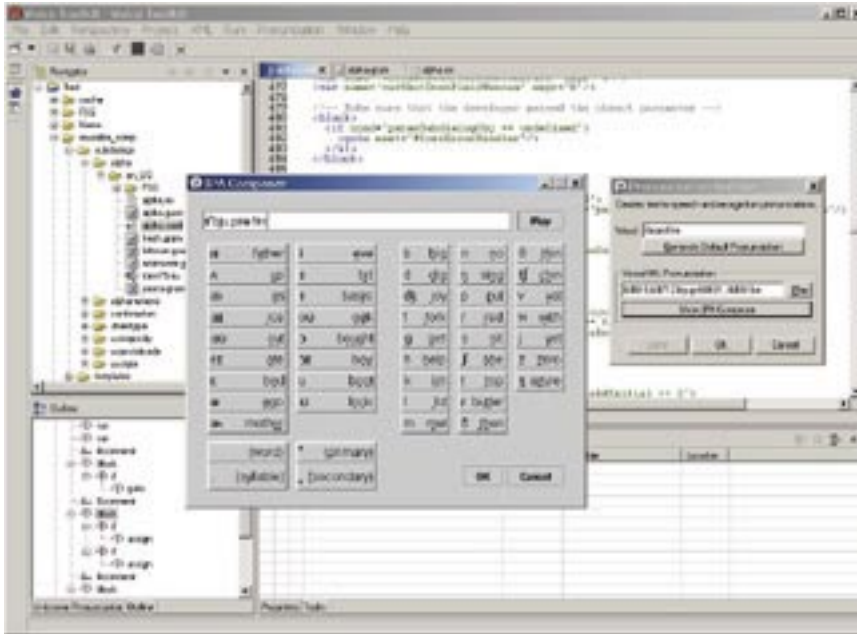


WebSphere® software

IBM WebSphere Voice Toolkit



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**

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.

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

As part of the IBM WebSphere Voice Family of products, IBM WebSphere Voice Toolkit provides the necessary components to get a voice application written and up and running, quickly and easily. This WebSphere Voice Toolkit 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 WebSphere Voice Toolkit 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 Java™ Speech Grammar Format (JSGF), Speech Recognition Control Language/ Backus-Naur Form (SRCL/BNF) grammar and VoiceXML 2.0 Speech Recognition Grammar Specification (SRGF format)*
- *Pronunciation builder (using keyboard, microphone or audio files) to create and enhance how a word will be recorded and heard through the text-to-speech engine*

- *Support for application development in native languages*
- *Support for application testing through the IBM WebSphere Voice Server Software Development Kit (SDK)*
- *Application debugger to pinpoint problems in the VoiceXML code and speed application completion*

Benefits for the developer of voice applications

The WebSphere Voice Toolkit can simplify the voice application development process. RDCs provide ready-to-use VoiceXML code for common functions. In addition, the WebSphere Voice Toolkit includes a VoiceXML editor, a grammar editor to create and edit new grammars, a pronunciation builder with pop-up

composer, and other components that speed the creation of a customized voice application.

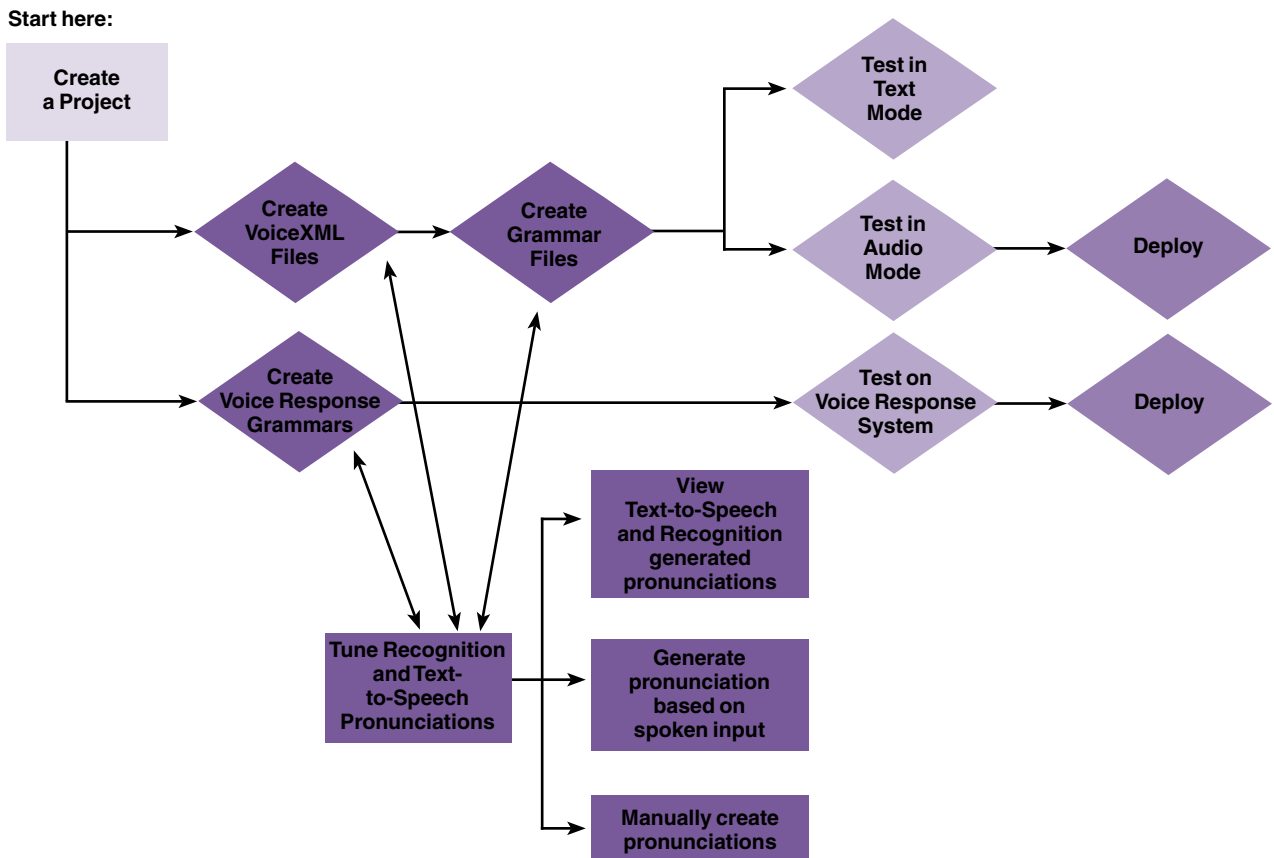
The WebSphere Voice Toolkit can be used by anyone with VoiceXML, XML, HTML, Java, or general Information Technology (IT) programming experience. By providing a productive environment for developing voice applications, the development experience is jump-started and the overall project duration is shortened. In fact, by using the WebSphere Voice Toolkit, voice applications can be created before 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 IBM WebSphere Voice Toolkit 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 WebSphere Voice Toolkit's integrated development environment. Based on the IBM WebSphere Studio Workbench development environment, WebSphere Voice

Creating a VoiceXML program using the WebSphere Voice Toolkit



WebSphere Voice Toolkit at a glance

VoiceXML Editor	<ul style="list-style-type: none">• Text editor provides syntax checking• Content assist through pop-up with valid VoiceXML elements and attributes• Assist with code development through color coding of VoiceXML elements• Source code formatting• Linkage with browser to test and debug your code• Verify pronunciations for unknown words• Create custom pronunciations• Launch the grammar editor to define application grammars• Launch the RDC Wizard to import reusable code• Launch the audio recorder to record and play audio files• Can manually create a pronunciation if the SDK is not installed
Grammar Editor	<ul style="list-style-type: none">• Text editor provides syntax checking• Provide an 'Unknown Pronunciation' view to show those words that are not recognized within the grammar• Ability to generate SRGF grammars for VoiceXML applications• Ability to generate JSGF grammars for VoiceXML applications• Includes grammar creation for SRCL/BNF grammars• Provides conversion capability between SRCL/BNF and JSGF• Can customize grammar compilation options• Graphical grammar test tool that works with the compiled grammar to provide debug assistance whether JSGF, SRGF or SRCL/BNF format
Pronunciation Builder	<ul style="list-style-type: none">• 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• Integrated with the Text-to-Speech engine to generate the default pronunciation• Offers multiple choices for default pronunciation generation• Generates pronunciation file for recognition and TTS engine (exception dictionaries)• Audio assistance to hear the generated pronunciation and tune prior to application testing
Audio Recorder	<ul style="list-style-type: none">• Allows for the creation of audio files from microphone input• Provides a means to play a previously recorded audio file• Offers the ability to plug in a third party audio editing program
RDC Wizard	<ul style="list-style-type: none">• Wizard that will allow the user to select and customize Reusable Dialog Components• Fully integrated into the VoiceXML Editor
Reusable Dialog Components	<ul style="list-style-type: none">• Prewritten 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.• Subdialogs 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• SRGF and JSGF grammars include: Credit Card names, Directions, e-mail, Street Type, US Major Cities, US States, URL, Countries, airport codes
Application Debugger	<ul style="list-style-type: none">• 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• Can examine all the variables in the application and modify 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
Integrated Development Environment	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Ability to examine recognition log files• Ability to verify audio quality of audio files

Hardware and Software Requirements

Hardware Requirements	<ul style="list-style-type: none">• 500 MHz Intel® Pentium® processor with 256MB of RAM (512MB recommended)• Hard disk: 375MB of available disk space for minimum configuration• Sound card and quality microphone recommended to test applications
Software Requirements	<ul style="list-style-type: none">• Microsoft Windows® 2000• WebSphere Voice Server SDK 3.1 recommended to take full advantage of the WebSphere Voice Toolkit functionality

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 WebSphere Voice Toolkit 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. The WebSphere Voice Toolkit is also fully compatible with the WebSphere Studio Application Developer.

A breeze to use

The WebSphere Voice Toolkit 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. Links to the IBM WebSphere Voice Server browser 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 current IBM WebSphere Voice Server line of products and any voice browser that adheres to the VoiceXML specification. 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: building on a firm foundation

WebSphere Voice Toolkit 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.

To learn more

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, call us in North America at 1 800 Talk-2Me or outside North America, e-mail Talk2Me@us.ibm.com



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Boca Raton, Florida 33487

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