



# IBM VisualAge Smalltalk Enterprise, Version 5.5 Extends the Creativity of Your Line-of-Business Applications

## Overview

VisualAge® Smalltalk is an enterprise application development tool that enables software developers to create highly portable, scalable, multitier business applications using pure object-oriented technology. With enhanced Java™ Integration and support for eXtensible Markup Language (XML), VisualAge Smalltalk Version 5.5 is ideal for developing Internet and intranet applications quickly and efficiently.

VisualAge Smalltalk also provides tools for applications modeling, a robust persistence framework, an optimized DB2® integration layer, and the ability to integrate existing legacy systems.

VisualAge Smalltalk Version 5.5 maximizes your ability to leverage your Smalltalk investments in the e-business architecture.

## Highlights for Version 5.5

- Supports XML, DOM (document object model) level-2, including a fully validating parser, serialization and parser support for SAX2 (Simple API for XML).
- Contains a new Java RMI wizard integrated with VisualAge for Java code repository.
- Provides an HTML file wrapper allowing you to use your favorite Web authoring tool and Smalltalk Web Connection parts.
- Provides source code for all Smalltalk classes and methods, expanding your ability to view, learn from, extend, and utilize.
- Gives you the ability to ship the Smalltalk compiler in your run-time image, enabling you to generate, compile, and execute Smalltalk code within your run-time image.

- Includes VisualAge Smalltalk Server, the run-time environment for deploying server applications, with VisualAge Smalltalk Server Workbench at no additional charge. There is no longer an additional run-time fee required to deploy VisualAge applications on workstations.
- Supports the latest levels of important middleware such as DB2 Universal Database® (UDB), Oracle, Domino™, Message Queue (MQ), and Java.
- Includes VisualAge Smalltalk library support for Red Hat LINUX® Version 6, Windows™ 2000, and OS/2® Warp Server Version 4.5.

## Smalltalk Components, Separately Priced

- VisualAge Smalltalk Server Workbench, Version 5.5
- VisualAge Smalltalk ObjectExtender, Version 5.5
- VisualAge Smalltalk UML Designer, Version 5.5
- VisualAge Smalltalk Advanced Database Feature, Version 5.5

For more information, visit our Web site at:

<http://www.ibm.com/software/ad/smalltalk/>

## Key Prerequisites

- Pentium™ 90 MHz (or equivalent) processor with 64 MB of RAM
- 1 GB hard disk
- One of the following environments:
  - OS/2
  - Windows 95/98/2000/NT
  - AIX®
  - HP-UX
  - Sun Solaris

## Planned Availability Date

August 31, 2000

## At a Glance

VisualAge Smalltalk Version 5.5 helps you with:

### Business-to-Business Solutions

- A fully validating XML parser
- XML parser support for SAX2 allowing you to manipulate portions of an XML document
- Support for output and input serialization APIs

### Java and WebSphere™ Integration

- Enhanced Java RMI wizard
- An HTML file wrapper
- Supports Java2 (JDK 1.2.2)

### Expanding Potential

- Ability to ship the Smalltalk compiler source code for all Smalltalk classes and methods are provided; expanding ability to view, learn from and extend.
- No additional run-time fees for deploying server applications.

### Staying Current

- DB2 UDB Version 7.1
- Multiple result sets for stored procedures
- Oracle 8i
- Domino R5
- Java 1.2.2 through RMI
- CICS® Universal client on AIX

#### For ordering, contact:

Your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at

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Reference: YE001

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## Description

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### **VisualAge Smalltalk Enterprise Version 5.5**

The VisualAge Smalltalk Enterprise Version 5.5 program, a continuation of the award-winning, pure object-oriented visual application development environment, extends the creativity of your line-of-business applications. The simplicity of visual construction, teamed with the power of an object-oriented environment, enable you to develop complex applications in a fraction of the time required in the past.

Below are key new enhancements for this new release.

**Business-to-Business Solutions:** VisualAge Smalltalk Enterprise Version 5.5 introduces support for the Extensible Markup Language (XML), DOM level-2. This support includes a fully validating parser, which builds a document object model (DOM) from the contents of an XML stream. With support for an output serialization API and an input serialization API — effectively creating an XML stream from the contents of a Smalltalk object or creating a Smalltalk object from the contents of an XML stream, respectively — Version 5.5 provides the capability for multiple business-related scenarios tied to XML. Additionally, the XML parser supports SAX2 (Simple API for XML); SAX is a common interface implemented for many different XML parsers. The SAX capability enables you to create custom SAX handlers to manipulate or ignore various portions of XML documents as they are parsed. The XML support in Version 5.5 enables you to enhance your current Smalltalk applications with an eye toward integration into Internet and intranet applications, including fulfilling the needs of expanding B2B market. Version 5.5's XML functionality enhances current Smalltalk applications by enabling those applications to be integrated into your business-to-business Web architecture.

**Powerful Potential:** With Version 5.5, you now have the ability to ship the Smalltalk compiler in your run-time image. This will enable you to generate, compile, and execute Smalltalk code within your run-time image. Source code for all Smalltalk classes and methods is provided, expanding your ability to view, learn from, extend, and utilize.

**e-business Integration:** As your business needs change and grow, Version 5.5 reduces the barriers to leveraging your Smalltalk investments in the e-business world. By incorporating the server run-time environment into VisualAge Smalltalk Server Workbench Version 5.5, you now have the flexibility to integrate with VisualAge for Java, WebSphere, and other strategic e-business platforms without incurring run-time fees.

With no run-time fees, VisualAge Smalltalk is the right solution for third-party developers to create and distribute traditional and server applications.

**Enhanced WebSphere Integration:** As Java Server Pages (JSPs) containing page content and programming gain popularity in the marketplace, Smalltalk is there to provide the support you need, allowing you to call from JSPs to your Smalltalk business logic running on the solution server through the Server Smalltalk (SST) RMI function. And in Version 5.5, the introduction of the HTML file wrapper extends this vision even further. The HTML file wrapper provides integration with your favorite Web authoring tool; substitution tags can be used in your HTML file as placeholders for Smalltalk applications. This implementation is very similar to the JSP concept; HTML is read, and Smalltalk applications plug in dynamic

content using attributes that replace the substitution tags in the HTML.

Finally, Version 5.5 further enhances its WebSphere integration with the inclusion of support for JDK 1.2.2, also known as Java2. The RMI wizard, in particular, has been upgraded to the latest levels to support Java2 application integration from your Version 5.5 Smalltalk applications.

**Staying Current:** Version 5.5 provides functionality across a wide spectrum of capabilities. Included in this maturing product are the latest levels of support for the following:

- JDK 1.2.2 through RMI, enhancing your SST applications (Server Workbench)
- Domino R5 in the Domino Connection feature
- ORACLE 8i
- Enhanced MQ query
- Enhancements to UDB Version 6, such as DataLink and BIGINTs
- Multiple result set for Smalltalk stored procedures
- Enhanced CICS ECI support (CICS Universal client) on AIX

Any discussion of currency must include the latest operating systems. Version 5.5 includes enhancements to the EMSRV function, allowing you to run your Smalltalk code repository (ENVY) on OS/2 Warp Server Version 4.5, Windows 2000, and Red Hat Linux Version 6.

### **VisualAge Smalltalk Version 5.5, Optional Features**

**VisualAge Smalltalk Server Workbench Version 5.5:** This feature allows you to develop, test, and deploy on Windows NT™, Windows 2000, AIX, Sun Solaris, and OS/2 with complete benefits on IDE, including version control and configuration management. ULC, SST, and the complete run-time deployment environment are included. Smalltalk Server Workbench offers a cost-effective and convenient way to develop applications that access the information and transactions your users need — whether via the Web or intranet.

In Version 5.5, the RMI wizard, part of Server Workbench, has been vastly improved, incorporating usability enhancements that make building the stubs much easier. The wizard integrates with the servlet interface of VisualAge for Java, allowing you to view Smalltalk and Java libraries simultaneously. This side-by-side effect provides easier manipulation of the background information needed to build the code stubs. Finally, the wizard also provides the capability to generate the Smalltalk and Java stubs, which serve as the linkages between the classes being used in a Server Smalltalk (SST) application. The ability to generate the Java code from the Smalltalk wizard directly into the VisualAge for Java repository is a powerful new capability, enabling you to remain in the Smalltalk development environment while generating and storing the necessary Java code in the Java repository. No more back and forth between Smalltalk and Java development environments.

VisualAge Smalltalk Server Workbench is now even more cost-effective with the inclusion of all run-time files. VisualAge Smalltalk Workbench is a standards-based, distributed object infrastructure and middleware that provides homogeneous Smalltalk messaging, Smalltalk servlet infrastructure, and support for CICS and IMS™ transactions written in Smalltalk. Server applications developed using VisualAge Smalltalk Server Workbench can participate in e-business environments and interoperate with Java systems using RMI, and with other systems through IIOP.

**VisualAge Smalltalk ObjectExtender Version 5.5:** This is a powerful persistence framework that enables you to map objects to relational databases with sophisticated inheritance support. It also provides linkages to legacy data on a number of systems, plus a high-performance run time for superior performance. The capabilities of ObjectExtender are supported on all VisualAge Smalltalk Server platforms.

**VisualAge Smalltalk UML Designer Version 5.5:** You can define requirements, document use cases, create and print object model diagrams, and generate and reimplement code with VisualAge Smalltalk UML Designer. UML Designer can generate documentation of your model in HTML or RTF format, and can build specifications and models. You can build, test, and debug your application that includes version control. UML Designer supports importing and exporting analysis and design models to other tools using the XML standard. It also can generate Java source code and Smalltalk source code, and supports many of the popular UML specification types.

**VisualAge Smalltalk Advanced Database Feature Version 5.5:** This feature is a thin Smalltalk layer on the most commonly used native UDB capabilities that allow you to enhance DB2 applications for speed. For applications that must perform complex database access with a time delimited window, the Advanced Database Feature provides, in some cases, up to two times the speed of standard VisualAge Smalltalk CLI drivers for key operations.

### **Year 2000**

This product is Year 2000 ready. When used in accordance with its associated documentation, it is capable of correctly processing, providing, and/or receiving date data within and between the twentieth and twenty-first centuries, provided that all products (for example, hardware, software, and firmware) used with the product properly exchange accurate date data with it.

The service end date for this Year-2000-ready product is February 28, 2002.

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## **Product Positioning**

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The VisualAge Smalltalk Enterprise Version 5.5 program continues the IBM commitment to the Smalltalk language by allowing you to leverage the investments you have in Smalltalk and integrate with other key business-to-business architectures such as XML, VisualAge for Java, WebSphere, and DB2. VisualAge Smalltalk is a powerful server environment for e-business applications with integrated life cycle support.

### **Trademarks**

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VisualAge, DB2, DB2 Universal Database, OS/2, AIX, and CICS are registered trademarks of International Business Machines Corporation in the United States or other countries or both.

Pentium is a trademark of Intel Corporation.

Windows and Windows NT are trademarks of Microsoft Corporation.

Java is a trademark of Sun Microsystems, Inc.

Domino is a trademark of Lotus Development Corporation.

LINUX is a registered trademark of Linus Torvalds.

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# IBM US Announcement Supplemental Information

August 15, 2000

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## Education Support

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Contact the VisualAge® Solutions Group at 919-254-1116 for information on educational and consulting services.

Smalltalk education is available from the Object People's Web site at:

<http://www.objectpeople.com/courses/visualage+smalltalk/index.shtml>

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## Offering Information

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Product information is available through Offering Information (OITool) at:

<http://www.ibm.com/wwoi>

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## Publications

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All publications for VisualAge Smalltalk Version 5.5 are provided in HTML format on the base program product media:

- VisualAge Smalltalk Getting Started
- VisualAge Smalltalk User's Guide
- VisualAge Smalltalk Server Guide
- VisualAge Smalltalk SST Guide
- IBM Smalltalk User's Guide
- IBM Smalltalk Programmer's Reference
- VisualAge Smalltalk Installation Guide
- VisualAge Smalltalk User's Reference
- VisualAge Smalltalk Ultra Light Client Guide and Reference
- VisualAge Smalltalk Database Guide
- VisualAge Smalltalk Advanced Database Guide
- VisualAge Smalltalk Migration Guide
- VisualAge Smalltalk UML Designer User's Guide
- VisualAge Smalltalk ObjectExtender User's Guide and Reference
- VisualAge Smalltalk Web Connection User's Guide
- VisualAge Smalltalk Communications/Transactions Guide
- VisualAge Smalltalk Reports Guide
- VisualAge Smalltalk Domino™ Connection Guide
- VisualAge Smalltalk Multimedia Guide and Reference
- VisualAge Smalltalk Tivoli® Connection Guide
- VisualAge Smalltalk Visualization Tools Guide

VisualAge Smalltalk Enterprise Version 5.5 publications are provided in displayable HTML format, with all manuals included. The displayable manuals are part of the basic machine-readable material, and are shipped on the product CD-ROM.

For the latest documents, visit the VisualAge Smalltalk Web site at:

<http://www.ibm.com/software/ad/smalltalk/>

Terms and conditions for use of the machine-readable files are shipped with the files.

**Open Enterprise:** VisualAge Smalltalk Enterprise Version 5.5 allows you to transport information over WANs and LANs. Its implementation is consistent with the Transport Services function described in IBM's Open Blueprint®.

Version 5.5 supports Transmission Control Protocol/Internet Protocol (TCP/IP) industry-standard protocol from the Internet Engineering Task Force (IETF).

The Open Blueprint supports procedural and object-oriented applications. Version 5.5 and its associated products implement Open Blueprint capabilities in support of object-oriented applications.

Version 5.5 applications exploit Open Blueprint services in a variety of ways. Application business logic supported by VisualAge Smalltalk can be transactional. For these applications, VisualAge Smalltalk ObjectExtender offers classes that work with the Open Blueprint Transaction Monitor and Transaction Manager resource managers. Other Open Blueprint resource management services with procedural APIs, such as HTTP, are supported by corresponding VisualAge Smalltalk classes.

Version 5.5 classes abstract the usage of Open Blueprint services such as Relational Database and File, "connecting" to these services. In this case, the Version 5.5 application need deal only with object instances. You can access and save the state values in these persistent object instances to the application as the objects are referenced and dereferenced. This constitutes an implementation of the Open Blueprint Persistence resource manager.

VisualAge Smalltalk Server also works with Open Blueprint Object Management Services, including the Object Request Broker, as implemented in products that provide IIOp and CORBA 2 support.

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## Technical Information

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### Hardware Requirements

#### Visual Smalltalk Enterprise Version 5.5 for Intel® Platforms Minimum Hardware Requirements

- Personal Computer with 90 MHz Intel Pentium™ (or equivalent) microprocessor
- CD-ROM reader
- 64 MB installed RAM
- 32 MB installed RAM required for run time
- XGA or SVGA display with a minimum resolution of 1024 x 768 pels and 256 colors
- Mouse or other pointing device
- Client disk space

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- Base: 140 MB hard disk space
- OS/2® swapper (required for OS/2)
- Manager Library disk space: 160 MB (with additional disk space for growth)
- Stand-alone disk space: 300 MB (with additional disk space for growth)

For Windows™ multimedia support, any digital audio adapters, compact disk devices, or video disc devices supported by Microsoft™ Windows 95, Windows 98, Windows 2000, Windows NT™ Workstation Version 4.0, or later.

For OS/2 multimedia support, any digital audio adapters, compact disk devices, or video disc devices supported by Multimedia Presentation Manager/2™, provided with OS/2 Warp Version 4.0, or later.

### VisualAge Smalltalk Enterprise Version 5.5 for UNIX® Platforms

One of the following platforms is required, with the following minimum hardware requirements:

- For AIX®: RS/6000® POWERstation or POWERserver® running AIX Version 4.3 (5764-C34)
- For HP-UX: Hewlett Packard PA RISC workstation or server Version 10.20 (S700) or 11.00 (S700)
- For Solaris: Sun SPARC workstation or server Version 2.6, 7.0, or 8.0

#### Minimum Hardware Requirements for UNIX Systems

- CD-ROM reader
- 64 MB installed RAM
- Client disk space: 55 MB hard disk space
- Manager Library disk space: 300 MB (with additional disk space for growth)
- 200 MB free disk space for paging space
- Color display supporting X-Window System Version 11 Release 5 and OSF/Motif Version 1.2
- Mouse or other pointing device

#### Software Requirements

### VisualAge Smalltalk Enterprise Version 5.5 — Supported Operating Systems for Development Run Time

#### OS/2

- OS/2 Warp Version 4.0 + FP11
- For local IBM database support, one of the following:
  - DATABASE 2™ OS/2 (DB2®/2) Version 5.2 for OS/2
  - Database 2 Client Application Enabler OS/2, Version 5.2
- For multimedia support, any digital audio adapters, CD devices, or video disc devices supported by Multimedia Presentation Manager/2, provided with OS/2 Warp Version 4.0, or later

#### Windows

- Windows 95 +SP1 + Y2K Update
- Windows 98 +SP1 + Y2K Update 2
- Windows NT Workstation Version 4.0 + SP5
- Windows NT Server Version 4.0 + SP5

- Windows 2000 Professional, Windows 2000 Server, Windows 2000 Advanced Server
- For multimedia support, any digital audio adapters, CD devices, or video disc devices supported by Microsoft Windows 95, Windows 98, Windows NT Workstation Version 4.0, or later

For IBM database support, one of the following:

- DB2 Universal Database® Version 5.2 for Windows
- Database 2 Client Application Enabler 5.2, or later

- For Oracle support, Oracle 8i (Version 8.1.6)

**EMSRV Requirements:** The EMSRV library manager can run on the following platforms:

- NetWare 4.11, 4.2, or 5.0
- OS/2 Warp 4.0 + FP11, OS/2 Warp Server for e-business
- Windows NT Workstation Version 4.0 + SP5
- Windows NT Server Version 4.0 + SP5
- Windows 2000 Professional, Windows 2000 Server, Windows 2000 Advanced Server
- Windows 95, Windows 98, and Windows 98 (Second Edition) — emadmin only
- Sun Solaris Version 2.6 or 7.0
- HP-UX Version 10.20 (S700) or 11.0 (S700)
- AIX Version 4.3.1 or 4.3.2

**Domino Connection Component:** The Domino Connection component of VisualAge Smalltalk Enterprise runs on the following platforms:

- OS/2 Version 4.0 + FP11
- Windows NT Workstation Version 4.0 + SP5
- Windows NT Server Version 4.0 + SP5
- Windows 2000 Professional, Windows 2000 Server, Windows 2000 Advanced Server

Lotus Notes® 4.5, or later, is required.

For Windows 2000, Lotus Notes 5.03 is required.

**Web Connection Component:** Web Connection runs on all platforms supported by VisualAge Smalltalk Enterprise with the following prerequisites:

- Hard disk space: No additional space required.
- TCP/IP must be installed on the operating system.
- Web server supporting HTTP 1.0 and CGI 1.1.
- For NSAPI: Netscape Servers Version 3.51, or later.
- For ICAPI: IBM Internet Connection Server Version 4.2, or later.
- For ISAPI:
  - Windows NT 4.0: Microsoft Internet Information Server Version 3.0
  - Windows 95/98: Microsoft Personal Web Server Version 1.0a
- For servlet interface: HTTP server that supports servlets:
  - For Windows NT 4.0 or AIX: WebSphere™ 2.0 Application Server
  - For HP: JSDK 2.1
- Web browser supporting HTML 2.0.

**Communications/Transaction Component:** The Communications/Transactions component of VisualAge Smalltalk Enterprise Version 5.5 runs on the same operating system platforms as the base product, with the following prerequisites.

The following table lists supported protocols implemented by each supported platform:

Protocol	Prerequisite Software
<b>OS/2 4.0</b>	
TCP/IP	IBM TCP/IP Version 3.0 for OS/2
CICS® ECI	IBM CICS Client for OS/2, Version 2.00
MQ Series Client and Server	MQSeries® Version 5.0, and later
APPC	IBM Communications Server for OS/2 Warp, Version 4
EHLLAPI	IBM Personal Communications AS/400® and 3270, Version 4.1
CPIC	IBM Communications Server for OS/2 Warp, Version 4
RPC Client and Server	IBM TCP/IP Version 3.0 for OS/2

#### **Windows 95/98**

TCP/IP	Microsoft TCP Stack (available with Windows 95 Operating System)
CICS ECI	CICS Client for Windows 95, Version 2.00
MQ Series Server	MQSeries for Windows, Version 5.0
APPC	IBM Personal Communications AS/400 and 3270, Version 4.1, or Attachmate Extra! Personal Client Version 6.2
EHLLAPI	IBM Personal Communications AS/400 and 3270, Version 4.1, or Attachmate Extra! Personal Client Version 6.2
CPIC	IBM Personal Communications AS/400 and 3270, Version 4.1, or Attachmate Extra! Personal Client Version 6.2

#### **Windows NT 4.0**

TCP/IP	Microsoft TCP Stack (available with Windows NT Operating System)
CICS ECI	CICS Client for Windows NT, Version 2.0
MQ Series Client and Server	MQSeries for Windows NT, Version 5.0
APPC	IBM Personal Communications AS/400 and 3270, Version 4.1, or IBM Communications Server for Windows NT, Version 5.0, or Attachmate Extra! Personal Client Version 6.2
EHLLAPI	IBM Personal Communications AS/400 and 3270, Version 4.1, or Attachmate Extra! Personal Client Version 6.2
CPIC	IBM Personal Communication AS/400 and 3270, Version 4.1, or IBM Communications Server for Windows NT, Version 5.0, or Attachmate Extra! Personal Client Version 6.2
RPC Client and Server	NetManage Chameleon NSF Version 5.0 for Windows NT

Protocol	Prerequisite Software
<b>Windows 2000</b>	
TCP/IP	Microsoft TCP Stack (available with Windows 2000 operating system)
MQ Series Client and Server	MQSeries for Windows NT, Version 5.0
APPC	IBM Personal Communications AS/400 and 3270, Version 4.1, or IBM Communications Server for Windows NT, Version 5.0, or Attachmate Extra! Personal Client Version 6.2
EHLLAPI	IBM Personal Communications AS/400 and 3270, Version 4.1, or Attachmate Extra! Personal Client Version 6.2
CPIC	IBM Personal Communications AS/400 and 3270, Version 4.1, or IBM Communications Server for Windows NT, Version 5.0, or Attachmate Extra! Personal Client Version 6.2
RPC Client and Server	NetManage Chameleon NSF Version 5.0 for Windows NT

#### **AIX**

TCP/IP	No additional software required
CICS ECI	CICS Universal Clients Version 3.1, or CICS Server Version 2.1.1 with PTF U445297
MQ Series	MQSeries Server Version 5.0, and later
APPC	IBM SNA Services/6000 Version 3.1.1 or 4.2
EHLLAPI	3270 Host Connection Program Version 2.1
CPIC	IBM SNA Services/6000 Version 3.1.1 or 4.2
RPC Client and Server	No additional software required

#### **HP-UX**

TCP/IP	No additional software required
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#### **Solaris**

TCP/IP	No additional software required
MQ Series	MQSeries Version 5.0, and later

**ObjectExtender Feature:** The Object Extender feature of VisualAge Smalltalk Enterprise Version 5.5 runs on the same operating system platforms as the base product.

For database product requirements, refer to the Database component.

Client disk space: 1 MB

Manager Library disk space: 15 MB

**UML Designer Feature:** The UML Designer feature of VisualAge Smalltalk Enterprise Version 5.5 runs on the following platforms:

- OS/2 Warp 4.0 + FP11
- Windows NT Workstation Version 4.0 + SP5
- Windows NT Server Version 4.0 + SP5
- Windows 2000 Professional, Windows 2000 Server, Windows 2000 Advanced Server

**Server Workbench Feature:** The Server Workbench feature of VisualAge Smalltalk Enterprise Version 5.5 runs on the platforms indicated below with the specified prerequisites:

*OS/2 Warp Version 4.0 + FP11*

- To use CPIC interactive debug, IBM Communications Server for OS/2 Warp, Version 4
- To use TCP/IP interactive debug, the TCP/IP stack shipped with the system
- To test your CICS application, CICS for OS/2 Version 3.0, which ships as part of IBM Transaction Server for OS/2 Warp, Version 4, or later (also shipped with VisualAge Smalltalk Enterprise Version 5.5)
- To test your IMS™ application, Micro Focus Workbench with the 32-Bit IMS Option (EBCDIC version)
- To simulate VSAM data sets for testing, Btrieve 6.15 SDK (Note: If you have CICS for OS/2 installed, you have Btrieve.)

*Windows 95 + SP11 + Y2K Update 1/Windows 98 + SP11 + Y2K Update 2*

- To use CPIC interactive debug, IBM Personal Communication Version 4.1 or Attachmate Extra! Personal Client Version 6.2
- To use TCP/IP interactive debug, the TCP/IP stack shipped with the system
- To test your IMS application, Micro Focus IMS Option Version 3.1 (EBCDIC) for Windows NT and Windows 95
- To simulate VSAM data sets for testing, Btrieve Version 6.15 Developer Kit Upgrade for Windows NT/Windows 95

*Windows NT 4.0 + SP5*

- To use CPIC interactive debug, IBM Personal Communication Version 4.1 or Attachmate Extra! Personal Client Version 6.2
- To use TCP/IP interactive debug, the TCP/IP stack shipped with the system
- To test your CICS application, IBM VisualAge CICS Enterprise Application Development Version 3.1 (shipped with VisualAge Smalltalk Enterprise Version 4.5)
- To test your IMS application on Windows NT, Micro Focus IMS Option Version 3.1 (EBCDIC) for Windows NT and Windows 95
- To simulate VSAM data sets for testing, Btrieve Version 6.15 Developer Kit Upgrade for Windows NT/Windows 95

*Windows 2000*

- To use CPIC interactive debug, IBM Personal Communication Version 4.1 or Attachmate Extra! Personal Client Version 6.2
- To use TCP/IP interactive debug, the TCP/IP stack shipped with the system
- To test your CICS application, VisualAge CICS Enterprise Application Development Version 3.1 (shipped with VisualAge Smalltalk Enterprise Version 4.5)

- To test your IMS application on Windows NT, Micro Focus IMS Option Version 3.1 (EBCDIC) for Windows NT and Windows 95
- To simulate VSAM data sets for testing, Btrieve Version 6.15 Developer Kit Upgrade for Windows NT/Windows 95

*AIX Version 4.3*

- To use TCP/IP interactive debug, the TCP/IP stack shipped with the system

*Solaris Version 2.6, 7.0 or 8.0*

- To use TCP/IP interactive debug, the TCP/IP stack shipped with the system
- To use DB2 for OS/2 databases, DB2 for OS/2, Version 1.2, or later
- To use embedded SQL statements, DB2 for OS/2, Version 2.1, or later
- To use DB2 for NT databases:
  - Local: DB2 Version 5.2 (Windows NT only)
  - Client: DB2 CAE for Windows 3.1, Windows 95, and Windows NT, Version 5.2
- To use MQSeries classes on OS/2, MQSeries Version 5.0
- To use MQSeries classes on Windows NT, MQSeries for Windows NT, Version 5.0

**Supported Operating Systems for VisualAge Smalltalk Server for OS/390®**

- MVS/ESA™ SP™ Version 5.1, or later, or OS/390 Release 1.1, or later
- LE/370 1.5 with the following PTFs, or later:
  - UN85774
  - UN89983
  - UN94075
  - UN96114
  - UN97753
  - UQ00290
  - UQ15800
- IMS/ESA® Version 5.1, or later, if you plan to write Smalltalk applications that run on IMS
- CICS/ESA® Version 4.1, or later, if you plan to write Smalltalk applications that run on CICS
- ISPF Version 3.5, or later
- DB2 for MVS™ Version 4.1, or later, if you plan to use DB2 databases. Also, for DB2, one of the following:
  - OS/390 Release 1 (5645-001) and the DFSORT™ feature
  - All of the following:
    - DFSMS™ Version 1 Release 1 (5695-DF1) or MVS Data Facility Product (MVS/DFP™) Version 3 Release 3 (5665-XA3)
    - TSO Extensions (TSO/E) Version 2 Release 5 (5685-025)
    - DFSORT Version 1 Release 13 (5740-SM1)
  - For CLI, DB2 for MVS Version 5.1
- MQSeries Version 1.1.3, or later, if you plan to use MQSeries Smalltalk classes on MVS

- SMP/E 1.8
- Assembler H 2.1
- To use Web Connection on MVS, one of the following:
  - MVS Web Server: Domino Go Webserver Version 4.6.1 for OS/390, which requires OS/390 Version 2 Release 4
  - MVS Web Server: Internet Connection Secure Server for OS/390, Version 2 Release 1, which requires MVS/ESA SP Version 5.2.2 or OS/390 Release 1
  - When using VisualAge Smalltalk Enterprise Version 5.0
    - Domino Go Webserver Version 5.0
    - WebSphere Application Server for OS/390, Version 1.1 (Requires OS/390 Version 2.5)
- When accessing DB/2 via CLI using the RRSAF interface, the following PTFs for DB/2 Version 5.1 are required:
  - UQ10923
  - UQ11231
  - UQ16836
  - UQ18719
  - UQ21837
  - UQ23001

#### Supported Operating Systems for VisualAge Smalltalk Server for AS/400e™

- Server Workbench feature of VisualAge Smalltalk Enterprise Version 4.5 or 5.0, for development on Windows and OS/2
- AS/400e series hardware, Models 600, 620, 640, or 650
- OS/400® Version 4 Release 3
- OS/400 Version 4 Release 3 feature OS/400 — Private
- Address Space Environment
- OS/400 Version 4 Release 3 TCP/IP, Sockets Communications Interface
- Also requires 10 MB disk space on the AS/400 server

#### To View VisualAge Smalltalk HTML Documentation

- On Windows 95/98 and Windows NT 4.0, and Windows 2000:
  - Microsoft Internet Explorer 5.0, or later
  - Netscape Communicator 4.51, or later
- On OS/2 Warp Version 4.0:
  - Netscape Communicator 4.04, or later
- On AIX:
  - Netscape Communicator 4.51, or later
- On HP-UX:
  - Netscape Communicator 4.51, or later
- On Solaris:
  - Netscape Communicator 4.51, or later

**Compatibility:** Migration from Version 3, 4, 4.5, or 5.0 of VisualAge Smalltalk to Version 5.5 can be a relatively simple process. Guidance is provided in the *VisualAge Smalltalk Migration Guide, Version 5.5*.

In addition, migration support services are available through the VisualAge Solutions Group. Contact the IBM technical sales team at [aiminfo@us.ibm.com](mailto:aiminfo@us.ibm.com) for availability and pricing, or visit their Web page at:

<http://www.ibm.com/software/ad/vaws-services/solutions/vsg.html>

#### Planning Information

**PartnerWorld for Developers Program:** The PartnerWorld for Developers Program is especially designed to encourage commercial software developers to successfully explore the business of building applications, and VisualAge-enabled and Java™-reusable software components. In addition to component development, this program supports independent software vendors building VisualAge-complementary tools, frameworks, and end-user applications.

As a member of PartnerWorld for Developers developing with VisualAge, you receive benefits, including access to VisualAge software from Software Mall® — for development purposes, and product listings of your products in the Global Solutions Directory. Additionally, you have access to resources to aid you in your development work.

To Join:

- Update your PartnerWorld for Developers registration to indicate an interest in VisualAge.
- Create a project profile describing your product and indicating the VisualAge tools you plan to use.

IBM will contact you regarding your membership.

For more information about the PartnerWorld for Developers Program:

- World Wide Web:
  - [http://www.developer.ibm.com/welcome/w\\_home.html](http://www.developer.ibm.com/welcome/w_home.html)
- E-mail: [pwd@us.ibm.com](mailto:pwd@us.ibm.com)
- Phone:
  - U.S. and Canada: 800-627-8363
  - Worldwide: 770-835-9902
- Fax: 770-835-9444

**Packaging:** All program products are distributed on CD-ROM only.

Each of the following program products is distributed in a separate package with the content listed below:

#### VisualAge Smalltalk Enterprise Version 5.5

- IBM International Program Licensing Agreement (IPLA) and License Information on CD-ROM.
- Proof of Entitlement (PoE) card.
- Two VisualAge Smalltalk Enterprise Version 5.5 product CD-ROMs:
  - One contains VisualAge Smalltalk Enterprise Version 5.5 Installation for Intel and UNIX Platforms.
  - One contains the VisualAge Smalltalk Enterprise Library Manager Version 5.5 Installation for Intel and UNIX Platforms.
- Product key to unlock the client is available on the envelope holding the two product CD-ROMs.
- Try and buy software products and a promotional booklet describing the evaluation CD-ROMs:



- VisualAge for Java Professional for Windows NT
- Object Connection® CD
- CICS for OS/2 and NT
- WebSphere Application Server Standard Edition
- DB2 Version 7.1

These try-and-buy or evaluation products are provided under licenses that only permit use for evaluation and testing.

- WebSphere Application Server License Information booklet.
- VisualAge for Java Professional License Information booklet.
- VisualAge CICS for OS/2 and Windows.
- VisualAge Smalltalk Version 5.5 insert sheet.
- IPLA pointer sheet.
- IPLA booklet.
- IBM Customer Service and Support card.

*Additional Function, Ordered as Program Features:* The documentation and code for these products are provided on the base program product media. When each of these optional features is ordered, the key provided is applied against the product CD-ROM media to unlock the additional function. A valid access key, purchased separately, is also required for VisualAge Smalltalk Enterprise to use the additional function.

- VisualAge Smalltalk Server Workbench Version 5.5
- VisualAge Smalltalk ObjectExtender Version 5.5
- VisualAge Smalltalk UML Designer Version 5.5
- VisualAge Smalltalk Advanced Database Feature Version 5.5

Each package contains:

- Registration and PoE card
- Product key

### **Security, Auditability, and Control**

VisualAge Smalltalk Enterprise Version 5.5 uses the security and auditability features of the development platform. VisualAge Smalltalk Server for OS/390, Version 5.5 logs all changes in a source change log and captures change management and versioning information in a source code repository that can reside on the client machine or within a network.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

### **Ordering Information**

VisualAge Smalltalk Enterprise Version 5.5 has one charge unit, registered users.

VisualAge Smalltalk Enterprise Version 5.5 is available at an upgrade price for those customers currently licensed for the following qualifying programs:

- VisualAge Smalltalk Enterprise Version 5.0
- VisualAge Smalltalk Enterprise Version 4.5
- VisualAge for Smalltalk Professional Version 4
- VisualAge for Smalltalk Version 3
- VisualAge Team Versions 1 and 2

VisualAge Smalltalk Server Workbench Version 5.5 is available at an upgrade price for those customers currently licensed for the following programs:

- VisualAge Smalltalk Server Workbench Version 5.0
- VisualAge Smalltalk Server Workbench Version 4.5
- VisualAge for Smalltalk Distributed Version 4.0

VisualAge Smalltalk ObjectExtender Version 5.5 is available at an upgrade price for those customers currently licensed for the following programs:

- Smalltalk ObjectExtender Version 5.0
- Smalltalk ObjectExtender Version 4.5

VisualAge Smalltalk UML Designer Version 5.5 is available at an upgrade price for those customers currently licensed for the following programs:

- Smalltalk UML Designer Versions 5.0 or 4.5

VisualAge Smalltalk Advanced Database Feature Version 5.5 is available at an upgrade price for those customers currently licensed for:

- VisualAge Smalltalk Advanced Database Feature Version 5.0.

<b>Program Name/Description</b>	<b>Part Number</b>
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#### **Base Programs**

VisualAge Smalltalk Enterprise Version 5.5 English, 1 Registered User, CD-ROM	13P0249
VisualAge Smalltalk UML Designer Feature Version 5.5 English, 1 Registered User	13P0256
VisualAge Smalltalk ObjectExtender Feature Version 5.5 English, 1 Registered User	13P0257
VisualAge Smalltalk Advanced Database Feature Version 5.5 English, 1 Registered User	13P0258
VisualAge Smalltalk Server Workbench Feature Version 5.5 English, 1 Registered User	13P0259

#### **Additional License**

VisualAge Smalltalk Enterprise Version 5.5 English, 1 Registered User, Additional License	13P0252
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#### **Upgrade Program**

VisualAge Smalltalk Enterprise Version 5.5 English, CD-ROM for Upgrade	13P0251
VisualAge Smalltalk UML Designer Feature Version 5.5 English, 1 Registered User for Upgrade	13P0260
VisualAge Smalltalk ObjectExtender Feature Version 5.5 English, 1 Registered User for Upgrade	13P0261
VisualAge Smalltalk Advanced Database Feature Version 5.5 English, 1 Registered User for Upgrade	13P0262
VisualAge Smalltalk Server Workbench Feature Version 5.5 English, 1 Registered User for Upgrade	13P0263

#### **Upgrade — Additional License**

VisualAge Smalltalk Enterprise Version 5.5 English Upgrade — Additional License	13P0253
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Program Name/Description	Part Number
<b>Passport Advantage — Media Pack</b>	
VisualAge Smalltalk Enterprise Version 5.5 Media Pack, English	BA7WKML
VisualAge Smalltalk UML Designer Feature V5.5 Key Supply	13P0264
VisualAge Smalltalk ObjectExtender Feature V5.5 Key Supply	13P0265
VisualAge Smalltalk Advanced Database Feature V5.5 Key Supply	13P0266
VisualAge Smalltalk Server Workbench Feature V5.5 Key Supply	13P0267

**Withdrawal of Previous Passport Advantage Part Numbers:** The following Passport Advantage part numbers for the VisualAge Smalltalk Server feature are obsoleted by this announcement, since this feature is included in the VisualAge Smalltalk Server Workbench in Version 5.5. The effective withdrawal date is November 15, 2000.

Orders for these part numbers will not be accepted after November 15, 2000, nor will normal marketing activities or educational support be available unless previous agreement exists between the customer and IBM.

Program Name/Description	Part Number
CO TRD/SW SUB VISUALAGE SMALLTALK SERVER	D16WCML
GSA INSTL/SW SUB VISUALAGE SMALLTALK SVR 1 SVR 1YR	D17XEML
ACAD SW SUB RNWL VISUALAGE SMALLTALK SERVER	E077CML
VPO INSTL/SW SUB 2YRS VISUALAGE SMALLTALK SERVER	D16R6ML
GSA INSTI VISUALAGE SMALLTALK SERVER 1 SERVER 1 YEAR	D18IKML
VPO SW SUB 2YRS VISUALAGE SMALLTALK SERVER	D16W2ML
ACAD INSTL VISUALAGE SMALLTALK SERVER	D17VYML
VPO TRD/SW SUB VISUALAGE SMALLTALK SERVER	D16W3ML
GSA TRD/SW SUB VISUALAGE SMALLTALK SERVER 1 SERVER 1YR	D17XFML
VPO SW SUB 1YR VISUALAGE SMALLTALK SERVER	D16W1ML
VPO INSTL/SW SUB 1YR VISUALAGE SMALLTALK SERVER	D16R7ML
VPO INSTL VISUALAGE SMALLTALK SERVER	D16W0ML
CO INSTL/SW SUB/SUPT 2ND ANNIV VISAGE SMALLTALK SERVER	D16W5ML
CO TRD/SW SUB/SUPT VISUALAGE SMALLTALK SERVER	D16WDML
CO SW SUB 2ND ANNIV VISUALAGE SMALLTALK SERVER	D16WAML
CO SW SUB 1ST ANNIV VISUALAGE SMALLTALK SERVER	D16WBML
CO INSTL VISUALAGE SMALLTALK SERVER	AQ6P0ML
CO INSTL/SW SUB/SUPT 1ST ANNIV VISAGE SMALLTALK SERVER	D16W6ML
CO INSTL/SW SUB 2ND ANNIV VISUALAGE SMALLTALK SERVER	D16W7ML

Program Name/Description	Part Number
CO SW SUB/SUPT VISUALAGE SMALLTALK SERVER	D16W9ML
CO SUPT VISUALAGE SMALLTALK SERVER	AQ6KIML
CO INSTL/SW SUB 1ST ANNIV VISUALAGE SMALLTALK SERVER	D16W8ML
ACAD SW SUB VISUALAGE SMALLTALK SERVER 1 YR	D17VZML

## Terms and Conditions

**Licensing:** IBM IPLA. PoE are required for all authorized use.

**License Information Form Number:** The License Information is contained on the product CD, thus there is no License Information Form Number.

**Limited Warranty:** Yes

**Program Services:** Available until February 28, 2002

**Money-Back Guarantee:** 30-day, money-back guarantee

**Copy and Use on Home/Portable Computer:** Yes

**Volume Orders (IVO):** No

**Passport Advantage Applies:** Yes

**Passport Advantage Subscription Applies:** Yes

**Upgrades:** Customers can acquire upgrades up to the currently authorized level of use of the qualifying programs.

**Usage Restriction:** Yes

For a list of the files and applications, which may be redistributed without additional licenses, refer to the license agreement on the VisualAge Smalltalk Enterprise Version 5.5 media.

**Support Line:** Yes

**AIX/UNIX Upgrade Protection Applies:** No

**Entitled Upgrade for Current AIX/UNIX Upgrade Protection Licensees:** No

**AS/400 Software Subscription Applies:** No

**Variable Charges Apply:** No

**Educational Allowance:** Not applicable

## Prices

Program Name/Description	Part Number	OTC <sup>1</sup>
<b>Base Programs</b>		
<i>VisualAge Smalltalk</i>		
Enterprise Version 5.5 English, CD-ROM	13P0249	\$4,999
UML Designer Feature Version 5.5 English, 1 Registered User	13P0256	3,599
ObjectExtender Feature Version 5.5 English, 1 Registered User	13P0257	3,999
Advanced Database Feature Version 5.5 English, 1 Registered User	13P0258	2,999
Server Workbench Feature Version 5.5 English, 1 Registered User	13P0259	4,999

<sup>1</sup> One-time charge

### Additional Licenses

Program Name/Description	Part Number	OTC
VisualAge Smalltalk Enterprise Version 5.5 English, 1 Registered User Additional License	13P0252	\$4,500

### Upgrades

Program Name/Description	Part Number	OTC
<i>VisualAge Smalltalk</i>		
Enterprise Version 5.5 English Upgrade, CD-ROM	13P0251	\$1,499
UML Designer Feature Version 5.5 English Upgrade 1 Registered User	13P0260	1,079
ObjectExtender Feature Version 5.5 English Upgrade 1 Registered User	13P0261	1,199
Advanced Database Feature Version 5.5 English Upgrade 1 Registered User	13P0262	899
Server Workbench Feature Version 5.5 English Upgrade 1 Registered User	13P0263	1,500

### Upgrade — Additional License

Program Name/Description	Part Number	OTC
VisualAge Smalltalk Enterprise Version 5.5 English Upgrade Additional License	13P0253	\$1,420

## Passport Advantage

**Note:** For Passport Advantage and charges, contact your Lotus® representative or authorized Lotus Business Partner. Additional information is also available on the Passport Advantage URL:

<http://www.lotus.com/passportadvantage>

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<http://www.financing.ibm.com>

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Use Priority/Reference Code: YE001

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Atlanta, GA 30301-2690

You can also contact your local IBM Business Partner or IBM representative. To identify them, call 800-IBM-4YOU.

**Note:** Shipments will begin after the planned availability date.

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### **Year 2000 Readiness Disclosure**

*Statements made in this announcement regarding Year 2000 are "Year 2000 Readiness Disclosures" under the Year 2000 Information and Readiness Disclosure Act of 1998, a U.S. statute enacted on October 19, 1998.*