Fonts

Typesetting Modern Greek – An Update

Yannis Haralambous

I would like to announce that, as of March 1, version `1.1` of the reduced greek fonts and macros (cf. *TUGboat* 10, no. 3 (1989), 354–359) is available. New features include

- hyphenation patterns for modern greek following the rules mentioned in *op. cit.*,
- some refinements of the fonts,
- an italics font,
- a new version of `greekmacros.tex`, and finally
- a BONUS: an extended `logo10.mf` file for writing the METAFONT logo in greek!

This work has been done on a Mac Plus using OzTEX and MacMETAFONT. Many thanks to Peter Abbott and Anestis Antoniadis for their kind help.

The `RGR PACKAGE 1.1` is (or will soon be) available at the Aston Archive (UK) and from myself on Bitnet, at `yannis@frcitl71` (after June 1, at `haralamb@frcitl81`). To obtain a Macintosh version (fonts for Apple *Textures*), send a 3.5″ diskette (*"Coupons de Réponse Internationaux"* would be appreciated) to

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Graphics

Combining Graphics with TEX on IBM PC-Compatible Systems and LaserJet Printers

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Abstract

We describe a method for including graphics in TEX documents created on IBM PC computer systems with HP LaserJet printers (and compatibles). Although TEX has suffered from a perception that it does not handle graphics well, the intrinsic graphics ability of TEX is no different than that of any other word processing system. However, two particular aspects of TEX may exacerbate the **perception** of a graphics limitation: TEX is implemented over a broad range of computer platforms, and TEX files are explicitly processed in two distinct stages.

We maintain that TEX has an excellent intrinsic graphics capability, which has largely been unexploited. To demonstrate the graphics capability of TEX, we have chosen the IBM PC and the HP LaserJet as a natural configuration. Indeed, this article was produced using the PC/LaserJet combination, and includes graphics plots derived from several different sources. The caption of each plot explains how the graphics image was obtained. These figures were not "cut and pasted", rather they were included electronically on the device driver level.

After considering several possible methods for acquiring graphics, printer capture is selected because the LaserJet PCL language is well standardized [1]. Our premise is that it is wasteful to regenerate an image when many application programs generate document-quality graphics. This technique also provides a larger number of graphics sources than any other we considered. This article concludes with a detailed description of a graphics solution for the PC/LaserJet combination, that forms the basis for a new software product which we are introducing. The product name is **CAPTURE**, and it acquired all the graphics shown here. The intent of this article is to demonstrate, by example, that TEX is well suited for graphics.

1 The Perception of a Graphics Limitation in TEX

A common perception of TEX is that it is unable to incorporate graphics into typeset documents [2, 3, 4]. This belief is unfortunate, and is not true when taken in context. The technical problem of introducing graphics in TEX is no different than the problem facing any other word processing system.

Because a graphics image can take any form, its components cannot be standardized as, e.g., types of font are standardized. The lack of a universal graphics standard forces graphics inclusion to be done on the device driver level. Therefore, in order to be printed, a graphics image must be in a format compatible with the output device. This requirement is the same regardless of the document preparation system and applies equally to TEX and to other word processing systems.

Mixing graphics with text is done regularly on many PC-based word processing programs which are not perceived to have difficulty including graphics [5,