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DOUBLE ARRAY TRIE. THESIS ADVISOR : YANYONG TENGAMNUAY, Ph.D.,
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This research has objective to create and develop data structure of Thai dictionary database management system which has dynamic characteristic and will be used in machine translation project. Insertion and deletion of words can be done as often as needed without creating new whole dictionary. The development uses Double Array Trie for efficiencies of insert and delete time, flexibility, and memory use.

There are various data structures used to develop dictionary, including trie data structure which matches Thai word characteristic. But all are static - words cannot be inserted or deleted immediately, but words are initially inserted or deleted in set of words and then new dictionary is recreated. When using dynamic Double Array Trie data structure, above problem can be solved.

From result of testing, Double Array Trie is suitable to be used as data structure of Thai dictionary database which is necessary to have words edited as often as needed. Because Double Array Trie has ability of insertion and deletion, efficiency in memory using, and fast insert and delete time.