exploration
with visual cues

Keyboard-based exploration
without visual cues



The screenshot shows the IBM United States website being analyzed by aDesigner. The left pane displays the original website content, including the IBM logo, navigation links (Home, Products, Services & industry solutions, Support & downloads), a main banner with a "Spoiler alert" about media creators, and a footer with "Learn about", "Shop for", and "Get support" sections.

The right pane shows the accessibility analysis results. It includes a "Visualize" button, a "Settings" button, and a "Save" button. The analysis results are displayed in a structured format, showing the website's layout and identifying areas for improvement. Key findings include:

- Excellent!** This page is well structured and might be easy for blind users to navigate.
- Congratulations!** This page is completely compliant with guidelines.

The analysis also includes a "Summary report" and a "Detailed report" tab. The "Summary report" shows a "Good" rating (3 stars) and a "Compliance" score of 100%. The "Detailed report" shows a "Good" rating (3 stars) and a "Compliance" score of 100%. The analysis also includes a "Listenability" and "Navigability" score of 100%.

Spreading Accessibility

Contribute to other Eclipse projects

Cooperate with other Eclipse projects

Help accessibility of other Eclipse projects

Wrap up: Pervasive Components

Single component model

Client, Server, Embedded

Container is itself composed of components

Eclipse does Runtimes

Wrap up: Galileo

33+ Projects

Simultaneous release train

Coordination, communication, collaboration,
aggregation

Predictable quality

Process transparency

Get Involved

The best way to ensure Eclipse quality is to get involved

Download the Galileo “RC” builds

- Test

- Report bugs

Get involved earlier next year

- Open source works best with direct involvement

- Your feedback is critical

More Information

Ask questions in project newsgroups

<news://news.eclipse.org>

Not sure? Post in newcomer

<news://news.eclipse.org/eclipse.newcomer>

Planet Eclipse

<http://planet.eclipse.org>

Bugzilla

<http://bugs.eclipse.org>



JavaOneSM

Thank You

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