

# IMPORTANT:

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I am looking for a job, and 1000 postcards may help :-)

Hi folks,

Here is the first usefull (well, sort of) application that uses the new speech manager. It allows you to type or paste in text, and let the computer speak it. You can also convert to phonemes, and modify these. All available voices can be selected from a popup menu.

Also added is controls to change the speed, base pitch, and pitch modulation. They update the current values when the mouse button is released. So it can change an ongoing speech. The Base pitch is good for effects here.

If there is a 'dict' resource with ID=128 in the application this is used for pronunciation. Some examples (from the Apple .r files) are included, and I have added pronunciation of Sculley to the dictionary.

Other words worth trying is: beard, democrats, sarah, ohio, yankees, naked, october, mississippi and wednesday and a few other.

The program only handles text shorter than 32000 chars. So converting fails if the phonemes string will be larger than 32000 chars.

It has NOT crashed my machine once during development. So thanks to Apple for a good stable progremmer friendly product.

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Job offerings, or request for an address to send your money to is welcome :-)

This software is shareware. If you use this software, send me any amount of money you think is reasonable (no coins), and that you can afford. If don't don't have a money surplus, you MUST send me a postcard with a picture of something in your hometown. E-mail is also welcome, but just isn't enough. As I have never tasted Jolt, SuperJolt or Mountain Dew, a six-pack of any of these is also welcome.

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The documentation below on phonemes is stolen from the Speech manager docs that is also available at ftp.apple.com. (Which is quite overloaded at this time).

PS: If you want to place phonemes in the plaintext window, then swith to phonemes mode by inserting `[[inpt PHON]]` in the text. `[[inpt TEXT]]` returns to text mode. You can also insert speed, base pitch and pitch modulation in the clear text by usiong these embedded commands:

```
[[rate 100]]    set the speech rate to 100 words/min.  
[[rate +20]]   increase speech rate with 20 words/min.  
[[pbas 50]]    set baseline pitch to 50.  
[[pmod 8]]     set baseline modulation to 8.  
[[rset 0]]     Reset the voice to default values  
[[volm 0.5]]   Set volume to 50% of normal.
```

## Ideas for improvements:

- Support for modifying the dictionary
- multiple windows (each with its own sound channel so you can speak multiple voices)
- Icons for the file
- Make it open text files, and read them
- Make it open other files using XTND
- Make it scriptable

and whatever suggestions I get.

### **New in version 1.1:**

I added Stop / Pause / Continue buttons to the dialog. This gives your more control of the flow of speech. Some day you may get a toolbar like on your tape recorder. (No easy way to step back though. But I might have an idea).

### **New in version 1.2:**

Since version 1.1.1 (limited distribution) I have had it highlight the currently spoken word, and also display it above the text box. New in 1.2 is the ability to open text files, and simple drag-n-drop (You can NOT drop on a running program, as I have no support for AppleEvents). Added bundle and icon. If you don't like it, send me a better icon suite. I am no artist :-)

### **New in version 1.2.1:**

Version 1.2 introduced a new problem. It effectively disabled conversion to phonemes, as I did something inspired from talk in comp.sys.mac.programmer. I have now reverted to the old way of doing things, and it works again. I have some minor problems with the outline of the selection in the non-active field. But it is only a visual problem. I have also discovered that the default voices will hilite the spoken phoneme. The Macintalk Pro voices does not support this.

### **Problems ?**

My experience has shown, that the large male voice from Macintalk Pro voice selection may fail to speak if there is not enough free memory available in the system heap. It requires 3-4 MB free memory besides the requirement of the program. This problem is not reported to the user anyway but by silence :-) The compressed voices uses much less memory, but also sounds less good.

### **Phoneme set:**

<b>Symbol</b>	<b>Example</b>	<b>Opcode</b>	<b>Symbol</b>	<b>Example</b>	<b>Opcode</b>
AE	b <u>a</u> t	2	b	<u>b</u> in	18
EY	b <u>a</u> it	3	C	<u>ch</u> in	19
AO	ca <u>u</u> ght	4	d	<u>d</u> in	20
AX	<u>a</u> bout	5	D	<u>th</u> em	21
IY	b <u>e</u> t	6	f	<u>f</u> in	22
EH	b <u>e</u> t	7	g	<u>g</u> ain	23
IH	b <u>i</u> t	8	h	<u>h</u> at	24
AY	b <u>i</u> te	9	J	<u>g</u> in	25
IX	ros <u>e</u> s	10	k	<u>k</u> in	26
AA	c <u>o</u> t	11	l	<u>l</u> imb	27
UW	b <u>o</u> ot	12	m	<u>m</u> at	28
UH	b <u>o</u> ok	13	n	<u>n</u> at	29
UX	b <u>u</u> d	14	N	<u>tan</u> g	30
OW	b <u>o</u> at	15	p	<u>p</u> in	31
AW	b <u>o</u> ut	16	r	<u>r</u> an	32
OY	b <u>o</u> y	17	s	<u>s</u> in	33
			S	<u>sh</u> in	34
			t	<u>t</u> in	35
			T	<u>th</u> in	36
			v	<u>v</u> an	37
			w	<u>w</u> et	38
			y	<u>y</u> et	39
			z	<u>z</u> en	40
			Z	g <u>en</u> re	41
%	silence	0			
@	breath intake	1			

### **Prosodic Controls:**

<b>Type</b>	<b>Symbol</b>	<b>Description of effect</b>
<i>Lexical stress:</i>		<i>Marks stress within a word</i>
Primary stress	1	anticipation
Secondary stress	2	anticipation
<i>Syllable breaks:</i>		<i>Marks syllable breaks within a word</i>
mark	=	(equal)
		Syllable
<i>Word prominence:</i>		<i>Marks the beginning of a word (required)</i>
Unstressed	~	(asciitilde)
		Used for words with minimal information

Normal stress	-	(underscore)	content
Emphatic stress	+	(plus)	Used for information-bearing words special emphasis for a word.
<i>Prosodic</i>			<i>Placed before the affected phoneme</i>
Pitch rise	/	(slash)	pitch will rise on the following phoneme
Pitch fall	\	(backslash)	pitch will fall on the following phoneme
Lengthen phoneme	>	(greater)	lengthen the duration of
Shorten phoneme	<	(less)	shorten the duration
the following phoneme			
of the following phoneme			
<i>Punctuation:</i>			<i>Pitch effect</i>
.	(period)	Sentence final fall	<i>Timing effect</i>
?	(question)	Sentence final rise	Pause follows
Sentence final sharp fall		Pause follows	! (exclam)
Clause final level			... (ellipsis)
,	(comma)	Continuation rise	Short pause follows
;	(semicolon)	Continuation rise	: (colon)
Clause final level		Short pause follows	
(	(parenleft)	Start reduced range	Short pause precedes
)	(parenright)	End reduced range	Short pause follows
"	'	Varies	Varies
"	'	Varies	Varies
-	(hyphen)	Clause-final level	Short pause follows
&	(ampersand)	Forces no addition of silence between phonemes	