

Audio Search

GETTING STARTED

Prerequisites:

- Version 7.1.4 or higher, with Audio License installed.
- Audio processing services must be running.
- Make sure no CPU-intensive jobs (such as OCR processing) are running.
- Each source must be processed using the appropriate language pack. (See the *Audio Search Guide* for details)
- Entering search terms may call for some practices that are specific to a language. Consult the language pack's relevant documentation for details.

Note: Audio controls are only visible on systems with an audio license installed.

The screenshot displays the Veritas eDiscovery Audio Search interface. At the top, a search bar shows 'in All Documents' with a 'Search' button and an 'Advanced Search' link. Below the search bar, a status bar indicates 'Searched: 4', 'Found: 1 Documents / 1 Item Hits', '0 Discussions', '1 Files', '2 Participants', and a 'Report' link. The main content area is titled 'Search Results: Document List' and shows a list of search results for the phrase 'national bank'. The results table has columns for 'Search Phrase', 'Start Time', 'End Time', and 'Score'. The results are as follows:

Search Phrase	Start Time	End Time	Score
national bank	10:55	10:56	76
national bank	02:59	03:00	70
national bank	05:31	05:32	69
national bank	11:00	11:01	62

To the right of the table is an audio player showing a waveform and a 'Paused' status. The player controls include play, stop, previous, next, and volume buttons. The 'View' dropdown is set to 'Text'. The 'Actions' dropdown is open, showing options like 'Export', 'Download', and 'Share'. The 'Tagging' section on the right shows 'Item Note' and 'RedactionTagSet' fields. The 'Related Items' section shows 'Similar' items and a 'Subject / File' field.

BASIC WORKFLOW

1. Navigate to advanced search.
2. Select the "Audio" search type.
3. Enter the spoken phrase and specify a confidence threshold. Searches will run for the entire case, across all language packs in use by the case.
4. Preview search results by clicking on the filename.
5. The hits table shows the matching search phrases, start and end time, and confidence score. Mouse over the phrase to see the language.
6. To listen to each instance, click on the phrase.
7. Adjust search results by changing the confidence threshold.
8. When you are satisfied with the results, apply any Veritas eDiscovery Platform work product: tags, folders, or notes.

Note: Only audio searches allow the user to preview and review the audio file in the embedded player. The other search types ("advanced", "freeform", or "tag event history") will require you to download the file to listen to it.

EXPORTING AUDIO SEARCH RESULTS

9. Submit an audio search to find and determine which audio segments you want to export.
10. You can export all the audio content in your search results set, or select one or more audio hits on the current screen by clicking the check box next to the appropriate audio content to be exported. To select all the audio content on the current screen, click the check box in the column heading.
11. From the search results screen above the sender column, click **Actions** and select **Export**.

FAQs

How does Audio Search work?

The technology is called "phonetic indexing and search". It relies on how things sound rather than their meanings. The media file is indexed based on the sounds it contains.

Once audio data has been processed and indexed, users can create searches based on typed words. The language pack contains the phonetic content of the selected language. It allows the search to compensate for variations in sound, such as accent, dialect, or speaker gender.

I want to stream my media files. Why isn't it working?

Your administrator needs to grant the appropriate user privileges. See the *System Administration Guide* "Document Access Rights" for details. Alternatively, the file may be in an unsupported format, or the appropriate CODECs are not installed.

What is a confidence threshold? How does it work?

Search results will be limited to those with a confidence score above the confidence threshold. The confidence threshold is a value you select. Choosing a higher confidence threshold means the query will take less time to process, but the results will be fewer and are likely more relevant. Lowering the confidence threshold will produce more hits and will take more time. However, in cases where audio quality is poor or inconsistent between files, using a lower confidence threshold may produce relevant results that may otherwise be missed.

What are phonemes? When do I need to use them?

Any spoken phrase consists of speech sounds: each of them is considered a phoneme. Most of the time, the language pack will consistently convert your search text to phonemes, with a few limitations described under "Audio Search Tips".

However, there may be times when a search is not productive: perhaps due to key phrases with exotic or unusual spelling. Entering your search in terms that use actual phonemes of a particular language is optional, but may help searches be more productive. Using phonemes in queries requires special use of characters and will vary by language. For details, see the *Audio Search Guide: Appendix A, Phonemes*.

QUERY ACCURACY

- Media quality, query length, and exotic or unusual spelling are the three factors that affect the accuracy and thoroughness of your results.
- Audio quality affects every query conducted on that audio. If sound quality is poor or there is background noise, the phonetic engine will be less successful in matching phrases.
- For the confidence threshold to work the same for all files in a case, the files should be of the same audio quality.

AUDIO SEARCH TIPS

Omit capitalization and punctuation. They are ignored by the phonetic engine. (The underscore is an exception: it is a special character used to indicate phoneme input).

Use spaces to separate the letters of acronyms. Speakers are more likely to say E P A (instead of "eepuh" or "Environmental Protection Agency").

Spell out numbers. Don't use the numerals "223" in the search; use "two hundred twenty three".

Use phrases that reflect how people naturally speak. Depending on context, the number 223 may be said as "two hundred twenty three", "two twenty three", or "two two three".

Spell out abbreviations. People do not say "etc.", whether as "ets" or "etk". Use "et cetera" in your search.

Try spelling it the way it sounds. If the word is unusual, try ignoring the correct spelling of the word and spell it the way it sounds.

- "Four hours" can locate an audio segment as well as "fore ours". Similarly, "my sequel" is better than "MySQL".
- Build a long, complex word from a series of short, simple ones that have unambiguous pronunciation, separated by hyphens. Example: spell "disbandments" as "diss-band-mints".

Try variations. Depending on context, someone could use "the airport", "San Francisco International", or "S F O".

Use multiple search terms and search qualifiers. A single-word query may result in many irrelevant matches. If you are sure someone said a particular phrase, try searching for the whole phrase, unless it is extremely long.