



# IBM Pervasive Computing Voice Education

## Overview

IBM Pervasive Computing offers IBM Business Partners education, training, and technical enablement to develop the skills necessary to achieve the highest levels of customer satisfaction with IBM Voice products. These programs are available through the following sources:

- IBM WebSphere Training and Technical Enablement
- IBM Business Partner Executive Institute

Normally, IBM offers IBM Business Partners a 25% discount on education and training. For the remainder of 2002, however, you can attend an IBM Voice education class at a 50% discount.

For a comprehensive overview of all IBM education offerings, call:

US: 1-800-IBM-TEACH  
Canada: 1-800-661-2131  
International: 011 770 858 5902

Or visit **the IBM Education web site** and select **Pervasive** or **Wireless**:

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

For information purposes, an IBM Business Partner who needs education for other than Voice products should be aware of the IBM Learning Services **Education Card**, which provides unlimited education for one person for one full year. To learn more about this offering, visit the following web site:

<http://www-3.ibm.com/services/learning/edcard.htm>





## Education, Training, and Technical Enablement

WebSphere Training and Technical Enablement is part of the Worldwide Technical Enablement of the IBM Software Group and provides education and training on IBM Voice products. WebSphere Training and Technical Enablement has training locations at:

- Newport, Rhode Island
- San Diego, California
- La Gaude, France
- Hursley, UK

Detailed course descriptions and schedules are available on the WebSphere Training and Technical Enablement web site at:

<http://www-4.ibm.com/software/ad/aimclasses>

To enroll in any of the following classes:

- **IBM Customers and IBM Business Partners from the USA, Canada, and the Caribbean:**

Call 1-800-IBM-TEACH (1-800-426-8322) and provide the Student Name, Company Name, Customer or Business Partner Number, Purchase Order Number, Course Number, Location and Date.

- **Customers and Business Partners from other Countries:**

Call the United States at 1-770-858-5902 (Fax: 1-770-858-2095), Monday to Friday: 8:00AM - 8:00PM (Eastern Time) and provide the Student Name, Company Name, Customer or Business Partner Number, Purchase Order Number, Course Number, Location and Date. Alternatively, you can enroll via e-mail to:

[rlundy@us.ibm.com](mailto:rlundy@us.ibm.com)

If training is necessary for any of the classes that do not appear on the regular schedule, contact WebSphere Training and Technical Enablement to schedule a course:

**401-851-4192**

The following courses are currently available:

Course Name	Description
<b>SW033 - Introduction to Voice Processing</b>	Provides a comprehensive introduction to the topics and concepts involved in planning to implement a voice response system platform.
<b>SW041 - IBM WebSphere Voice Response for Windows Application Development</b>	Focuses on installation and configuration of IBM WebSphere Voice Response for Windows, and development of applications to run on the IBM WebSphere Voice Response for Windows platform, including IBM ViaVoice Speech Recognition.
<b>SW064 - IBM WebSphere Voice Response for AIX Installation and Configuration</b>	Covers the detailed planning for and installation of a WebSphere Voice Response for AIX system, including both the telephony aspects and the system configuration and set up. The course also covers System Management in a production environment.
<b>SW065 - IBM Message Center</b>	Covers installation, configuration and customization requirements and processes for Message Center, along with subscriber administration and subscriber use of the system. The course also covers the IBM Message Center interfaces and the processes for setting up and configuring these interfaces.
<b>SW067 - IBM WebSphere Voice Response for AIX - Application Development</b>	Will provide an understanding of how to design, develop and manage voice applications using IBM WebSphere Voice Response for AIX. This course will also introduce students to the development process for creating voice recognition and text to speech applications using IBM WebSphere Voice Server.
<b>SW081 - IBM WebSphere Voice Response Beans Voice Application Development</b> (This course will be replaced by SW084 in 2002)	Will provide the knowledge and skills necessary for the development and deployment of IBM WebSphere Voice Response Bean applications.
<b>SW083 - IBM WebSphere Voice Server Installation, Development and Deployment</b>	Will provide the knowledge and skills necessary to perform installation of the IBM WebSphere Voice Server solutions for both the VoIP and Voice Response implementations and to create speech-enabled Web applications using the VoiceXML.



Course Name	Description
<b>SW084 - IBM WebSphere Voice Response Java Voice Application Development</b> (Will replace SW081 in 2002)	Will provide a solid foundation for understanding the WebSphere Voice Response Beans and how they are used in the application development process to create voice-enabled Interactive Voice Response (IVR) applications. This course includes text-to-speech and voice recognition information.
<b>SW086 - IBM WebSphere Translation Server Implementation</b>	Introduces students to the technology of machine translation and the IBM WebSphere Translation Server.
<b>SW087 - Grammar Design and Development for Speech-Enabled Applications</b>	Will provide advanced design and development information for speech-enabled applications. This course builds on previous knowledge to address design considerations for DTMF, Directed Dialog, Mixed Initiative and Natural Language customer interfaces.
<b>SW088 - IBM WebSphere Voice Server Application Development</b>	Provides the knowledge and skills to be able to create speech-enabled Web applications using the VoiceXML language. The course provides extensive hands-on exercises for the creation of voice server applications using the IBM WebSphere Voice Server Software Developer's Kit (SDK).

## Business Partner Executive Institute

IBM Business Partners can take advantage of world-class educational opportunities through the IBM Business Partner Executive Institute (BPEI). For more information, visit the BPEI web site:

[www.ibm.com/ibm/palisades/bpei](http://www.ibm.com/ibm/palisades/bpei)





## Voice Education and Training Schedule: US & Europe June, 2002

Sun	Mon	Tue	Wed	Thu	Fri	Sat
2	3 SW087 - Grammar Design and Development for Voice Enabled Applications	4 SW087 - Grammar Design and Development for Voice Enabled Applications	5 SW087 - Grammar Design and Development for Voice Enabled Applications	6	7	8
9	10 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment	11 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment*	12 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment*	13 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment	14 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment	15
16	17 SW033 - Intro to Voice Processing	18 SW033 - Intro to Voice Processing	19 SW088 - IBM WebSphere Voice Server Application Development	20 SW088 - IBM WebSphere Voice Server Application Development	21 SW088 - IBM WebSphere Voice Server Application Development	22
23	24 SW084 - IBM WebSphere Voice Response Java Voice Application Development  SW067 - IBM WebSphere Voice Response for AIX Application Development	25 SW084 - IBM WebSphere Voice Response Java Voice Application Development  SW067 - IBM WebSphere Voice Response for AIX Application Development	26 SW084 - IBM WebSphere Voice Response Java Voice Application Development  SW067 - IBM WebSphere Voice Response for AIX Application Development	27 SW084 - IBM WebSphere Voice Response Java Voice Application Development  SW067 - IBM WebSphere Voice Response for AIX Application Development	28 SW084 - IBM WebSphere Voice Response Java Voice Application Development	29
30						



**Voice Education and Training Schedule: US & Europe  
July, 2002**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1	2	3	4	5	6
7	8	9	10 SW087 - Grammar Design and Development for Voice Enabled Applications	11 SW087 - Grammar Design and Development for Voice Enabled Applications	12 SW087 - Grammar Design and Development for Voice Enabled Applications	13
14	15 SW088 - IBM WebSphere Voice Server Application Development	16 SW088 - IBM WebSphere Voice Server Application Development	17 SW088 - IBM WebSphere Voice Server Application Development	18	19	20
21	22 SW084 - IBM WebSphere Voice Response Java Voice Application Development	23 SW084 - IBM WebSphere Voice Response Java Voice Application Development  SW064 - IBM WebSphere Voice Response for AIX Installation and Systems Management	24 SW084 - IBM WebSphere Voice Response Java Voice Application Development  SW064 - IBM WebSphere Voice Response for AIX Installation and Systems Management	25 SW084 - IBM WebSphere Voice Response Java Voice Application Development  SW064 - IBM WebSphere Voice Response for AIX Installation and Systems Management  SW033 - Intro to Voice Processing	26 SW084 - IBM WebSphere Voice Response Java Voice Application Development  SW064 - IBM WebSphere Voice Response for AIX Installation and Systems Management  SW033 - Intro to Voice Processing	27
28	29 SW067 - IBM WebSphere Voice Response for AIX Application Development	30 SW067 - IBM WebSphere Voice Response for AIX Application Development	31 SW067 - IBM WebSphere Voice Response for AIX Application Development			



## Voice Education and Training Schedule: US & Europe August, 2002

Sun	Mon	Tue	Wed	Thu	Fri	Sat
				SW067 - IBM WebSphere Voice Response for AIX Application Development	2	3
	5 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment	6 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment	7 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment	8 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment	9 SW083 - IBM WebSphere Voice Server Installation, Development and Deployment	10
11	12 SW084 - IBM WebSphere Voice Response Java Voice Application Development	13 SW084 - IBM WebSphere Voice Response Java Voice Application Development	14 SW084 - IBM WebSphere Voice Response Java Voice Application Development	15 SW033 - Intro to Voice Processing SW084 - IBM WebSphere Voice Response Java Voice Application Development	16 SW033 - Intro to Voice Processing SW084 - IBM WebSphere Voice Response Java Voice Application Development	17
8	19 SW041 - IBM WebSphere Voice Response for Windows Application Development SW067 - IBM WebSphere Voice Response for AIX Application Development	20 SW041 - IBM WebSphere Voice Response for Windows Application Development SW067 - IBM WebSphere Voice Response for AIX Application Development	21 SW041 - IBM WebSphere Voice Response for Windows Application Development SW067 - IBM WebSphere Voice Response for AIX Application Development	22 SW041 - IBM WebSphere Voice Response for Windows Application Development SW067 - IBM WebSphere Voice Response for AIX Application Development	23 SW041 - IBM WebSphere Voice Response for Windows Application Development	24
25	26	27	28 SW087 - Grammar Design and Development for Voice Enabled Applications	29 SW087 - Grammar Design and Development for Voice Enabled Applications	30 SW087 - Grammar Design and Development for Voice Enabled Applications	31



## Voice Education and Training Schedule: US & Europe September, 2002

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	<b>SW083 - IBM WebSphere Voice Server Installation, Development and Deployment</b>	<b>SW083 - IBM WebSphere Voice Server Installation, Development and Deployment</b>	<b>SW083 - IBM WebSphere Voice Server Installation, Development and Deployment</b>	<b>SW033 - Intro to Voice Processing</b>  <b>SW083 - IBM WebSphere Voice Server Installation, Development and Deployment</b>	<b>SW033 - Intro to Voice Processing</b>  <b>SW083 - IBM WebSphere Voice Server Installation, Development and Deployment</b>	14
15	<b>SW065 - IBM Message Center</b>  <b>SW067 - IBM WebSphere Voice Response for AIX Application Development</b>  <b>SW088 - IBM WebSphere Voice Server Application Development</b>	<b>SW065 - IBM Message Center</b>  <b>SW067 - IBM WebSphere Voice Response for AIX Application Development</b>  <b>SW088 - IBM WebSphere Voice Server Application Development</b>	<b>SW065 - IBM Message Center</b>  <b>SW067 - IBM WebSphere Voice Response for AIX Application Development</b>  <b>SW088 - IBM WebSphere Voice Server Application Development</b>	<b>SW065 - IBM Message Center</b>  <b>SW067 - IBM WebSphere Voice Response for AIX Application Development</b>	<b>SW065 - IBM Message Center</b>	21
22•	<b>SW064 - IBM WebSphere Voice Response for AIX Installation and Systems Management</b>  <b>SW084 - IBM WebSphere Voice Response Java Voice Application Development</b>	<b>SW064 - IBM WebSphere Voice Response for AIX Installation and Systems Management</b>  <b>SW084 - IBM WebSphere Voice Response Java Voice Application Development</b>	<b>SW064 - IBM WebSphere Voice Response for AIX Installation and Systems Management</b>  <b>SW084 - IBM WebSphere Voice Response Java Voice Application Development</b>	<b>SW064 - IBM WebSphere Voice Response for AIX Installation and Systems Management</b>  <b>SW084 - IBM WebSphere Voice Response Java Voice Application Development</b>	<b>SW084 - IBM WebSphere Voice Response Java Voice Application Development</b>	28
29•	<b>SW087 - Grammar Design and Development for Voice Enabled Applications</b>					



**Voice Education and Training Schedule: US & Europe**  
**June through September, 2002**

<b>Course Name</b>	<b>June</b>	<b>July</b>	<b>August</b>	<b>Sept.</b>
<b>SW033 - Voice Processing Fundamentals</b>	06/17-06/18	07/25-07/26*	08/15-08/16	09/12-09/13
<b>SW041 - IBM WebSphere Voice Response for Windows Application Development*</b>			08/19-08/23	
<b>SW064 - IBM WebSphere Voice Response for AIX Installation &amp; System Management</b>		07/23-07/26		09/23-09/26
<b>SW065 - IBM Message Center</b>				09/16-09/20
<b>SW067 - IBM WebSphere Voice Response for AIX Application Development</b>	06/24-06/27	07/29-08/01	08/19-08/22	09/16-09/19
<b>SW081 - IBM WebSphere Voice Response Beans Application Development</b>				
<b>SW083 - IBM WebSphere Voice Server Installation, Development and Deployment</b>	06/10-06/14		08/05-08/09	09/09-09/13
<b>SW084 - IBM WebSphere Voice Response Java Voice Application Development</b>	06/24-06/28	07/22-07/26	08/12-08/16	09/23-09/27
<b>SW086 - IBM WebSphere Translation Server Implementation</b>				
<b>SW087 - Grammar Design and Development for Voice Enabled Applications</b>	06/03-06/05	07/10-07/12	08/28-08/30	09/30-10/02
<b>SW088 - IBM WebSphere Voice Server Application Development</b>	06/19-06/21	07/15-07/17		09/16-09/19

**Notes:**

- The course curriculum and schedule are subject to change.
- Dates in Double Underline and Italics are scheduled in Europe; all others are scheduled in the U.S.



## Introduction to Voice Processing (SW033)

*Introduction to Voice Processing (SW033)* provides a detailed introduction to the voice processing environment and the IBM WebSphere Voice Response for AIX and IBM WebSphere Voice Response for Windows NT voice processing platforms. The course is designed to provide a comprehensive introduction to the topics and concepts involved in planning to implement a voice response system platform. The course introduces the basics of voice processing and then discusses the optional features available for enhanced voice processing applications. These features are explained and the issues which need to be considered in implementing them are discussed.

The course also presents the fundamentals of telephony, discusses the concepts of voice application development, introduces the methodologies for system sizing, and presents an overview of system installation and configuration requirements.

This class is designed for Sales and Marketing Representatives, Project Leaders, System Architects, System Administrators, Application Developers and people involved in a voice response system implementation.

### **Objectives:**

- Describe the fundamental concepts of voice processing
- Introduce the IBM WebSphere Voice Response voice processing products
- Discuss the telephony environment and requirements
- Identify and describe voice processing application components
- Identify issues and concerns associated with system sizing
- Describe how to perform system installation and configuration

### **Topics:**

- Voice Processing Fundamentals
- Telephony Considerations
- Traditional WebSphere Voice Response voice processing platforms
- Enhancing features for voice processing platforms
- Application development methods and design techniques
- System sizing considerations
- Expanding voice solutions for the future
- VoIP
- IBM WebSphere Voice Server

**Prerequisites:** None

**Duration:** Two days



## **IBM WebSphere Voice Response for Windows Application Development (SW041)**

*IBM WebSphere Voice Response for Windows Application Development (SW041)* introduces students to IBM WebSphere Voice Response for Windows, the application development environment, and the IBM ViaVoice speech recognition support, giving a comprehensive overview of the product and its features.

To begin, students have the opportunity to install and configure IBM WebSphere Voice Response for Windows. Students are then introduced to the REXX development environment and will learn to develop, run and manage an application. As part of this course students are introduced to speech recognition fundamentals and given the opportunity to install and configure the ViaVoice speech recognition feature. They will learn to develop, run and debug speech recognition applications.

This class is aimed at application developers interested in designing and developing applications for the WebSphere Voice Response for Windows platform and enhancing these applications using speech recognition.

### **Objectives:**

- Understand voice processing fundamentals
- Describe the IBM WebSphere Voice Response for Windows architecture
- Identify the installation and configuration steps for WebSphere Voice Response for Windows and WebSphere Voice Response for Windows Speech Recognition
- Describe how to develop a voice application
- Identify the optional features available with IBM WebSphere Voice Response for Windows
- Describe the WebSphere Voice Response for Windows speech recognition product
- Identify the steps required to develop a speech recognition application
- Develop speech recognition applications for WebSphere Voice Response for Windows using simple text vocabularies and SRCL grammars, generating speech recognition pronunciations, and using the T-REXX programming interfaces
- Manage and debug applications in the WebSphere Voice Response for Windows environment.

### **Topics:**

- Voice Processing Fundamentals
- Product Overview and Architecture
- Installation and Configuration
- Voice Application Development
- Introduction to REXX Programming
- Program Flow and Structure
- Speech recognition basics
- Speech application design issues
- Speech recognition application development
- Managing and debugging applications
- Optional Features Available with IBM WebSphere Voice Response for Windows

### **Prerequisites:**

Some basic knowledge of programming concepts would be beneficial. For students with no background in voice processing or telephony, it is suggested they attend Introduction to Voice Processing (SW033).

**Duration:** Five days



## IBM WebSphere Voice Response for AIX Installation and System Management (SW064)

*IBM WebSphere Voice Response for AIX Installation and System Management (SW064)* will cover the detail planning for and installing a WebSphere Voice Response for AIX system, covering both the telephony aspects and the system configuration and set up. The course will also cover the various aspects of System Management in a production environment and introduce the approach to and facilities provided for Problem Management. This class has a reasonably high technical focus and is intended for System Installers, System Managers and Administrators of WebSphere Voice Response for Windows systems.

### Objectives:

- Understand WebSphere Voice Response for AIX system architecture by describing the various major components of the system and their interrelationships
- Understand the requirements needed to install WebSphere Voice Response for AIX
- Understand the telephony aspects and requirements for WebSphere Voice Response for AIX
- Understand installation/configuration requirements for WebSphere Voice Response for AIX
- Identify the tools and resources available for monitoring a WebSphere Voice Response for AIX installation
- Describe Single System Image (SSI) within the context of WebSphere Voice Response for AIX
- Describe GEOTEL and its use within the WebSphere Voice Response AIX environment
- Describe the Time Division Multiplexing (TDM) platform of WebSphere Voice Response for AIX
- Describe the various sources of information which can be used for problem determination, and the processes to use them

### Topics:

- Telephony Considerations and System Architecture
- WebSphere Voice Response for AIX architecture
- Switch interface to WebSphere Voice Response system
- Determining the size of the system
- Implementing a WebSphere Voice Response for AIX solution
- Using called and calling number information
- Requirements for setting up an Exchange Data Link
- Accessing other data systems

### Prerequisites:

For students with no background in voice processing or telephony, it is suggested they attend Introduction to Voice Processing (SW033).

**Duration:** Four days





## IBM Message Center (SW065)

*IBM Message Center (SW065)* will begin with an overview of the concepts and structure of the IBM Message Center for WebSphere Voice Response product. This is followed by a detailed discussion of the installation, configuration and customization requirements and processes. Subscriber administration and subscriber use of the system will also be covered. The course will also cover the various IBM Message Center for WebSphere Voice Response interfaces and the processes for setting up and configuring these interfaces plus introduce the System Administration process.

This class is designed for System Installers, System Implementers and System Administrators.

### Objectives:

- Understand the concepts and function of IBM Message Center
- Understand the telephony requirements
- Install and configure IBM Message Center
- Understand the customization of the Startup state table
- Understand the system implementation requirements
- Set up the subscriber environment
- Understand the customization options
- Understand the steps for integration with other systems
- Understand the system administration options

### Topics:

- Overview of IBM Message Center for WebSphere Voice Response
- Message Center operation
- Installing Message Center
- Configuring Message Center
- Customizing options
- Subscriber registration and administration
- Interfacing to e-mail
- Interfacing to fax
- Interfacing to the Web
- Interfacing to other voicemail systems
- System Administration

### Prerequisites:

Students should have experience with WebSphere Voice Response for AIX or have completed *IBM WebSphere Voice Response for AIX Overview (SW062)* and *IBM WebSphere Voice Response for AIX Application Development (SW063)* or *IBM WebSphere Voice Response Installation and System Management (SW064)*

**Duration:** Five days





## IBM WebSphere Voice Response Beans Application Development (SW081)

Note: In 2002, this course will be replaced by *IBM WebSphere® Voice Response Java Voice Application Development (SW084)* and will include text-to-speech and voice recognition.

***IBM WebSphere Voice Response Beans Application Development (SW081)*** will provide the knowledge and skills necessary for the development and deployment of IBM WebSphere Voice Response Bean applications. The course will provide information about the role of the IBM WebSphere Voice Response Beans, their architecture and associated properties and methods, techniques for using the Beans in application development and deployment, and how to perform system management and configuration.

### Objectives:

- Identify the purpose and role of the IBM WebSphere Voice Response Beans
- Describe the IBM WebSphere Voice Response Bean architecture
- Identify the IBM WebSphere Voice Response Bean components, including their development and runtime environments
- Describe how to manage voice segments using in IBM WebSphere Voice Server Bean applications
- Identify the IBM WebSphere Voice Response Bean functions and their associated properties and methods
- Create Java-base voice processing applications using VisualAge® for Java and the IBM WebSphere Voice Response Beans
- Identify advanced call-handling features and functions provided by the IBM WebSphere Voice Response Beans
- Perform system management and configuration tasks associated with implementing the IBM WebSphere Voice Response Beans Environment

### Topics:

- Introduction to the IBM WebSphere Voice Response Beans
- Installation and Configuration
- Managing Voice Segments
- IBM WebSphere Voice Response Beans
- Creating IBM WebSphere Voice Response Bean Applications
- Advanced Call Handling
- System Management

### Audience:

Individuals with responsibility for designing, developing, implementing and maintaining IBM WebSphere Voice Response applications. The class is of interest to application designers and developers, as well as those who provide operational management and support for the IBM WebSphere Voice Response environment.

### Prerequisites:

Application development experience with either IBM WebSphere Voice Response for AIX or IBM WebSphere Voice Response for Windows, Java programming experience and experience using VisualAge for Java.

**Duration:** Four days



## IBM WebSphere Voice Server Installation, Development, and Deployment (SW083)


*IBM WebSphere Voice Server Installation, Development and Deployment (SW083)* provides the knowledge and skills necessary for students to be able to perform installation of IBM WebSphere Voice Server solutions for both the VoIP and WebSphere Voice Response implementations, to create speech-enabled Web applications using the VoiceXML language, and to deploy VoiceXML applications in a production environment. The course provides extensive hands-on exercises for the creation and deployment of voice server applications.

### Objectives:

- Describe the significance of speech-enabling the web and associated voice technologies.
- Identify and describe the IBM WebSphere Voice Server with ViaVoice Technology, IBM WebSphere Voice Server for WebSphere Voice Response and IBM WebSphere Voice Server Software Developer's Kit (SDK) architectures.
- Describe how to install and configure IBM WebSphere Voice Server with ViaVoice Technology, IBM WebSphere Voice Server for WebSphere Voice Response and the IBM WebSphere Voice Server Software Developer's Kit (SDK).
- Explain the architecture and role of the Gateway and Gatekeeper in the IBM WebSphere Voice Server with ViaVoice Technology implementation.
- Describe the telephony considerations as well as how to configure the Gateway to support the IBM WebSphere Voice Server with ViaVoice Technology implementation.
- Define the IBM ViaVoice Speech Recognition and Text-to-Speech products and describe how they are used in the voice server implementations.
- Explain how to design a speech user interface.
- List and describe the VoiceXML language elements and attributes.
- Explain the features of the VoiceXML language.
- Create VoiceXML applications that conform to the VoiceXML 1.0 Specification.
- Describe how to develop VoiceXML applications using the IBM WebSphere Voice Server Software Developer Kit (SDK).
- Identify steps to deploy VoiceXML applications to IBM WebSphere Voice Server with ViaVoice Technology and IBM WebSphere Voice Server for WebSphere Voice Response implementations.
- Explain how to perform system management.
- Describe how to perform system debugging and troubleshooting.

### Topics:

- Voice Server Overview
- System Architecture
- Installation and Configuration
- Configuring the Gateway
- Speech Recognition and Text-to-Speech Overview
- VoiceXML Language
- Designing a Speech User Interface
- Application Development
- Application Development with back-end server access
- Application Deployment Telephony Considerations
- Application Deployment on the VoIP implementation
- Application Deployment on the WebSphere Voice Response implementation
- System Management
- System Debugging and Troubleshooting



**Prerequisites:**

- Understanding of basic telephony concepts
- XML programming experience is helpful but not required

**Audience:**

Individuals with responsibility for designing, developing, implementing and maintaining IBM WebSphere Voice Server solutions. The class is of interest to application designers and developers, as well as those who provide operational management and support for the IBM WebSphere Voice Server environment.

**Duration:** Five days







## IBM WebSphere Voice Response Beans Voice Application Development (SW084)

Note: In 2002, this course will replace *IBM WebSphere Voice Response Beans Application Development (SW081)* to include text-to-speech and voice recognition.

***IBM WebSphere Voice Response Beans Voice Application Development (SW084)*** will provide a solid foundation for understanding the WebSphere Voice Response Beans and how they are used in the application development process to create voice-enabled Interactive Voice Response (IVR) applications. Basic telephony concepts will be presented in terms of the architecture necessary to support Voice Response Bean applications. Fundamental speech recognition and text-to-speech concepts will also be presented. Audio interface design concepts will be presented as related to providing Voice Response Bean application functionality. Extensive coverage of application development concepts will be provided and reinforced through hands-on exercises using IBM VisualAge for Java. Additional information will also be provided related to application deployment and system management.

### Objectives:

- Describe the purpose of the Voice Response Beans
- Describe the Voice Response Bean architecture
- Identify the Voice Response Bean components, including their development and runtime environments
- Describe speech recognition and text-to-speech concepts
- Describe how to design a speech user interface
- Describe fundamental telephony concepts
- Describe how to manage voice segments used in Voice Response Bean applications
- Identify and describe Voice Response Bean functions and their associated properties and methods
- Create Java-based voice processing applications using VisualAge for Java and Voice Response Beans
- Migrate a Voice Response Bean application from a development to a production environment
- Perform system management and configuration tasks associated with implementing Voice Response Beans applications.

### Topics:

- IBM WebSphere Voice Response Beans Overview
- Voice Application Fundamentals Designing a Speech User Interface
- Telephony Fundamentals
- Managing Voice Segments
- Installation and Configuration
- Voice Application Development
- Deploying Voice Response Bean Applications

### Audience:

Individuals with responsibility for designing, developing, implementing and maintaining IBM WebSphere Voice Response applications. The class is of interest to application designers and developers, as well as those who provide operational management and support for the IBM WebSphere Voice Response environment.

### Prerequisites:

Application development experience with either IBM WebSphere Voice Response with DirectTalk Technology for AIX or Windows, Java programming experience, and experience using VisualAge for Java

**Duration:** Five days



## IBM WebSphere Translation Server Implementation (SW086)

*IBM WebSphere Translation Server Implementation (SW086)* will introduce students to the IBM WebSphere Translation Server architecture and components. Students will be able to install and configure the Translation Server, User Dictionary Manager, and additional plugins to enable Web page translation, e-mail translation, and Sametime translation. Administration of the Translation Server will also be presented.

This class is intended for anyone interested in learning about machine translation technology, including Sales and Marketing Representatives, Project Leaders, System Architects, System Administrators, and Application Developers.

### Objectives:

- Install and configure the Translation Server
- Install and work with the User Dictionary Manager
- Implement the ability to translate Web pages
- Implement the ability to translate Lotus Notes or Domino e-mail
- Implement the ability to translate Lotus Sametime

### Topics:

- Product Overview and Architecture
- User Dictionary Manager
- Web Page Translation
- Lotus Notes E-mail Translation
- Sametime Client Translation
- Application Programming Interface(s) - APIs
- Administration of the Translation Server

**Prerequisites:** For students with no background in voice processing or telephony.

**Duration:** Two days



## Grammar Design and Development for Speech-Enabled Applications (SW087)

*Grammar Design and Development for Speech-Enabled Applications (SW087)* covers advanced design and development of speech-enabled applications. The course builds on previous knowledge to address in detail design considerations for DTMF, Directed Dialog, Mixed Initiative, and Natural Language customer interfaces. Through class exercises, students will develop and explore grammar design and implementation. System sizing and performance considerations for various platforms are also covered.

### Objectives:

- Identify the difference Format TTS vs Concatenative TTS
- Identify the various customer interfaces
- Create a grammar using SRCL
- Create a grammar using JSGF
- Test the grammar

### Topics:

- Application Development Environments
- Overview of Speech Recognition
- Overview of Text-to-Speech
- Designing the Customer Interface
- Application and Grammar Design of a Directed Dialog, a Mixed Initiative Dialog, and a Natural Language Dialog
- Testing and Deployment of a speech-enabled application
- Planning Considerations
- Hardware and Software Requirements (including System Architecture) of the following:
- WebSphere® Voice Server for Windows 2000 Using Cisco Telephony Platform
- WebSphere Voice Server for Windows 2000 Using Intel Telephony Platform
- WebSphere Voice Server for AIX® Using WebSphere Voice Response for AIX

**Audience:** Project Leaders, System Architects, System Administrators, Application Developers

### Prerequisites:

Class exercises will be done using VoiceXML and in addition, students should have attended one of the following courses:

- SW041 IBM WebSphere Voice Response for Windows Application Development
- SW063 IBM WebSphere Voice Response for AIX Application Development
- SW083 IBM WebSphere Voice Server Installation, Development and Deployment
- SW084 IBM WebSphere Voice Response Java™ Voice Application Development
- SW088 IBM WebSphere Voice Server Application Development

**Duration:** Three days





## IBM WebSphere Voice Server Application Development (SW088)

*IBM WebSphere Voice Server Application Development (SW088)* will provide the knowledge and skills necessary for the student to be able to create speech-enabled Web applications using the VoiceXML language. The course provides extensive hands-on exercises for the creation of voice server applications using the IBM WebSphere Voice Server Software Developer's Kit (SDK).

This class is intended for individuals with responsibility for designing, developing, implementing and maintaining IBM WebSphere Voice Server solutions. The class is of interest to application designers and developers, as well as those who provide operational management and support for the IBM WebSphere Voice Server environment.

### Objectives:

- Describe the significance of speech-enabling the web and associated voice technologies.
- Identify and describe the IBM WebSphere Voice Server with ViaVoice Technology, IBM WebSphere Voice Server for WebSphere Voice Response and IBM WebSphere Voice Server Software Developer's Kit (SDK) architectures.
- Describe how to install and configure the IBM WebSphere Voice Server Software Developer's Kit (SDK).
- Define the IBM ViaVoice Speech Recognition and Text-to-Speech products and describe how they are used in the voice server implementations.
- Explain how to design a speech user interface.
- List and describe the VoiceXML language elements and attributes.
- Explain the features of the VoiceXML language.
- Create VoiceXML applications that conform to the VoiceXML 1.0 Specification.
- Describe how to develop VoiceXML applications using the IBM WebSphere Voice Server Software Developer Kit (SDK).
- Explain how to perform system management.
- Describe how to perform system debugging and troubleshooting.

### Topics:

- Voice Server Overview
- System Architecture
- Installation and Configuration
- Speech Recognition and Text-to-Speech Overview
- VoiceXML Language
- Designing a Speech User Interface
- Application Development
- System Management
- System Debugging and Troubleshooting

### Prerequisites:

- Understanding of basic telephony concepts
- XML programming experience is helpful but not required

**Duration:** Four days