

Introduction to VXML (5 Days)

Custom Training Institute

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Introduction to VXML

(CTI 232)

VoiceXML (VXML) allows developers to easily and quickly build voice-recognition and voice-response applications and integrate those applications with Web-based and other server-side content. Students will learn how to create, test, debug and deploy VXML applications in this intense, hands-on, five-day course. An extended laboratory exercise at the end of the course gives practical hands-on experience in creating a real-world VXML application.

Prerequisites: Experience with HTML, XML, or other text-based markup language.

Minimum software requirements: ASCII-based text editor of choice that comes with operating system. XML editor highly desirable. Access to VXML server software.

Minimum hardware requirements: PC / Macintosh with Internet access, 256 MB of RAM and 1 GB free hard disk space; Java-capable Internet browser (Internet Explorer; Safari).

Microsoft PowerPoint and Internet access on instructor's workstation for presentation purposes. Full MS Office is preferable.

Day One:

Module 1: Introduction to VoiceXML

Overview of VoiceXML: VoiceXML Applications; VoiceXML Root Documents; VoiceXML Leaf Documents
 Syntax of VoiceXML Markup
 Comparison of VoiceXML with HTML
 Creation of Testing / Debugging Accounts
Exercise

Module 2: Voice Recognition Basics

Grammar Theory
 Markup
 GSL Voice Recognition Grammars
 Inline Grammar Structures
Exercise

Day Two:

Module 3: VXML Dialogs

Overview
 VXML Form Basics
 VXML Form Field Items (Block; Initial; Field; Subdialog; Record; Transfer; etc.)
 VXML Form Interpretation Algorithm (FIA): Interactions with End Users; Processing User Responses, etc.
Exercise

Module 4: Call Flow and Script Navigation

Using Conditional Logic
 Navigating Among Multiple Locations within a Document
 VoiceXML Variables
 Variable Scoping
 Transitioning to a Separate Document
Exercise

Day Three:

Module 5: VXML and Caller ID/Called ID

Overview
 Working with Caller ID (ANI)
 Working with Called ID (DNIS)
 ANI and DNIS Standards
 ANI/DNIS and Voice/Web Applications
Exercise

Module 6: VXML and DTMF Recognition

Overview
 Creating a DTMF Grammar
 Using the Grammar Flexibly
 Letting the Caller Dictate the Actions
Exercise

Module 7: Subdialogs

Overview
 Creating Modular Dialog Components
 Reusing Subdialog Components
Exercise

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Day Four:

Module 8: VXML and Mixed Initiative

Dialogs

- Overview
- Grammar Scoping
- Filling Multiple Fields from a Single Piece of Input
- Exercise*

Module 9: VXML Properties

- Overview
- User Input Properties (bargain; inputmodes; timeout; etc.)
- Speech Recognition Properties (confidencelevel, sensitivity, etc.)
- DTMF Recognition Properties (interdigittimeout, termtimeout, etc.)
- Background Audio Properties (caching, fetchaudio, fetchaudiodelay, etc.)
- Other Properties
- Exercise*

Day Five:

Extended Lab Exercise

- Overview
- Building an Integrated VXML Application from Scratch
- Exercise*

Module 10: Review and Summary