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 analytics and reporting power of the SAS server. The primary component is a set of Eclipse plug-ins that provides 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 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 analytic and reporting 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 lets developers 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), as well as a variety of programming languages are supported. 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 apply the power of SAS in a cost-effective manner.

Key Benefits

- A risk-free, cost-effective way to develop intelligence applications that use 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 accessed 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 use SAS.
**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 includes 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 use 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.

Powerful, interactive wizards hide the complexities of Java programming, and quick-start templates help reduce development time.
In addition, the plug-ins are specifically tailored to use the extensive set of Java components from SAS. Applications created with SAS AppDev Studio Eclipse plug-ins can be deployed easily on various application servers such as IBM WebSphere or Oracle WebLogic. Powerful wizards, graphical user interfaces and quick-start templates help generate code automatically, minimizing development time.

**BI Web services**

These services enable client applications to execute SAS Stored Processes via a Web services interface. There are two implementations available: a Java implementation, which requires a servlet container, and an implementation that uses the .NET framework. The Simple Object Access Protocol (SOAP) is used as the communication protocol, and the Web Services Description Language (WSDL) is used to describe the services.

**Integrated Object Model (IOM)**

The Integrated Object Model in SAS Integration Technologies provides developers with distributed object interfaces to SAS features. IOM enables you to use industry-standard languages, programming tools and communication protocols to develop client applications that access SAS services and features on IOM servers.

**Multitude of development languages**

The SAS AppDev Studio bundle includes development licenses for SAS Integration Technologies and SAS/IntrNet®. Through this combination, 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.

---

### Key Features

**The convenience of a standalone development environment**
- Everything needed to develop applications on one box to 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.

**Extensive set of Java components to extend 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.
- 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 keyword 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.
- Develop Java Enterprise Edition (Java EE) Web applications.

**Flexibility to develop multiple types of applications**
- SAS/IntrNet development license for building CGI/HTML applications.
- Full-client applications using Java, the SAS DATA step, SAS Component Language, Visual Basic, C++, C#, etc.
- Web services for calling server-based SAS programs (stored processes).

**Powerful set of quick-start templates**
- Wizard-driven templates for creating portlets.
- Automated packaging and deployment of portlets into the SAS Information Delivery Portal.
- Set of templates for building SAS Web applications.

The SAS AppDev Studio bundle includes development licenses for other SAS technologies, including SAS Integration Technologies. See the SAS Integration Technologies fact sheet for more details on those capabilities.

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 used within those software environments.
SAS® AppDev Studio™
System Requirements

For specific third-party software requirements for deploying applications developed in SAS AppDev Studio, see http://support.sas.com/resources/thirdpartysupport/v93/index.html. This document includes information on supported operating systems, Web servers, application servers and Java Runtime Environments for SAS software. To learn more about SAS AppDev Studio, please visit www.sas.com/appdev.