

This vocal tract synthesizer was developed by Peter Birkholz at the University of Rostock, Germany. All I have done here is to repackage the installation procedure so that a desktop shortcut is created, making it easier for students to figure out how to run the program. *The software runs on Windows machines only. If you have a Mac, or have trouble getting it to run for any reason, you can install the software and run the exercises on any of the LRC machines.* Some brief instructions appear below.

Getting started:

1. Start ArticSyn by clicking on the desktop icon
2. Under the 'View' menu, pick 'vocal tract'
3. Under 'Visualization' (upper left), pick the view you want (2D, 3D one sided, etc.)
4. Optional: Under 'Extras,' check the 'Help lines' box (uncheck this if you find it annoying. I find these lines helpful)
5. Under the 'File' menu, pick "load vocal tract parameters" and choose one of the three files (/a/: 'vowel\_a.vlp', /i/: 'vowel\_e.vlp', or /u/: 'vowel\_u.vlp').
6. Click 'play part' to hear what this vocal tract configuration sounds like.

Play around with the vocal tract shape by moving the articulators. This is done by grabbing hold of any of the yellow squares. The yellow square inside and toward the top of the tongue is probably the best one to start with. If you have 'help lines' checked, the square I'm talking about will be in the center of a yellow circle that defines a portion of the dorsum and root of the tongue. *(The interface is a little fussy. If you see that the model starts spinning around on you rather than the tongue, lips, etc. changing position, you missed the yellow square by a teeny bit.)* Notice how the frequency response curve at the bottom changes as the vocal tract shape is manipulated. Hit 'play part' to hear the changes in phonetic quality as the vocal tract shape/vocal tract frequency response curve are changed.

To learn more about the synthesizer, check out this web site:

[http://www.icg.informatik.uni-rostock.de/~piet/speak\\_main.html](http://www.icg.informatik.uni-rostock.de/~piet/speak_main.html)