To: UTC
From: Deborah Anderson, SEI
Date: 11 August 2008
RE: Batak Input

Below (#1) is the response from Uli Kozok regarding the question I posed on how his Batak font works. I also asked about the input method for other Batak fonts. (As he didn't quite answer the latter question, I have asked him again for clarification.)

My initial query contained a break-down of the visual order vs. logical order, worked out by Ken Whistler, and is appended below under #2.

#1 Reply from Uli Kozok
-----Original Message-----
From: kozokuni@gmail.com [mailto:kozokuni@gmail.com] On Behalf Of Uli Kozok
Sent: Sunday, August 10, 2008 9:59 PM
To: Deborah W. Anderson; Michael Everson
Subject: Re: Question on current practice in Batak

Hi there, we have taken care of both options [visual order and logical order]:

1. The font by itself represents the Batak radical characters and the diacritics. One has to input the charcters as if they were written in the Batak script: Batak has to be written btk\ where \ represents the virama, and one has to input tpe\ to get the output tep.

2. The font is implemented in a little java script based application called transtoba2 (transtoba2.seige.net) which uses a set of algorithms allowing the user to input any text as it is written in the Roman based spelling of the Batak script. In other words , in order to get the output tep in Batak script, the input is a straightforward tep. We have tested transtoba intensively and so ar have not found any issues. Transtoba will be officially launched in Medan on 21/8. After that we are hoping from feedback from users to further improve transtoba2.

#2 Original Query
-----Original Message-----
From: Deborah W. Anderson [mailto:dwanders@sonic.net]
Sent: Friday, August 08, 2008 11:49 AM
To: 'kozok@hawaii.edu'
Subject: Question on current practice in Batak

1. a. Does your font use visual order input or logical order?
b. If there are other Batak fonts available, do they use visual order (as opposed to logical, phonetic order)?

2. To provide a different perspective on logical vs. visual order encoding, I've include below a summary of the two options, with the pluses and minuses summarized.

Example below is for tepa: "X" = ta, "-" = pa, ">" = e, "\" = pangolat

LOGICAL ORDER ENCODING

Input (step-by-step)	Display (step-by-step)	Intermediate Reading
X	X	ta
X>	X>	te
X>-	X>-	tepa
X>-\	X->\	tep

ta-e-pa-\

VISUAL ORDER ENCODING

Input (step-by-step)	Display (step-by-step)	Intermediate Reading
X	X	ta
X-	X-	tapa
X->	X->	tape
X->\	X->\	tep

ta-pa-e-\

LOGICAL ORDER ENCODING

Pluses
* follows typical Brahmic analysis
* intermediate readings build up logically, step-by-step

Notes:
*Font needs to include all vowel-consonant-killer combinations.
*Analogy with input behavior for Bahasa Indonesia is not quite right, as typing (in Latin letters) “t-e-p” to get “tep” isn’t the same for Batak, as users must type “ta-e-pa-\” to get “tep.”

Minuses
*Editing will cause complications, as the vowels will jump around on the display as you type. Does a backspace at the killer just remove the killer and revert to “X>-" “tepa” causing the display to reverse again, or should the user go back to “X” “ta”, causing asymmetry between character inserts and rub-outs?
*Will require a special font with built-in V-C-Killer triplets to type and also to see a page with Batak data

VISUAL ORDER ENCODING
Pluses
* typing and editing will have no surprises: people will type what they see, rather than the phonemes they hear in their heads.
* Fonts and rendering systems will not require anything special, other than placing combining marks over or under base letters.

* Any Batak font would be able to display Batak data, and no special code would be needed to be added to Windows rendering engine.

Minuses
* Disadvantages in searching and sorting. Most of the complications won’t be visible to the end users, however. Collation tables will be a bit more complicated, but not as bad as other scripts.
* It might be confusing to users to enter “tape”, type a killer to get “tape” read as “tep,” though this is what the writing system does.