

#### The Many Moons of Eclipse

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TS-5040









#### Agenda

- Ganymede
- New and Noteworthy
- Components/Equinox/OSGi
- Demo
- Questions





#### Ganymede





## What is Ganymede?

- Release 24+ major Eclipse projects at the same time
- A more transparent and predictable development cycle
  - Allow ecosystem members to start their own integration, crossproject, and cross-product testing efforts earlier
  - Ganymede is about developers helping developers serve the whole Eclipse community.
- Not a unification of the projects
  - Each project remains a separate open source project operating with its own project leadership, its own committers, and its own project plan





# More Pragmatically...

- Coordination
  - Projects have a better sense of downstream use and requirements
  - Staged, predicable release schedule
- Inter-project communication
  - Reduced functional redundancy
- Collaboration
  - Project teams working together
- Build Aggregation
  - All Ganymede components collected together
  - Easily installed via a single update site

	Staging					Release	
	+0	+1	+2	+3	EPP	Server Freeze	Public Access
M2	Sep 21	Sep 26	Oct 3	n/a	Oct 5	n/a	Oct 9
M2+	Oct 22			n/a	Oct 24	n/a	Oct 25
М3	Nov 2	Nov 7	Nov 14	Nov 16	Nov 19	?	Nov 20
M4	Dec 14	Dec 17	Jan 7	Jan 8	Jan 9	Jan 10	<del>Jan 11</del> Jan 16
M5	Feb 8	Feb 11	Feb 18	Feb 20	Feb 22	Feb 25	Feb 26
M6 - API Freeze	Mar 28	Mar 31	Apr 7	Apr 9	Apr 11	Apr 14	Apr 15*
M7	May 2	May 5	May 6	May 7	May 9	May 12	May 13*
RC1	May 16	May 19	May 20	May 21	May 23	May 26	May 27*
RC2	May 23	May 26	May 27	May 28	May 30	Jun 2	Jun 3*
RC3	May 30	Jun 2	Jun 3	Jun 4	Jun 6	Jun 9	Jun 10*
RC4	Jun 6	Jun 9	Jun 10	Jun 11	Jun 13	Jun 16	Jun 17*
Ganymede	Jun 13	Jun 16	Jun 17	June 18*	June 23	June 24	June 25





#### Java**One**

24+ Projects

**Predictable Quality** 

20+ Projects

TPTP CDT

Eclipse 3.0

BIRT
TPTP
EMF
VE
CDT

**WTP** 

Eclipse 3.1

CDT 3.1
DTP 1.0
EMF 2.2
GEF 3.2
GMF1.0
Eclipse 3.2
TPTP 4.2
WTP 1.5
VE1.2
Callisto

**BIRT 2.1** 

Europa

Ganymede

June 28 2004

June 28 2005

June 30 2006

June 29 2007

June 27 2008



#### **Ganymede Projects**

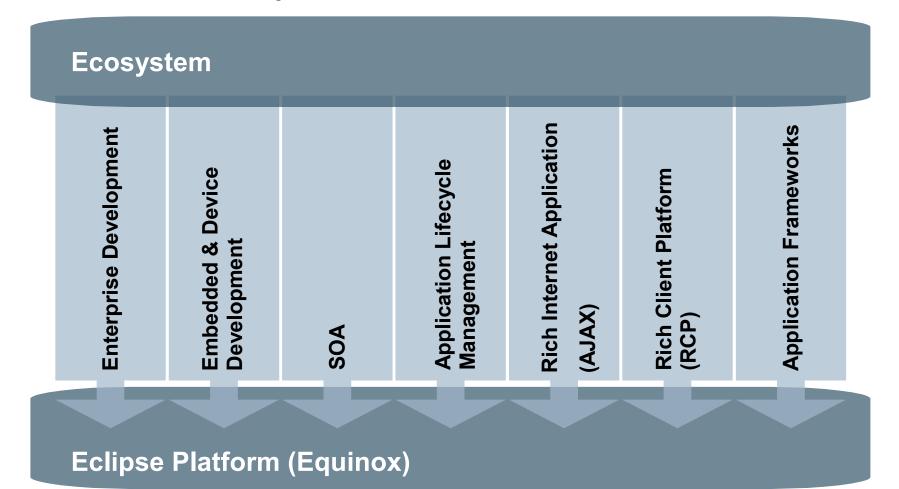
- BIRT
- Buckminster
- > CDT
- > DLTK
- > DSDP DD
- DSDP NAB
- > DSDP TM
- DTP
- > ECF
- The Eclipse Project
- > EMF
- > EMFT

- > EPP
- > GEF
- > GMF
- > MDT
- > M2M
- > M2T
- Mylyn
- Rich Ajax Platform (RAP)
- SOA Tools Platform (STP)
- Subversive
- > TPTP
- Web Tools Platform (WTP)





## Pillars of Eclipse







#### New and Noteworthy







## New and Noteworthy: Eclipse 3.5

- New provisioning support (p2)
- SWT for Windows x86\_64/AMD64, Windows 64-bit Itanium Edition, SWT for HP-UX 32-bit Itanium
- ▶ Breadcrumb navigation in the Java™ technology editor
- Plug-in Spy

```
File Edit Source Refactor Navigate Search Project Run Window Help

TestCase.java 

TestCase.java 

Junit 

Runs the test case and collects the results

*/

public void run(TestResult result) {

result.run(this);
```





#### New and Noteworthy: WebTools 3.0

- Downloadable Jetty support
- Servlet Filter, Application Lifecycle Listener wizards
- > EJB 3.0 Session Bean, Message-Driven Bean wizards
- Create Web service by selecting Java technology-based bean in Java technology-based project



#### New and Noteworthy: CDT 4.0

- Call Hierarchy View shows who calls a function
- Type Hierarchy View shows how C/C++ types are related
- Indexer is greatly improved with more features and accuracy
- SOB Hardware Debugging
- MinGW Toolchain Integration
- IBM XL C/C++ Toolchain Integration



#### New and Noteworthy: EPP 1.0

- Bundled packages of Eclipse Technology
  - Package specification contributed by projects
- Packages
  - Eclipse IDE for Java technology developers
  - Eclipse IDE for Java Platform, Enterprise Edition (Java EE platform) developers
  - Eclipse IDE for C/C++ developers
  - Eclipse for RCP/plug-in developers
  - Eclipse IDE for software architects and modeling
  - Eclipse IDE for reporting
  - more coming...





#### Components/Equinox/OSGi

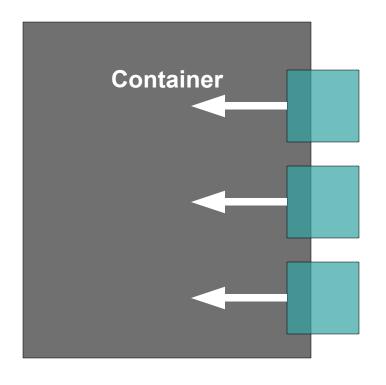






## **Traditional Components**

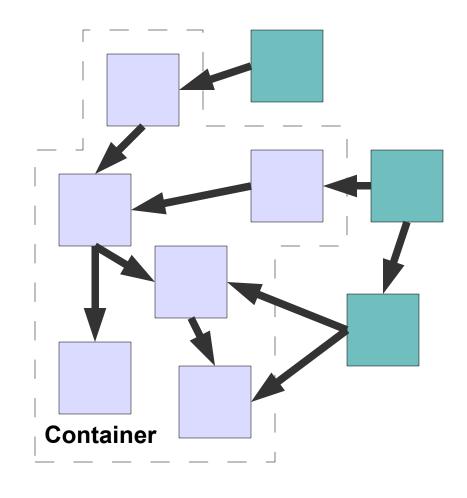
- Monolithic "black box" container
- Components "plug-into" container, but are very much separate (think EJB)
- Different component strategies for Java Platform, Standard Edition (Java SE platform), Java EE platform, Java Platform, Micro Edition (Java ME platform)
- JAR files don't cut it
  - Classpath hell





# Equinox/OSGi

- Single component model
  - Java SE platform, Java EE platform, Java ME platform
- "Pervasive Components"
  - Application components indistinguishable from container components
- Consistent management
- Explicit, declarative dependencies
- Multiple version support
- Dynamic loading/unloading







#### Demonstration







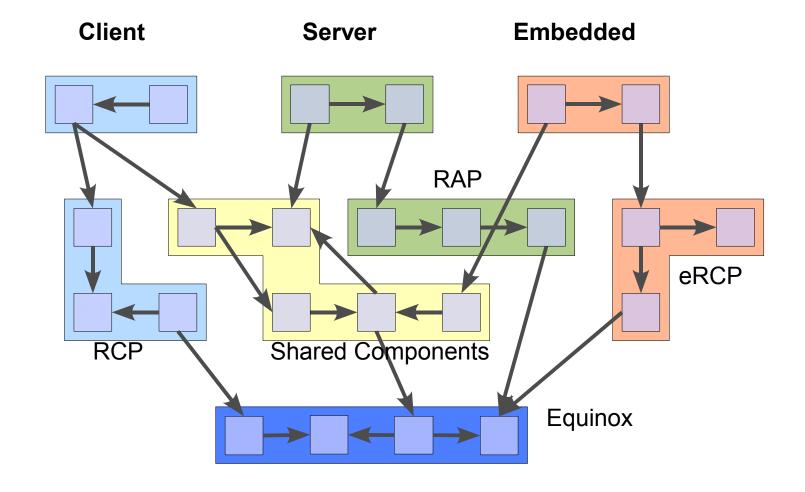
#### Demonstration

- Shared components
- Client: Rich client via Eclipse RCP
- Server: Rich Internet Application (RIA) via Eclipse RAP
- Embedded: Device via Eclipse eRCP





#### **Shared Components Architecture**







#### Wrap up





#### **Pervasive Components**

- Single component model
  - Client (Java SE platform), Server (Java EE platform), Embedded (Java ME platform)
- Container is itself composed of components





# Ganymede

- > 24+ Projects
- Simultaneous release train
  - Coordination, communication, collaboration, aggregation
- Predictable quality
- Process transparency



# THANK YOU

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