L2/02-164

To:	UTC
Re:	**Modifications for Thai in PDUTR #29**
From:	**Mark Davis**
Date:	**2002-04-25**

I just got some feedback from Thailand on the behavior of Thai characters. If you look at [TR29, §2 Grapheme Cluster Boundaries](#), you see that there is an open issue on Thai. The key issue is what to do with certain Thai characters, in the following groups:

Group 1.

- U+0E30 (ะ) THAI CHARACTER SARA A
- U+0E32 (า) THAI CHARACTER SARA AA
- U+0E45 (ๅ) THAI CHARACTER LAKKHANGYAO

Group 2.

- U+0E40 (เ) THAI CHARACTER SARA E
- U+0E41 (แ) THAI CHARACTER SARA AE
- U+0E42 (โ) THAI CHARACTER SARA O
- U+0E43 (ใ) THAI CHARACTER SARA AI MAIMUAN
- U+0E44 (ไ) THAI CHARACTER SARA AI MAIMALAI

The feedback I received (from the IBM National Language Development & Translation Services Center, Bangkok) was:

- The Thai characters in group 1 must have Thai consonants in front of them.
- The Thai characters in group 2 must have Thai consonants behind them.
- Given the table below: normally, the "A" pattern is used for vertical Thai words on signs, labels, advertisement board, etc. (In Thai crossword-puzzle games, vertical Thai words are written in the "B" pattern.) The "B" pattern is seldom used because it looks so weird and have difficulty to read vertical Thai words in the "B" pattern.

A	B
โกะ	โ
มุ	ก

	ะ
	มฺ

* Note: the example is contrived, just used for letter placement

Unless we receive information to the contrary, we'd assume that Lao works the same way.

Recommendation

Given this information, it appears that these characters do form a unit in the eyes of Thai users, and should be incorporated into the definition of grapheme cluster, in the same way as we incorporate Indic vowels. This would result in the following changes. In both cases, the information would be available for public comment before it goes final. (Also, there would be *no* effect on the General Category status of these characters.)

1. in PropList.txt
   - add Group 1 letters to the Other_Grapheme_Extend property (in the beta of U3.2.1 or other appropriate version)
2. in TR29, §2 Grapheme Cluster Boundaries (in next draft version, for public comment)
   - add a new Class, `Prepend`. The contents of this group are defined to be `Logical_Order_Exception` (as defined in PropList.txt)
   - add a new Rule that uses this Class.

Don't break after prepending characters.			
Prepend	×		**(9a)**