

Memotalk

Syntetic speech on Memotech.

How do you make syntetic speech with a computer?

At first, a team of researchers have to break down the words in the language to simple sounds (phonemes). Then you put some electro engineers to develop electric circuits, to give these sounds, as good as they can.

By use of the most modern technology it's all put in a modern integrated circuit (a LSI). By appropriate addressing and connecting to data- and control lines, the phonemes from this circuits are called upon.

By using MEMOTALK from ZX POWER prod. Is it so clever that the sound comes to the speaker of the TV.

It is now the assignment for the programmer to collect these phonemes to recognizable words. It can be a difficult assignment for many words – you don't pronounce them as they are spelled.

The natural solution is to use the computer for this assignment and with the right program it is very easy.

The computer tries to say the actual word, you try again, until it's okay. Then you can print the codes for the chosen phonemes and use them hereafter.

Of course the spoken word consist of more than 60 single sounds, there's hidden in the LSI, but with the help of this program, it is possible to come very close to the pronunciation of danish words.

Use of the program.

After typing of the program, check that all lines are correct.

Start by RUN.

The computer will in line 30 ask for a word, it will try to pronounce. Here you can help the program already and speel more like you say it and skip letters you don't say. (for example "hjælp" becomes "jælp" og "der" becomes "dær", "de" becomes "di"). *Comment: Special problem for the use of danish.*

After the first attemp, you are given four opportunities. In line 180 you're asked if you'll try the same word again.

If you press J, it will try again with a new combination of phonemes.

If you press I, can you hear the same pronunciation again, press U and you get the codes for the word you just heard and S means you can enter codes yourself.

Structure of the program.

All letters of the alphabet is representet by a line from 901 to 929. Inclusive the danish letters ae oe and aa. In line 900 you get a short pause, if you print a space, also for use inside a word.

A(1) is the numbers of phonemes for each letter, and the following A(2), A(3)..... contents the codes for the phonemes.

In lines 40 – 70 hides the codes for each letter in the word as numbers from 1 to 29 in X(1), X(2)....

In the lines 100 – 126 it picks up in turn, one of the phonemes, that is as option and places these codes in O(1), O(2)....

In the lines 129 – 150 the sound is output and in 180 – 220 the program waits for what you want.

LHJ