

# What's in the SAP NetWeaver Application Server, Java(TM) EE 5 Edition



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## Icons in Body Text

Icon	Meaning
	Caution
	Example
	Note
	Recommendation
	Syntax

Additional icons are used in SAP Library documentation to help you identify different types of information at a glance. For more information, see *Help on Help* → *General Information Classes and Information Classes for Business Information Warehouse* on the first page of any version of *SAP Library*.

## Typographic Conventions

Type Style	Description
<i>Example text</i>	Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.  Cross-references to other documentation.
<b>Example text</b>	Emphasized words or phrases in body text, graphic titles, and table titles.
EXAMPLE TEXT	Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE.
Example text	Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools.
<b>Example text</b>	Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation.
<Example text>	Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system.
EXAMPLE TEXT	Keys on the keyboard, for example, F2 or ENTER.

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## Getting Started

With the SAP NetWeaver Application Server, Java(TM) EE 5 Edition, you can develop Java EE applications based on the new Java EE 5 standard as well as migrate existing J2EE applications.

## The SAP NetWeaver Application Server, Java(TM) EE 5 Edition

### Java EE 5 Certified Application Server

- Full support of the latest Java EE 5 features, updates, and adjustments for simplifying the development of enterprise applications. No longer any need for deployment descriptors. Simplified development with EJB 3.0, the new JSF 1.2, the new Java Persistence API 1.0, the updated Web services stack, and more. See here for the full list of supported [Java EE 5 standards](#).
- Implementation of the Service Data Objects (SDO) 2.1 standard, which simplifies data programming for applications and frameworks
- Implementation of the JSR168 for development of standard-based portlets
- First-class Java-based Job scheduler implementation

### Scalability, Robustness, and Supportability

- Built-in load balancing support, fast and robust shared memory based on request handling
- Modular runtime architecture, customizable (template-based) set of running runtime services
- Configurable session failover support, including SAP's unique fast session failover based on Shared Closures
- Robust monitoring and unique supportability of non-functional problems based on SAP's own Java VM features
- Runtime overview of threads, sessions, caches, and other key resources

### Connectivity

- Out of the box connectivity to all SAP systems and the SAP business process platform
- SAP connectivity based on the latest open standard (JCA 1.5), SAP Java connector (JCO) with support in- and outbound communication between Java EE and the SAP backends
- Full Java EE 5 Web Services support: JAXR 1.0, JAX-WS 2.0, JAX-RPC 1.1, JAXB 2.0, SAAJ 1.3, StAX 1.0, WS for Java EE 1.2 and others

### Security

- Complete standard Java EE 5 security services including strong cryptography, pluggable user authentication and JACC 1.0 (JSR-115) authorization service provider support

- Standard support for web services security including message protection by encryption and digital signatures, user authentication and authorization
- Powerful standard extensions for configurable identity stores (LDAP, DB, SAP) and instance-based access control

## **SAP NetWeaver Developer Studio**

The SAP NetWeaver Developer Studio is SAP's Integrated Development Environment (IDE) for Java and is based on the open-source tools framework Eclipse 3.2. With the SAP NetWeaver Developer Studio, you can create, build, and deploy Java EE 5 compliant applications, which utilize new technologies such as Enterprise JavaBeans 3.0, JavaServer Faces 1.2, and so on. Using the SAP NetWeaver Developer Studio, you can avail of the following features:

- Built-in Java EE 5 design-time support based on WTP 1.5
- JPA design time support, based on the open source Dali project
- Web services support
- On-the-fly application debugging
- Hot deployment

## **Administration Tools**

### ***SAP NetWeaver Administrator***

The SAP NetWeaver Administrator is a Web-based tool that offers a way of administering, troubleshooting, and diagnosing the SAP NetWeaver Application Server, Java™ EE 5 Edition. The tool needs to be installed manually. For more information, see the Administration Guide.

### ***SAP Microsoft Management Console***

Using the SAP Microsoft Management Console (SAP MMC), you can perform administrative tasks like to start and stop the application server together with the database instance, monitoring the status of processes, restarting processes and switching to debug mode.

### ***Configuration Tool***

With the configuration tool, you can configure the application server offline to adapt it to the requirements of a particular business scenario.

### ***Telnet Administrator***

Telnet-based administration console for runtime server administration.

## **MaxDB Database Instance**

MaxDB is used as the database system for the SAP NetWeaver Application Server, Java(TM) EE 5 Edition. An instance of MaxDB is installed automatically.

## How to Begin

To start working with the SAP NetWeaver Application Server, Java(TM) EE 5 Edition, use the Welcome page of the SAP NetWeaver Developer Studio. This page serves as the main entry point to guide you through the whole content available in this edition.

## Sample Applications

The *Samples* section of the Welcome page provides access to ready-made sample scenarios you can download with a single mouse click.

## Tutorials

The *Tutorials* section of the Welcome page contains step-by-step instructions on how to develop applications based on the Java EE 5 programming model.

## Supported Java EE Technologies

### Java EE 5

- Java Platform, Enterprise Edition 5 (Java EE 5) (JSR 244)

### Enterprise Application Technologies

- Enterprise JavaBeans 3.0 (JSR 220)
- J2EE Connector Architecture 1.5 (JSR 112)
- Common Annotations for the Java Platform (JSR 250)
- Java Message Service API (JSR 914)
- Java Persistence API (JSR 220)
- Java Transaction API (JTA) (JSR 907)
- JavaBeans Activation Framework (JAF) 1.1 (JSR 925)
- JavaMail (JSR 919)

### Web Application Technologies

- Java Servlet 2.5 (JSR 154)
- JavaServer Faces 1.2 (JSR 252)
- JavaServer Pages 2.1 (JSR 245)
- JavaServer Pages Standard Tag Library (JSR 52)
- Unified Expression Language 2.1

### Web Services Technologies

- Implementing Enterprise Web Services (JSR 109)
- Java API for XML-Based Web Services (JAX-WS) 2.0 (JSR 224)
- Java API for XML-Based RPC (JAX-RPC) 1.1 (JSR 101)
- Java Architecture for XML Binding (JAXB) 2.0 (JSR 222)
- SOAP with Attachments API for Java 1.3 (SAAJ) (JSR 67)
- Streaming API for XML 1.0 (StAX) (JSR 173)
- Web Service Metadata for the Java Platform (JSR 181)

### Management and Security Technologies

- Java™ Enterprise Edition 5 Deployment API Specification 1.2 (JSR 88)



- J2EE Management (JSR 77)
- Java Authorization Contract for Containers (JSR 115)