MAPS 53-54 (2023-2024)

MAPS is the publication of NTG, the Dutch language TEX user group (https://ntg.nl).

MAPS 53 (Spring 2023)

REDACTIONEEL, Editorial; pp. 1-2

This is a special edition of MAPS containing five articles by Taco Hoekwater about various fundamental matters in MetaPost.

Taco Hoekwater, Introduction; pp. 3-4

What you have here is a series of articles about details of the MetaPost programming language.

The target audience of these articles are users that are already somewhat familiar with simple graphics in MetaPost but want to have a clearer understanding of the language to make better use of its possibilities.

Each of the articles discusses a specific subsystem and together they should provide a solid base for improving the reader's knowledge of MetaPost.

TACO HOEKWATER, Variables: Sparks, tags, suffixes and subscripts; pp. 5–18

MetaPost variables are rather complicated things. This article will attempt to explain the various uses of type declarations, saves, and vardefs.

TACO HOEKWATER, Definitions; pp. 19-34

Definitions in MetaPost are also a fairly complicated subject. This article tries to cover everything you need to know about writing your own definitions, but it assumes a fair bit of familiarity with MetaPost's data types and general syntax. In particular, I assume you have read the preceding "Sparks, tags, suffixes and subscripts" article.

TACO HOEKWATER, Paths, pairs, pens and transforms; pp. 35-72

This article tries to explain everything related to paths, pairs, pens and transforms in MetaPost. A fair bit of familiarity with MetaPost's data types and general syntax is assumed. In particular, I assume you have read the "Sparks, tags, suffixes and subscripts" article.

I will first discuss the creating of paths, followed by the creating of pairs, and then the creating of pens. Finally, I will discuss the operations on those items, for instance, by using transformations.

Taco Hoekwater, Conditionals and loops; pp. 73–80

This article is about how to make your program decide what to do next: conditions and loops.

Taco Hoekwater, Colors and pictures; pp. 80–96

This article is about MetaPost output. MetaPost produces graphics by means of picture variables that can contain a few different object types. The most important drawing object types can be colorized, so the first part of this article will talk about color data structures.

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MAPS REDACTIE, Redactioneel [Editorial]; p. 1

SANDER VAN GELOVEN, Afbreekpatronen [Hyphenation patterns]; p. 2

Bob Witman, Het eeuwige leven [Eternal life]; pp. 3–4 'Letterman' Middendorp wrote the standard work on Dutch typography, born from boundless curiosity.

WILLI EGGER, Kaktovik nummers met basis 20 [Kaktovik numbers with base 20]; pp. 5–8

We are used to navigating the Arabic number system using base 10. However, it is also possible to choose a different base. The Inuit, for example, use base 20 to count. This article discusses the number system of these Inuit.

Y. Robbers, Tante Lenie weet raad... [Aunt Lenie knows advice...]; pp. 9-14

Spring has begun, Valentine's Day is over, and love troubles make way for TEX problems. And for both, you can always turn to your Aunt Lenie! This time she helps Lisa G. create an attractive brochure for her cat café using LATEX, assists student Jenia G. with her font problem using LATEX3, helps Machteld K. with Greek counters in LATEX, uses PGF/TikZ to help Hans M. with new floats for his new syllabus, and addresses two new problems from Herman R., who is still doing complicated mathematical things in plain TEX.

ERIK NIJENHUIS, Documenten in YAML specificeren en invullen met lua-placeholders in LATEX [Specifying documents in YAML and filling them with lua-placeholders in LATEX]; pp. 15–27

[Published in English in TUGboat 45:1.]

DUSTIN HENDRIKS, Verkenning van het automatiseren van LATEX met programmatuur [Exploring the automation of LATEX with software]; pp. 28–30

In this article, I share my experiences and insights in programming the software ELDYN. This tool enables file manipulation by dynamically injecting variables and templates. This can provide benefits in the automated creation of strictly structured documents, particularly through IATEX. In this article, I share background information about myself, share my insights in programming the mentioned tool, and hope to inspire by sharing my demonstration project WebTeX: a concrete application of the developed software.

Denis Maier, Automatic suppression of unwanted ligatures when typesetting German; pp. 31–35

An approach using ConTEXt LMTX's language options.

PIETER VAN OOSTRUM, Software Engineering; pp. 36–44

This article describes some (software engineering) practices that I used to develop the fancyhdr LATEX package. The practices are very general, however, and certainly not exclusive for LATEX packages.

Hans Hagen, Debugging; pp. 45–56

Verbose logging and more visual features. The Con-TEXt 'lowlevel' manuals have more details.

Hans Hagen, Lua in TeX; pp. 57-62

At the end of 2023 the Lua language celebrated its 30th anniversary and in that perspective I offered to wrap up our experiences with that language from the perspective of TEX. This wrapup is not aimed at TEX users, but can nevertheless give them some background and a status overview.

HANS HAGEN, MIKAEL SUNDQVIST, Meaningful math; pp. 63-74

In this article we're going to discuss math from the perspective of accessibility. Although ConTEXt has already supported tagging in PDF for quite a while, that specific kind of accessibility never took off, if only because very few viewers did anything useful with it. However, with universities introducing (whatever) validating features for documents pushed into the systems used for teaching, there was no way to avoid picking up this thread.

We start with some reflections about how we got here and then move on to some examples of how we deal with this in LMTX. This project is part of a larger effort to get even better typeset math out of TEX so we could benefit from some new features in the engine, even if they were not added with accessibility in mind.

CLAUDIO BECCARI, Albanian hyphenation; pp. 75–83

After a short historical review of the Albanian language, the procedure used to create the Albanian hyphenation pattern file is described.

BENJAMIN WACHE, Writing a PhD thesis in LATEX; pp. 84–86

In this article I explain the setup I used for editing my PhD thesis using IATEX, including use of Overleaf and ChatGPT.

MIKAEL SUNDQVIST, Making a simple photo book with ConTeXt; pp. 87-93

In Spring 2022 a question entitled "How to achieve a few different page layouts for a photobook?" appeared on Stack Exchange (https://tex.stackexchange.com/q/643009). User 'ana' asked how one in IATEX could setup a document with layout requirements for a typical photobook. Since I am interested in both photography and typesetting, I thought it would be fun to provide an answer, even though it would involve using the "wrong" tool, ConTEXt.

HANS HAGEN, How not to install ConTfXt; p. 94

An annotated review of ChatGPT's procedure for installing ConTEXt.

Fabrice Larribe, MetaFun for movies; pp. 95–106

This article shows how MetaFun can be used to make movies, by showing the construction of several projects, step by step.

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