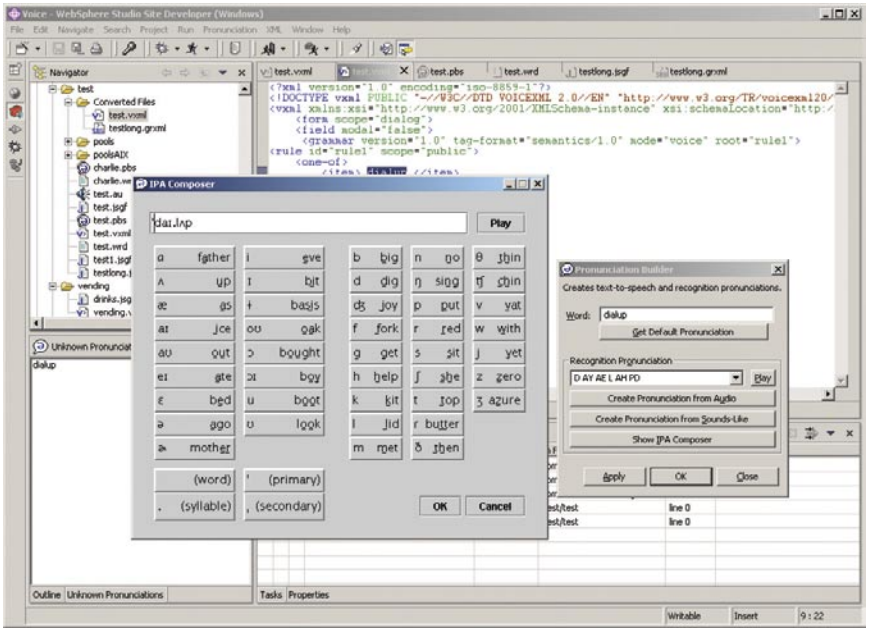
WebSphere® software

Voice Toolkit for WebSphere Studio



Highlights

- ***Expedites the development of voice applications***
- ***Provides pre-written, reusable code that can shorten the learning process and reduce development time***
- ***Is based on the VoiceXML industry standard***
- ***Aids with overall voice application development, including VoiceXML coding, grammar and pronunciation creation, debugging and call analysis***

Building business on a solid foundation

A leading provider of voice enabling e-business solutions, IBM delivers Web, middleware and telephony solutions that can help businesses quickly deliver information to their customers. As your single point of contact, IBM can help you extend your e-business reach by offering integrated hardware, software and services that support the convergence of voice and data by using open standards-based VoiceXML technology that is scalable and highly compatible. Bring your business to the next level with IBM—providing a solid foundation on which to build integrated, innovative voice solutions.

Voice Toolkit for WebSphere® Studio: A fast way to deliver voice applications

As part of the IBM WebSphere Voice family of products, Voice Toolkit for WebSphere Studio provides the necessary components to get a voice application written and up and running, quickly and easily. This Voice Toolkit for WebSphere Studio is available for free download to expedite the development process. You can download the toolkit by going to **ibm.com**/software/pervasive/products/voice/voice_toolkit.shtml

The Voice Toolkit for WebSphere Studio provides several key components:

- *VoiceXML application development environment*
- *Reusable Dialog Components (RDCs) – working code that can be copied and reused throughout a voice application*
- *Wizard to help user in selecting and customizing RDCs*
- *Grammar builder for VoiceXML 2.0 Speech Recognition Grammar Specification (SRGS) XML and ABNF formats*
- *Pronunciation builder (using keyboard, microphone or audio files) to create and enhance how a word will be recognized by the application or heard through the text-to-speech engine*

Voice Toolkit for WebSphere Studio at a glance	
VoiceXML Editor	• Text editor provides syntax checking based on VoiceXML 2.0 standards • Content assist through pop-up with valid VoiceXML elements and attributes • Assists with code development through color coding of VoiceXML elements • Provides conversion capability from VoiceXML 1.0 to 2.0 • Source code formatting • Integrated VoiceXML simulator to test and debug your code • Verifies pronunciations for unknown words • Creates custom pronunciations • Launches the grammar editor to define application grammars • Launches the RDC Wizard to import reusable code • Launches the audio recorder to record and play audio files
Grammar Editor	• Text editor provides syntax checking based on SRGS standards • Provides an 'Unknown Pronunciation' view to show those words that are not recognized within the grammar • Ability to generate SRGS grammars for VoiceXML applications • Provides conversion capability from either SRCL/BNF and JSGF to SRGS grammars • Customizes grammar compilation options • Graphical grammar test tool that works with compiled grammar to provide debug assistance
Pronunciation Builder	• Baseform generator to create pronunciations from keyboard input, microphone input or audio files • Includes a pop-up screen to assist in generating pronunciations based on phonemes defined by the International Phonetic Association • Offers multiple choices for default pronunciation generation using the recognition and TTS engines • Generates pronunciation files for recognition and TTS engine (exception dictionaries) • Audio assistance to hear the generated pronunciation and tune prior to application testing
Audio Recorder	• Allows for the creation of audio files from microphone input • Provides a means to play a previously recorded audio file
RDC Wizard	• Wizard that will allow the user to select and customize Reusable Dialog Components • Fully integrated into the VoiceXML Editor
Reusable Dialog Components	• Pre-written VoiceXML building blocks of code to provide common functions for use in application development; a single instance of code can be called from multiple places in an application • Sub-dialogs include: Alpha (spelling), Alpha Numeric, Browsable selection list, Confirmation (active and silent) [Translated into UK English, French, German, Italian, Spanish, Simplified Chinese, Japanese],Credit Card type, Currency, Date Info (fully specified and partial), Digit, Direction, Duration (seconds, minutes), e-mail address, Expiration Date, Number, Postal code (5 or 9), Social Security Number, Telephone Number, Time Info (fully specified and partial), URL, Multiple Selection List, Stocks, Airports, U.S. Cities • Templates include: Name, Address, Credit Card info (type, #, expiration), Date Range, Time Range • Samples include: Utility Billing Application, Shopping Cart Shipping Information • SRGS grammars include: Credit Card names, Directions, e-mail, Street Type, US Major Cities, US States, URL, Countries, airport codes
Application Debugger	• Makes it easy to watch the behavior and state of VoiceXML applications • Pinpoints the exact line of a problem • Allows for 'step through' of the VoiceXML applications • Examines all the variables in the application and modifies them on the fly as the program executes • Uses conditional breakpoints to suspend the application when a certain expression or variable action occurs • Provides simulation of browser functions
Voice Portlet Tools	• Voice portlet perspective that brings the portlet and voice application creation together • Creation and validation of fragment VoiceXML portlet content • Log viewer shows what occurs when the voice portlet runs, to aid in problem determination • Portlet wizard creates the framework for a voice portlet
Integrated Development Environment	• Multiple ways to view your projects, active work sessions, and all the elements needed to develop a voice application • One-button navigation between perspectives • Ability to access Online Help from within the development environment • Plug-in to WebSphere Studio
Analysis Tools	• Ability to examine recognition log files for call analysis • Ability to verify audio quality of audio files
Hardware and Software Requirements	
Hardware Requirements	• 500 MHz Intel® Pentium® processor with 768MB of RAM • Hard disk: 175MB of available disk space for minimum configuration • Sound card and quality microphone recommended to test applications
Software Requirements	• Microsoft® Windows® 2000 SP2 or higher • IBM WebSphere Studio Site Developer 5.0.1 or WebSphere Studio Application Developer 5.0.1

- *Support for building, deploying and debugging voice portlets*
- *Support for application development in native languages*
- *Integrated simulator for application testing and debugging to pinpoint problems in the VoiceXML code and speed application completion*
- *Tools to analyze call logs and audio quality*

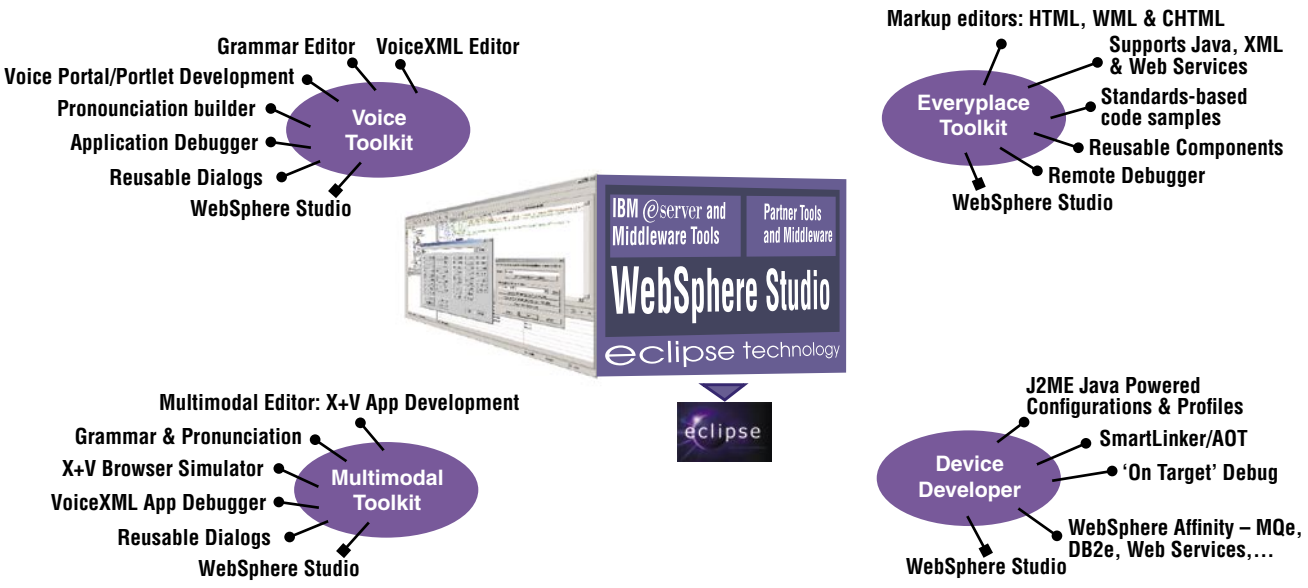
Benefits for the developer of voice applications

The Voice Toolkit for WebSphere Studio can simplify the voice application development process. RDCs provide ready-to-use VoiceXML code for common functions. In addition, the Voice Toolkit for WebSphere Studio includes a VoiceXML editor, a grammar editor to create and edit grammars, a pronunciation builder with pop-up composer, and other components that speed the creation of a customized voice application. The Voice Toolkit for WebSphere Studio can be used by anyone with VoiceXML, XML, HTML, Java or general Information Technology (IT) programming experience. By providing a productive environment for developing voice applications, the development experience is jump-started and the overall project duration is shortened. In fact, by using the Voice Toolkit for WebSphere Studio, voice applications can be created before IBM WebSphere Voice Application Access, IBM WebSphere Voice Response or IBM WebSphere Voice Server is even installed. This means that critical voice applications can be online sooner, serving your customers and saving you money.

A standards-based environment

The Voice Toolkit for WebSphere Studio is based on the VoiceXML industry standard for voice application development. The RDCs consist of tested building blocks of code based on this standard, serving as dialogs and sub-dialogs that can be grouped together to provide a desired function. RDCs act as a learning tool, as well as a quick way to get started, based on a common architecture instead of a proprietary model. Developers with a wide range of programming skills and experience will appreciate the Voice Toolkit for WebSphere Studio's integrated development environment.

Extending WebSphere Studio with Pervasive Tools



Based on the WebSphere Studio Workbench development environment, WebSphere Voice Toolkit is compatible with other IBM application development tools and editors. Since the toolkit already conforms to the IBM strategic tools development framework, developers will have a common look and feel across IBM tools, whether for voice, Web or enterprise solutions, without having to figure out how to make all the tools interoperate.

Everything works together

Because the Voice Toolkit for WebSphere Studio was architected with the complete development experience in mind, the various components complement each other extremely well. For example, the VoiceXML Editor can invoke the grammar editor, and both the VoiceXML and grammar editors can invoke the pronunciation builder. And since the Voice Toolkit is an extension to WebSphere Studio, simulation and debugging of voice applications is done within the development workbench.

A breeze to use

The Voice Toolkit for WebSphere Studio can make it easy to build voice applications. The editors check both syntax and content. Pronunciations can be generated from typed text or microphone input and previewed to hear whether adjustments are needed. The integrated VoiceXML simulator can simplify testing and debugging. The debugger helps to find code problems so they can be fixed and the application quickly completed.

Reusable Dialog Components

The IBM RDCs are the building blocks for developing new VoiceXML applications. They allow developers with little VoiceXML experience to speed application development and write basic functions. These RDCs work with the WebSphere voice family of products. The package also provides developers with an architecture that promotes open standards when creating their own reusable dialogs. Examples of the RDCs delivered by IBM are: e-mail address, currency, telephone number and more.

WebSphere Software Platform

Voice Toolkit for WebSphere Studio is part of the IBM WebSphere software platform—a comprehensive set of integrated, award-winning e-business solutions. No matter where you are in the e-business cycle, the WebSphere software platform delivers the flexibility you need to grow—at the speed the market demands. Building on this robust platform, you can connect diverse IT environments to maximize your current investments and leverage existing skills. Deliver your core business applications to the Web using industry standards like Java technology and XML and create next-generation applications that differentiate you from the competition. Advance to a powerful platform for integrated e-business—the WebSphere software platform from IBM.

For more information

For more information about how IBM can help your business take advantage of conversational e-business, call your local IBM sales representative, or visit **ibm.com**/pvc

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