

Articulate Assistant Advanced: Ultrasound module

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Articulate Assistant Advanced (AAA) is commercial software specifically designed for analysis of articulatory speech data. The ultrasound module permits ultrasound movies to be analysed in a time efficient manner and to extract objective measures. This paper provides an overview of the functionality of the software and an evaluation of the semi-automatic edge-detection algorithm for finding the contour of the tongue surface, which compares favourably to EdgeTrak[1]. The edge detector incorporates a concept of “confidence” which relates to how well-defined the edge is in the image at a given point along the contour.

[1] Li, Min, Kambhamettu, C, and Stone, M., EdgeTrak, a program for band-edge extraction and its applications Sixth IASTED International Conference o Computers, Graphics and Imaging. August 13-15, 2003, Honolulu, HI.