Abstracts

The design of $\TeX$ and $\text{METAFONT}$: A retrospective  
Nelson Beebe, University of Utah

This article looks back at the design of $\TeX$ and $\text{METAFONT}$, and analyzes how they were affected by architectures, operating systems, programming languages, and resource limits of the computing world at the time of their creation by a remarkable programmer and human being, Donald E. Knuth. This paper is dedicated to him, with deep gratitude for the continued inspiration and learning that I’ve received from his software, his scientific writing, and our occasional personal encounters over the last 25+ years.
(This was also the keynote address at the Practical $\TeX$ 2005 conference, and was printed in $\text{TUGboat}$ 26:1. Ed.)

Practical use of $\textbackslash$special commands in $\text{DVIPDFMx}$  
Jin-Hwan Cho, University of Suwon

$\textbackslash$special commands in $\TeX$ provide the only way to communicate arbitrary information to DVI drivers. $\text{DVIPDFMx}$, one such driver, translates the standard DVI output of $\TeX$ into the PDF format defined by Adobe for platform independent transmission of digital documents.

In this presentation, we discuss the $\textbackslash$special commands supported by $\text{DVIPDFMx}$ and show some practical applications for package designers as well as for $\TeX$ end users.

Strategies for including graphics in $\text{B}\TeX$ documents  
Klaus Höppner, DANTE e.V. and TUG

This talk presents strategies for including graphics into $\text{l}\TeX$ documents. It shows the usage of the standard graphics packages of $\text{l}\TeX$ as well as an introduction to different graphics formats. Some external tools for converting graphics formats are discussed.
(This paper was also presented at the Practical $\TeX$ 2005 conference, and was printed in $\text{TUGboat}$ 26:1. Ed.)

Wavelet transformations and Chinese font design  
Hong Feng, CTUG and Ron’s Datacom Inc.

Originally, the fonts used for the $\TeX$ system were designed with the $\text{METAFONT}$ program. In the past two decades, the wavelet transformation has seen wide application, and it can also be applied in font design for $\TeX$. $\text{METAFONT}$ (or $\text{MetaPost}$) and the wavelet transformation can be mutually complementary in Chinese font design.
(We hope to publish the full paper in a future issue of $\text{TUGboat}$. Ed.)

$\text{B}\TeX$ maintenance and development  
Chris Rowley, $\text{B}\TeX$ Project and Open University

This talk gives a brief history of the $\text{B}\TeX$ Project, with some insights into what is involved in the enhancement and maintenance of a robust and widely used software system for the automated formatting of complex documents.

Grid-based typesetting in $\text{B}\TeX$  
Philip Taylor, TUG and University of London

The first edition of Rosalind Gibson’s $\text{Principles of Nutritional Assessment}$ was jointly typeset by her husband Ian and myself in the years preceding its publication in 1990; the preparation of this edition was the subject of one of my very first talks at a TUG meeting. Now, fifteen years later, Ian and I have again collaborated in the typesetting of the second edition, which — unlike the first — is typeset in two columns on a strict grid. $\text{B}\TeX$ is not easily coerced into grid-based typesetting, so the main thread of this talk will be the various measures we used to achieve the desired effect.
(We hope to publish the full paper in a future issue of $\text{TUGboat}$. Ed.)