

Digging Deep

Impressions from the meeting

Götz Schnell

The motto of the ConT_EXt meeting was “digging deep”. When I registered for the meeting, I was curious as to what this could mean.

This article was edited by Bruce Horrocks.

“Digging deep” – the excursion

The motto turned out to be *literally true* for the excursion that concluded the meeting. We visited “Grube Fortuna”, a former iron-ore mine that closed during the 1980s and which has since been converted into a mining museum. The guided tour took us 150m down the shaft then along a narrow-gauge railway to reach the original ore face. A demonstration of the actual equipment the miners used showed just how hard and exhausting “digging deep” would have been.

There was also a special demonstration of the lift machinery and it was impressive to see how the operator could accurately position the lift cage, relying on just a bell and mechanical indicators.

“Digging deep” – internals

Many of the talks focused on detailed aspects of typesetting with ConT_EXt or, to be more precise, with luametaT_EX.

Internals of ConT_EXt

Hans Hagen gave several talks describing some of ConT_EXt’s and luametaT_EX’s detailed internal mechanisms and the ideas behind them. It made me wonder just how many people have such a deep insight into the code because, if you want to understand the details, you really have to “dig deep”.

Anyone who wants to know these details can use the online source browser (source.contextgarden.net). Taco Hoekwater gave us an explanation of its use and described the recent improvements that have been made.

Graphics with MetaPost

Taco Hoekwater gave a presentation on some of the interesting functionality within MetaPost. In my opinion, it’s a pity that so few know about MetaPost’s ability to combine typeset text and graphics. Unfortunately, a user often has to “dig deep” in order to benefit from the possibilities.

Typesetting of Math and Czech

A significant portion of the meeting was taken up with the presentations of Mikael Sundqvist and Hans Hagen covering the improvements in typesetting math that have been made to `luametaTeX`. For me, it was exciting to understand some of the topics covered and to be able to participate in the discussions concerning the coexistence of “math language” and natural language.

It was really “digging deep” into typographic details which, although they have been known to specialized typesetters for decades, are still often neglected in computerised document creation.

Another interesting talk on typesetting for Czech and Slovak was given by Tomáš Hála. Now I know that the dash in Czech has to be repeated at the beginning of a new line.

“Digging deep” – applications of ConTeXt

A section of the conference was dedicated to the different uses ConTeXt is put to. Willi Egger presented his work on a pocket diary and conducted a short, practical workshop on bookbinding.

Applications for data management

Willi Egger explained in his talk his efforts to insert some data into his diary. Tomáš Hála presented the new rounding module in Lua that has been developed with contributions from Wolfgang Schuster and others.

A remote talk was given by Ramkumar KB on the use of ConTeXt for creating business reports. His solution takes advantage of the database interface which is integrated into `luametaTeX`, as Hans Hagen explained. The new Visual Studio Code plugin presented by Ramkumar KB also attracted a lot of interest.

A setup for generating invoices, based on Bash and Python scripts, was described by Henning Hraban Ramm in his talk. I find it interesting to see how some users choose to build tools to process their data, leaving ConTeXt to handle just the output. This was the case for the work presented by Pavneet Arora. As these solutions are developed for specific workflows, the concepts were more interesting than the real implementations for the majority of users.

For me, there is still a lot to discover regarding interacting with and inserting data into ConTeXt.

The ConTeXtDistribution

A necessary pre-condition for using ConTeXt is that it needs to be installed on a local computer. Mojca Miklavec and Hans Hagen gave a talk on the release process they use for `luametaTeX` which is based around the `cmake` program. It required some “deep digging” to make it work for all combinations of processor and operating system types.

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Those present were able to experience the “historic” release of version 2.10 of `luametaTEX`, which is hosted on github¹.

Using *AsciiDoc* as typewriter for ConT_EXt

I was very glad to have been given the opportunity to present my work developing an extension to the open source text editor *AsciiDoctor*. My extension provides automatic conversion from *AsciiDoc* to ConT_EXt, which avoids most users having to “dig deep” into ConT_EXt.

Personally, I have had to “dig deep” into *Ruby* and into the program *Asciidoctor* in order to develop the converter. With it it’s possible for a pupil to write their homework, or a student write a thesis using just a text editor in the simple markup of *Asciidoc* and then typeset it with ConT_EXt using my extension.

“Digging deep” – the atmosphere during the meeting

For me as a “newbie”, it was amazing to see and live the atmosphere of concentration, openness, and at the same time relax during the talks and even more during the evening sessions. For me, it was the right ambiance for “digging deep”. And, as the goal for digging is to get richer, I can confirm that the goal was achieved: I left enriched in many aspects.

¹ github.com/contextgarden/luametateX