

Why I Love L^AT_EX

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1 My History with L^AT_EX

I have been using L^AT_EX and its variant (mostly pL^AT_EX variant, for doing Japanese documents) for about 10 years now. Back when I was in school¹, I have used to take a note in real time.² I even negotiated, for some class, that I can submit assignments in PDF output from L^AT_EX, which I did get favorable responses from all I asked. As a premise, most others submitted non-coding assignments on paper – some submitted electronically, presumably with Microsoft Word format.³

2 Why You Should Use L^AT_EX?

To me, L^AT_EX is a superior document creation tool compared to other forms of document creation.

2.1 Flexibility in Toolchain

Essentially, working on a document using an office suite is pretty much take-all-or-nothing. If you are completely sold to an application software you are using, that's great, but if not, you either have to continue working in an environment you are not satisfied with, or should you choose to integrate process using another method, such as alternative softwares – that's when things get very awkward. While most of office suite applications provide some support for interfacing with other applications, which could be through set of APIs, or scripting, but because of the complexity of the software, customizing those environments could well be a fulltime job of its own.

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²Back around that time, Org-mode was still about to be released. If I'd do anything differently today, I'd take a note in Org-mode, and perhaps export it to L^AT_EX or other formats.

³How they can live with formula editor on Microsoft Word, is outside of my comprehension. . .

L^AT_EXfile is essentially a plain text format with markup. Any text editors can handle L^AT_EXfiles. If the editing L^AT_EXfile, learning L^AT_EXcommands are not your cup of tea, then there are many “IDE for L^AT_EX” systems you can use instead. One such application I’ve used in the past is called TeXnicCenter[4] which provided menus and toolbar access to many of commonly (and some obscure) commands available in L^AT_EX. If you are being intimidated by the markup nature of L^AT_EX, you may want to try it, or many other editors around.

Because of a text based workflow, it integrates very well among other tools. For instance, I use Org-mode[1] to create a document. Org-mode is a very versatile tool that can be used for many forms of data management and authoring. Perhaps because Carsten Dominik, the original author of Org-mode is an astronomy professor[2], Org-mode is designed so it works very well with L^AT_EXsystem.

This provides multiple export path as well. While I prepare a document as a document, the same document also can be used to output as an HTML page.⁴

2.2 Clear Separation of Style and Contents

You may have come across the documents that are horribly formatted. I have seen a document that the *heading* was merely done by change of font size, spacing between paragraph being adjusted by an empty line of different font size; the list goes on and on. This comes from overemphasis of so called WYSIWYG (What You See Is What You Get) concept, where what you see on the screen is what you get as a result. For instance, when you print out the document, the result will be what you see on the screen⁵.

Even after sociological emphasis is shifted from circulation of document as a paper, and electronic transmission, collaboration, and management, mindset of users were never shifted, and as a result, poorly formatted documents are being produced, perhaps in a degree of hundreds of Terabytes per seconds world wide.

Bad formatting was, perhaps, acceptable when paper trails were the center of focus; after all, noone really cared how data that resulting print was originated from, as long as it is legible.

L^AT_EXin nature, often enforces document markups, which makes it much harder to do it wrong way. It is still possible to format document in L^AT_EXwrong way, but either makes getting what you want done more challenging, or will cause errors.

2.3 Better Version Control

L^AT_EXdocument is a text file, so the document can be version controlled as easily as computer program codes. Difference between version can be inspected easily. This is fundamentally different from how many of Office Suite applications record changes; essentially they are keylogger system where user actions are recorded into the document. If this feature is not enabled when the document is being written, or information is lost for some reason, recovering difference information between two document often provide inaccurate information. Moreover, merging difference from multiple sources are often very difficult because of the nature that style information often interleaved within the document.

3 Want Try It Out?

Installing L^AT_EXto your computer is easier than ever, as there’s installation package called T_EX Live[3] which includes most of programs you will need to get started. Depending on your preference, you may want also install aforementioned editing software, but your favorite text editors should do a trick.

⁴It is also worthwhile to mention that the HTML output from Org-mode is clean enough that it validates as XHTML strict

⁵While some may disagree with this notion, but it was premise as marketed back then.

References

- [1] Bastien Guerry Carsten Dominik et al. *Org mode for Emacs – Your Life in Plain Text*. URL: <http://orgmode.org/>.
- [2] Carsten Dominik. *Carsten Dominik's Homepage*. URL: <http://staff.science.uva.nl/~dominik/>.
- [3] TeX Users Group. *TeX Live*. URL: <http://www.tug.org/texlive/>.
- [4] *TeXniccenter*. A TeX authoring tool for Microsoft Windows. URL: <http://www.texniccenter.org/>.