

**NAME**

speak – word to voice translator

**SYNOPSIS**

**speak** [ **-epsv** ] [ vocabulary [ output ] ]

**DESCRIPTION**

*Speak* turns a stream of words into utterances and outputs them to a voice synthesizer, or to the specified output file. It has facilities for maintaining a vocabulary. It receives, from the standard input

- working lines: text of words separated by blanks
- phonetic lines: strings of phonemes for one word preceded and separated by commas. The phonemes may be followed by comma-percent then a ‘replacement part’ – an ASCII string with no spaces. The phonetic code is given in bs (VII).
- empty lines
- command lines: beginning with **!**. The following command lines are recognized:

<b>!r</b> file	replace coded vocabulary from file
<b>!w</b> file	write coded vocabulary on file
<b>!p</b>	print phonetics for working word
<b>!l</b>	list vocabulary on standard output with phonetics
<b>!c</b> word	copy phonetics from working word to specified word
<b>!d</b>	print decomposition into substrings

Each working line replaces its predecessor. Its first word is the ‘working word’. Each phonetic line replaces the phonetics stored for the working word. In particular, a phonetic line of comma only deletes the entry for the working word. Each working line, phonetic line or empty line causes the working line to be uttered. The process terminates at the end of input.

Unknown words are pronounced by rules, and failing that, are spelled. Spelling is done by taking each character of the word, prefixing it with ‘\*’, and looking it up. Unspellable words burp.

*Speak* is initialized with a coded vocabulary stored in file */usr/lib/speak.m*. The vocabulary option substitutes a different file for */usr/lib/speak.m*.

A set of single letter options may appear in any order preceded by **-**. Their meanings are:

- e** suppress English preprocessing
- p** suppress pronunciation by rule
- s** suppress spelling
- v** suppress voice output

The following input will reconstitute a coded vocabulary, ‘speak.m’, from an ascii listing, ‘speak.v’, that was created using **!l**. ‘Null’ names a nonexistent vocabulary file.

```
cat speak.v - | speak -v null
!w speak.m
```

**FILES**

*/usr/lib/speak.m*

**SEE ALSO**

M. D. McIlroy, “Synthetic English Speech by Rule,” Computing Science Technical Report #14, Bell Laboratories, 1973  
vs (VII), vs (IV)

**BUGS**

Excessively long words cause dumps.

Space is not reclaimed from changed entries; use **!w** and **!r** to effect reclamation.

The first phoneme is sometimes dropped when **!p** is used after **!d**.