



SAS® AppDev Studio™

A comprehensive environment for cost-effectively developing superior business intelligence applications and solutions

What does SAS® AppDev Studio™ do?

SAS AppDev Studio is an application development product that supports the creation of Java applications that leverage the back-end business intelligence and analytics power of the SAS server. The primary component is a set of Eclipse Plug-ins that provide SAS development features in the open source Eclipse development environment. It also includes a set of Java components and a developer license for SAS to support local testing of applications under development.

Why is SAS® AppDev Studio™ important?

Only SAS AppDev Studio offers a broad range of capabilities for quickly and cost-effectively developing SAS business intelligence applications in a variety of languages and platform choices.

For whom is SAS® AppDev Studio™ designed?

SAS AppDev Studio is designed for IT development managers who must support the requirements of business units in a timely fashion while controlling the costs of developing, deploying, integrating and maintaining intelligence applications across the enterprise.

Today's IT managers simply must do more with less. There are more users with more questions. There are increasing numbers of data sources, but budgets are tighter, and there are fewer developers. Developer skills must be reused, and existing hardware and software must be fully utilized.

Because duplicating production systems for development and testing is cost prohibitive, IT departments often develop against their production systems. This puts production systems at risk, ties up resources and drives up the cost and length of development cycles. All of this leads to reduced efficiency, loss of productivity and missed opportunities for the organization.

How can you deliver effective intelligence applications that leverage existing skills and systems while controlling the costs of development, deployment and maintenance without tying up production systems and placing them at risk?

The answer is SAS AppDev Studio, a collection of software, components and APIs that enables developers to build various types of intelligence applications on their local machines without having to connect to production servers over a network. By providing a comprehensive SAS development environment, SAS AppDev Studio enables developers to build a variety of applications that exploit the full power of SAS and its capabilities.

Applications can be developed using a multitude of common standards. Major enterprise software platforms such as

Java Enterprise Edition (Java EE) or the .NET framework are supported, as well as a variety of programming languages. Developers can use the SAS AppDev Studio Eclipse Plug-ins or a third-party development environment of choice.

Only SAS AppDev Studio offers such a broad range of capabilities and language and platform choices in a complete development environment, enabling applications to leverage SAS in a cost-effective manner.

Key benefits

- **A risk-free, cost-effective way to develop intelligence applications that leverage SAS in a variety of languages.** SAS AppDev Studio provides a cost-effective SAS environment strictly for applications development. The most commonly used modules can be installed on a desktop PC or laptop. This allows applications to be developed without involving back-end production systems or investing in expensive hardware to mimic the production environment.
- **Faster Java intelligence application development and maintenance life cycles.** SAS AppDev Studio includes a rich set of ready-to-use Java components (InformationBeans™ software) and APIs that can be leveraged from SAS AppDev Studio Eclipse Plug-ins, which are included, or from a third-party Java IDE. This reduces the time it takes to develop intelligence applications that leverage SAS.



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Product overview

SAS AppDev Studio is a collection of SAS software, components and APIs that enables developers to build various types of intelligence applications. Intelligence applications are those specifically tailored to create valuable knowledge from organizational information, enabling decision makers to make better, faster decisions. These applications must be quickly customizable to meet requirements from business units and maximize benefits.

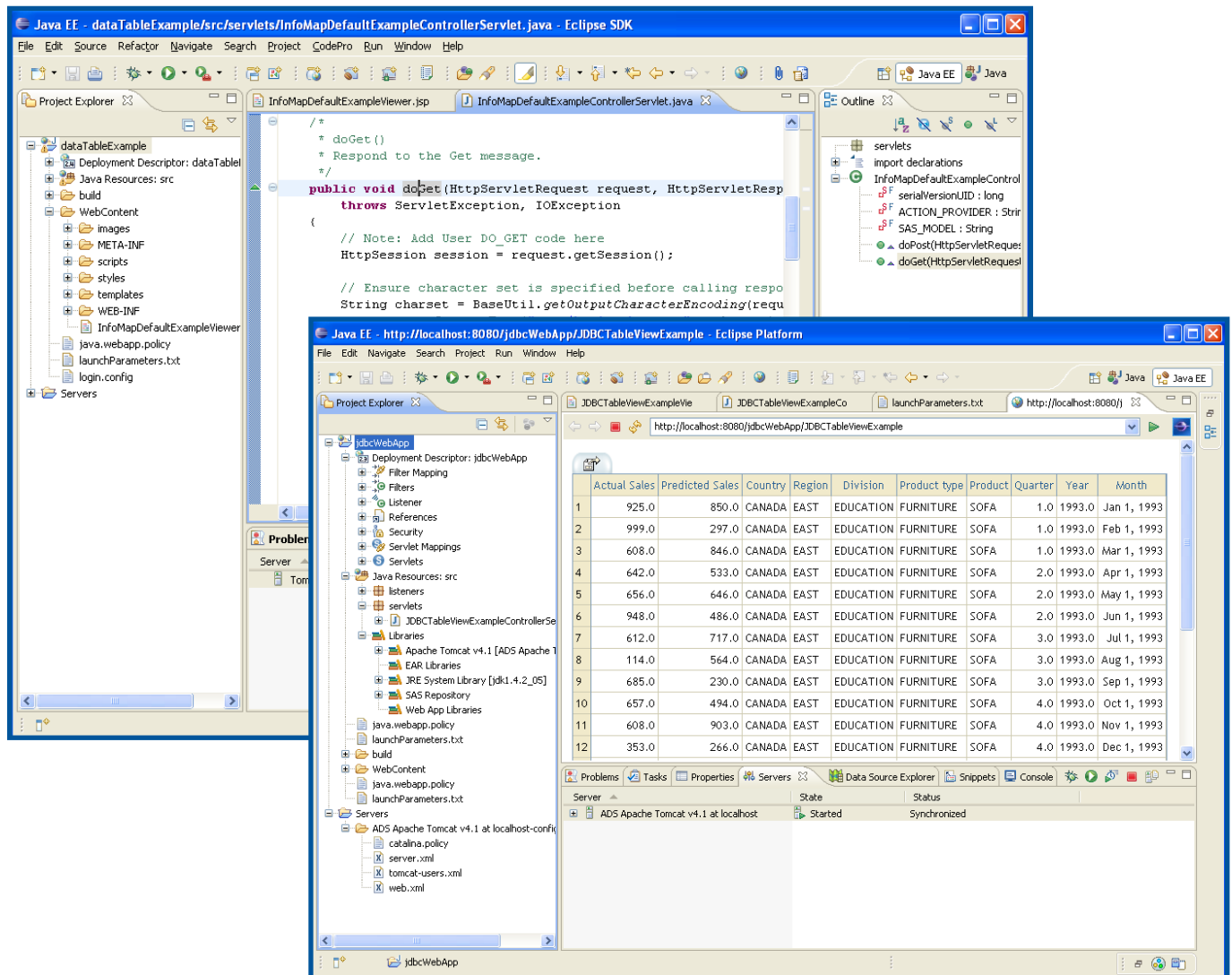
Standalone applications development environment

SAS AppDev Studio provides a comprehensive collection of SAS technologies that contains everything needed to develop intelligence applications. Developers can program on their local machines without the need to be connected to a network or to access any SAS server in a production environment, increasing their flexibility. In addition, IT managers don't risk influencing the performance of production servers or affecting the response times of end users. It is not necessary to replicate expensive production systems.

A set of Eclipse Plug-ins

With SAS AppDev Studio Eclipse Plug-ins, you can speed up development of Java applications that need to leverage the power of SAS. Based on the open source Eclipse development platform, SAS AppDev Studio Eclipse Plug-ins improve productivity with intelligent editing capabilities and source code control for team-based development.

In addition, the plug-ins are specifically tailored to use the extensive set of Java components from SAS. Applications created with SAS AppDev Studio



Powerful, interactive wizards hide the complexities of Java programming, and quick-start templates help reduce development time.

Eclipse Plug-ins can be deployed easily on various application servers such as IBM WebSphere or BEA WebLogic. Powerful wizards, graphical user interfaces and quick-start templates help generate code automatically, minimizing development time.

Multitude of development languages

SAS AppDev Studio developers can choose from a variety of languages and IDEs that support industry standard communication protocols and technologies. You can use Microsoft environments such as the .NET framework via COM, DCOM or Web services. Languages that support these technologies are Visual Basic, Visual Basic.NET, C++, C#, Delphi, ASP, ASP.NET and ActiveX. You also can use any platform that supports the Java EE environment. Applications can be developed as Java applications, Java Servlets or JavaServer Pages (JSP).

In addition, SAS' fourth-generation languages (the SAS DATA step and SAS Component Language), which are specifically tailored to build back-end intelligence processes, can be fully integrated and utilized within those software environments.

Key Features

The convenience of a standalone development environment

- Everything needed to develop applications on one box that leverage the power of SAS.
- Develop applications on a local machine, whether you are connected to the network or not.
- Does not influence performance of the production server.
- Response times for end users are not affected by development.

Flexibility to develop multiple types of applications

- Java Enterprise Edition (Java EE) Web applications.
- CGI/HTML applications.
- Active Server Pages (ASP), ASP.NET applications, and ActiveX controls that access a SAS server.
- Full-client applications using Java, the SAS DATA step, SAS Component Language, Visual Basic, C++, C#, etc.
- Wireless applications.
- Web services using .NET or Java EE framework.

Extensive set of Java components to leverage SAS® and support rapid development

- InformationBeans encapsulate access to the informational and analytic power of SAS servers.
- TransformationBeans consume data from existing data models and transform it into different representations (HTML, DHTML, WML).
- Foundation services classes serve ready-to-use functionality such as publishing information or running analytic processes.
- SAS JSP custom tag library allows coding using HTML-like tags; no Java code is needed.

Java Integrated Development Environment (IDE)

- Development environment based on industry-leading open source Eclipse platform for building powerful intelligence applications.
- Intelligent editing: real-time syntax error highlighting and automatic name, method and key word completion.
- Graphical user interfaces and powerful wizards hide complex Java programming.
- Source code control system for team-based development.
- Enhanced build support using Jakarta Ant to develop, package and deploy applications.

Powerful set of quick-start templates

- Wizard-driven templates for creating portlets. Automated packaging and deployment into the SAS Information Delivery Portal.
- Wizard-driven templates for creating SAS Management Console plug-ins. Automated packaging into JAR files.
- Set of templates for building SAS Web applications.

SAS® AppDev Studio™ Technical Requirements

Development Environment

The minimum requirements for developing enterprise applications with SAS AppDev Studio include:

Supported platforms

- Windows XP Professional (Service Pack 1 or later)
- Windows 2000 Professional (Service Pack 1 or later)
- Windows NT 4.0 Workstation (Service Pack 6a or later)

Deployment/Production Server Environment

Web server

Any Web server on any standard operating system that provides network access to the machine running your SAS server.

Application server/servlet engine

Any product that provides full support for the Servlet 2.3/JSP 1.2 standard using JRE 1.4.0 or higher. (An application server or servlet container is required only when you use servlets or JSP files.)

SAS® Server

Required software

- Base SAS 9.1.3 (Service Pack 4)
- Eclipse SDK 3.3 plus Eclipse Web Tools Platform 2.0 (and required dependencies)

Supported platforms

- AIX: Release 5.1, 5.2, 5.3 on POWER
- HP-UX PA-RISC: Release 11i Version 1, 2 and 3
- HP-UX Itanium: Release 11i Version 1, 2 and 3
- Linux for Intel (x86-32): Red Hat Linux 8.0, RHAS 2.1, RHEL 3.0 and 4.0, SuSE SLES 8 and 9
- Linux for Itanium: Red Hat RHEL 3.0
- Solaris on SPARC: Version 8, 9, 10
- Solaris on x64: Version 10
- Windows (x86-32): Windows NT 4 Server, Windows 2000 Server, Windows Server 2003
- Windows (on Itanium): Windows Server 2003 for Itanium-based systems
- z/OS: Version 1 and higher

Note: To deploy and run applications that make use of the SAS AppDev Studio Java components, you must apply the SAS AppDev Studio Server components to SAS software. The necessary SAS updates are included on the SAS AppDev Studio installation media.

Client Environment

The end user computing environment in the client tier requires the following minimum standards to run Java applications built with SAS AppDev Studio:

To execute Java applications:

Supported platforms

Any operating system that supports the required level of the Java Runtime Environment.

Java Runtime Environment

Java 2 Standard Edition (J2SE) 1.4.1 or higher.

To view servlets and JSP pages:

Supported platforms

Any operating system that has a Web browser, including wireless devices.

Web browser

Microsoft Internet Explorer 6.

Note: Some TransformationBeans provide WML-compliant output that must be viewed using wireless devices.



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