



## Help for SoundX

SoundX is a Visual Basic custom control that returns Soundx, Extended Soundex, and Metaphone information for words that you give it.

[About/Copyright](#)

[Getting Custom Controls Written](#)

[About the Soundex and Metaphone Algorithms](#)

[Properties](#)

[Usage](#)

## Properties

SoundX only supports the following standard properties: Name, Tag, Left, Top, and Enabled.

It also has the following custom properties:

ExtSoundex

Metaphone

Soundex

Word

## Usage

SoundX generates Soundex and Metaphone codes from words supplied to it. You can use these codes to make database searching easier for your users.

To generate the code, simply set the Word property with the word or name you want a code back for. When you do this, SoundX generates the codes for all three of the algorithms (Soundex, Extended Soundex, and Metaphone). All you have to do is read the appropriate property: Soundex, ExtSoundex, or Metaphone.

See [About the Soundex and Metaphone Algorithms](#) for more information.

## ExtSoundex Property

### Description

Extended Soundex representation of the Word property.

### Usage

`[form.][label.]ExtSoundex[ = extsoundex$]`

### Remarks

When the Word property is set, this property is generated. This property is the Extended Soundex equivalent the Word property. This property is read-only.

See [About the Soundex and Metaphone Algorithms](#) for more information.

### Data Type

String

## Metaphone Property

### Description

Metaphone representation of the Word property.

### Usage

`[form.][label.]Metaphone[ = metaphone$]`

### Remarks

When the Word property is set, this property is generated. This property is the Metaphone equivalent of the Word property. This property is read-only.

See [About the Soundex and Metaphone Algorithms](#) for more information.

### Data Type

String

## Soundex Property

### Description

Soundex representation of the Word property.

### Usage

`[form.][label.]Soundex[ = soundex$]`

### Remarks

When the Word property is set, this property is generated. This property is the Soundex equivalent the Word property. This property is read-only.

See [About the Soundex and Metaphone Algorithms](#) for more information.

### Data Type

String

## Word Property

### Description

Seed word for [Soundex](#), [ExtSoundex](#), and [Metaphone](#) properties.

### Usage

*[form.]**[label.]*Word[ = word\$]

### Remarks

When this property is set, SoundX uses the appropriate algorithms to generate [Soundex](#), [ExtSoundex](#), and [Metaphone](#) properties.

See [About the Soundex and Metaphone Algorithms](#) for more information.

### Data Type

String

## About SoundX

SoundX was written by James Shields. Inquiries can be sent to 71231,2066 on CompuServe, or mabry@halcyon.com on Internet. If you must send something via U.S. Mail, the address is:

James Shields  
Mabry Software  
Post Office Box 31926  
Seattle, WA 98103-1926

You can register this program by sending \$10 (\$12 for international orders) and your address. CompuServe members may register by sending \$5 and their account number (the registered version will be E-mailed to you). CompuServe members may also register this package by going to the SWREG forum. SOUNDX is registered there. SOUNDX's registration ID number is 1272.

Source code (which includes a registered copy) to this control is available for \$25 (\$30 for international orders). With source code you get a registered version of the control. If you are a CompuServe member, you may get the source code in the Software Registration forum (GO SWREG) for \$20. It's registration number is 1273.

(C) Copyright 1993 by James Shields



## About the Soundex and Metaphone Algorithms

These three algorithms are used to convert names and words to a code. This code is used to represent what the word/name "sounds" like.

The most common use of these algorithms is to store the codes generated by them in a database of names. Then, when the user wants to look up a record based on a name, a new code is generated from the user's input. The second code is then used to find matching records in the database. All of the records found this way have names that sound similar to the name entered. This allows the user to find a name even if they don't know the exact spelling.

### Soundex

Soundex is an algorithm developed and patented by Margaret Odell and Robert Russell in the early part of this century (U.S. Patent 1261167 (1918) and 1435663 (1922)). Don't worry about the patents, they've long since expired.

Many articles have been written about it, but the best description I've seen so far is by Donald Knuth in **The Art of Computer Programming, Vol. 3**.

Soundex converts a word or name to a code comprised of a letter followed by three digits. Some redundancy is taken out of the word (such as stripping vowels, consonant doubles, etc.). The first letter is preserved and the code is generated from what remains.

### Extended Soundex

This is a minor change to the basic Soundex algorithm. In this algorithm, the first letter is treated like all of the rest of the letters (i.e., if it's a vowel, it's stripped, if it's part of a consonant double, the second is stripped (as in LLAMA), etc.).

This code is purely numeric. This can result in faster database scans to pick out like-sounding words or names.

### Metaphone

Quite frankly, I don't know where Metaphone came from. I got some source code from a friend a few years ago in my E-mail with the comment attached to it: "Try this, it's cool!"

Well, I thought so, that's why it has been included in SoundX. Metaphone does a better job than Soundex and Extended Soundex when it comes to representing like-sounding names. It's drawback is that Metaphone is comprised purely of letters. In other words, it takes up more storage and, in a large database, this can be costly.

This implementation only returns the first four (4) characters of the Metaphone string generated. The code will generate more than that, but after some experimentation, this seemed like an ideal compromise between accuracy and storage space.

## **Getting Custom Controls Written**

If you or your organization would like to have custom controls written, contact either me or Zane Thomas (co-author of the Waite Group's VB How-To, 2nd Edition). Here's how we can be reached:

James Shields  
CompuServe: 71231,2066  
US Mail: P.O. Box 31926; Seattle, WA 98103-1926

Zane Thomas:  
CompuServe: 72060,3327  
US Mail: P.O. Box 300; Indianola, WA 98342