JavaOne™

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Accelerated Java EE Open Source Development with Eclipse

CON1905

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Program Agenda

1. The Eclipse Ecosystem
2. Getting the right tools
3. JEE Spec Support in Eclipse
4. Demo

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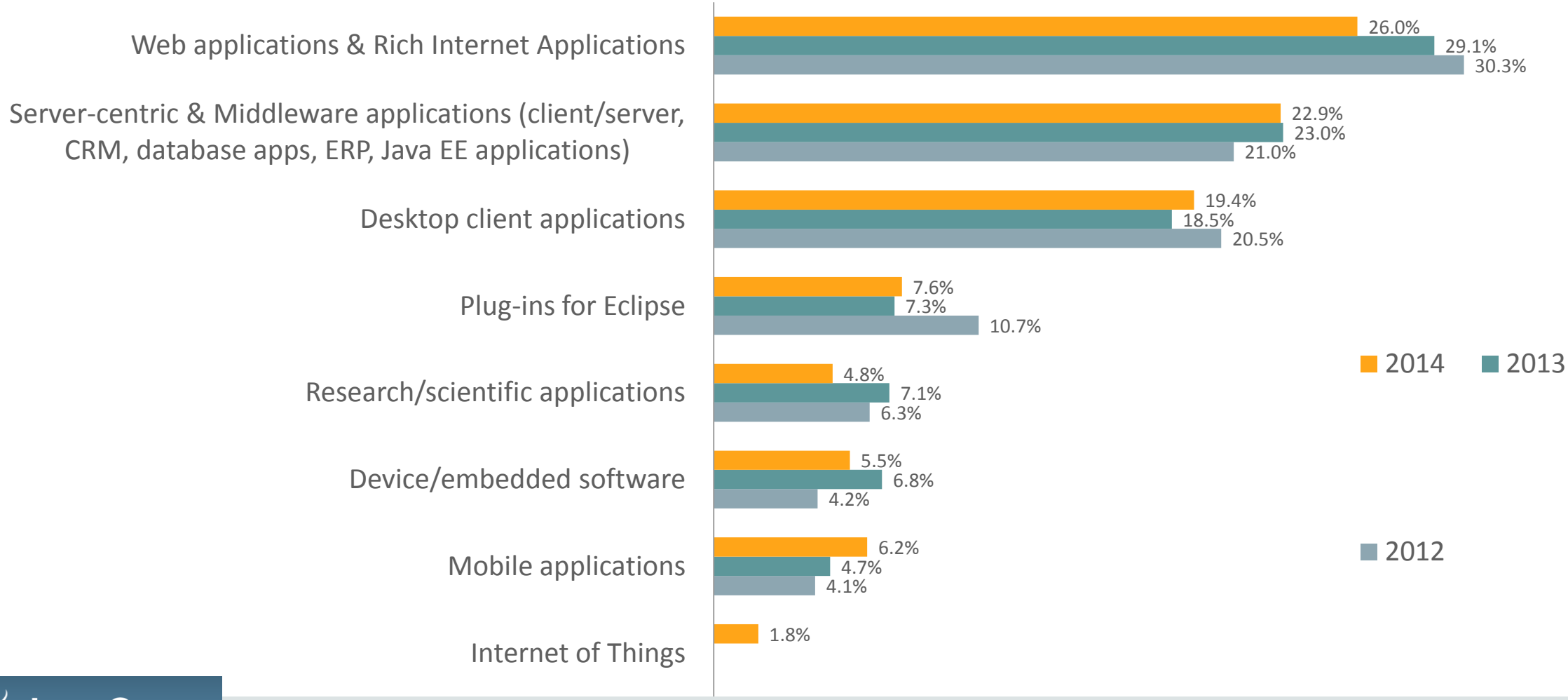
Eclipse Members Survey 2014

What is the primary type of software you are personally involved in developing?



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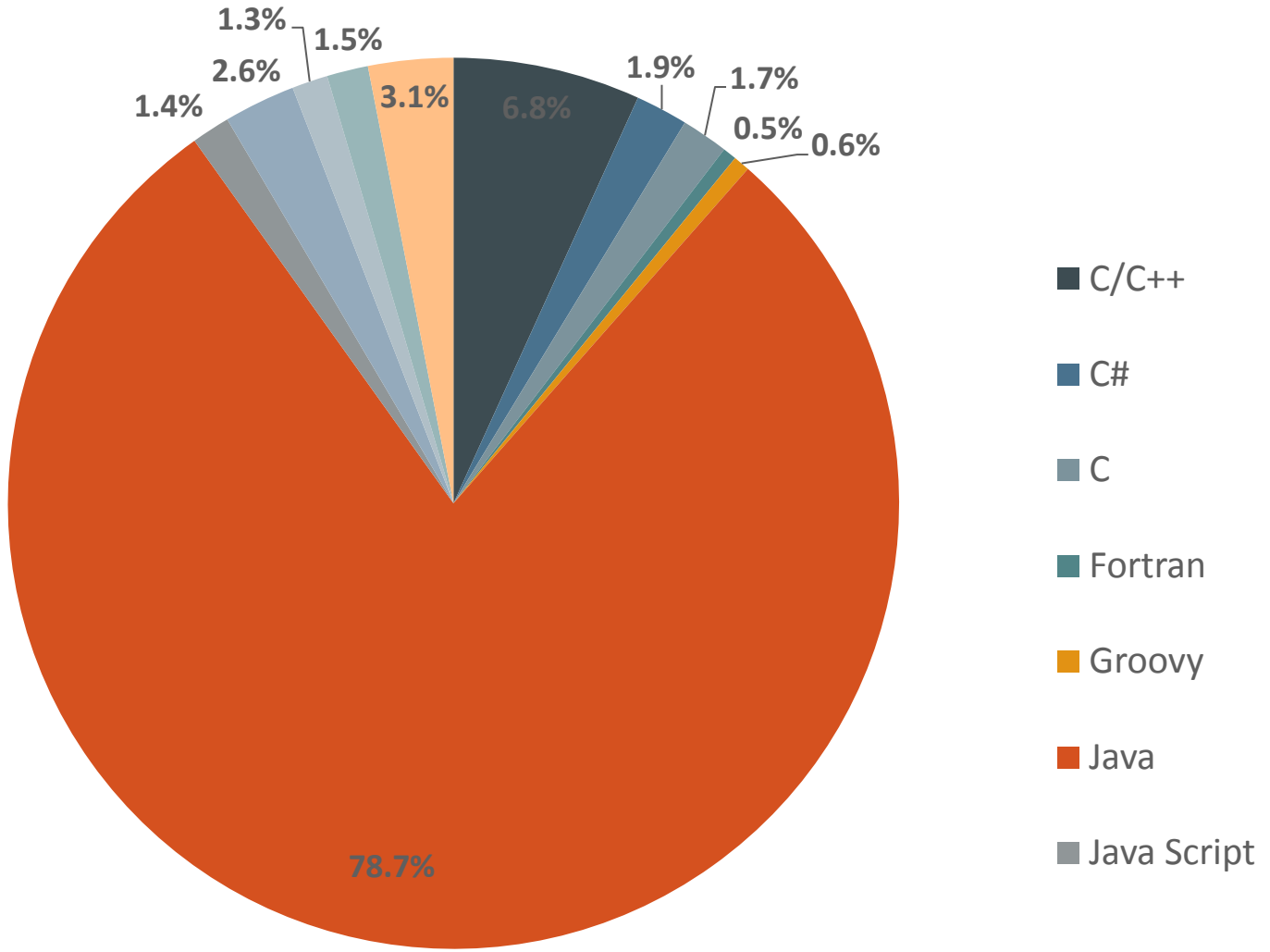
Eclipse Members Survey 2014

What is the primary computer language you typically use to develop software?



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Constructing a Java EE Dev Environment

There's a plugin for that!

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Java EE Spec Review

- Java Persistence
- Enterprise Java Beans
- JavaServer Faces
- Web Services

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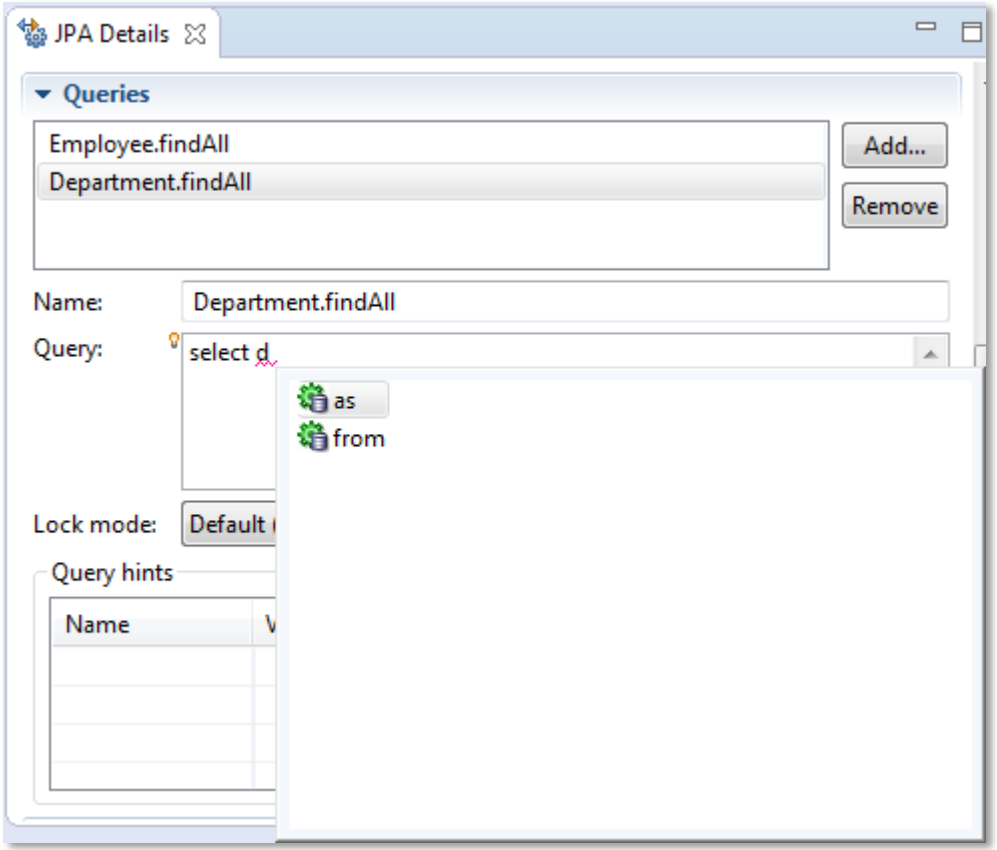
Java Persistence

Dali Java Persistence Tools

- Creating a data model
  - Top down
  - Bottom Up
- Configuration (persistence.xml)
- JPQL Querying
  - In Annotation content assist
  - JPA Details View



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Java Persistence

EclipseLink Runtime

- Eclipse Runtime Project
- Reference Implementation for JPA
- More than just JPA
  - EclipseLink JPA: Object Relational Mapping
  - EclipseLink SDO: Service Data Objects
  - EclipseLink MOXy: Object to XML Mapping
  - EclispeLink DbWS: Database Web Services
  - EclipseLink NOSQL

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Enterprise Java Beans

- EJB 1.0 → 3.1
- Message Drive Bean
  - Queue | Topic
- Session Bean
  - Stateless | Stateful | Singleton
  - Local and Remote Interfaces
  - Façade generation patterns

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JavaServer Faces

- Library Management
- Configuration Editors (faces-config.xml)
- JSF Navigation Designer
- JSF Component Gallery
  - Drag and Drop Patterns
  - Palette
- Property Sheet
- Content assist and Validation
- CDI Support

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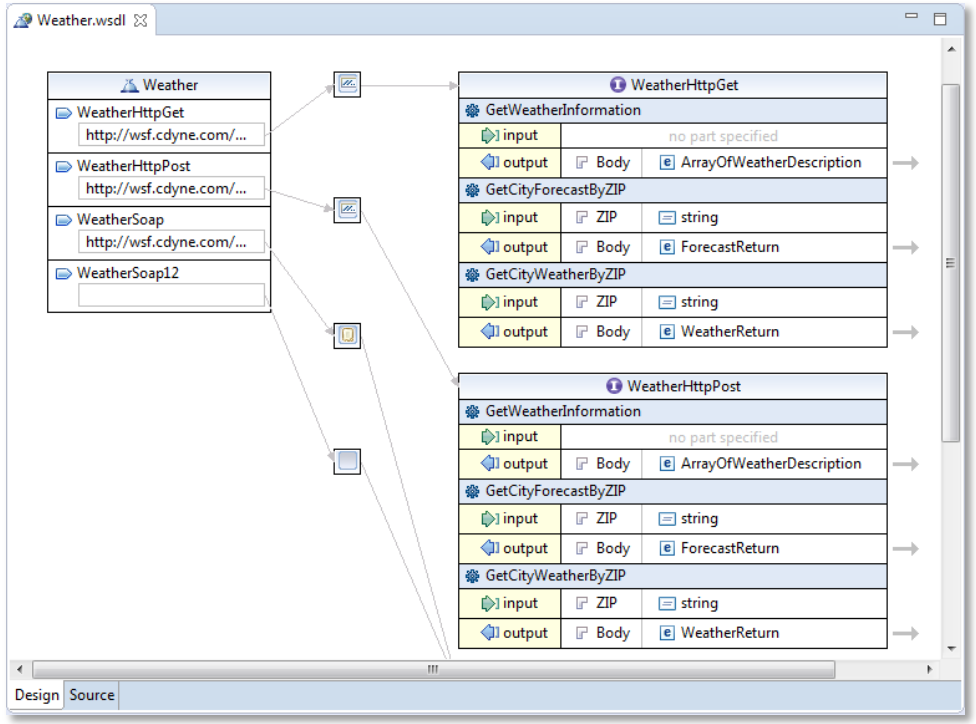
Web Services

SOAP

- Start from Java Web Service
- Start from WSDL
- Create Web Service Client
- Web Service Security (WS-Policy)
- WSDL Editor
- Web Service Property Sheet
- JAX B Type Generation
- JAW-WS Bindings



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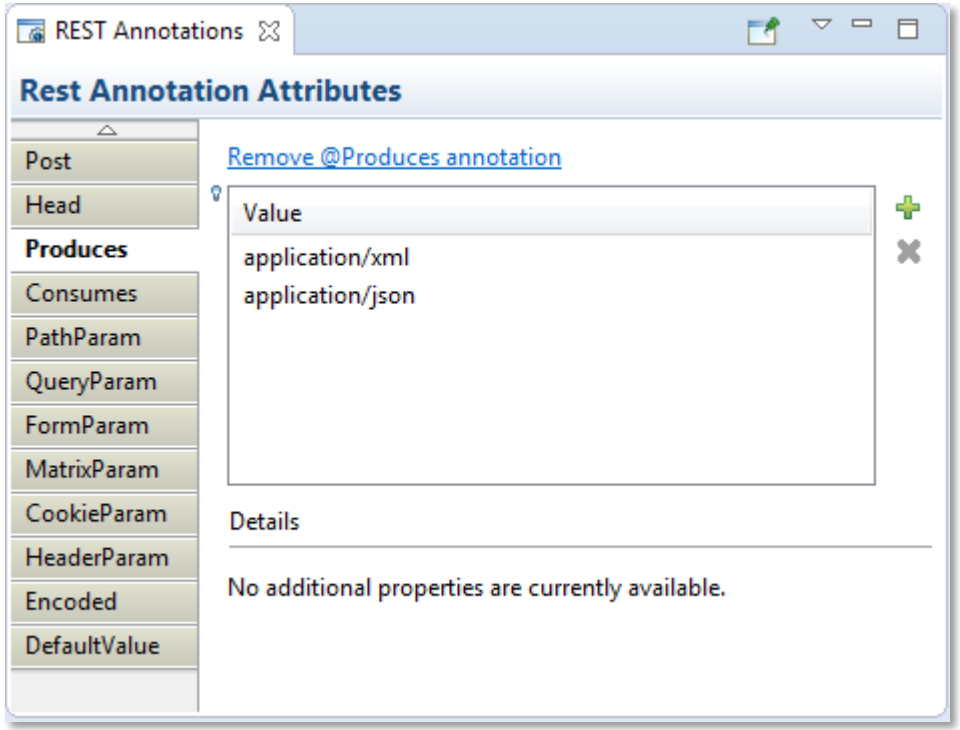
Web Services

JAX-RS

- REST Web Service Creation
- REST Creation Patterns
  - Simple
  - Container-Item
  - Client-Controlled Container Item
  - Entity Access Façade
- REST Property Sheet
- Run As > Test Client



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Where to Deploy?

- Every Java application server has an Eclipse plugin
- Eclipse Marketplace
- Discover New Server Adapter
- Common Use Cases
  - Run, Deploy, Debug
  - Local and Remote Servers

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Database Tools

- Eclipse Data Tools Platform (DTP)
- Generic Adapters for most Databases
- Vendor-provided plugins
- Common Use Cases
  - Connect to Database
  - Browse Schemas
  - Query and View Data

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Demo

Java EE in Eclipse

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Summary

- Eclipse provides the platform and ecosystem for Java EE
- Pick the toolset that works for you (often based on deployment)
- Eclipse Foundation and Java are coordinating more and more
  - Java EE 7 Launch
  - Java 8 Launch at EclipseCon 2014!

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Additional Resources

- eclipse.org
- marketplace.eclipse.org
- Oracle Enterprise Pack for Eclipse - oracle.com/goto/oepe
- Java EE Tutorials and code samples on Oracle Technology Network (OTN)

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Additional Sessions

Title	Time	Location
Java Development in the Cloud [CON1840]	Wed 11:30	Hilton - Continental Ballroom 6
Getting Started with Oracle Mobile Application Development on Eclipse [CON6985]	Thu 9:30	Moscone West - 3018

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