

Making BachTeX Proceedings

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The origins

Fall 2020 \Leftarrow deep reorganisation within the French-speaking group GUTenberg.

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January 2021 \Leftarrow I became the new editor of the French journal *Cahiers GUTenberg*.

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Spring 2022 \Leftarrow ten years after the previous issue (#57), a new one (#58) is distributed to all the members of GUTenberg.

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Spring 2022 \Leftarrow ten years after the previous issue (#57), a new one (#58) is distributed to all the members of GUTenberg.

To put #58 into action, we developed some tools in order to automate the making of the whole issue, from separate articles. Some points shown at TUG 2022.

Going further

BachTeX 2018, 2019, without proceedings.

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Expected for the summer's end.

The situation

Cahiers GUTenberg \Leftarrow a kind of *legacy* with some articles ready or close to be such.

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Compiling with pdfL^AT_EX, X₃L^AT_EX, LuaL^AT_EX. . .

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BachTeX \Leftarrow ConT_EXt, too.

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LC2 experience \Leftarrow need *automated generation* of a whole issue's parts.

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Check programs, e.g., page number succession.

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LC2 experience \Leftarrow need *automated generation* of a whole issue's parts.

Check programs, e.g., page number succession.

Avoiding *information redundancy*. For example, tables of contents should be generated automatically.

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Assembling PDF files? \implies pdfpages package.

How?

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Recompile (L^A)T_EX source files? \implies Makefile.

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Assembling PDF files? \implies pdfpages package.

Recompile (L^A)T_EX source files? \implies Makefile.

```
target: dependency1 dependency2 ...  
command
```

Task related to programming

Extracting the title, the author(s), and the first page number.

Task related to programming

Extracting the title, the author(s), and the first page number.
Last page number \Leftarrow lastpage package.

Task related to programming

Extracting the title, the author(s), and the first page number.

Last page number \leftarrow lastpage package.

Getting the other informations with (\LaTeX) ?

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Getting the other informations with (L^A)T_EX? Possible theoretically, but better: using a T_EX-parser written in the Scheme programming language.

Task related to programming

Extracting the title, the author(s), and the first page number.

Last page number \leftarrow lastpage package.

Getting the other informations with (L^A)T_EX? Possible theoretically, but better: using a T_EX-parser written in the Scheme programming language.

```
(g-retain-command "title" 2
  #t ; The first argument is optional.
  #t ; Top level only.
  #t ; Recursively.
  #t ; Within the preamble only.
  1  ; Only one occurrence, then give up.
  (lambda (ignored-s title-s) ...))
```

Title in English for the table of contents in English .

Title in English (resp. Polish) for the table of contents in English (resp. Polish).

Title in English (resp. Polish) for the table of contents in English (resp. Polish).

```
\hbsettitleinenglish{Making an Issue of \cgut}  
\hbsettitleinpolish{Skład biuletynu \cgut}
```

```
\title{\hbgettextinenglish\thanks{Title in Polish:  
  \foreignlanguage{polish}{\emph{\hbgettextinpolish}}}.}
```

Title in English (resp. Polish) for the table of contents in English (resp. Polish).

```
%%%--smlbibtex-plus--[  
\newcommand{\cgut}{%  
  \foreignlanguage{french}{\emph{Cahiers GUTenberg}}}  
%%%--]  
  
\hbsettitleinenglish{Making an Issue of \cgut}  
\hbsettitleinpolish{Skład biuletynu \cgut}  
  
\title{\hbgettitleinenglish\thanks{Title in Polish:  
  \foreignlanguage{polish}{\emph{\hbgettitleinpolish}}}.}
```

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Generating *variants*

E.g., printed or animated versions \implies additional option.

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E.g., printed or animated versions \implies additional option.
Generating a new source file by means of *regular expressions*
 \longleftarrow Ruby.

How to proceed?

Write a *master file*.

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How to proceed?

Write a *master file*.

```
\cgincludearticleplus{pdflatex}{edito-h}{edito-h}
```

```
\cgincludearticleplus{pdflatex}{knuth-eg}{knuth-eg}
```

```
\cgincludearticleplus{%  
pdflatex}{flynn-bideault}{flynn-bideault}
```

```
\cgincludearticleplus{xelatex}{poulain}{poulain-plus}
```

```
\cgincludearticleplus[%  
animated]{lualatex}{chupin}{chupin-plus}
```

```
\cgincludearticleplus{%  
xelatex}{accidentals-french}{accidentals-french}
```

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Next stages

Skeleton file \implies Makefile (basic).

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`+include deps`

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Skeleton file \implies Makefile (basic).

```
+include deps
```

Build the deps file:

```
poulain/poulain-plus.pdf: poulain/poulain-plus.tex  
    cd poulain ; xelatex poulain-plus.tex
```

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Skeleton file \implies Makefile (basic).

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Build the deps file:

```
poulain/poulain-plus.pdf: poulain/poulain-plus.tex
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Generate separate articles.

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Generate separate articles.

Checking the successive page number ranges and build the table(s) of contents.

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Compile the master file (you can use a suitable *target*).

Next stages

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On request, generate the variants.

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```

Generate separate articles.

Checking the successive page number ranges and build the table(s) of contents.

Compile the master file (you can use a suitable *target*).

On request, generate the variants.

Cleaning useless files \longleftarrow make clean.

more-abstracts package \Leftarrow *several* abstracts can be given.

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antispam package:

`tug2024@tug.org` \implies `tug2024 (at) tug (dot) org`

How articles are changed

Putting/checking commands for titles.

How articles are changed

Putting/checking commands for titles.
Specifying the starting page number.

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Putting/checking commands for titles.
Specifying the starting page number.
Checking/adapting abstract(s).

How articles are changed

- Putting/checking commands for titles.
- Specifying the starting page number.
- Checking/adapting abstract(s).
- Other points related to compiling.

In other ConTEXt/contexts?

New module: `tugboat-hbachotex`, in preparation.

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`babel/polyglossia/other packages` *ad hoc*.

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Using a way to determine the *last page number* \Leftarrow the
`lastpage` package

In other ConT_EXt/contexts?

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Using the `\author` depend on classes.

Dealing with possibly multilingual aspects:

`babel/polyglossia/other` packages *ad hoc*.

Using a way to determine the *last page number* \Leftarrow the `lastpage` package (although some programs can compute the number of the pages of a PDF file).

Good — less good

Dependencies among files: OK, but currently only at the top level

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(not for included files, in particular *graphic* files).

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Before fall \Leftarrow *Cahiers GUTenberg* #59 and BachTeX
proceedings.

...

Conclusion

My system is:

open some typesetting systems can coexist, some
languages, too;

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My system is:

- open** some typesetting systems can coexist, some languages, too;
- limited** some operations require some experience in programming, some basic knowledge in Scheme;

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but I am ready to:

- ▶ perform demonstrations for interested people;

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- open** some typesetting systems can coexist, some languages, too;
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but I am ready to:

- ▶ perform demonstrations for interested people;
- ▶ help end-users if need be.