

Producing a critical edition with L^AT_EX, or the primacy of the typography

Maïeul Rouquette

Université de Lausanne — IRSB

2019-02-01

<https://geekographie.maieul.net/224>



Licence Creative Commons France 3.0 - Paternité - Partage à l'identique

- 1 A brief historical survey
- 2 How do \LaTeX and *reledmac* work?
- 3 What does it mean about the concept of critical editions?
- 4 Conclusion: \LaTeX as a final tool

Section 1

A brief historical survey

At the beginning was T_EX and L^AT_EX

- Donald Knuth (1938 -) “The Yoda of the Silicon Valley”

At the beginning was T_EX and L^AT_EX

- Donald Knuth (1938 -) “The Yoda of the Silicon Valley”
- *The Art of Computer Programming*

At the beginning was T_EX and L^AT_EX

- Donald Knuth (1938 -) “The Yoda of the Silicon Valley”
- *The Art of Computer Programming*
- Unsatisfied by the (digital) typography of its publisher, he created T_EX (1976)

At the beginning was T_EX and L^AT_EX

- Donald Knuth (1938 -) “The Yoda of the Silicon Valley”
- *The Art of Computer Programming*
- Unsatisfied by the (digital) typography of its publisher, he created T_EX (1976)
- Today, only some people use again the original T_EX, most people use another “flavor” of T_EX, like pdfT_EX, X_YT_EX or LuaT_EX

At the beginning was T_EX and L^AT_EX

- T_EX provides tools to manage typographical problems such as:

At the beginning was T_EX and L^AT_EX

- T_EX provides tools to manage typographical problems such as:
 - ▶ optimal line breaks;

At the beginning was T_EX and L^AT_EX

- T_EX provides tools to manage typographical problems such as:
 - ▶ optimal line breaks;
 - ▶ footnotes insertion dealing with page breaks;

At the beginning was T_EX and L^AT_EX

- T_EX provides tools to manage typographical problems such as:
 - ▶ optimal line breaks;
 - ▶ footnotes insertion dealing with page breaks;
- T_EX is also a programming language (Turing complete)

At the beginning was T_EX and L^AT_EX

- T_EX provides tools to manage typographical problems such as:
 - ▶ optimal line breaks;
 - ▶ footnotes insertion dealing with page breaks;
- T_EX is also a programming language (Turing complete)
- It allows to define macro in order to wrap typographical formatting inside structural / logical macros

At the beginning was T_EX and L^AT_EX

- T_EX provides tools to manage typographical problems such as:
 - ▶ optimal line breaks;
 - ▶ footnotes insertion dealing with page breaks;
- T_EX is also a programming language (Turing complete)
- It allows to define macro in order to wrap typographical formatting inside structural / logical macros
- L^AT_EX, created in 1983, is a set of macros for T_EX (a “format”)

At the beginning was T_EX and L^AT_EX

- T_EX provides tools to manage typographical problems such as:
 - ▶ optimal line breaks;
 - ▶ footnotes insertion dealing with page breaks;
- T_EX is also a programming language (Turing complete)
- It allows to define macro in order to wrap typographical formatting inside structural / logical macros
- L^AT_EX, created in 1983, is a set of macros for T_EX (a “format”)
- Today, L^AT_EX is the most used format based on T_EX

TEX a high quality typographical composer

The first paragraph of Herman Melville's *Moby Dick* typeset using three different programs.
The text is set using Garamond Premier Pro 12/14 in a 5 cm wide column, fully justified.
Created by Roel Zinksook of Zink Typography (www.zinktypografie.nl), January 2010

Microsoft Word 2008

Call me Ishmael. Some years ago - never mind how long precisely - having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the wotery part of the world. It is a way I have of driving off the spleen, and regulating the circulation. Whenever I find myself growing grim about the mouth; whenever it is a damp, drizzly November in my soul; whenever I find myself unutterably pausing before coffin warehouses, and bringing up the rear of every funeral I meet; and especially whenever my hypos get such an upper hand of me, that it requires a strong moral principle to prevent me from deliberately stepping into the street, and methodically knocking people's hats off - then, I account it high time to get to sea as soon as I can. This is my substitute for pistol and ball. With a philosophical flourish Cato throws himself upon his sword; I quietly take to the ship. There is nothing surprising in this. If they but knew it, almost all men in their degree, some time or other, cherish very nearly the same feelings towards the ocean with me.

Adobe InDesign cs4

Call me Ishmael. Some years ago - never mind how long precisely - having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the watery part of the world. It is a way I have of driving off the spleen, and regulating the circulation. Whenever I find myself growing grim about the mouth; whenever it is a damp, drizzly November in my soul; whenever I find myself unutterably pausing before coffin warehouses, and bringing up the rear of every funeral I meet; and especially whenever my hypos get such an upper hand of me, that it requires a strong moral principle to prevent me from deliberately stepping into the street, and methodically knocking people's hats off - then, I account it high time to get to sea as soon as I can. This is my substitute for pistol and ball. With a philosophical flourish Cato throws himself upon his sword; I quietly take to the ship. There is nothing surprising in this. If they but knew it, almost all men in their degree, some time or other, cherish very nearly the same feelings towards the ocean with me.

pdf-Latex 3.1415926

Call me Ishmael. Some years ago - never mind how long precisely - having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the watery part of the world. It is a way I have of driving off the spleen, and regulating the circulation. Whenever I find myself growing grim about the mouth; whenever it is a damp, drizzly November in my soul; whenever I find myself unutterably pausing before coffin warehouses, and bringing up the rear of every funeral I meet; and especially whenever my hypos get such an upper hand of me, that it requires a strong moral principle to prevent me from deliberately stepping into the street, and methodically knocking people's hats off - then, I account it high time to get to sea as soon as I can. This is my substitute for pistol and ball. With a philosophical flourish Cato throws himself upon his sword; I quietly take to the ship. There is nothing surprising in this. If they but knew it, almost all men in their degree, some time or other, cherish very nearly the same feelings towards the ocean with me.

Hyphenation and inter-word spacing statistics

	Word	InDesign	pdf-Latex
Number of hyphenations	9	10	4
SD of FWS (pt)	2.26	1.94	1.41
Maximum FWS (pt)	14.4	15.1	9.0
Number of lines with FWS > 9 pt	5	2	0

SD: standard deviation, FWS: inter-word spacing

<http://www.rtznet.nl/zink/latex.php?lang=nl>

And came *edmac* and its successors

- *edmac* was created to typeset critical edition with T_EX (not with L^AT_EX!): John Lavignino and Dominik Wujastyk (1988-1989)

And came *edmac* and its successors

- *edmac* was created to typeset critical edition with T_EX (not with L^AT_EX!): John Lavignino and Dominik Wujastyk (1988-1989)
- *ledmac* is a port of *edmac* to be used with L^AT_EX: Peter Wilson (2003)

And came *edmac* and its successors

- *edmac* was created to typeset critical edition with T_EX (not with L^AT_EX!): John Lavignino and Dominik Wujastyk (1988-1989)
- *ledmac* is a port of *edmac* to be used with L^AT_EX: Peter Wilson (2003)
- *eledmac* (2012) and *reledmac* (2015) are derivated from *ledmac* with more features and setups: Maïeul Rouquette

Section 2

How do \LaTeX and *reledmac* work?

L^AT_EX's working

- Author writes a text into a text editor, generalist (*Atom*, *vim*, ...) or specialized (T_EXShop, T_EXStudio, ...)

L^AT_EX's working

- Author writes a text into a text editor, generalist (*Atom*, *vim*, ...) or specialized (*T_EXShop*, *T_EXStudio*, ...)
- He or she inserts commands / macros into the file to mark the logical structures (sectionning, footnotes, indexing, bibliography, etc.)

\LaTeX 's working

- Author writes a text into a text editor, generalist (*Atom*, *vim*, ...) or specialized (*TeXShop*, *TeXStudio*, ...)
- He or she inserts commands / macros into the file to mark the logical structures (sectioning, footnotes, indexing, bibliography, etc.)
- He or she runs \LaTeX and gets a PDF output

L^AT_EX's working

- Author writes a text into a text editor, generalist (*Atom*, *vim*, ...) or specialized (*T_EXShop*, *T_EXStudio*, ...)
- He or she inserts commands / macros into the file to mark the logical structures (sectioning, footnotes, indexing, bibliography, etc.)
- He or she runs L^AT_EX and gets a PDF output
- Sometime, we need more than one run of L^AT_EX and we need to call auxiliary softwares (indexing, bibliography)

L^AT_EX's working

- Author writes a text into a text editor, generalist (*Atom*, *vim*, ...) or specialized (*T_EXShop*, *T_EXStudio*, ...)
- He or she inserts commands / macros into the file to mark the logical structures (sectioning, footnotes, indexing, bibliography, etc.)
- He or she runs L^AT_EX and gets a PDF output
- Sometime, we need more than one run of L^AT_EX and we need to call auxiliary softwares (indexing, bibliography)
- All these runs can be automated with tools like *latexmk*

L^AT_EX's working

- Author writes a text into a text editor, generalist (*Atom*, *vim*, ...) or specialized (*T_EXShop*, *T_EXStudio*, ...)
- He or she inserts commands / macros into the file to mark the logical structures (sectioning, footnotes, indexing, bibliography, etc.)
- He or she runs L^AT_EX and gets a PDF output
- Sometime, we need more than one run of L^AT_EX and we need to call auxiliary softwares (indexing, bibliography)
- All these runs can be automated with tools like *latexmk*
- L^AT_EX has a lot of packages to manage specific problems (like *reledmac*)

reledmac's working

code 1: Example of critical edition typeset with *reledmac*

```
% Typographical settings
\Xarrangement{paragraph}
\Xnumberonlyfirstinline
\Xsymlinenum{||}$}
% Critical edition itself
\beginnumbering
\pstart
The little \edtext{cat}{\Afootnote{A: dog}} \edtext{died}{\Afootnote{B: passed away}}.
It failed from the tower.
Why is it \edtext{always}{\Afootnote{C: \emph{om.}}} a little cat that dies and never a pope that fails
↪ from the \edtext{tower}{\Afootnote{AD: \emph{add.} to the street}}?
\pend
\endnumbering
```

The little cat died. It failed from the tower. Why is it always a little cat that dies and never a pope that fails from the tower?

1 cat] A: dog || died] B: passed away || always] C: *om.* 2 tower] AD: *add.* to the street

What does *reledmac* provide?

- **Four types of note:** critical footnote, critical endnote, familiar footnote, sidenote

What does *reledmac* provide?

- **Four types of note**: critical footnote, critical endnote, familiar footnote, sidenote
- **Multiple levels of note** (except for sidenote): A to E by default

What does *reledmac* provide?

- **Four types of note:** critical footnote, critical endnote, familiar footnote, sidenote
- **Multiple levels of note** (except for sidenote): A to E by default
- **Multiple settings for note:** formatting, line number managing, etc.

What does *reledmac* provide?

- **Four types of note**: critical footnote, critical endnote, familiar footnote, sidenote
- **Multiple levels of note** (except for sidenote): A to E by default
- **Multiple settings for note**: formatting, line number managing, etc.
- **Tools to manage auxiliary problems** like parallel typesetting (*reledpar*), short forms of lemmas, nested lemmas, ambiguous lemmas, poetry typesetting, indexing, manuscript apparatus, etc.

Section 3

What does it mean about the concept of critical editions?

Critical edition as an annotated text

A critical edition with *reledmac* is considered as:

Critical edition as an annotated text

A critical edition with *reledmac* is considered as:

- a **numbered text** (`\beginnumbering... \endnumbering`)

Critical edition as an annotated text

A critical edition with *reledmac* is considered as:

- a **numbered text** (`\beginnumbering... \endnumbering`)
- containing **paragraphs** (`\pstart... \pend`)

Critical edition as an annotated text

A critical edition with *reledmac* is considered as:

- a **numbered text** (`\beginnumbering... \endnumbering`)
- containing **paragraphs** (`\pstart... \pend`)
- with **lemmas** (`\edtext`)

Critical edition as an annotated text

A critical edition with *reledmac* is considered as:

- a **numbered text** (`\beginnumbering... \endnumbering`)
- containing **paragraphs** (`\pstart... \pend`)
- with **lemmas** (`\edtext`)
- which are associated to **notes** (`\Afootnote`)

Semantic annotation with *reledmac*?

code 2: Example of semantic annotation with *reledmac*

```
% Semantic annotation
\newcommand{\variant}[3]{\edtext{#1}{\Afootnote{#2: #3}}}
\newcommand{\om}[2]{\variant{#1}{#2}{\emph{om.}}}
\newcommand{\add}[3]{\variant{#1}{#2}{\emph{add.} #3}}
% Typographical settings
\Xarrangement{paragraph}
\Xnumberonlyfirstinline
\Xsymlinenum{||$}
% Critical edition itself
\beginnumbering
\pstart
The little \variant{cat}{A}{dog} \variant{died}{B}{passed away}.
It failed from the tower.
Why is it \om{always}{C} a little cat that dies and never a pope that fails from the \add{tower}{AD}{to
↪ the street}?
\pend
\endnumbering
```

Critical edition as an achieved text

- Edited text is primary, variants are secondary

Critical edition as an achieved text

- Edited text is primary, variants are secondary
- In other terms: with *reledmac*, there is a supremacy of the editor over the edited text and it witnesses

Critical edition as an achieved text

- Edited text is primary, variants are secondary
- In other terms: with *reledmac*, there is a supremacy of the editor over the edited text and it witnesses
- *reledmac* is designed to **typeset** critical edition, not to **structure** or to **conceive** it

“Variants first” encoding with *reledmac*?

- Is it possible to conceive a critical edition with *reledmac* that would consider text as a series of variants, some retained, other ones rejected?

“Variants first” encoding with *reledmac*?

- Is it possible to conceive a critical edition with *reledmac* that would consider text as a series of variants, some retained, other ones rejected?
- That was the aims of (abandoned) *eledform* project

“Variants first” encoding with *reledmac*?

- Is it possible to conceive a critical edition with *reledmac* that would consider text as a series of variants, some retained, other ones rejected?
- That was the aims of (abandoned) *eledform* project
- Why it was not so much a good idea?

“Variants first” encoding with *reledmac*?

- Is it possible to conceive a critical edition with *reledmac* that would consider text as a series of variants, some retained, other ones rejected?
- That was the aims of (abandoned) *eledform* project
- Why it was not so much a good idea?
 - ▶ Complex to implement fully with T_EX language (maybe easier with LuaT_EX)

“Variants first” encoding with *reledmac*?

- Is it possible to conceive a critical edition with *reledmac* that would consider text as a series of variants, some retained, other ones rejected?
- That was the aims of (abandoned) *eledform* project
- Why it was not so much a good idea?
 - ▶ Complex to implement fully with T_EX language (maybe easier with LuaT_EX)
 - ▶ Only one possible output: PDF, and so printed book, not website (not easily)

“Variants first” encoding with *reledmac*?

- Is it possible to conceive a critical edition with *reledmac* that would consider text as a series of variants, some retained, other ones rejected?
- That was the aims of (abandoned) *eledform* project
- Why it was not so much a good idea?
 - ▶ Complex to implement fully with T_EX language (maybe easier with LuaT_EX)
 - ▶ Only one possible output: PDF, and so printed book, not website (not easily)
 - ▶ Performance issues: logical structure much be translated into typographical structure at each run

“Variants first” encoding with *reledmac*?

- Is it possible to conceive a critical edition with *reledmac* that would consider text as a series of variants, some retained, other ones rejected?
- That was the aims of (abandoned) *eledform* project
- Why it was not so much a good idea?
 - ▶ Complex to implement fully with T_EX language (maybe easier with LuaT_EX)
 - ▶ Only one possible output: PDF, and so printed book, not website (not easily)
 - ▶ Performance issues: logical structure much be translated into typographical structure at each run
 - ▶ Redundant with other existing tools (TEI, *Stemmaweb*)

Section 4

Conclusion: \LaTeX as a final tool

- Keeping \LaTeX as a final tool to typeset critical edition:

- Keeping \LaTeX as a final tool to typeset critical edition:
 - ▶ A lot of typographical tools for critical editions in *reledmac*

- Keeping L^AT_EX as a final tool to typeset critical edition:
 - ▶ A lot of typographical tools for critical editions in *reledmac*
 - ▶ Interaction with other packages of L^AT_EX: to draw *stemma codicum*, bibliography, etc.

- Keeping L^AT_EX as a final tool to typeset critical edition:
 - ▶ A lot of typographical tools for critical editions in *reledmac*
 - ▶ Interaction with other packages of L^AT_EX: to draw *stemma codicum*, bibliography, etc.
 - ▶ High typography quality

- Keeping L^AT_EX as a final tool to typeset critical edition:
 - ▶ A lot of typographical tools for critical editions in *reledmac*
 - ▶ Interaction with other packages of L^AT_EX: to draw *stemma codicum*, bibliography, etc.
 - ▶ High typography quality
 - ▶ Scriptable and versionnable

- Keeping L^AT_EX as a final tool to typeset critical edition:
 - ▶ A lot of typographical tools for critical editions in *reledmac*
 - ▶ Interaction with other packages of L^AT_EX: to draw *stemma codicum*, bibliography, etc.
 - ▶ High typography quality
 - ▶ Scriptable and versionnable
 - ▶ Free / Open source software

- Keeping L^AT_EX as a final tool to typeset critical edition:
 - ▶ A lot of typographical tools for critical editions in *reledmac*
 - ▶ Interaction with other packages of L^AT_EX: to draw *stemma codicum*, bibliography, etc.
 - ▶ High typography quality
 - ▶ Scriptable and versionnable
 - ▶ Free / Open source software
- Using other tools to conceive and structure editions, then export to L^AT_EX



Credit: Duane Dubby