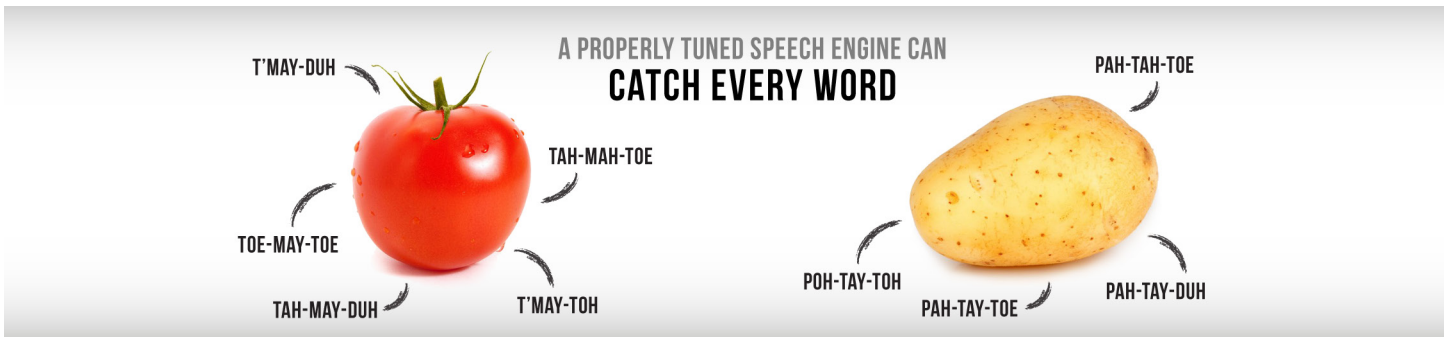


## LumenVox Speech Tuner



The LumenVox Speech Tuner is a complete tuning and maintenance tool, and a must-have to improve the quality and user experience for every speech application built on LumenVox products. If your ASR application is commonly misrecognizing words, the Tuner can help you identify the problem areas, edit the grammar or test configuration changes. It reduces the work of your post-deployment application revisions, and allows you to bring tuning in-house, avoiding costly professional service fees.

Tuning uses prompts, grammars, call flow, and caller data to improve the speech application performance. Without regular cycles of tuning, most speech applications are destined to suffer from the same problems, leading to unhappy users. Tuning resolves that by allowing administrators the ability to correct mistakes in their application.

The Speech Tuner's Windows GUI interface allows you to review vital accuracy statistics at a glance, making it your primary source of usability information about your speech applications. The Tuner then performs transcription, instant parameter and grammar tuning, and version upgrade testing of any speech application to support ongoing improvements to an application.

## LumenVox Tuner Features

### Application Tuning — improve speech application performance

The LumenVox Speech Tuner's Windows graphical user interface allows you to review vital accuracy statistics right from your Windows desktop, putting important information in a familiar interface.

### Database Loading — faster, more user-friendly database loading

Converters import call log data into the LumenVox Speech Tuner

database. All the information stored in the call log is available in the Speech Tuner, putting the data you need only a click away.

### Call Browser — easy access to all calls

The LumenVox Speech Tuner Call Browser grants users the ability to quickly choose and listen to a specific interaction, and export the audio file all from one window. The Call Browser displays a list of currently loaded and filtered calls and displays all the interactions for a selected call.

### Grammar Tester — instantly check results of proposed grammar changes

The LumenVox Speech Tuner Tester allows users to instantly see how proposed changes to grammar or Speech Engine configurations will affect the results of the speech application. It makes changing grammars or other Speech Engine parameters secure, faster, and more accurate. The Speech Tuner allows you to use historical data to validate changes, ensuring the creation of a successful application.

### Transcriber — makes transcription easy

Transcribing speech is an excellent way to analyze how callers interact with the system. Transcriptions are used to calculate automatic performance measurements such as in-grammar or out-of-grammar rates and recognition accuracy. Good transcripts enable the Speech Tuner to adjust the speech recognition application as needed. The LumenVox Speech Tuner Transcriber is designed to make this process quick and seamless with improved statistics, easy to use control panel interface, and shortcuts.

### Text-to-Speech Engine Support — fine-tune settings

A counterpart to LumenVox Text-to-Speech (TTS) Engine, the LumenVox Speech Tuner allows users to fine-tune LumenVox TTS settings, view and edit SSML documents, and preview TTS output. It also supports an auto-complete system for speedier GrXML editing.

## Included with the LumenVox Speech Tuner

### Call Browser

The Call Browser allows you to quickly navigate and listen to large numbers of calls and interactions.

The Browser window is divided into three sections:

- **Calls List** – Provides key information such as call time, the number of interactions within a call, the number of times the Speech Recognizer recognized speech and the confidence for how many times the Recognizer correctly interpreted a phrase.
- **Interactions List** – Contains details of every interaction within a call such as acoustic model, decode time, NBest rank and the semantic interpretation.
- **Audio Control** – Allows users to choose between hearing the decoded audio or the actual caller utterance with easy volume controls.

### Tester

The LumenVox Speech Tuner Tester provides immediate feedback on proposed changes, providing you with a good way to test changes without altering production systems.

What does the Tester do?

- **Grammar Evaluation** – Grammars can be adjusted and re-tested to review of changes improve performance.
- **Performance Rate** – Rates performance against commonly accepted measures like Word Error Rate, giving an accurate picture of details like confidence scores, correct vs. incorrect responses and in-grammar vs. out-of-grammar performance.
- **Parameter Evaluation** – Optimizes the Speech Recognizer's performance further improving the caller experience.

### Transcriber

Good transcripts are an important part of properly tuning a speech recognition application. In the most recent version of our Speech Tuner, the transcription process is significantly easier with improved statistics, a new control panel interface and shortcuts.

- **Transcribing Audio** – Transcribing speech is an excellent way to analyze how callers interact with the system.
- **Transcription Entry** – The Transcriber writes down every word in a call and then the transcripts are evaluated on how well the Speech Recognizer is interpreting what users are saying.
- **Transcription Log** – Allows detailed viewing of all transcripts during a transcription session.

## Tuning in 3 Easy Steps

### Step 1: Import Data

Converters import call log data into the Speech Tuner database. All information stored by the call log is available in the Speech Tuner. Its Call Indexer service automatically scans remote speech applications for fresh logged calls, putting the data you need a click away.

### Step 2: Transcribe Speech

Transcribers can type the text of the caller's speech directly into the Transcriber. Once the audio is transcribed, the Speech Tuner compares audio transcripts with the Speech Recognizer results to determine accuracy, greatly reducing errors associated with manual evaluations. The transcripts are evaluated using the actual decode grammar, producing measurements such as word-error-rate, in- and out-of-grammar rates and semantic error rates.

### Step 3: Test Immediately

Selecting an interaction in the Call Log automatically loads the associated audio and grammar into the Tester. The grammar can be edited, Speech Recognizer parameters set, and individual recognition tests generated. The Speech Tuner natively supports industry standard SRGS grammars. Once a set of possible changes is identified, users can batch test audio to evaluate performance, using those changes.

Whether you are looking to test the configurations of your Speech Recognizer, develop an SSML application for Text-to-Speech or improve the accuracy of a natural language speech application, the Speech Tuner is going to be your most valuable tool.

For more information on the LumenVox Speech Tuner, please visit: [www.lumenvox.com/products/speech\\_tuner/](http://www.lumenvox.com/products/speech_tuner/)

## About LumenVox

LumenVox is a speech automation solutions company providing core technologies and design, development, deployment, tuning and transcription services. Since 2001, we have achieved recognition for our high quality speech automation software and tuning products and have been certified as amongst the most accurate and reliable in the industry.

Speech Recognizer

Text-to-Speech

Call Progress Analysis

Speech Tuner

**LumenVox**<sup>®</sup>  
Speech Understood



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