KOMA-Script comes of age

Markus Kohm

Abstract

In 1994 not only LaTeX 2_ε but also KOMA-Script came into the world, thus having its 18th birthday this year. In contrast to LaTeX 2_ε, which was completely developed at birth, KOMA-Script had to grow during the last 18 years. It started as a baby, not only complaining in each and every situation but getting on the nerves of its father and the environment. Thus an occasion for the father to write a short retrospective.

1 The conception

The exact date of the conception and the length of the pregnancy is hard to tell. More or less by chance I came across Frank Neukam's SCRIPT collection at

the beginning of the 1990s. It contained essentially everything I needed for technical documents during my studies.

What I was missing were the adjustments needed for literary texts, for example support for DIN A5 format. Without further thought I added the most important changes into the style files. The licence of Script was somewhat unclear and the author hard to reach. Therefore I decided to publish my modified version via Maus KA[1] as an alternative.

Script was altered by others as well, so for a while there were various, incompatible versions floating around. When Neukam published Script 2.0 in December 1993 he rightly complained about the confusion. Script 2.0 contained all my changes.

Shortly afterward I heard for the first time that a successor of LaTeX 2.09 was on the way and that it would change everything. I started thinking about the future of my documents, which by that time completely relied on Script 2.0. Beginning in February 1994 I tried to get into contact with Frank Neukam to prevent a muddle of new versions. About that time — it is hard to tell when exactly — I managed to get a beta version of LaTeX 2_ε on my computer.

Since I did not intend to poach again in somebody else's preserve — Neukam could not be reached either by mail or e-mail — I developed KOMA-Script 2.0 based on Script 2.0, the standard classes and my own ideas. The version number and the choice of the Grotesk font for the name were intended to create the link to Script 2.0. Primarily the whole thing was designed as a kind of "Script 2.0 for LaTeX 2_ε".

2   The birth

The baby was born on July 7th 1994 in the Maus KA. It consisted of just the three basic classes `scrbook`, `scrreprt`, `scrartcl`, the `typearea` package and a manual, which at that time was just a slightly modified version of the Script 2.0 manual.

Like most babies it could cry, demanded attention and was hungry. One could like it, get annoyed by it or just ignore it. It didn't play soccer, yet.

3   The suckling babe

Even in the early days of KOMA-Script the folks around hassled its father. Not only did everyone want to see the baby, they also wanted to touch it, some thought a finger was too small, others a toe too big, the eyes too blue, too green, too gray, they

wanted to have a hat here and a jacket there. Daddy liked the attention and tried hard to please everybody. In the meantime the baby had to get patched up and its belly massaged to cover its deficiencies.

As early as October 1994 KOMA-Script switched to `docstrip`. This meant its own `dtx` files for the core as well as for the first additional packages.

4   The toddler

Since I rarely wrote business letters and preferred a fountain pen for my private communication I had put no energy into this area. This changed fast when Axel Kielhorn contributed a first adaptation of `script_l.sty` for LaTeX 2_ε to KOMA-Script. Thus the first KOMA-Script letter class, `scrlettr`, was created.

After that was one critic demanding a proper manual. As a proud dad who was — besides his studies — quite busy with the KOMA-Script baby, some DVI-driver development for the Atari ST and the copublishing of a series of amateur anthologies I forbade those requests. So the LaTeX career of "Harald"[2] started with the creation of an updated manual for KOMA-Script.

Before its first birthday KOMA-Script became a mingle-mangle of classes, packages and example files. Especially varied were the packages for all the hats and shoes requested by people who had seen the baby crawling. I was not keen on creating new hats and shoes every week but `fancyheadings` — the only package in existence for this purpose — always caused trouble when interacting with my baby. So I decided to create `scrpage`. From then on all questions for new hats and shoes were answered.

Another big step consisted of some extensions proposed by Werner Lemberg. He dealt extensively with the so-called CJK languages.[3] To typeset these languages he needed a few extensions not available in the standard classes. In KOMA-Script they were implemented quickly but not fully sufficient. At this time it became clear that KOMA-Script had to become more international. Thanks to Werner Lemberg there was an abbreviated English translation of the German KOMA-Script manual.

5   The childhood

At the turn of the millennium KOMA-Script was not only again a collection of manifold classes and package but the rather monolithic structure increasingly complicated further development. Even when its dad

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[1] Maus KA was a mailbox of MausNet, a mailbox network that was quite prominent in Germany, Austria and Switzerland when acoustic couplers and modems were state of the art. The name was derived from the local license plate; KA stood for Karlsruhe.

[2] Named Axel Sommerfeldt in the mundane world, known for his tremendous `caption` package and his help with many LaTeX issues. I got to know him as Harald.

[3] Chinese, Japanese, Korean

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wanted to implement a minor change he had to make changes at three or four places in a file far away from each other. This was due to the source code being based on the logical processing of the class files: first the options, then the basic settings, building on the commands and environments. It was time for a more topic-based approach!

There were also — partly similar — issues with the manual. Basically it was still the same manual Axel Sommerfeldt had created years ago. It was not structured according to the classes and packages; rather, the topics came in an arbitrary sequence. Although mostly consistent they were hard to follow and understand. And although the manual had grown from 60 pages to almost 100 pages, most topics were handled briefly. While at the beginning only nerds like me had used LaTeX and technical, concise manuals were okay, the users of LaTeX now included even "ordinary" people. LaTeX had become a tool for everybody, and they wanted to play with my baby!

To cut a long story short it was time to teach the child some structure. Its sentences had to get connectives and were not to be thrown into the room unmotivated. The problem was: I didn't have the time. I had a small (human) son now and shared work and school with my wife. Thus I looked for some help.

Help was found fast, or let's say suspiciously fast. When it came to the distribution of work for a new version of the KOMA-Script manual, all help was suddenly gone. So I started on my own with the restructuring of the KOMA-Script source code. I had estimated it would take from mid-2001 to the end of 2003. By then I wanted to complete the new manual as well. When I pulled the KOMA-Script sources apart it became clear that the `scrlettr` package had flaws at every inch and corner. If the original design by Frank was to blame, Axel's implementation or my extensions, no one knows. Probably it was some kind of "joint blame".

To compensate for my frustration with the manual I created a completely new design of a letter class. I don't remember how the contact to Torsten Krüger came about but he proved to be the best tester of `scrlttr2` that I ever had. This positive experience gave me the kick to continue with the manual. This was additionally encouraged by Jens-Uwe Morawski who in a short time created various chapters of the new manual on the basis of explanations from the old one. He also created all the new examples for the `scrpage2` package which was to replace the old `scrpage`.

6 Growing up

When KOMA-Script reached a two-digit age there was a new manual, a new package for headers and footers and a completely new letter class featuring a new user interface. However there was one thing missing: the new code base! What was planned originally for the end of 2003 had a significant delay. In the meantime I had become the head of development for a commercial company, had fathered a daughter and had quit my job to completely take care of my kids. All this had led to some turbulence affecting the development of KOMA-Script. Furthermore it wasn't simple to work on two completely separate code trees.

But in 2006 it finally arrived! On July 5th 2006 KOMA-Script 2.95 was published, two days before its twelfth birthday and featuring the new code base!

After that the development gathered speed. On November 3rd 2008, with the publication of the 17th iteration of the KOMA-Script code, all changes I had planned were implemented, resulting in version number 3. All concepts I had tested with `scrlttr2` and considered well done were not only implemented for all classes but also documented. This resulted in a newly restructured manual.

In the meantime there were 34 iterations of KOMA-Script on the basis of the new code. There were a few new packages, among them `scrlfile`, `tocbasic` and `scrjura` for special purposes. There is a printed, significantly extended manual in its 4th edition.[4] And there's no end in sight!

7 Really grown up?

In July 2012 KOMA-Script had its 18th birthday. I asked myself if this makes it grown up and full-blown. It is surely grown up. But grown up does not mean either full-blown or finished. Nowadays nobody can stop learning only because we finished our years of apprenticeship. We continuously learn and evolve. So I see no end to the development of KOMA-Script. In fact I have more ideas in my drawer than I can ever implement. While in earlier times I was annoyed if someone had the same idea and finished a package faster than me, today I am happy since then I can do other things.

It may surprise some, but my intention was never to implement as many features as possible into KOMA-Script. I just wanted to simplify the

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[4] Before the first official publication there was a preprint by DANTE for its members only. In cooperation with Christoph Kaeder and especially through his personal efforts the Lehmann's edition of the manual was published. This book was also the beginning of the successful DANTE book series where mostly books from Herbert Voß have been published.

user's work. The work with KOMA-Script should force the user neither to go through meters of partly contradictory literature nor to dive into TeX internals to get the typography right. The user should also not be required to load potentially incompatible packages to make minor changes to the form of the document — an inevitable necessity with the standard classes. Typographically useful changes should be applicable with a minimum of work and a clear concept.

In the early days of KOMA-Script the resources of the TeX distributions, the computer itself or "best practices" often defined the limits. In the meantime new concepts, especially with regard to user interaction, were created and implemented by me on the long road to KOMA-Script 3. There is however still huge potential for further development.

Once upon a time I was a little pink baby with a squeaky voice myself. During puberty the voice went down and hair covered my face. From version 2 to version 3 KOMA-Script has undergone such a huge change as well. In the meantime my eyes have become worse, the hair thinner — and not only at places where it had annoyed me anyway. Maybe KOMA-Script will face the same destiny. But KOMA-Script does not need glasses. Maybe one can ignore the eyes and remove the hair permanently instead of always having to shave it. Maybe one can even renew or change huge parts of the body.

8   What else there is to say...

I started to work on KOMA-Script for two reasons: for my own purposes and because I wanted to give something back to the community that had brought me TeX. More or less overnight, however, the project gained an enormous level of attention. Faced with the decision between guarding my baby and ignoring all requests or responding to others' needs, I decided for the latter.

Still, not everything has found its way into KOMA-Script. Take for example an extended layout package: developed with much hard effort and then used only for a few weeks. In the end only a small portion of the original package found its way into KOMA-Script as `scrpage2`. Due to the complexity of the user interface the rest was thrown away.

Of course there were times during the last 18 years when I was close to quitting all work on KOMA-Script. Countless hours were spent supporting users, often a burden, partly harassment. People called me — me, the notorious phone hater! — at half past ten in the evening to discuss a LaTeX issue they had, unrelated to KOMA-Script. One evening a professor rang my doorbell and offered me a job. It embarrassed me then — today it rather amuses me. I'm even wondering that no one has yet banged on my door at four in the morning to get help, but who knows what the future may bring...

On the other hand I was glad to be able to help people. On various occasions this support inspired me and helped expand my horizons. Sometimes I had to remind myself that I dealt with strangers, to align my own priorities.

I would like to have avoided the whole infamous discussion about license breaches. In the toddler times of KOMA-Script I really could have used some help with these things. Even today I think it is a big mistake to annoy developers with the peddling and enforcement of their wishes and claims.

But when I look back I don't just see a mountain of code — several tens of thousands of lines now and a growing book — but also many nice encounters with people:

There was Luzia, who played an important role in the publication of early versions of KOMA-Script; Bernd and David who gave advice on the way TeX works; Ulrike[5] who is not tired of explaining to people the logic behind KOMA-Script and who still sends me bugs; Robin, who has provided my domain for years and had the idea for the KOMA-Script documentation project; Rainer, Alexander, Heiner and many more, who provided me with wine, hardware and consoling words; Rolf, who with his calming influence nevertheless has the ability to stimulate; all people who drove me, cheered me up, calmed me down, inspired me; the Wise Guys[6] who helped me to cope at various times of frustration, although they don't even know me and therefore have a pretty one-way nature of communication with me.

People from DANTE have consistently supported me. It is partly this support that has kept me from throwing everything down.

The most important thing was all these years, that I met people I could call friends. People that I consider as valuable to me, although I hardly have a chance to put the level of attention to these friendships that they deserve.

Just one more thing: KOMA-Script still can't play soccer. As ever, there is something to be done!

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[5] I would like to use this occasion to congratulate her on receiving the DANTE Award 2012!

[6] `http://www.wiseguys.de`

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