Zpravodaj **16(1), 2006, 19(3)–19(4), 2009**

Editor's note: *Zpravodaj* is the journal of CₛTUG, the TₑX user group oriented mainly but not entirely to the Czech and Slovak languages (`http://www.cstug.cz`).

Zpravodaj **16(1), 2006**

Jaromír Kuben, Úvodníček [Opening letter from the CₛTUG president]; p. 1

Ondřej Jakubčík, Sazba chemických vzorců v TₑXu [Typesetting chemical formulas in TₑX]; pp. 2–10

The typesetting program TₑX is used worldwide for formatting various kinds of documents. In this article, a short presentation of its abilities for typesetting various chemical structures is given.

Petr Březina, Hrstka tipů pro TₑXovskou sazbu [Some tips and tricks for TₑX typesetting]; pp. 10–25

The article presents an original solution of three challenging typographic tasks by means of TₑX's macro language. The reader can find here not only a detailed description of the sophisticated macros but also a number of recommendations concerning typography.

1. In Czech typography, the interval dash cannot stand at the end of a line nor can it be moved to the beginning of the following line. If the split between lines is inevitable, the dash is replaced by a word. While writing a macro for the interval dash, it is necessary to overcome a certain disadvantage of the command `\discretionary`, namely that it does not allow appending glue to the current list, as the word which replaces the dash has to be separated from the text by a space, while the dash is not separated.

2. The setting of the whole first line of a paragraph in capitals (or possibly in a different font) can be applied at the beginning of individual chapters.

3. For hanging hyphenation, *The TₑXbook* recommends using a special font with a zero-width `\hyphenchar`. The solution to this typographic task can, however, be achieved using an ordinary font with real-width `\hyphenchar`.

The article is also available on the author's home page, `http://www.volny.cz/petr-brezina/`.

Petr Olšák, Makro pro konverzi textů, PDF záložky [Macro for conversion of texts, PDF outlines]; pp. 26–32

A TₑX macro programmer sometimes needs to convert a string of tokens to another string of tokens according to defined rules. For example, we may need to remove accents from a Czech text or to recode this text to another encoding or to transform some special characters to something else or ... For this purpose, the `cnv.tex` macro was designed. The last but not least motivation was the problem of my TₑX colleague Jaromír Kuben: he needed to convert Czech text to PDF outlines (conversion to Unicode) using `hyperref.sty` but without activating Czech characters by `inputenc.sty`.

This article presents the `cnv.tex` macro for string conversion by a user defined table. The conversion process is outside of normal expansion and each token (independent of category code) can be converted to a single token or a group of tokens. The macro is available, with documentation, at `ftp://math.feld.cvut.cz/pub/olsak/makra/` in the files `cnv.tex`, `cnv-pu.tex`, and `cnv-word.tex`.

Ondřej Jakubčík, TrueType fonty, TₑX a čeština [TrueType fonts, TₑX and Czech language]; pp. 33–40

TrueType and OpenType fonts have several advantages compared to the well-known Type 1 fonts, which have been used for years by TₑX users. In this article a way to use TrueType fonts with TₑX for typesetting in Czech and Slovak language is presented. While instructions are specific for encoding XL2 and XT2 (which are compatible with ISO 8859-2), the encoding vectors can be easily modified to support other encodings, such as Cork.

Zdeněk Wagner, Zpracování pomocných TₑXových souborů pomocí XSLT 2.0 [Processing auxiliary TₑX files with XSLT 2.0]; pp. 40–53

The article shows possibilities for processing auxiliary TₑX files with XSLT 2.0. The idea is demonstrated with a reimplementation of MakeIndex in XSLT. Some thoughts concerning the possibilities of reimplementation of BibTₑX purely in XSLT are also presented.

Schválené grantové projekty [Grant projects accepted by CₛTUG]; pp. 53–56

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Pavel Stříž, Pozdravy z TₑXperience 2009 [Greetings from TₑXperience 2009]; p. 117

Subjekty dlouhodobě podporující Zpravodaj [Parties supporting the journal on a long-term basis]; p. 118

Program TₑXperience 2009 [The scientific and social programmes of the TₑXperience 2009 conference]; pp. 119–120

Miroslava Dolejšová, Malé povídání o Valašsku [About the venue of the conference: Southern Moravia, Wallachia]; pp. 121–123

Jan Šustek, Sazba odstavců do textových oblastí [Typesetting paragraphs into text regions]; pp. 124–137

When typesetting paragraphs of text into text regions some problems arise in cases where the regions have different widths and rubber vertical spaces are used. One possible solution is described. The source code is available from `http://www1.osu.cz/~sustek/TeX/oblasti3.tex`.

Tomáš Kotouč & Martin Kvoch, TEX v informačním systému studijní agendy [TEX used and implemented in the university student agency information systems]; pp. 138–143

The article summarises the use of TEX in the information system of the university student agency (IS/STAG) developed over 15 years at the University of West Bohemia in Plzeň, the Czech Republic. TEX is mainly used to prepare all major official university documents in cooperation with Oracle databases.

A user can use TEX and pre-defined commands directly. The additional tool, FormsEd editor, allows the user to visually select mathematical and other special symbols, such as letters from Greek and Cyrillic alphabets. The style-sheets are customisable at three levels.

Educators from Plzeň deliver the basics of typography and LATEXing with regular training in IS/STAG for secretaries of departments who are usually non-typographers and non-TEXists.

The official website of the IS/STAG is `http://www.stag.zcu.cz`.

Jiří Rybička, Podpora přípravy závěrečných prací [Support for a thesis preparation]; pp. 144–159

Support for a formal submission of a final thesis for the Faculty of Business and Economy, Mendel University of Agriculture and Forestry in Brno, contains different components — courses, texts and technical elements (packages and templates). This article describes the `dipp.sty` package for final thesis preparation. The `dipp` package is supported in the TEXonWeb system (`http://tex.mendelu.cz`) and offered for any user.

Pavel Stříž & Michal Polášek, Šablony pro vysokoškolské kvalifikační práce [Templates at Tomas Bata University in Zlín]; pp. 160–172

This article briefly introduces the concept and effectiveness of creating style sheets. It gives an overview of links with several major templates over the world and templates for thesis used over the world with an emphasis to those found on web sites of the universities in the Czech Republic and Slovakia. The templates are available from `http://web.utb.cz/?id=0_0_12_3&lang=cs` under "Směrnice rektora č. 12/2009" [The Rector's Regulation No. 12/2009].

The second part of the article focuses on style sheets for Microsoft Word, OpenOffice.org Writer and LATEX created at Tomas Bata University in Zlín. The full source code of the LATEX style sheet is also presented as an appendix of the article.

Michal Mádr & Pavel Stříž, Nové a staronové knihy [New and older books]; pp. 173–180

Frank Mittelbach, et al.: *The LATEX Companion*, `http://www.informit.com`.

Michel Goossens, et al.: *The LATEX Web Companion: Integrating TEX, HTML, and XML*, `http://www.informit.com`.

Apostolos Syropoulos, et al.: *Digital Typography Using LATEX*, `http://ocean1.ee.duth.gr/LaTeXBook`.

Robert Bringhurst: *The Elements of Typographic Style*, `http://typebooks.org/r-elements.htm`; see also `http://webtypography.net`.

Florian Coulmas: *The Blackwell Encyclopedia of Writing Systems*, `http://blackwellreference.com`.

Peter T. Daniels, William Bright (editors): *The World's Writing Systems*, `http://ukcatalogue.oup.com`, cited in `http://www.omniglot.com`.

Zdeněk Wagner: *Chromozon 46,YB* (in Czech), `http://icebearsoft.euweb.cz/chromozom46yb`. Please meet an adventure book written in TEX. Congratulations to Zdeněk who holds the title "The winning book of the TEXperience 2009 conference".

Zpravodaj **19(4), 2009**

Pavel Stříž, Šťastné a veselé ... [Merry Christmas and Happy New Year 2010 from the Editorial Board]; pp. 181–183

Dave Walden & Hàn Thế Thành, Rozhovor s Hàn Thế Thànhem, tvůrcem a správcem pdfTEXu [Interview with Hàn Thế Thành, the creator and maintainer of pdfTEX, Czech version; translation and corrections by Michal Mádr and Pavel Stříž]; pp. 184–190

Translation of an interview conducted by Dave Walden with Hàn Thế Thành, the creator and maintainer of the pdfTEX program. Topics included the origins of the program pdfTEX, its early development, introduction to the wider TEX community and the organization of current development and maintenance. The original English interview can be found at

http://tug.org/interviews/interview-files/
han-the-thanh.html.

MICHAL MÁDR & PAVEL STŘÍŽ, Představení
LuaTEXu [Introduction to LuaTEX]; pp. 191–200

This article introduces the program LuaTEX —
an ambitious successor of pdfTEX. The article discusses LuaTEX's position among other TEX followups and new features of this system. Its official web site is http://www.luatex.org.

JAN ŠUSTEK, Zašifrování zdrojového textu při zachování jeho funkčnosti [On Enciphering a Source Code and Preserving Its Functionality]; pp. 201–211

It is possible to write a document in many different ways using TEX. Similarly, one can write a macro package in many different ways. Some ways are readable and some are not. If we want another user to use our macros, we have to send him the source code of those macros. But if we don't want him to see the source code, we have to encipher it and send only the ciphertext to the user.

This paper shows one way to achieve this goal. The original file is enciphered using the \uppercase primitive. The first line of the ciphered file contains macros for deciphering the other lines. This ensures that the ciphered file has the same functionality as the original file. The source code is available from the author's website at http://www1.osu.cz/~sustek/TeX/zasifruj.tex.

LUÍS NOBRE GONÇALVES, MICHAL MÁDR & PAVEL STŘÍŽ, Drawing the Shree Yantra Core with METAPOST [Vykreslení středové části obrazce Shri Yantra pomocí METAPOSTu]; pp. 212–221

The Shree Yantra Core is a figure composed of nine interlocking isosceles triangles, all inside a circle. This figure is found in some of the oldest Hindu temples and contains, in itself, a series of interesting mathematical problems. This article describes an attempt to solve the problem of drawing the Shree Yantra Core with METAPOST. The sources can be downloaded from http://matagalatlante.org/nobre/MetaPost/PlainMetaPostProgs/, in the files sriyantra.mp and sriyantraquest.mp.

ANDRÉ SIMON, The Highlight programme: Code & syntax highlighting [Program Highlight a jeho užití]; pp. 222–239

The article presents features and options of the Highlight programme which is capable of highlighting source codes of different programming languages. The experimental approach of nested syntax configuration is tested on files with HTML+CSS+PHP+JavaScript, Perl+TEX, LATEX+Sweave +R and Lua+TEX. The official web site is http://andre-simon.de.

JIŘÍ DEMEL, Pár postřehů z TEXperience 2009 [Impressions from the TEXperience 2009 conference]; pp. 240–241

PF 2010! from CSTUG and the Editorial Board [Přání do nového roku od výboru a redakce]; p. 241

MICHAL MÁDR & PAVEL STŘÍŽ, Nové a staronové knihy [New and older books]; pp. 242–244

Karl Berry, David Walden (editors): TEX People: Interviews from the World of TEX, http://tug.org/store/texpeople.

Roberto Ierusalimschy, Luiz Henrique de Figueiredo, Waldemar Celes: "The Evolution of Lua" (an article), http://www.tecgraf.puc-rio.br/~lhf/ftp/doc/hopl.pdf.

Roberto Ierusalimschy, Luiz Henrique de Figueiredo, Waldemar Celes: Lua 5.1 Reference Manual, http://www.lua.org/manual/5.1.

Roberto Ierusalimschy: Programming in Lua, http://www.inf.puc-rio.br/~roberto/pil2.

Roberto Ierusalimschy, Luiz Henrique de Figueiredo, Waldemar Celes: Lua Programming Gems, http://www.lua.org/gems.

Zdeněk Wagner: Sedmero dračích srdcí, in Czech. Please meet a book with fairy tales written in TEX. The book was presented for the first time at the TEXperience 2008 conference. http://icebearsoft.euweb.cz/sedmero.dracich.srdci .

Pozvánka na TUG 2010: TEX slaví 2^5 [Invitation to the TUG 2010 conference, Czech version; translated by Michal Mádr]; the back cover of the issue.

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