

SAP NetWeaver® COMPOSITION ENVIRONMENT

INTEGRATED DEVELOPMENT OF SOA COMPOSITE APPLICATIONS

The SAP NetWeaver® Composition Environment offering helps you develop, deploy, and manage Java-based composite applications. It includes an Eclipse-based, model-driven environment; a Java Platform, Enterprise Edition 5-compliant server; and an integrated build and life-cycle management infrastructure.



In many companies, IT is under constant pressure to increase efficiency of operations and to ensure projects show quick returns on investment. In tough economic times, this pressure increases, causing IT to defer projects unless they show immediate benefits with little cost. As a result, traditional custom development projects are hard to justify, and IT must find new ways of leveraging existing investments.

One method of achieving quick returns for your custom projects is through application “composition.” Composition includes reusing software functions and components as much as possible, assembling these pieces in different ways, and mapping them more closely to business activities. In addition, composition minimizes the amount of manually written new code with its associated maintenance cost.

The SAP NetWeaver® Composition Environment (SAP NetWeaver CE) offering allows your developers to create custom applications through composition. The solution provides an integrated development environment, based on the open-source Eclipse Platform, for building all layers of a composite application. It also provides a robust Java Platform, Enterprise Edition (Java EE) 5-compliant application server for deployment and an integrated build-management development infrastructure.

Integrating Proven Technology

SAP NetWeaver CE is based on proven tools and components from the SAP NetWeaver technology platform.

The **SAP NetWeaver Application Server** (SAP NetWeaver AS) component is a robust, enterprise-class application server that provides a runtime environment for composite applications and supports the Java EE 5 specification.

The **SAP NetWeaver Developer Studio** tool is an integrated development environment based on Eclipse, an open-source platform comprising extensible frameworks and tools for building, deploying, and managing software across its life cycle. It provides a comprehensive set of design, construction, and maintenance tools.

The **SAP NetWeaver Business Process Management** component enables you to use collaborative modeling of composite business processes according to the business process modeling notation (BPMN) standard and based on a single, directly executable process model. The solution covers “process composition” in the service-oriented architecture (SOA) blueprint. This allows you to build support for your business processes by reusing packaged or custom-built enterprise services.

The **SAP NetWeaver Business Rules Management** component lets you embed and enforce business rules that support business processes and applications. The solution also allows your business users with no coding skills to create and modify rules via decision tables.

The **SAP Composite Application Framework** tool supports business-object modeling and service composition. It allows you to create new services by combining existing ones with your own business logic.

The **SAP NetWeaver Visual Composer** tool enables your developers to create and adapt rich user interfaces or analytical dashboards in a purely model-driven way.

The **Web Dynpro** development environment accelerates the development process by assisting you with building complex user interfaces and data-driven applications through graphical modeling and code generation.

Enterprise Services Repository is the central repository and registry in which your developers model service interfaces and enterprise services and store their metadata. The repository includes thousands of services provided by SAP as well as any services you add to it. The enterprise services in the repository adhere to a coherent and consistent set of semantics designed to support business process automation and are built on open standards, such as global data types.

An integrated development infrastructure supports you in the complete life-cycle management of your composite application. It offers a versioning system and a component-based build and transport infrastructure.

SAP NetWeaver CE enables composition at all levels of the development process, including service composition, data composition, user-interface composition, and process choreography.

Accelerate Development and Deployment

SAP NetWeaver CE provides an integrated environment to help you implement and run composite applications quickly and efficiently. SAP NetWeaver Developer Studio, the design-time environment of SAP NetWeaver CE, is based on the open-source Eclipse Platform. It provides an integrated development and modeling environment for the SAP technologies mentioned previously, as well as for standard concepts like Java EE or Java Web services.

The composite designer boosts development productivity by providing a single entry and integration point for all tools and all aspects of composite application development.

This integrated environment makes it easier for your developers and business process experts to collaborate in mapping the execution path of business processes and to help define a user's application experience. Your development teams can work in an iterative fashion to create new versions of processes, user interfaces, and functionality to garner immediate feedback on how well the project meets requirements and expectations of the business.

Improve Access and Agility

Unlike many solutions on the market, SAP NetWeaver CE enables composition at all levels of your development process, including service composition, data composition, user-interface composition, and process choreography. You can use it to create and run many types of composite applications. Your

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developers can also use functionality provided by the SAP® Business Suite family of business applications, the SAP NetWeaver technology platform, or non-SAP applications such as self-service, analytical, and dashboard applications.

Furthermore, you can access these composite applications through any number of user interfaces, including portals, Duet™ software, mobile devices, or voice-enabled interfaces.

Leverage Service-Oriented Architecture

SAP NetWeaver CE enables your developers to leverage the full potential of SOA by increasing reuse of existing services and allowing the creation of new reusable services and components. Based on industry standards, SAP NetWeaver CE helps you enable existing enterprise applications to become building blocks that support new business processes. Applications built using SAP NetWeaver CE are service oriented to allow for integration with existing applications and reuse of new components to support additional business processes.

Take Advantage of Open Standards

At the core of SAP NetWeaver CE is the latest version of SAP NetWeaver AS.

SAP NetWeaver AS is fully compatible with Java EE 5 and supports all the major Java technologies like Enterprise JavaBeans 3.0 and the latest data persistence models (such as Java Persistence API).

The version of SAP NetWeaver Developer Studio shipped with SAP NetWeaver CE is based on the latest version of the open-source Eclipse Platform. Therefore, you can benefit from new features coming from the Eclipse community.

Innovate Without Disruption

With SAP NetWeaver CE, your developers can keep core enterprise resource planning (ERP) systems intact while innovating on top of them on a decoupled foundation. This approach removes application services' dependency on specific physical servers and enables a dynamic reassignment to the best-fitting available resources – including servers, networks, and storage – to meet real-time business and operational requirements. By providing an environment that allows your company to keep its core ERP systems stable, SAP NetWeaver CE enhances your developer productivity and enables innovation without disruption.

Realize the Benefits

SAP NetWeaver CE provides an integrated and optimized solution for your developers and business process experts that offers the following business benefits:

- Increased efficiency of development by leveraging existing functionality and enhanced developer productivity

- Increased efficiency of the business through better support of business processes
- Enhanced flexibility through faster development cycles and deployment of adaptable business processes
- Improved business insight by allowing monitoring of automated business processes and the ability to manage processes by exception

Find Out More

To learn more about the SAP NetWeaver CE offering, call your SAP representative today or download a preview version from www.sdn.sap.com.

Powered by SAP NetWeaver

SAP NetWeaver CE is part of the SAP NetWeaver technology platform, which helps IT organizations become more strategic to their business. As the technical foundation for an SOA, SAP NetWeaver helps IT organizations evolve their existing IT infrastructure into a more cost-effective business process platform that improves efficiency, insight, and flexibility.

SAP: Delivering IT-Powered Business Innovation

As the world's leading provider of business software, SAP delivers products and services that help accelerate business innovation for our customers. We believe that doing so will unleash growth and create significant new value – for our customers, SAP, and, ultimately, entire industries and the economy at large. Today, more than 46,100 customers in more than 120 countries run SAP applications – from distinct solutions

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addressing the needs of small businesses and midsize companies to suite offerings for global organizations.

From Walldorf to Wall Street: The SAP Success Story

Founded in 1972, SAP has a rich history of innovation and growth that has made us a true industry leader. SAP currently employs more than 43,800 people in more than 50 countries worldwide. SAP is listed on several exchanges, including the Frankfurt Stock Exchange and NYSE under the symbol "SAP."

Knowledge, Experience, and Technology for Optimizing Business

We leverage our extensive experience to deliver a comprehensive range of solutions that empower every aspect of business operations. By using SAP solutions, organizations of all sizes – including small businesses and midsize companies – can reduce costs, improve performance, and gain the agility to respond to changing business needs. SAP also has developed the SAP NetWeaver technology platform, which enables our customers to achieve more value from their IT investments. Our professionals are dedicated to providing the highest level of customer service and support.

Summary

The SAP NetWeaver® Composition Environment (SAP NetWeaver CE) offering helps you build and run composite applications, accelerate business process innovation, adapt quickly to changing market conditions, and seize new revenue streams.

Business Challenges

- Accelerate business process innovation
- Implement and run composite applications quickly
- Customize development environment
- Meet real-time business and operational requirements

Supported Business Processes and Software Functions

- **Integrated tools** – Develop, implement, and run composite applications quickly and efficiently
- **Composition** – Support service composition, data composition, user-interface composition, and process choreography
- **Java compatibility** – Create and adopt technology standards and help enable the implementation of development projects based on Java Platform, Enterprise Edition 5

Business Benefits

- **Support business processes** that are flexible and agile
- **Keep core enterprise resource planning systems intact** while innovating on top of them
- **Increase productivity** through an integrated development experience

For More Information

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