SAP NetWeaver Developer Studio and Java Development Infrastructure

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Agenda

SAP NetWeaver Developer Studio

- Mission Statement
- Eclipse
- Java Dictionary, J2EE Tool Set, Web Dynpro Tools

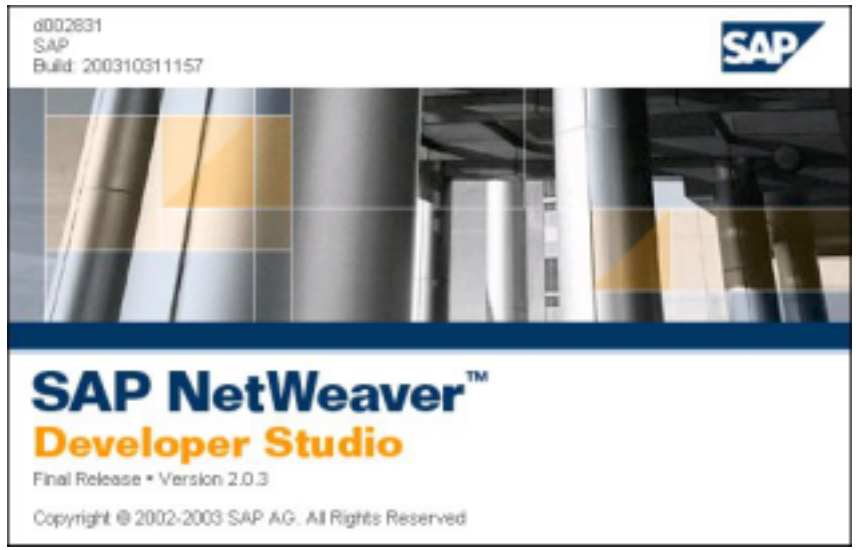
Java Development Infrastructure

- Component Model
- Design Time Repository
- Component Build Server

Java development infrastructure

Mission Statement

- Provide an integrated and robust development infrastructure for Java projects at customer and partner sites as well as for SAP's own development



- Provide a highly productive Java development environment that
  - Covers the complete life cycle of Java projects
  - Reduces costs in professional Java projects
  - Speeds up the Java development process
  - Increases the overall quality of Java based products

Complete Set of Development Tools for all aspects of Java Business Applications

SAP delivers an integrated development environment for all aspects of J2EE development

User Interface

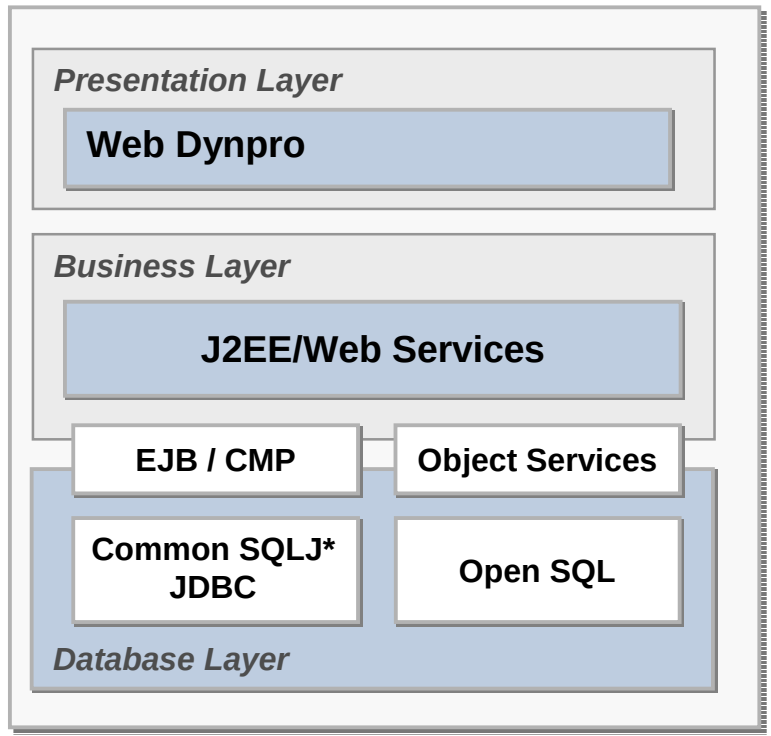
- Developing flexible web user interfaces with Web Dynpro Tools

E-business logic

- Development and deployment of enterprise Java beans (EJB)
- Definition and publication of web services

Java persistence

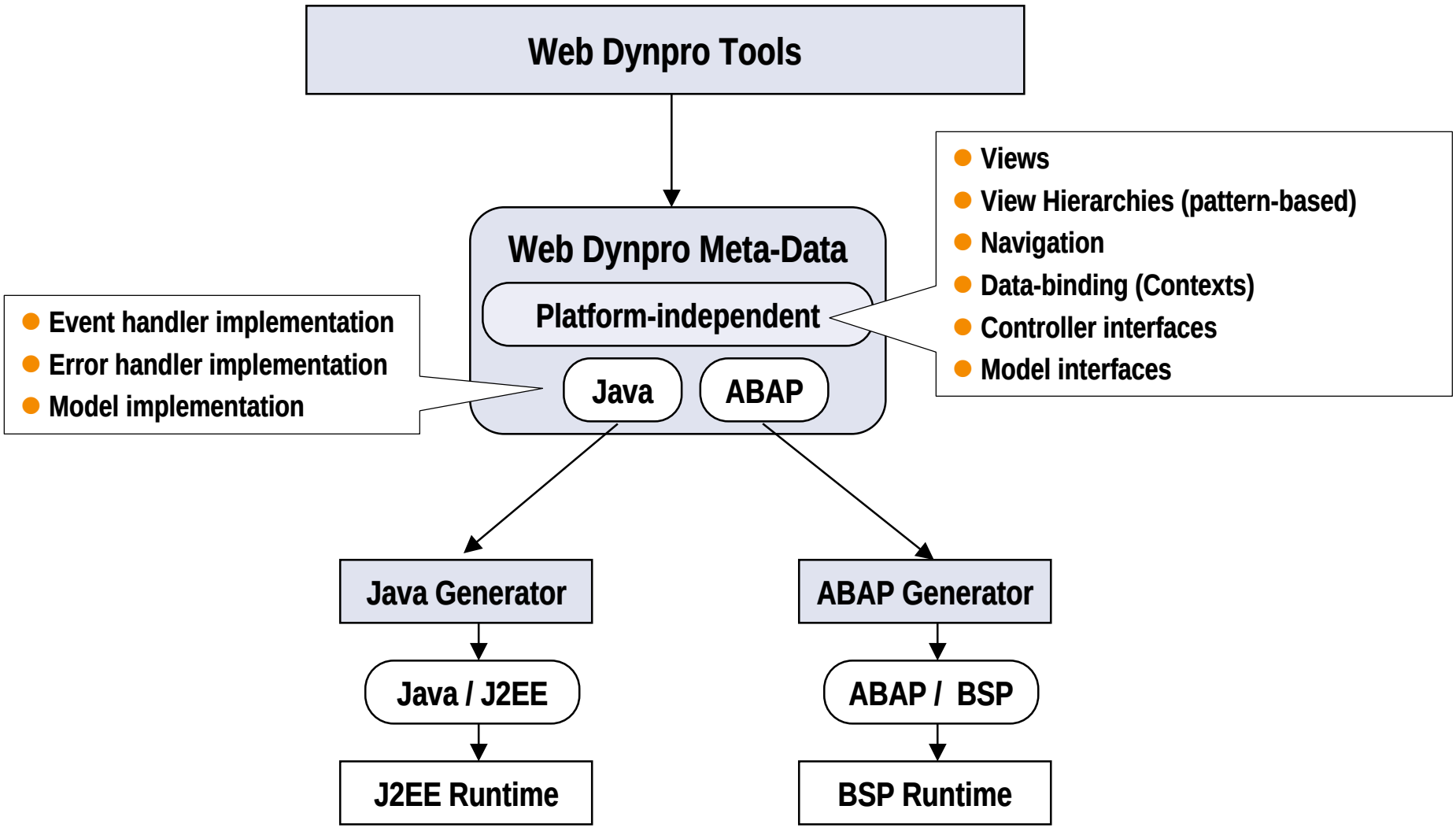
- Container managed persistence (CMP)
- Embedded SQL in Java (SQLJ)
- Java data objects (JDO)



Creating central data types and database objects (Java dictionary)

Design time support for HTML, XML and XSLT (Validation, Code completion)

Web Dynpro – Model-driven Architecture



Web Dynpro – Advantages

Web Development for mission critical applications

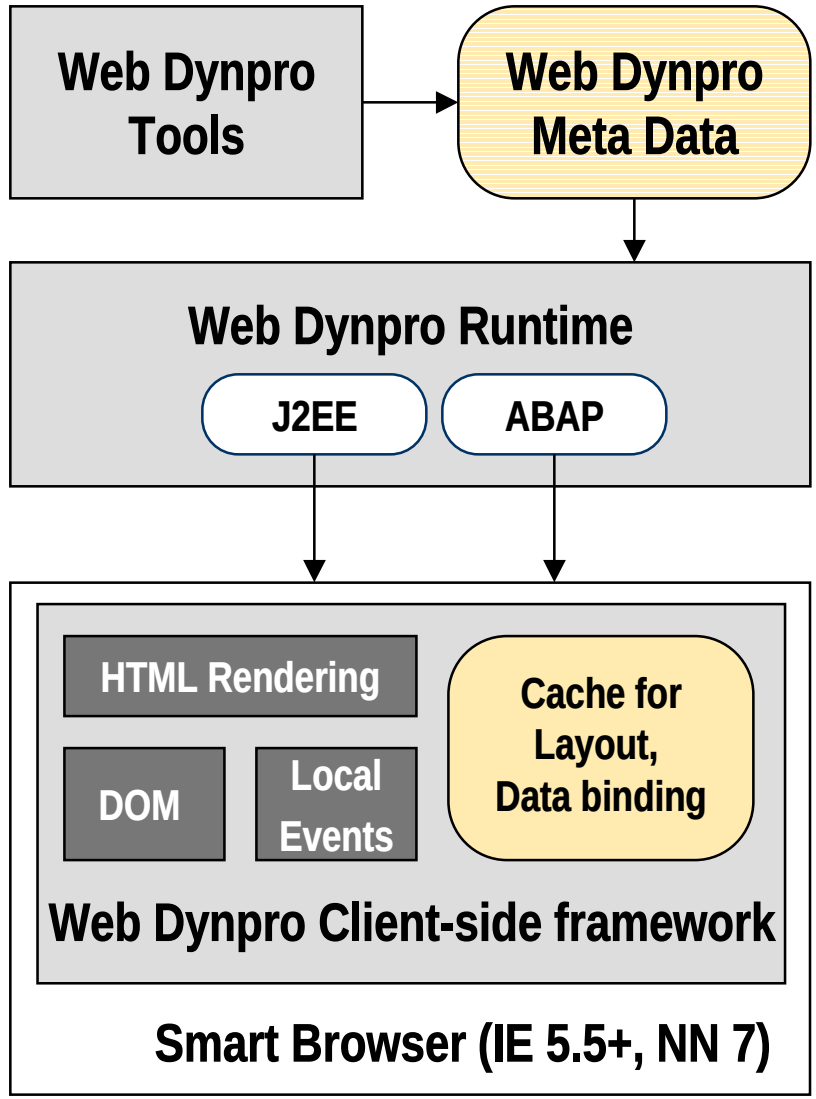
- Minimal coding, maximal design
- Separation presentation and business logic
- Backend Integration
- Pattern based

Platform Indepedence

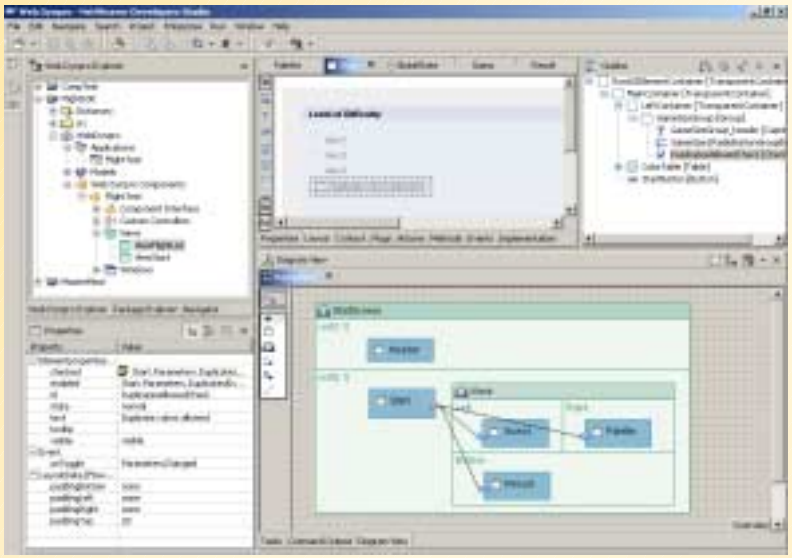
- Runs on all platforms

Modern web based UI

- Browser based, „zero footprint“
- Incremental rendering
- Client Side Framework
- Intelligent Caching
- Personalization
- Accessible

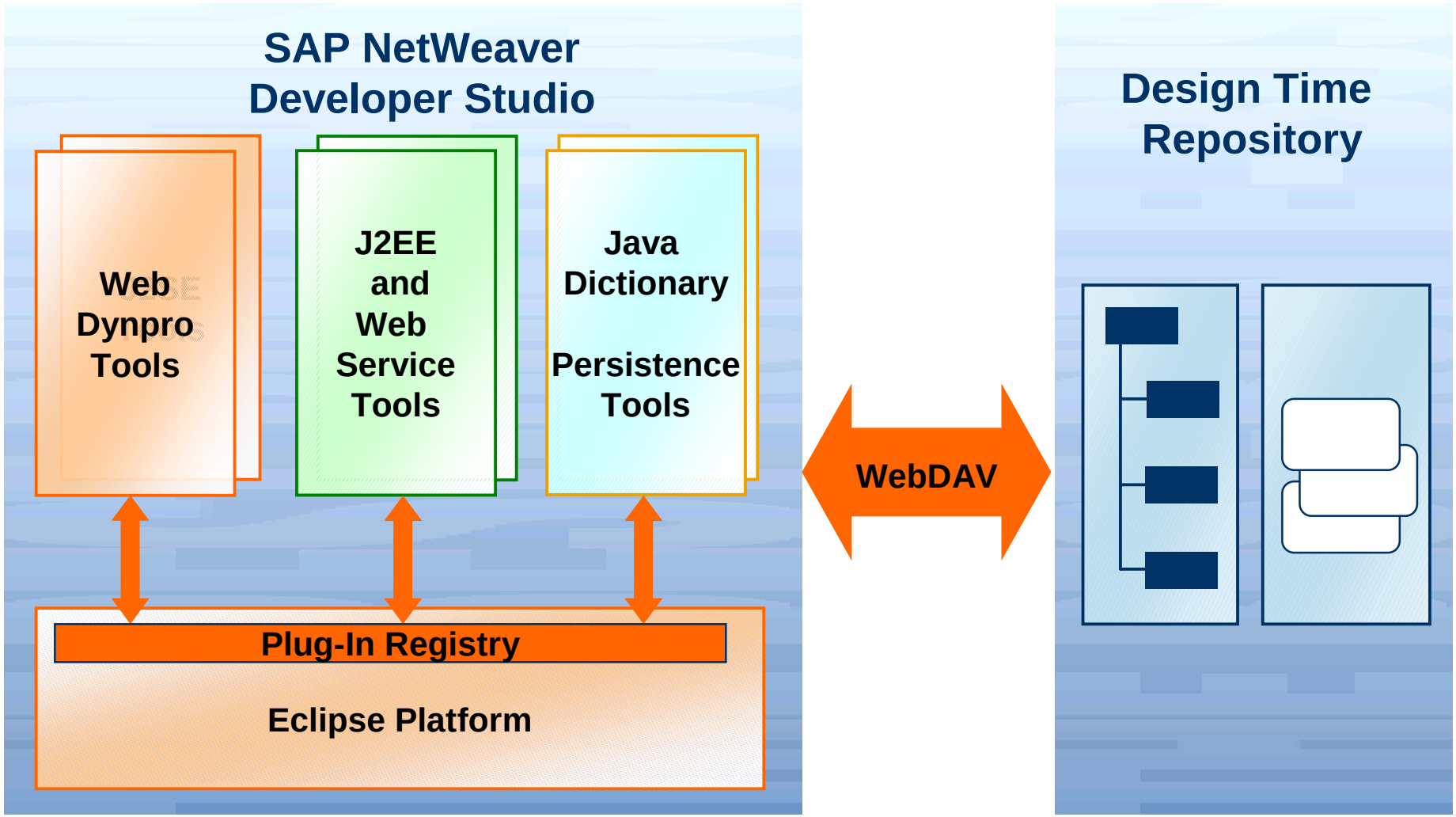


SAP NetWeaver Developer Studio

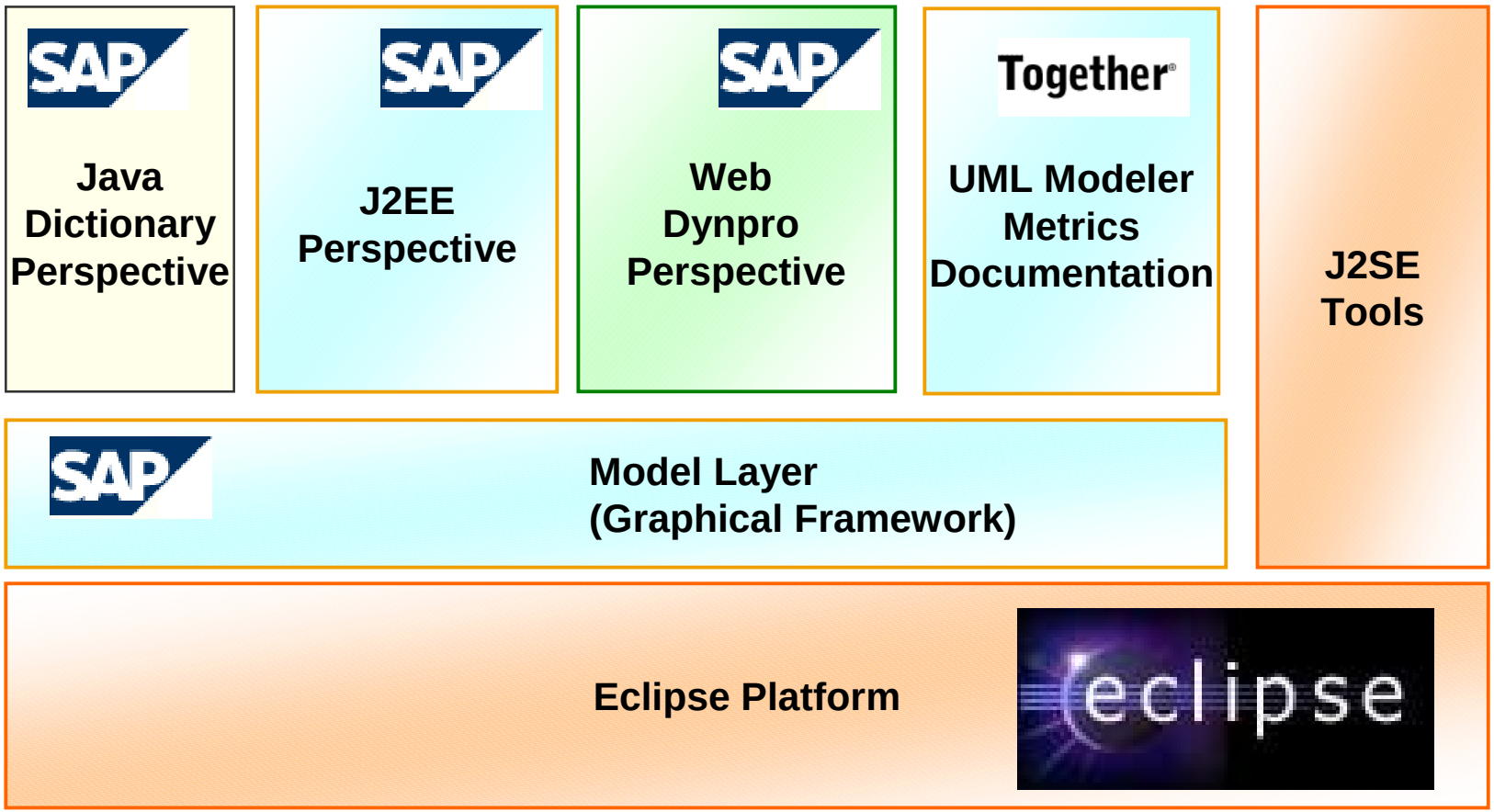


- Extensible and open IDE based on open source framework Eclipse
- Easy-to-use tools to design, develop, deploy and continuously change mission critical business applications in Java / J2EE
- Focus on graphical tools
- Web Services Tools for connectivity based on open standards
- Web Dynpro Tools for model-driven user interface design
- Java Dictionary for centralized data type and data structure management

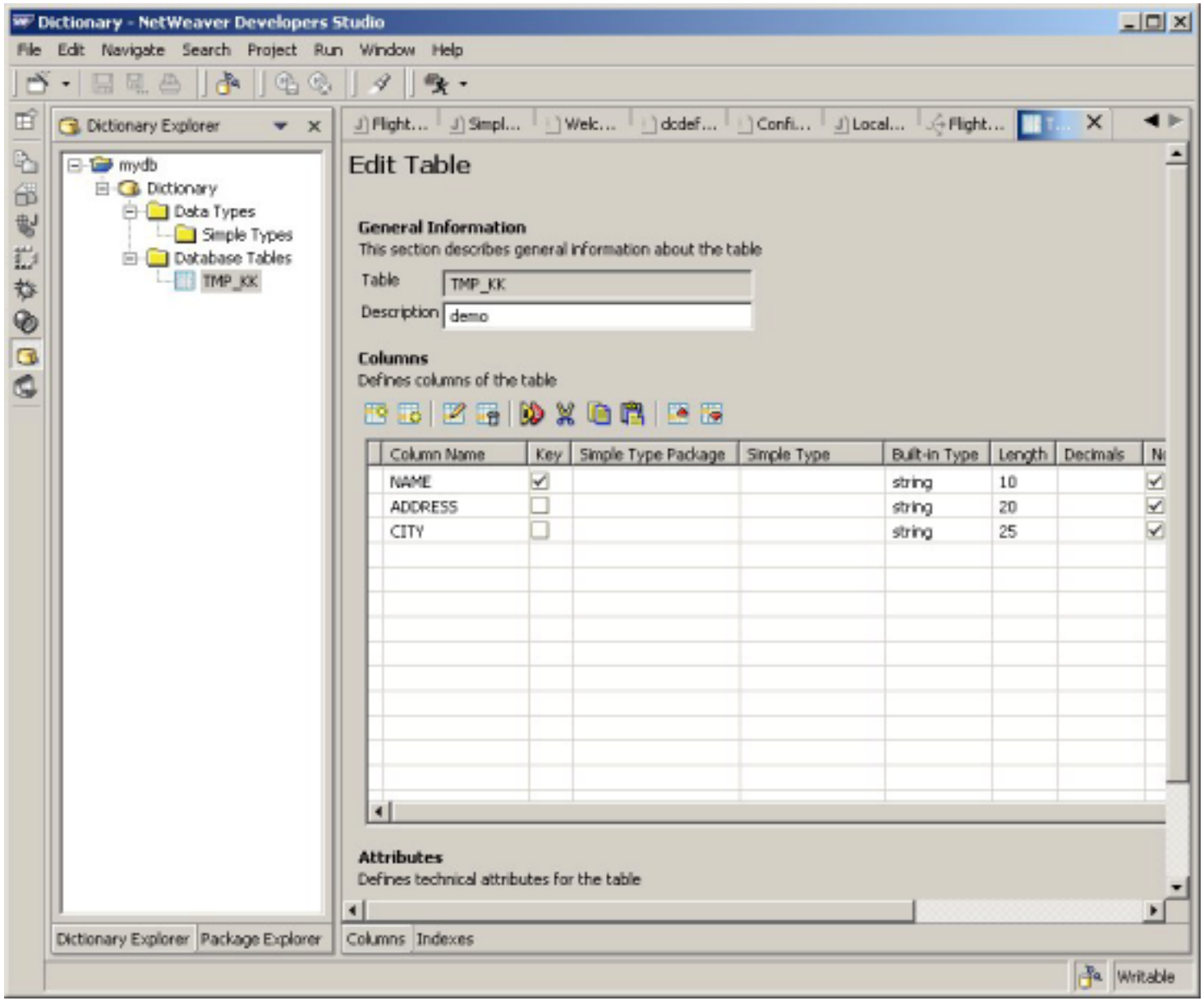
Eclipse: Platform for SAP NetWeaver Developer Studio



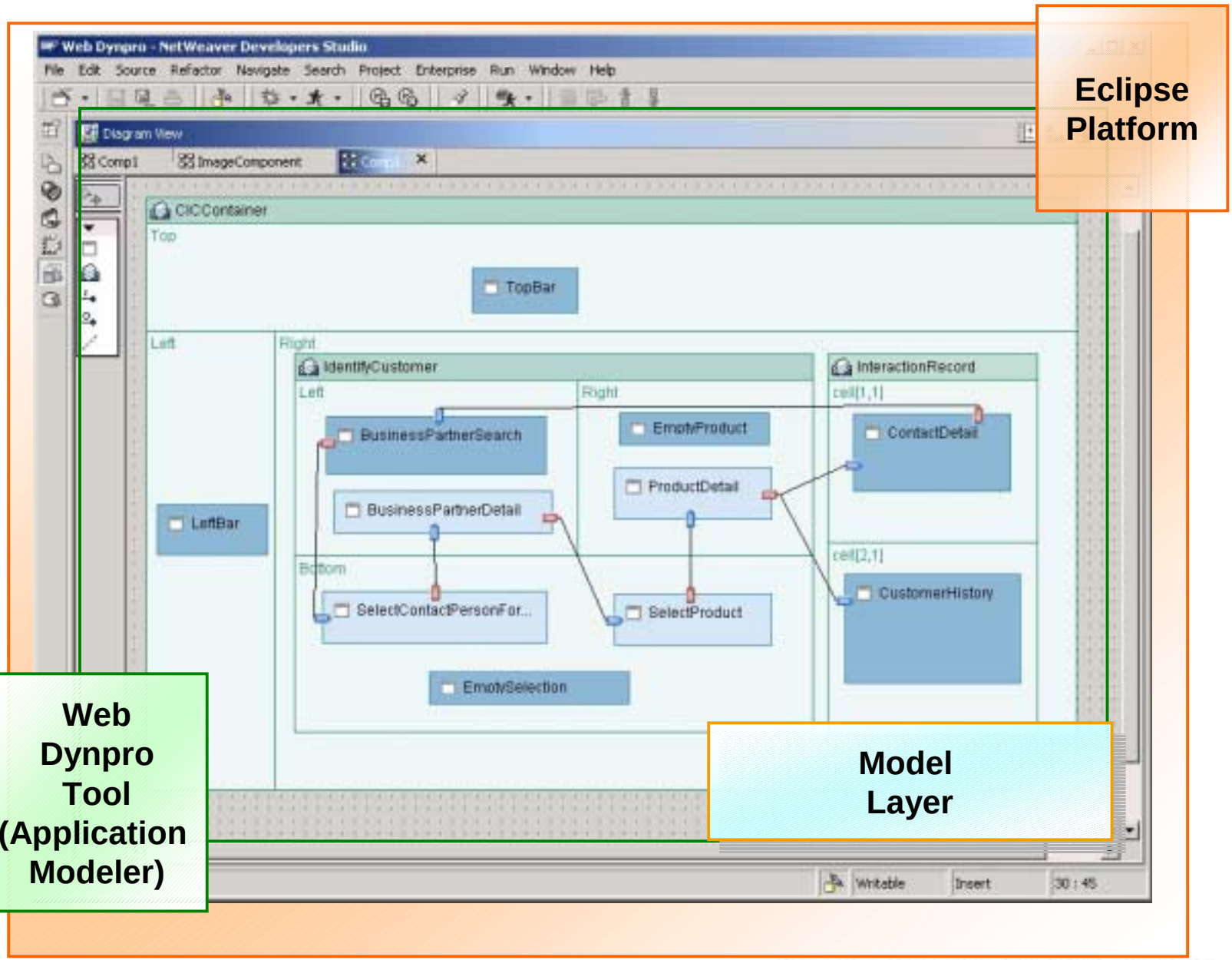
SAP NetWeaver Developer Studio: software layers



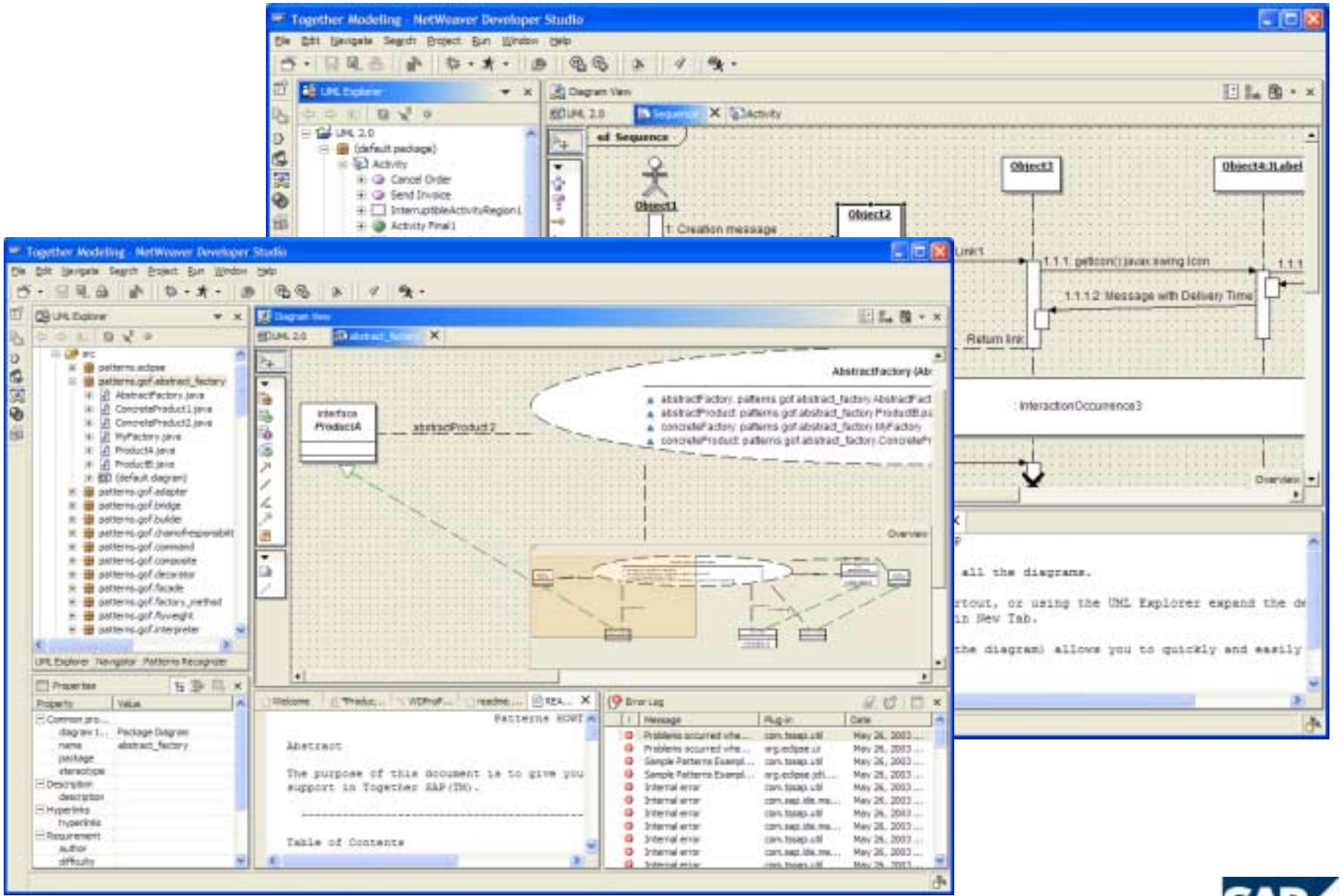
Java Dictionary



Web Dynpro Tools: Navigation Modeler



SAP NetWeaver Developer Studio: Together Edition



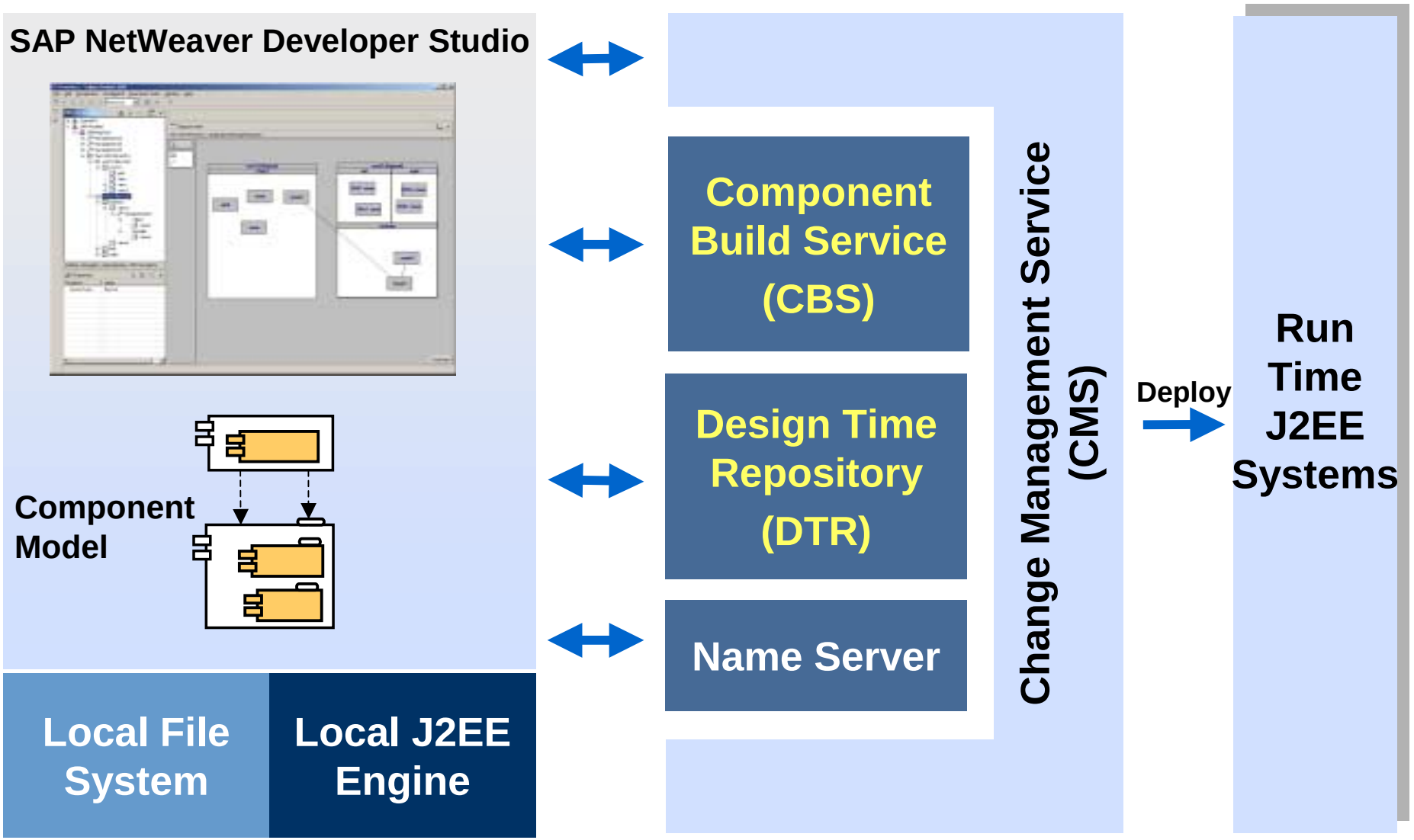
SAP's Java Development Infrastructure: Design principles

Most J2EE environments in the market offer a rather limited development infrastructure

A significant amount of manual work is necessary to setup a consistent Java development environment on a developer's machine for each project

Idea: Combine a local and file based designtime architecture with the advantages of an integrated server-based environment such as ABAP

Overview: Java Development Infrastructure



Cornerstones of SAP's Java Development Infrastructure

Component Model for Java Development

- Software architecture through software and development components
- Component hierarchy
- Management of component dependencies

Design Time Repository

- Files and folder based repository
- Distibuted source code control
- Flexible development landscapes

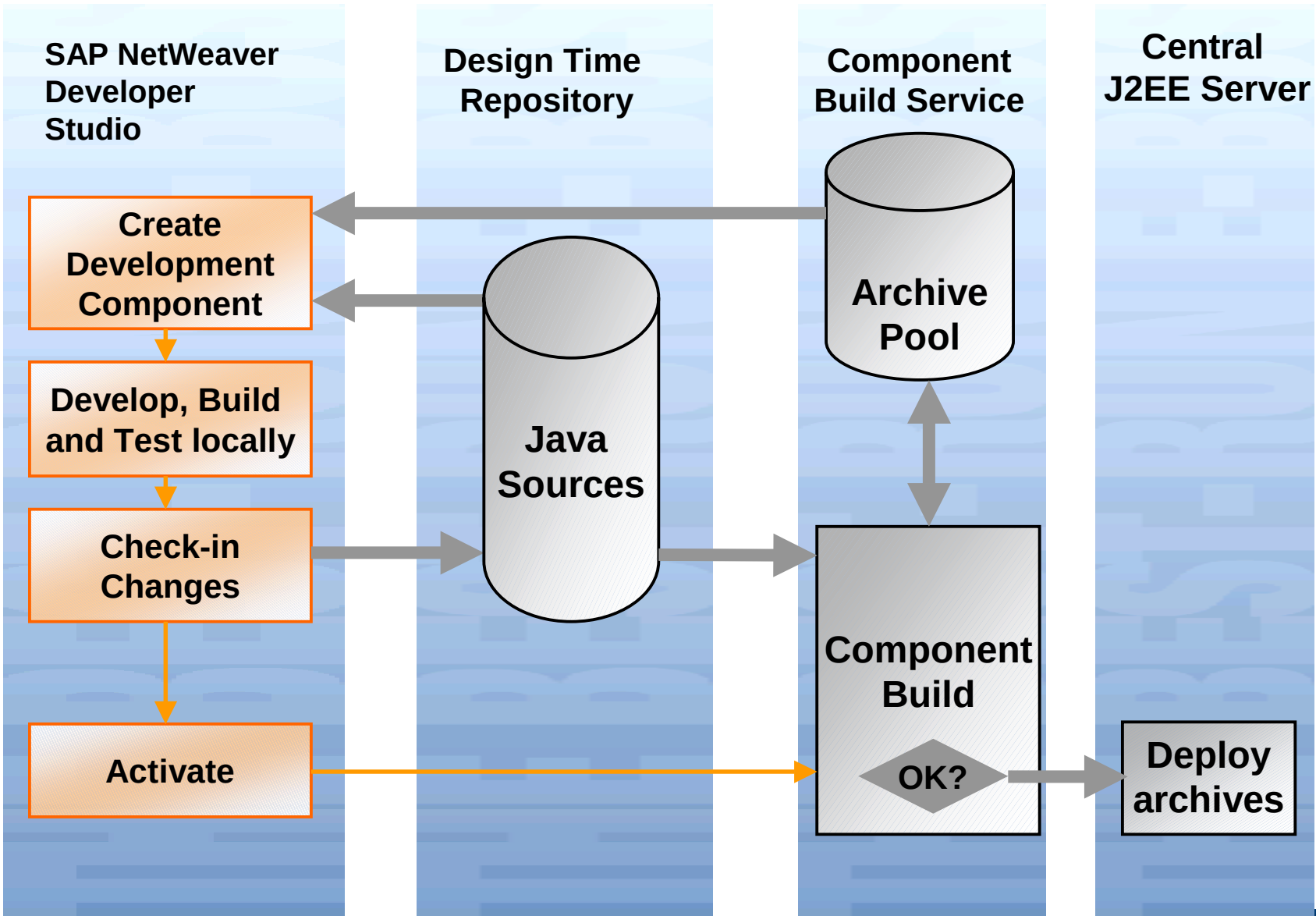
Component Build Service

- Automatic & immediate build of changed and dependent components
- Provide consistent environment, automated update of local environment

Change Management Service

- Automatic deployment to the J2EE runtime environment
- Propagation of changes between different repositories
- Maintenance of (both SAP and customer) Java solutions

SAP Java Development Process



Component Model – Elements

Development Objects

- Stored as versioned files in the source repository (DTR)

Development Components (DCs)

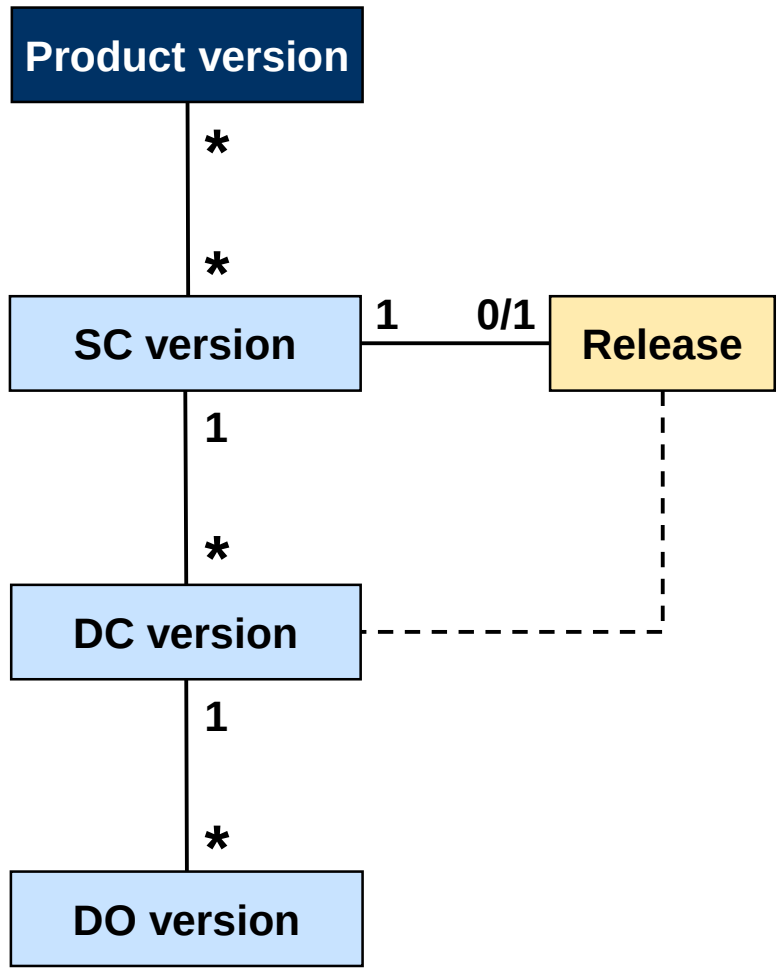
- Development and build units
- Group development objects without overlapping

Software Components (SCs)

- Delivery and installation units (like e.g. HR in ABAP)
- Group development components without overlapping
- Own the release definition

Products

- Overlapping selections of software components



Development Components

Development Component (DC):

- **Container for development objects and built units**
- **DCs are grouped to make software components**

Nested DCs

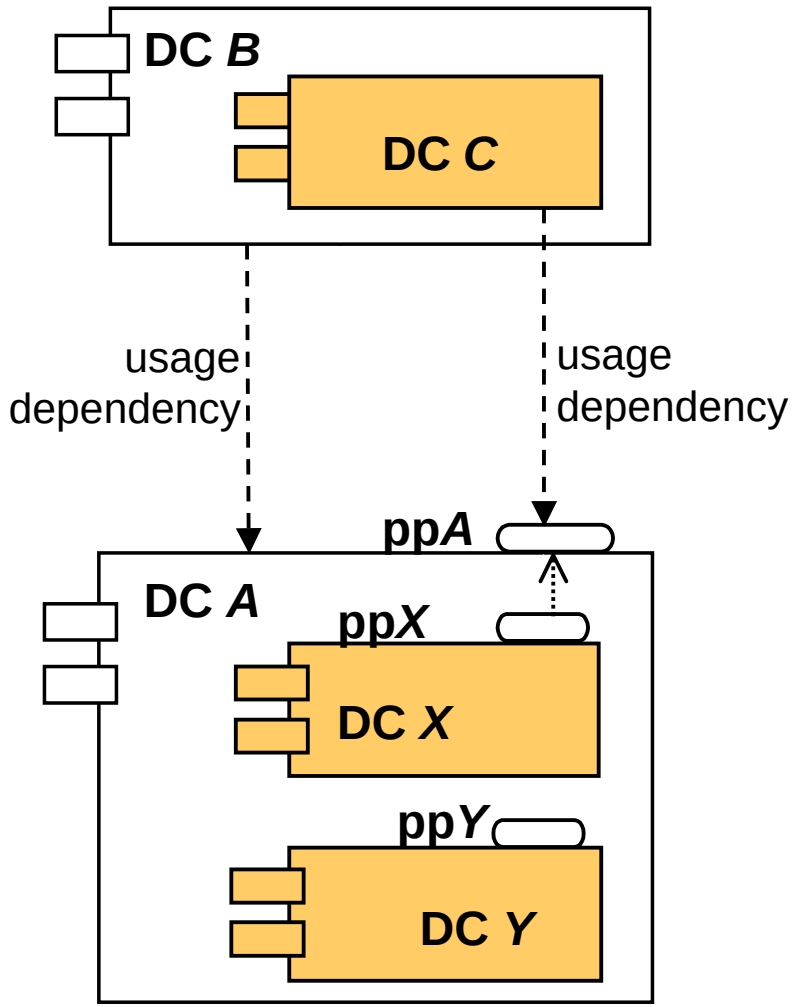
- **DCs may be contained in another DC**

Public parts

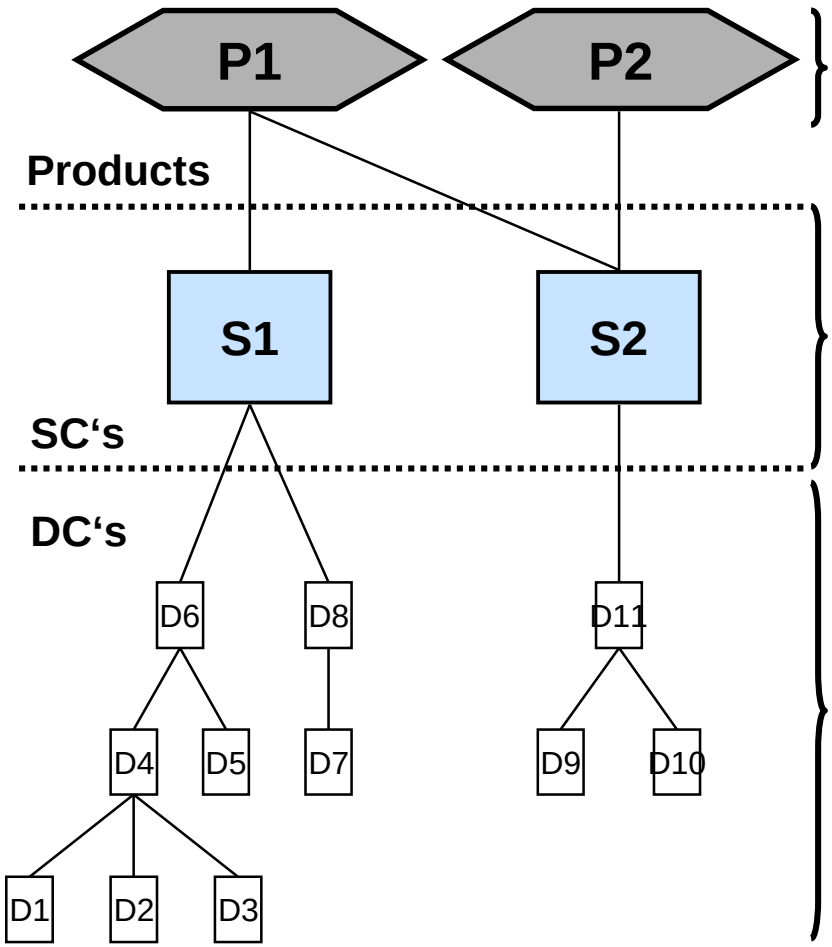
- **Elements of a DC that may be used by other DCs (DC-interfacing)**

Usage dependencies

- **Declare that a DC uses parts of other DCs during build or runtime**



Component Model in Delivery and Maintenance



Installation / Upgrade

Support Packages

Patches

Release

- **is a full delivery of SCs providing extra features and enhancements**
- **defines new Support Intervals**
- **Delivery of new functions and new user interfaces**

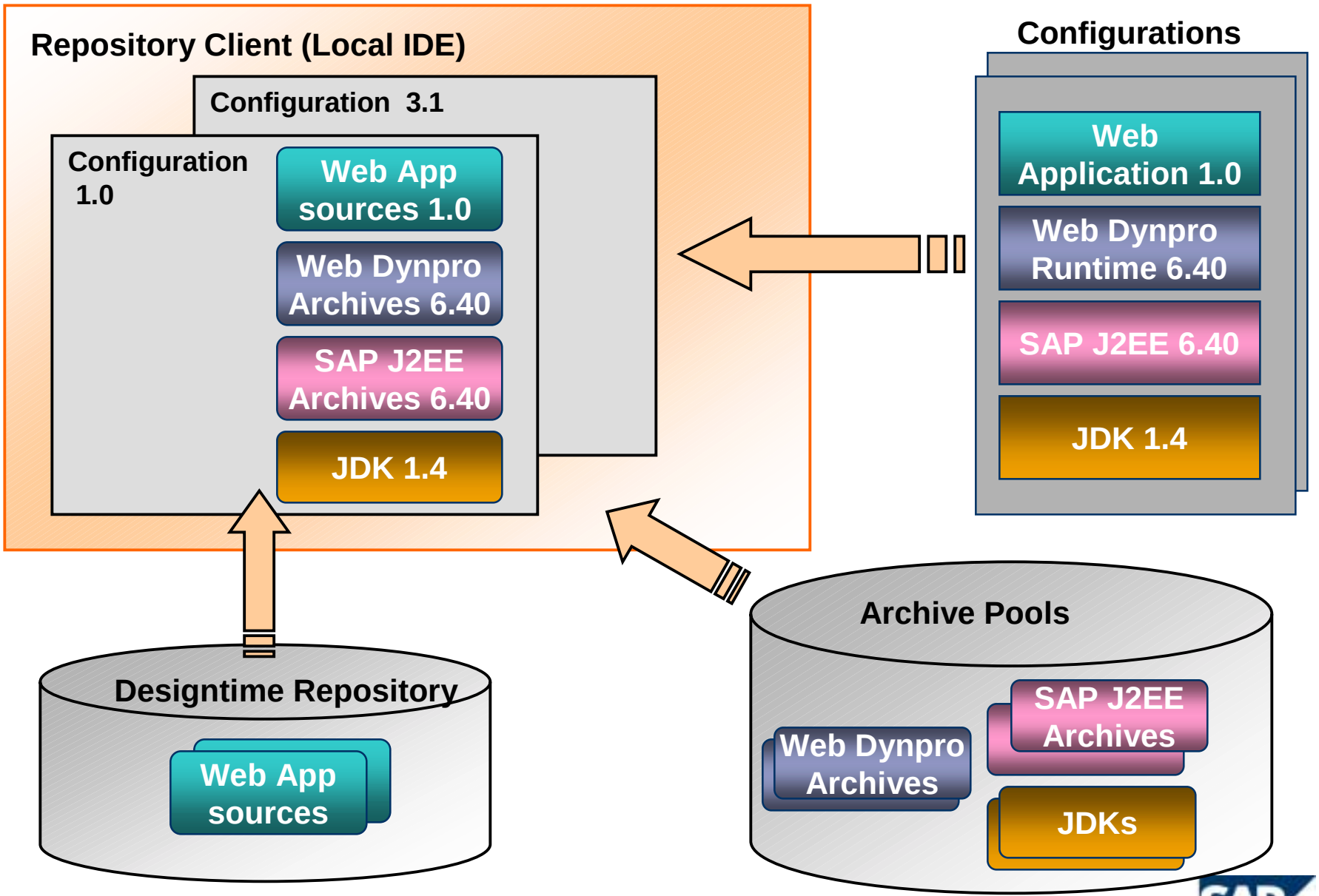
Support Package

- **is a full delivery of an SC bundling bug fixes**
- **should not require new trainings for the end users**
- **should be fully compatible with the original delivery of the SC**
- **does not extend the Support Interval**

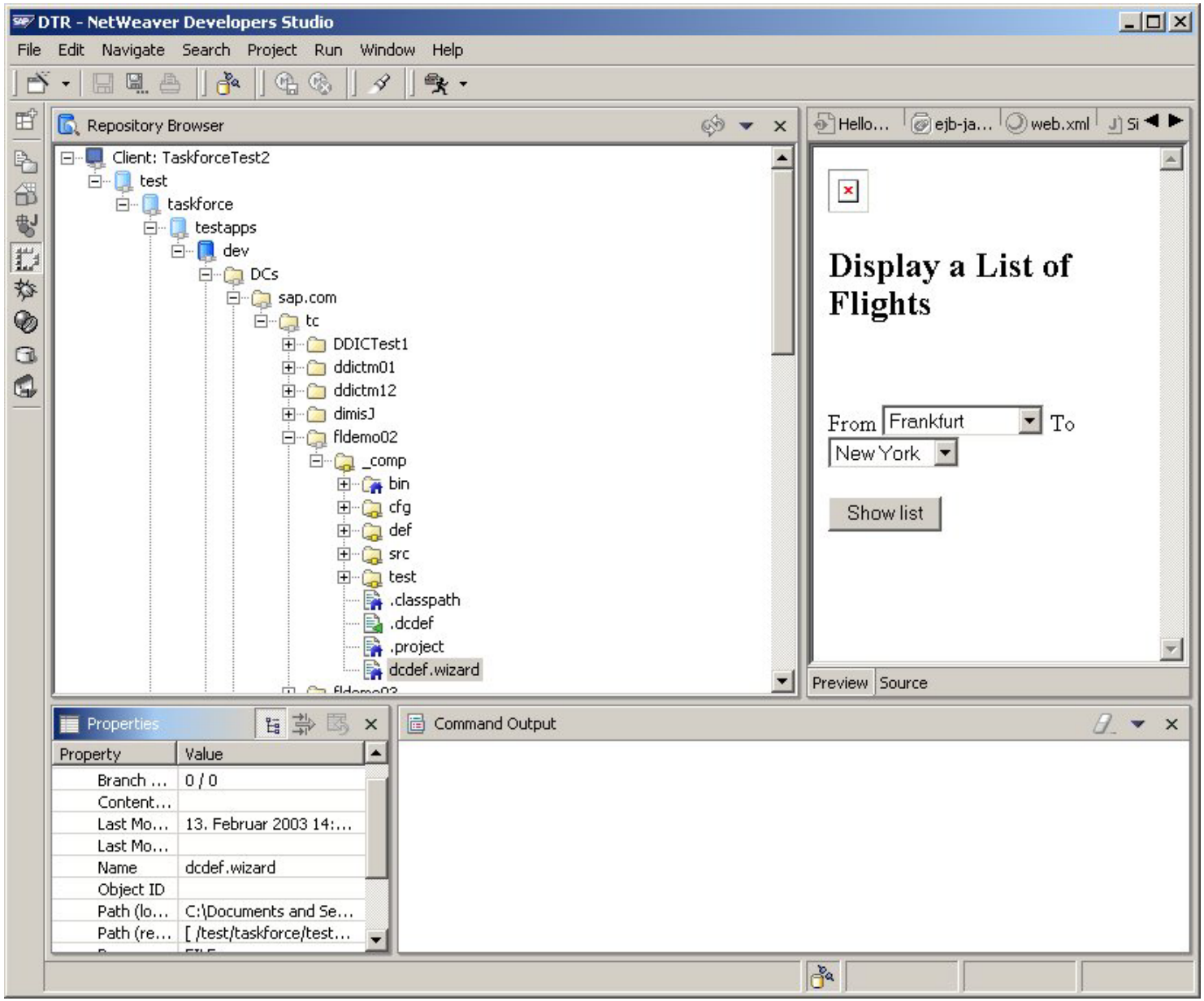
Patch

- **is a full delivery of a DC providing a new Bug Fix**

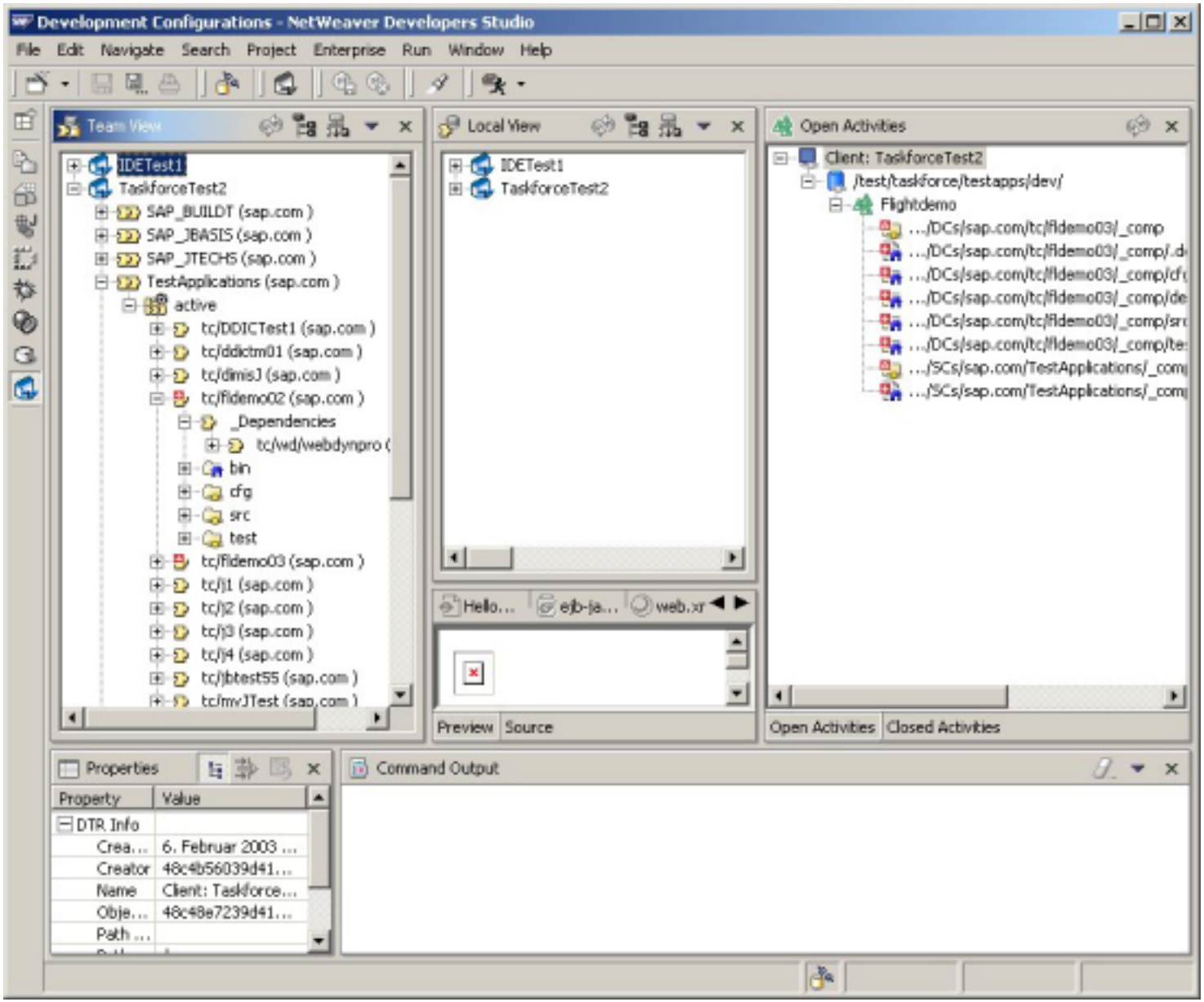
Local Integrated Development Environment



Designtime Repository



Screenshot Development Configurations



Summary

SAP NetWeaver Developer Studio is based on Eclipse

SAP NetWeaver Developer Studio offers tools

- **Web Dynpro**
- **J2EE 1.3**
- **Java Dictionary**
- **Web Services**

Java Development Infrastructure offers:

- **Repository Access (DTR)**
- **Component based Build (CBS)**
- **Change Management (CMS)**

Questions?

Q & A

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