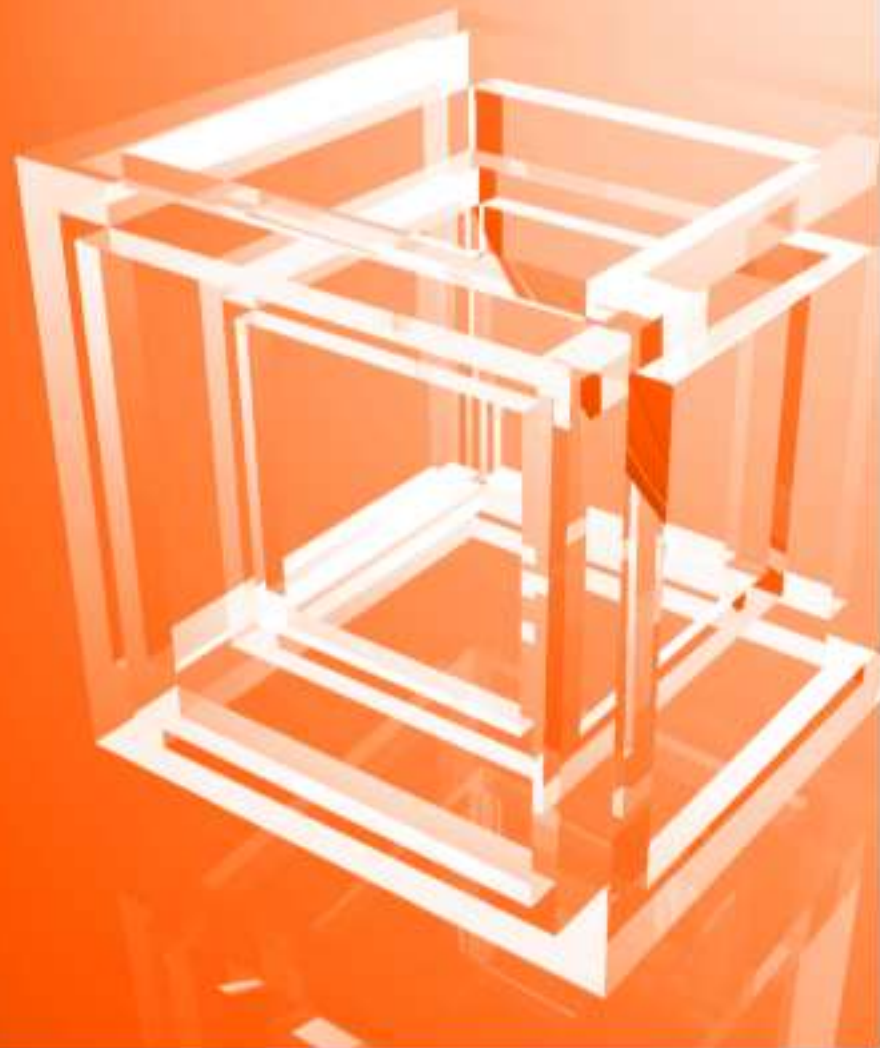


NetBeans and J2EE support

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Architect, NetBeans J2EE



Agenda

- J2EE development in NetBeans 4.1
 - Web Development
 - EJB
 - Web Services
- NetBeans and J2EE 5.0



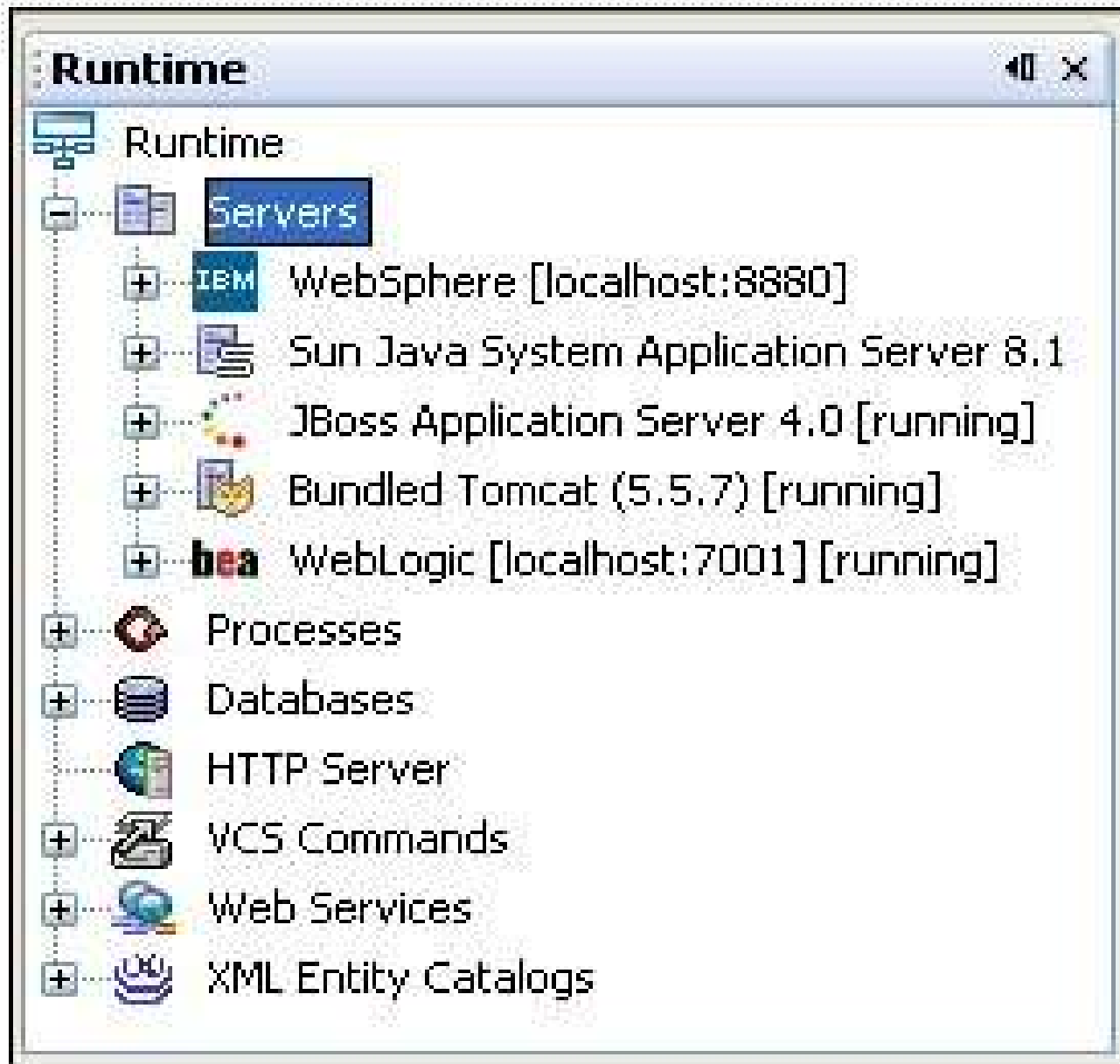
J2EE development in NetBeans 4.1

- Makes it easier to develop J2EE applications
- Makes experienced developers more productive
- Helps beginners learn J2EE development
- Does not require in-depth knowledge of all details of J2EE
- Helps by providing end-to-end support, integrated experience

J2EE Development in NetBeans

- Web development - JSP/Servlets
- EJB
- Session, entity beans, CMP, MDB
- WebServices
- Integration with
 - Sun AppServer 8.1 PE (bundle download available)
 - Tomcat 5.5.x
 - NetBeans 4.2: JBoss, WebLogic, WebSphere

More J2EE servers support



Web Development

- Web Application project type
- All stages of the development cycle
 - Create, Edit, Build, Deploy, Debug, Profile



Web Development - Create

- Create projects
 - Web Application project from scratch
 - Web Application project with existing sources
 - Web Application project with existing Ant script
- Create components
 - JSP pages, HTML pages, servlets, tag files, tag libraries, filters, listeners, ...
 - Manage deployment descriptor automatically
- Includes JSP Standard Tag Library (JSTL)

Web Development - Edit

- JSP Editor
 - Coloring of HTML, JSP, Java and Expression Language elements
 - Context-sensitive code completion
 - Help for JSP syntax
 - Formatting, tag matching, "smart case", ...
- Java editor aware of J2EE APIs
- Code completion for deployment descriptors

Web Development - Build

- Build is completely driven by Ant
- Ant script maintained by the Project system
- Respects common conventions
 - "build" and "dist" directories
 - Java BluePrints and Jakarta source structures
- Compile JSPs to discover coding errors

Web Development - Deploy

- Tomcat 5.5.x included with NetBeans
- One-click deployment
- Fast iterative redeployment
- Autodeployment of JSPs - edit, save, refresh in browser
- View server logs

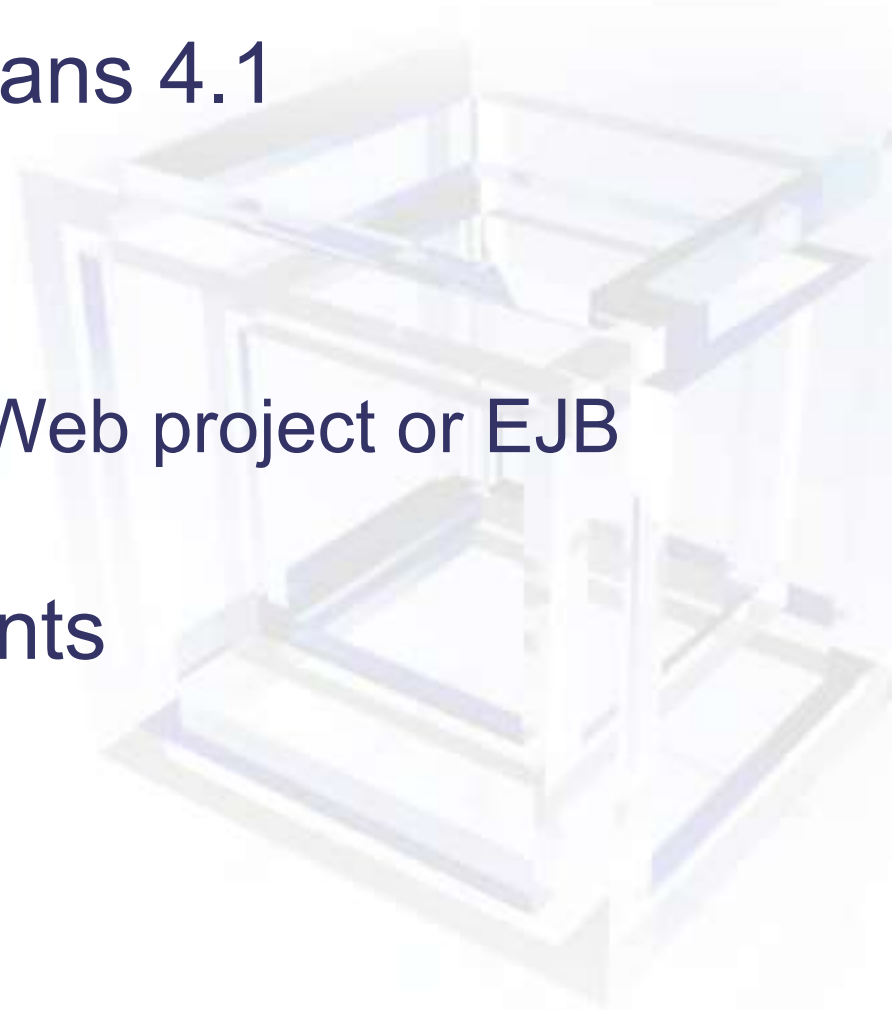


Web Development - Debug

- Automatically start server in debug mode
- Step through Java and JSP code
- Evaluate expressions (as tooltips)
- HTTP monitor
 - Records all HTTP transactions between the browser and the server
 - Displays HTTP parameters, cookies, session data, HTTP headers, browser and server info, ...
 - Allows replaying transactions recorded previously

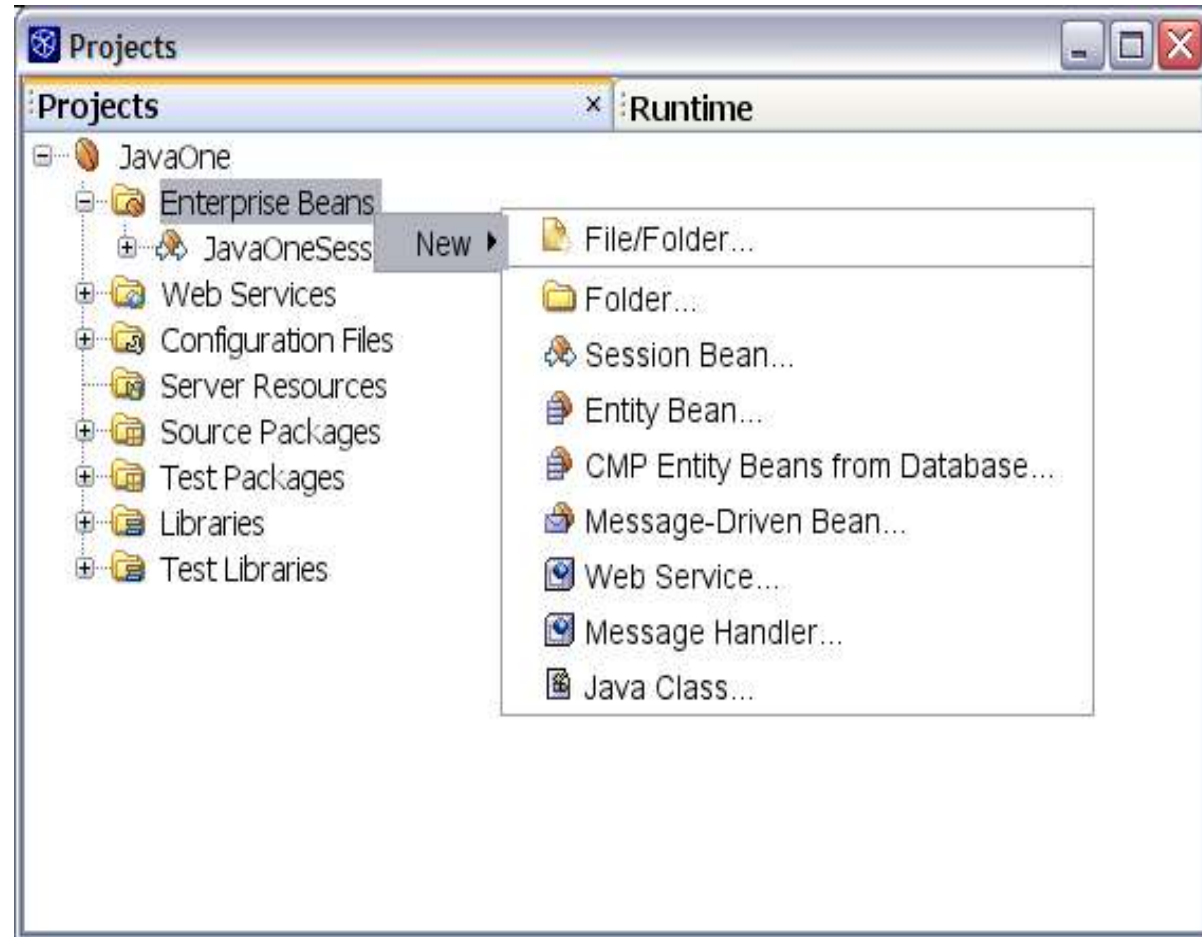
EJB/Web Services - basic features

- New Project types in NetBeans 4.1
 - EJB Module project
 - J2EE Application project
 - Web Services developed in Web project or EJB Module project
- Wizards for J2EE components

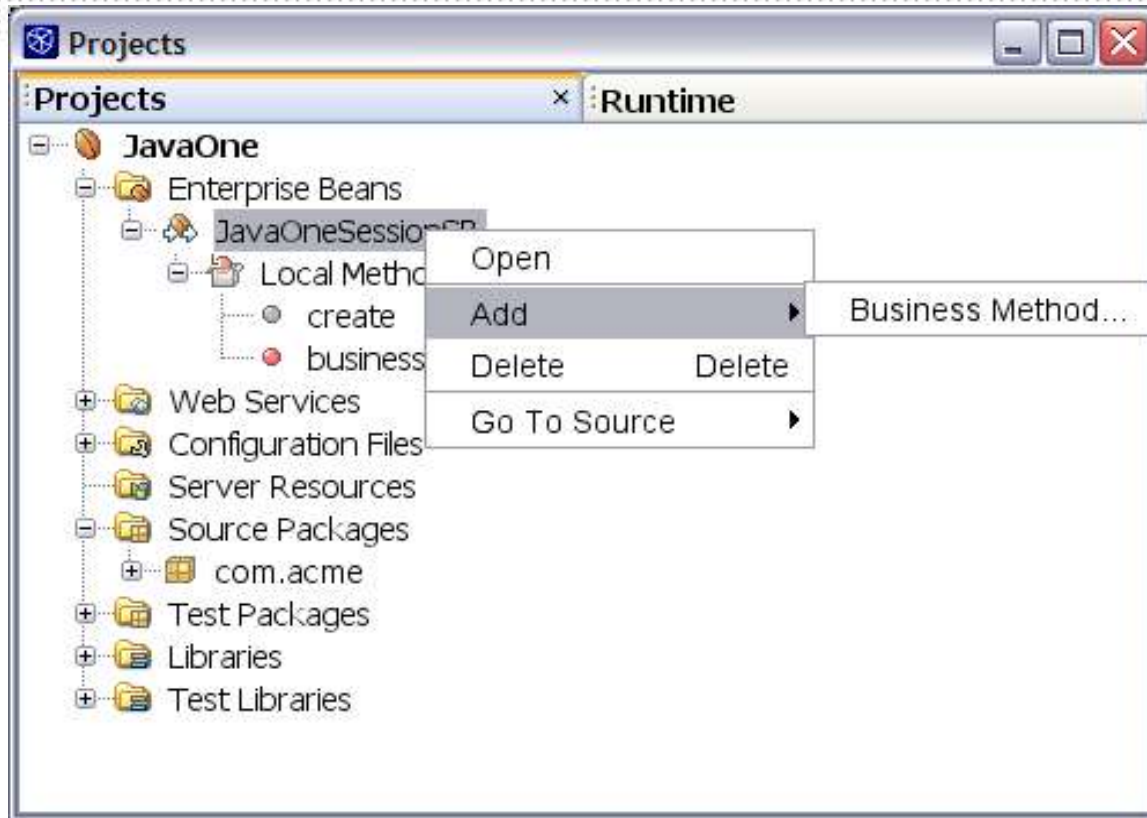


Enterprise JavaBeans Development

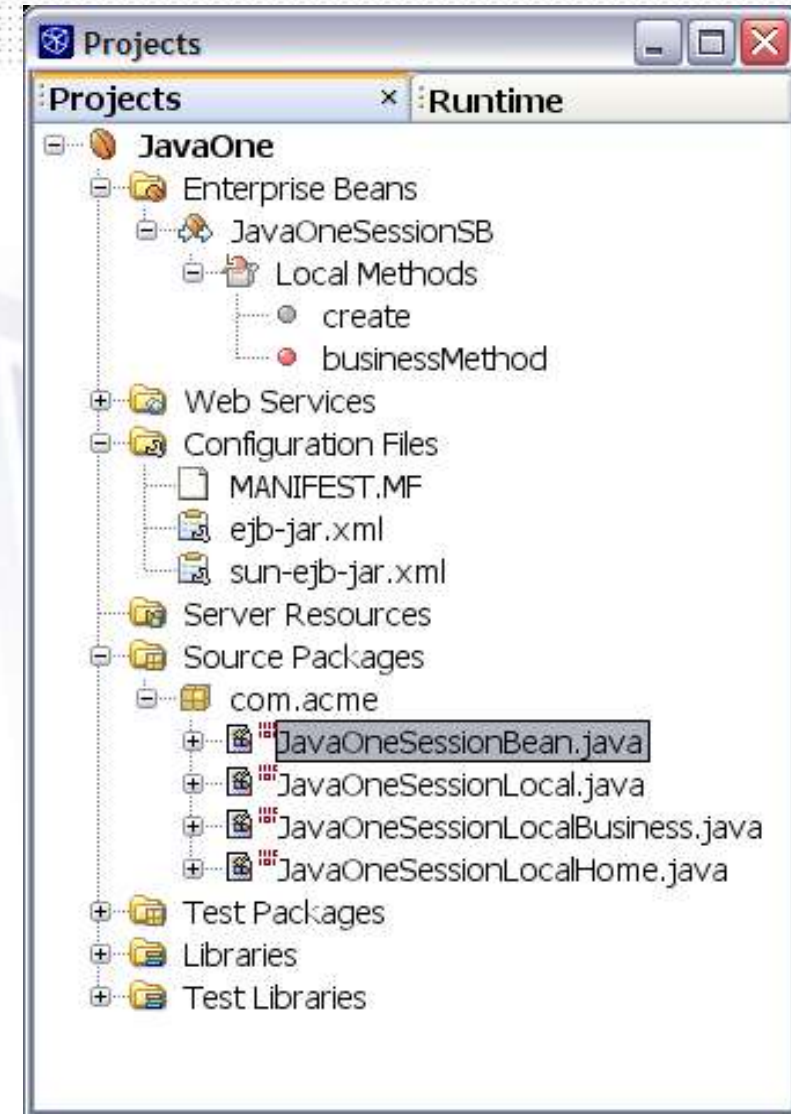
- Create EJBs
- Hide deployment descriptors
- High level operations
- Deployment descriptor editor
- "Call EJB" action



J2EE logical view



EJB logical view
J2EE Blueprints conventions



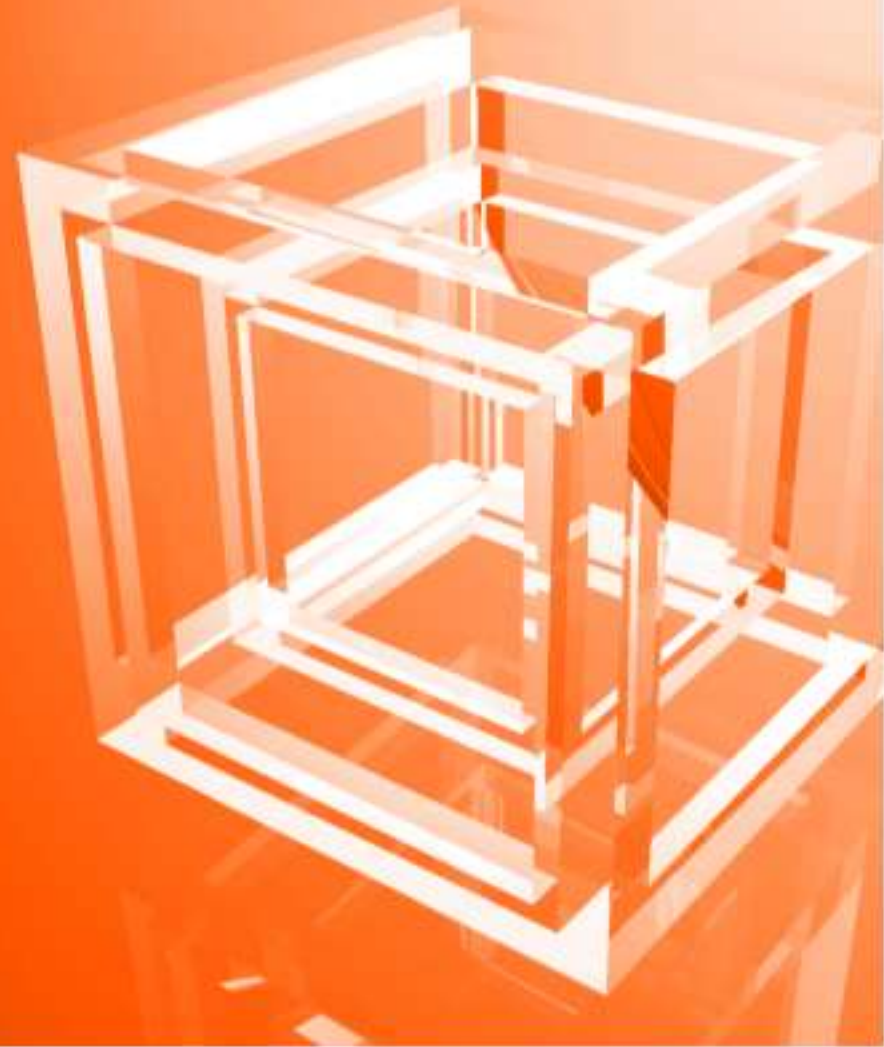
Web Services Development

- Create Web service operations
 - From scratch
 - From an existing Java class
 - From an existing WSDL file
- Automatically manage all configuration files
- Supports common web service standards
 - SOAP, WSDL, JAX-RPC, JSR 109, ...
- Web Services Registry
- Call a Web Service from Java code

More J2EE features

- Verification of J2EE applications
- Manage and edit server-specific deployment descriptors
- Refactoring integrated with J2EE
- Java BluePrints solution catalog
 - Now with AJAX samples
- Sample J2EE projects

Demo NetBeans 4.1



NetBeans and J2EE 5.0

- Under development
- Target GlassFish and others
- EJB 3.0 annotations
- Web Services annotations
- Ease of Development
- JSF and Struts support
- NetBeans will be ready the **same** day as J2EE 5.0

NetBeans and J2EE 5.0

```
19  @Entity()
20  @Table(name="")
21  public class DEPARTMENT implements Serializable {
22      private int id;
23      private String name;
24
25
26      @Id(generator=GeneratorType.AUTO)
27      public int getId() {
28          return id;

```

Demo NetBeans J2EE 5.0

