

True Type Font Development

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Font Development Process

1. Data/Sample Collection
2. Calligraphic Writing
3. Logical Modeling
 - a. Shape Analysis
 - b. Mark Analysis
 - c. Baseline Shifting
 - d. Proportional Spacing
4. Physical Modeling
5. Testing

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Physical Modeling

- Generation of Glyph Inventory
- OpenType rules e.g. to define the context sensitive transition from one glyph to another

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Physical Modeling: Phases

1. Scanning
 2. Vectorization
 3. Generation of TTF File
 4. Embedding of OpenType Tables
- } Glyph Inventory Generation

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Scanning

- Conversion of Calligraphic text into a digitized form e.g. an image
- Calligraphic text
 - Mufridaat
 - Two Character Joins
 - Initial & Medial Forms
- Recommended Scanning settings
 - Resolution 100 dpi
 - Mode Color Mode
 - Scale 100%
 - Scan Mode High Quality
 - Picture Format Uncompressed 24-bit Windows Bmp
- No filtering was done during scanning
- Image processing operations provided by the scanner software were found inferior to other tools such as Corel PhotoPaint 10

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Vectorization: Introduction

- Glyphs are stored as their outlines represented by mathematical equations
- Common outline forms
 - Type 1 based on 3rd order Bezier curves
 - TrueType based on 2nd order splines
- Vectorization is the process of generating these outlines

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Vectorization: Methods

- Manual
 - Creating glyph outlines manually using vector tools commonly found in font editors e.g. Fontographer and Fontlab
 - Requires lot of time and effort
- Automatic
 - Auto tracing of images to outline using sophisticated auto spline generation tools e.g. scanfont
 - This is based on precise auto tracing algorithm whose settings can be varied to achieve loose, best or tight fitting
 - Requires a black & white image

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Generation of TTF File

- Mostly glyph are stored in a specific file format of the font development tool
- TTF file is created by clicking 'generate font option' usually in file menu of font tools
- Issues to be settled before generating font file
 - Set font name
 - Set interline spacing
 - Set inter word spacing
 - Set space width

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Conclusion

- Data/Sample Collection
- Calligraphic Writing
- Logical Modeling
 - Scanning
 - Vectorization
 - Generation of TTF File
 - Embedding of OpenType Tables
- Testing

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شکریه

Question & Answer
