

## C117008: MAJOR COMPUTER SCIENCE

KEY WORD:

FONT/VECTOR FONT/CURVES/OUTLINE FONT/PICTURE

SOMSIT SUKKRASANTI: DEVELOPMENT OF FONT SYMBOL REPRESENTATION USING VECTOR METHOD ON GRAPHIC DISPLAY UNIT

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53 pp. ISBN 974-582-291-4

This thesis is about the system which represents font symbol by vector method. The system begins from creating bitmap font, converting bitmap font to vector font, and offering basic functions for using vector font. Vector font from this thesis is created from bezier curves. Hence, the results of font by this method will be smooth in any curves and any sizes. Then, it will be suitable to apply to font that there are many curves like thai font. In this thesis, many techniques are used, such as, converting bitmap font to bitmap outline font technique, cutting bitmap font to curves segment technique, converting curves segment to vector font technique, etc. Furthermore, vector font can be more suitably edited and this thesis has been prepared many functions to rotate, translate, and resize vector font. When the result of this thesis is tested by using 10 examples of font, the system shows that all of them can be converted from bitmap font to vector font within 5 minutes. And only a little adjustment is required.