***Zpravodaj* 16(2–4)–18(4), 2006–2008**

Editor's note: *Zpravodaj* is the bulletin of ČSTUG, the TEX user group for the Czech and Slovak languages (`http://www.cstug.cz`).

***Zpravodaj* 16(2–4), 2006**

Ton Otten and Hans Hagen, PRAGMA ADE, Exkurze do ConTEXtu, česká verze [ConTEXt, an excursion, Czech version; translated from English by Vít Zýka, Ján Buša, Jiří Hrbek, Martina Plachá and Petr Tesařík]; pp. 57–224

This issue presents a Czech translation of the manual available at `http://www.pragma-ade.com/general/manuals/mp-cb-en.pdf`.

***Zpravodaj* 17(1), 2007**

Jaromír Kuben, Dopis předsedy ČSTUGu [Opening letter from the ČSTUG President]; pp. 1–2

Petr Tesařík, S češtinou a slovenštinou do Babylónu [Czech and Slovak languages into the Babel package]; pp. 2–11

This article is one of the ČSTUG grant results which presents a new Czech and Slovak implementation for the Babel package according to the ČSLATEX requirements.

Zdeněk Wagner, Babylón mluví hindsky [Babel speaks Hindi]; pp. 12–20

Babel provides a unified interface for creation of multilingual documents. Unfortunately none of the Indic languages is currently supported. Typesetting in Indic languages is based on specialised packages. The most advanced of them is Velthuis Devanāgarī for TEX because it already provides Hindi captions as well as a macro for a European style date. A language definition file for plugging Hindi into Babel has therefore been recently developed.

The second part of the paper explains differences between Unicode and Velthuis transliteration. This is important for understanding the tool that can convert Hindi and Sanskrit documents from Microsoft Word and OpenOffice.org into TEX via an XSLT 2.0 processor and a Perl script as well as a method of making the PDF files searchable.

Finally the paper discusses some possibilities of further development, mainly the advantages offered by XETEX and by forthcoming integration of Lua into pdfTEX.

Source code and notes are available on the author's web page, `http://icebearsoft.euweb.cz/tex/`.

Zdeněk Wagner, Babylón v TEX Live 2007 [Babel in TEX Live 2007]; pp. 21–23

With the inclusion of XETEX into TEX Live the structure of the `language.dat` file has been changed slightly. Due to this fact the new Czech and Slovak module, which is not yet distributed with official Babel, cannot be installed smoothly. The article introduces an installation package of the new module not only for TEX Live but also for other well known TEX distributions. Functionality of XELATEX is also preserved.

Petr Březina, Abecední řazení a sestavování rejstříků výhradně pomocí makrojazyka TEXu [Alphabetical sorting and creation of indexes exclusively by means of the TEX language]; pp. 23–30

The article presents the macro package index for creation of indexes. An important part of this package is the TEX macro "sort" for alphabetical sorting. It uses a four-pass sorting algorithm which can be accommodated to different languages via a sorting table. Its memory requirements are independent of the length of the list of entries to be sorted. The treatment of page numbers in index entries is sophisticated. The package index is available, including French documentation, on the author's home page, `http://www.volny.cz/petr-brezina/`.

Pavel Stříž, Proměnné záhlaví a zápatí [Variable headings and footings]; pp. 31–59

This article deals with the typesetting of headings and footings. It describes basic opportunities and ways to typeset them. It uses the standard package fancyhdr in nearly all examples. It shows the ways how to prepare variable objects which are usually page dependent. In case variable objects have additional dependencies themselves, the article introduces a method which generates a part or whole of a TEX document using PHP and MySQL tools.

Zdeněk Wagner, Marrákéš 2006, krátká reportáž [Brief Report on the 27th TUG annual meeting]; pp. 60–64

***Zpravodaj* 17(2), 2007**

Jaromír Kuben, Úvodníček předsedy [Welcome to the issue by the ČSTUG President]; pp. 65–66

Vít Zýka, Používáme pdfTEX V: aktuální pozice sazby [Using pdfTEX V: Current typesetting position]; pp. 67–72

[Published in this issue of *TUGboat*.]

Robert Mařík, Vkládání JavaScriptů pdfLATEXem prakticky [Inserting JavaScripts with pdfLATEX in practice]; pp. 72–83

This article describes a few possibilities of using the JavaScript language available in the Adobe Reader browser to enhance possibilities and effects in the PDF files created by pdfLaTeX. Among other things, we briefly describe the technical background of some related LaTeX packages available on CTAN.

An accompanying file is available at `http://user.mendelu.cz/marik/latex/testjs.zip`.

Jozef Říha and Pavel Stříž, Prezentačný software pre LaTeX [Presentation software for LaTeX]; pp. 84–95

The article is an introduction to the preparation of presentations. In the first part, it gives information about the general problems of preparing presentations. In the second part it points out the TeX classes Slides and Prosper, plus the FoilTeX package. In the next part it briefly mentions the existence of the packages UwmSlide and TeXPower. The last-discussed package is Beamer. The Beamer package is a fully featured tool for creating presentations in TeX and this will be discussed in another issue in more detail. In the last part, the authors mention a few tips and hints for better presentations and recommend Internet sources for given topics.

Jozef Říha and Pavel Stříž, Príprava posteru [Scientific poster preparation]; pp. 95–103

The article is an introduction to the preparation of scientific posters. In the first part, it deals with the definition, specification and sizes of posters. It points to proper TeX programmes and packages, dealing mainly with A0poster, Sciposter, Poster and Epssplit. It also briefly mentions non-TeX tools, such as OpenOffice.org Impress, Microsoft PowerPoint and its templates plus suitable software products. In the second part, it discusses printing and the price of posters. The last part gives Internet links to some real-world galleries of posters and some other recommended sources.

Josef Tkadlec, Opakování operací a relací při zlomu řádku [Repeating operations and relations at line breaks]; pp. 103–105

Two solutions for repeating of operations and relations in line breaks are presented, depending on whether the relation or operation is given by a command or by a character.

Zápis z Valné hromady CSTUGu ze dne 17. 11. 2007, Brno [Report from the CSTUG general assembly of 17 November 2007]; pp. 106–107

Zpráva o činnosti CSTUGu [Report on CSTUG Activities]; pp. 107–109

Podporované projekty [Supported projects by CSTUG]; pp. 109–112

***Zpravodaj* 18(1–2), 2008**

Jaromír Kuben, Zdeněk Wagner Úvodník a Opravenka [Introduction and errata]; pp. 1–2

Karel Píška, Testování LM-fontů s ohledem na českou a slovenskou sazbu [Latin Modern fonts testing with regard to Czechoslovak typesetting requirements]; pp. 3–43

This extended article presents grant results with the author's major findings and results. It makes recommendations for changes to the LM-font creators after performing comparisons of fonts such as CM, LM, CS and EC in the Type 1 format. The article also makes comparisons based on metric and graphical data. The tested parameters were the widths of the letters, kernings, differences in LM, CS and CM fonts, and finally the technical quality of the glyphs.

The tools used during the testing were FontForge and also MetaType1. The testing scripts were done in .bat and AWK and are published on the author's websites. The author proposes some changes to improve the actual state of the fonts, commenting on this in depth, including illustrations and tables.

They also presented their thoughts on the creation of a new OpenType font and rewriting testing scripts in LuaTeX. Some findings were presented at BachoTeX 2006, EuroTeX 2006 and the EuroBachoTeX 2007 conferences and their proceedings have been published. The author's notes can be found on `http://www-hep2.fzu.cz/~piska/`.

Luboš Prchal and Pavel Schlesinger, Poster v TeXu [Posters in TeX]; pp. 44–55

The creation of a poster in this article is done using the A0poster class. It includes examples of packages such as multicol, color, fancybox, graphics, epsf, picinpar and psfrag. In the next section of the article the authors discuss the settings for the layout of the poster. In the last section the authors present a template for a poster to be created with A0poster. Two real-world posters are inserted in the conclusion. A style-sheet for a poster can be downloaded from `http://www.karlin.mff.cuni.cz/~antoch/`.

Luboš Prchal and Pavel Schlesinger, Prezentace v TeXu [Presentations in TeX]; pp. 56–63

In this article, the authors share their knowledge, notes and experience with the Beamer presentation class. The article includes installation notes and the first steps in Beamer, the `pause` command, `<+->`, `+` and `-` options, generating a title page and a table of contents. It also explains how to change the design of a presentation by setting `\use*theme{value}` and `\setbeamer*{element}{value}`. In the conclusion

of the article, the authors recommend the Beamer user's guide and a few Internet resources for further reading. The Beamer template of the authors is published independently on their website. A stylesheet for a Beamer presentation can be downloaded from http://www.karlin.mff.cuni.cz/~antoch/.

Pavel Stříž and Michal Polášek, Ukázky prezentací [Examples of presentations]; pp. 63–75

In the first part, the article presents a simple presentation created both with the PDFSlide and PDFScreen packages and with the Beamer class. In the second part, the article discusses the Beamer class in a real-world presentation in more detail. It starts with the creation of METAPOST graphics. After that it comments on some settings of the Beamer deisgn, generating a title page and a section table of contents. Next follows an example of \alert and \convertMPtoPDF commands. The generated output is a PDF file. This file is converted for printing purposes using the pdfpages package. At the conclusion of the article a selection of individually named title pages is prepared with printed materials which are to be given to the members of the committee, e.g., before a thesis defense.

Roman Plch and Petra Šarmanová, Interaktivní 3D grafika v HTML a PDF dokumentech [Interactive 3D Graphics in HTML and PDF Documents]; pp. 76–92

The paper presents the authors' experience with including interactive 3D objects into HTML and PDF documents, starting with modifying 3D graphics in Maple by means of the library JavaViewLib, followed by its export into the MPL or JVX format and finishing with web integration. In the second part, the authors describe exporting Maple 3D graphics into the VRML format, then its conversion to U3D with the use of Deep Exploration, and finish with its embedding into a PDF document by means of pdfTEX and the movie15 package. This procedure preserves the possibility of the user's interaction with 3D objects even in the final PDF document without the necessity of the local installation of Maple or other graphical programs.

Zdeněk Hlávka, Velkovýroba tabulek pomocí AWK [Large-scale production of tables in AWK]; pp. 93–95

This short article demonstrates the capabilities of AWK when producing LATEX tables and formatting them in large quantities.

První oznámení a informace k TEXperience 2008 [Invitation to the TEXperience 2008 conference]; p. 96

***Zpravodaj* 18(3), 2008**

Sborník z TEXperience 2008 [From the TEXperience 2008 Conference Committee and About the Venue of the Conference]; pp. 97–101

Program TEXperience 2008 [The Scientific and Social Programmes of the TEXperience 2008 Conference]; pp. 102–103

Jiří Rybička, Typografie a TEX [TEX and typography]; pp. 104–109

Computer typesetting is a very widespread application commonly used with personal computers. It is necessary to handle appropriate programs but it is also very important to apply typographic rules. This paper deals with the question of how to solve this problem in TEX and its formats? Quo vadis typography in TEX?

Jan Přichystal, Inovace a rozšíření systému TEXonWeb [Innovation and enhancement of the system TEXonWeb]; pp. 110–115

[Published in this issue of *TUGboat*.]

Petr Sojka and Michal Růžička, Publikování z jednoho zdroje v odlišných formátech pro různá výstupní zařízení [Parallel electronic publications]; pp. 116–129

TEX is traditionally used as an authoring tool for the paper publishing of scientific texts and textbooks. Parallel electronic publications that are meant for on-screen viewing and web delivery are also demanded by readers for many reasons today. This paper discusses the ways to single-source author publishing from a LATEX source file, and it shows examples of several textbooks published by this approach. Special attention is given to the web document generation either to HTML or XHTML markup with a notation translated to MathML. Also discussed is a personalised automated document generation for a digital library project DML-CZ, http://dml.cz/.

Petr Olšák, DocBy.TEX – dokumentování zdrojových textů TEXem [DocBy.TEX — Documenting source code with TEX]; pp. 130–141

DocBy.TEX (web site http://www.olsak.net/docbytex.html) is a TEX macro software product which gives the possibility of documenting source code written in various programming languages, for example written in C. You can include parts of your source code into your documentation. All occurrences of documented words in your included source code are automatically made active links if encTEX and pdfTEX are active. To make PDF ourput, you need no more than pdfTEX with encTEX. The table

of contents and the index are also created automatically. The sorting of the words in the index is implemented at the TEX macro level.

Tomáš Hála, Značkovací styl pro rychlou sazbu bibliografických citací [Markup style for fast typesetting of bibliographic references]; pp. 142–150

The paper deals with the typesetting of bibliographic references. The introduction covers some important methods of styles and the systems for processing and typesetting bibliographic references. Basic problems of the proceedings in typesetting are dealt with. No one method alone is suitable for the typesetting of proceedings. A basic style and some extensions focus on designing cross references. Sophisticated database methods use up a lot of time while the database is being prepared and it can only be used once. In conclusion a new style for faster markup and typesetting is created.

The input conditions are: (a) no database usage, (b) a simple interface for authors and/or typesetters, (c) complete markup in LATEX macros, (d) extendable and modifiable when necessary, (e) the result does not need detailed proof.

The style `bib.sty`, `http://konvoj.cz/styly/biblio/2.30/bib.sty`, contains macros for the most frequently used types of bibliographic references and for elements of references. Some additional macros are described and electronic documents are also included.

Petra Talandová, Možnosti tabulkové sazby [Typesetting possibilities for tables]; pp. 151–160

This paper deals with the typesetting of tables. It briefly describes packages prepared for tables and for the modification of individual characteristics of tables. Selected packages that can contribute most to the typesetting are described, and an analysis of their compatibility is done. Almost all chosen packages work together and extend the possibilities of typesetting. Examples of typesetting with and without these packages show the potential of table typesetting.

Zdeněk Wagner, LATEX v sazečské praxi [LATEX in the typographer's profession]; pp. 161–174

TEX is known mainly in the academic world and is used for writing technical publications. Many people are aware of the possibility of creating high-quality typesetting with TEX. However, these days when programs with graphical user interfaces hiding important information prevail, it is difficult to find instructions on how to prepare with TEX a file for a phototypesetter or a digital printer. The article demonstrates the methods of using LATEX in practice. A few macro packages that prepare leaflets and invitation cards are discussed. Also the typesetting of books including their covers.

Author's notes on his LATEX packages are available on `http://icebearsoft.euweb.cz/tex/`.

Sbohem TEXperience 2008! Buď vítána TEXperience 2009! [Good-bye TEXperience 2008 and welcome to TEXperience 2009!]; p. 175

***Zpravodaj* 18(4), 2008**

Zdeněk Wagner, Úvodník [From the editor]; p. 177

Vít Zýka, Příprava dokumentů pro formátování [Document preparation for typesetting]; pp. 178–199

In this article we express the general principles of a good document and we pose the requirements for their editing, processing and visualisation. Based on these requirements we show that an appropriate format is a structurally-marked document. We explain what structure marking is and describe its features. Finally we mention the tools for manipulating structure-marked documents and we sketch the ways they are formatted by TEX.

Vít Zýka, Článek a logo ConTEXtem: tutoriály [Article and logo by ConTEXt: Tutorials]; pp. 200–211

In this tutorial we show how to create a technical article using ConTEXt. The resulting text will be a shortened version of the real article, and so it will contain most of the elements of this kind of document.

In the second tutorial we show how to create a PDF vector figure by ConTEXt. The figure is rather primitive but illustrative. Although the drawing uses METAPOST, its language description is not our goal. We are focusing on a step-by-step demonstration of ConTEXt infrastructure for this kind of work.

Tutorials are available on author's website `http://www.zyka.net/?id=typography&lang=en`.

Petr Březina, Zrcadlová sazba [Parallel typesetting]; pp. 212–226

The article presents an efficient solution to the problem of typesetting two texts in parallel on facing pages in bilingual editions. The solution assumes that the two texts are saved separately in two files and that they are divided into small sections, as the Bible is divided into verses. This division makes it possible to synchronize the texts automatically. Each of the two texts can have its own footnotes, illustrations and other insertions as if it were an ordinary document, but the texts are broken into

individual pages simultaneously in such a way that each odd page contains the same sections as the corresponding even page. The presented macros are available on the author's web site, `http://www.volny.cz/petr-brezina/`.

Petr Březina, Sazba trojjazyčné knihy [Typesetting of a trilingual book]; pp. 227–236

TEX has an insertion mechanism that makes it possible to handle several texts simultaneously. It can be used in preparation of multilingual books. In this article, the author describes how he has typeset a Latin-Greek-Czech edition of *The Dream of Scipio* where each double page contains the text simultaneously in the three languages. The described macros are available on the author's home page, `http://www.volny.cz/petr-brezina/`.

Vít Zýka, Postřehy ze setkání TEXperience 2008 a ConTEXt 2008 [Impressions from the TEXperience 2008 conference and ConTEXt meeting 2008]; pp. 237–242

Pozvánka na TEXperience 2009, EuroTEX 2009 a třetí setkání uživatelů ConTEXt, TUG 2009 [Invitations to TEXperience 2009, EuroTEX 2009 and TUG 2009]; pp. 243–247

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