Dekereke: a software tool for phonological fieldwork

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This presentation describes a software tool being developed as an aid to phonological fieldwork. The software provides functions for investigating phonotactic generalizations by generating a variety of charts of phonological segments and sequences, including charts of consonants, vowels, tone melodies, and syllable patterns. Search functions allow the user to find sequences defined in terms of featurally specified segments or patterns (e.g., all sequences consisting of a coronal stop before a high front vowel) or generate charts showings the co-occurrence of two classes of sounds. Searches, and tables can be restricted to examine only elements that satisfy specified morphosyntactic and/or phonological criteria, such as grammatical category, number of syllables in a word, root or word CV shape, and syllable- or word-position.

The software is also useful for data entry and editing. A table is provided into which phonetic transcriptions and lexical data can be entered, sorted, and edited. Data can be saved in either XML or SFM (SIL standard format) file. Sound files of utterances can be linked to phonetic transcriptions and played directly from within the software by clicking on a button. Clicking a different button will open the sound file in acoustic analysis software specified by the user.

Though the software is being designed to cope with languages found in other parts of the world as well, it includes a number of features specifically targeted at certain phonological phenomena common in African languages, including tone, vowel length and nasality and labialized and palatalized consonants.