XML Workflows and the EuroTeX 2005 Proceedings

Volker RW Schaa

DANTE e.V.
Heidelberg, Germany

TUG 2005
Wuhan
China P.R.
August, 2005

国际排版技术大会

History
<html>/pdfTEX
Summary

Motivation
Starting point : PDFTEX/PERL/XML
Differences/Similarities

Motivation

- In 2002 I was appointed as Proceedings Editor for two conferences
- Responsibility for preparation of abstract and paper submissions, web presentations, the conference volume (*Proceedings*), and CD-ROM
- When I found that the scale of work for these conferences was too large for manual production:
  - DIPAC2003 85 papers, 300 pages, 290 authors
  - LINAC2004 280 papers, 1000 pages, ~1000 authors
- and that even bigger conferences like
  - EPAC 1200 papers, 4000 pages, 3500 authors
  - PAC 1400 papers, 4800 pages, 4300 authors
- were using inadequate tools,
- I decided to write scripts which could do the job

History
<html>/pdfTEX
Summary

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Differences/Similarities

Starting point

the idea

- typesetting: PDFTEX
- scripting: PERL
- data: XML

the method

- database export in XML
- interpretation of XML by PERL scripts
- transformation to <html> and \pdfTEX

≈3 years later:

- the scripts have been used on 5 conferences,
- they have been extended,
- they are now integral part of the conference software under GPL,
- I given several talks about the software (i.e. PracticalTEX 2004)
- but, I never thought of using it for a TEX conference. . .

History
<html>/pdfTEX
Summary

Motivation
Starting point : PDFTEX/PERL/XML
Differences/Similarities

New directions, differences

- GUTenberg and DANTE organized EuroTEX 2005 in Pont-à-Mousson/France (March, 7–11)
- 2 weeks before the conference the organizers (we) hadn't make up their mind about preprints
- I volunteered to do it (having my scripts in mind),
- then I realized I had to simplify them (sigh).
- So what are the differences between particle physics and TEX conferences in input and output?

History
<html>/pdfTeX
Summary

Motivation
Starting point : pdfTeX/Perl/XML
Differences/Similarities

XML Definition for Particle Physics Conferences

```
<conference>
  <session>
    <session data, times, location, ...., .../>
    <chair/>
    <chair person's data, .../>
    <paper>
      <paper data, grants, funding, .../>
      <title/>
      <abstract/>
      <institute>
          <institute data, country, name, ..., ..., .../>
          <author>
              <author data, notes, leave of absence, .../>
          </author>
          (more »authors«)
      </institute>
      (more »institutes«)
      <keywords/>
    </paper>
    (more »papers«)
  </session>
  (more »sessions«)
</conference>
```

History
<html>/pdfTEX
Summary

Motivation
Starting point : PDFTEX/PERL/XML
Differences/Similarities

New XML Definition for TEX Conferences

```
<conference>
  <session>
    <paper>
        <title/>
        <abstract/>
        <author/>
        (more »authors«)
    </paper>
    (more »papers«)
  </session>
  (more »sessions«)
</conference>
```

History
<html>/pdfTEX
Summary

Motivation
Starting point : PDFTEX/PERL/XML
Differences/Similarities

XML Definition for a single paper Particle Physics Conferences

```xml
- <paper>
    <code>THZCH03</code>
    <pages>4</pages>
    <toc>249</toc>
    <main_class>Opening, Closing and Special Presentations</main_class>
    <sub_class>Special Presentation</sub_class>
    <presentation type="Oral" option="Invited Oral Presentation">Invited Oral Presentation</presentation>
    <dot>Green</dot>
  - <title>
      JACoW, a Collaboration Serving the Accelerator Community
    </title>
  + <abstract></abstract>
  + <video_URL></video_URL>
  - <contributors>
    - <contributor type="Author">
        <lname>Poole</lname>
        <fname>John</fname>
        <iname>J.</iname>
      - <institutions>
        - <institute>
          + <full_name abbrev="CERN"></full_name>
            <name1>European Organization for Nuclear Research</name1>
            <department>AB Department</department>
            <URL>http://www.cern.ch</URL>
            <town>Geneva</town>
            <postal_code>1211</postal_code>
            <zip_code>23</zip_code>
            <country_code abbrev="CH">Switzerland</country_code>
          </institute>
        </institutions>
      - <emails>
          <email>john.poole@cern.ch</email>
        </emails>
      </contributor>
    + <contributor type="Co-Author"></contributor>
    + <contributor type="Speaker"></contributor>
    </contributors>
  - <files>
    + <file></file>
    + <file></file>
    + <file></file>
    </files>
  </paper>
```

History
<html>/pdfTEX
Summary

Motivation
Starting point : PDFTEX/PERL/XML
Differences/Similarities

XML Definition for a single paper in TEX Conferences

```
- <paper code="MOT02" abstract="yes" pages="12">
    <title>Omega Becomes a Sign Processor</title>
  - <author main="yes">
    - <name>
        <initials>Yannis</initials>
        <lastname>Haralambous</lastname>
      </name>
    </author>
  - <author>
    - <name>
        <initials>Gábor</initials>
        <lastname>Bella</lastname>
      </name>
    </author>
  </paper>
```

History
<html>/pdfTeX
Summary

Motivation
Starting point : pdfTeX/Perl/XML
Differences/Similarities

more differences

Particle Physics Conferences

- Abstracts only – Abstract booklet before conference
- Proceedings after conference
    - 1–3 years using old methods (Word, Quark, VB scripts, . . .)
    - now: 1 week on the web
    - <9 months on paper (mostly due to waiting for *special* authors)
- CD-ROM (due to the size of proceedings the trend is CD only)

TeX Conferences

- Abstract (always)
- Papers (>60%) before conference (⇒ *Preprints*)
- Proceedings volume with all paper up to now only by TUGboat
- no CD-ROM

History
<html>/pdfTEX
Summary

Motivation
Starting point : PDFTEX/PERL/XML
Differences/Similarities

What's similar or the same?

Contents setup in LaTeX terms

\frontmatter

- Conference details
- Committees
- Time table
- Table of contents

\mainmatter

- Papers (generated automatically)

\backmatter

- Authors
- Participants
- Sponsors, vendors, exhibitors, . . .
- Production notes

History
<html>/pdfTEX
Summary

Scripts
Generated script for pdf-file
«html»features«/html»
\pdfTEX{features}

What is the script doing?

1 It reads a configuration files with specifications,
   what to do and where to put files,

2 reads XML and generates <html> for
   - Session list,
   - Authors list,

3 generates \pdfTEX wrappers
   - for each single (raw) pdf-file,
   - for proceedings file,

4 writes command files for
   - generating pdf-files with author and title information,
   - building of proceedings file(s).

History
<html>/pdfTEX
Summary

Scripts
Generated script for pdf-file
«html>features</html>
\pdfTEX{features}

pdfTEX: complete code for one paper

```
\documentclass[twoside]{book}
\usepackage[papersize={595pt,792pt}, body={483pt, 680pt},
            top=54pt, left=56pt, head=18pt, headsep=15pt, footskip=32pt]{geometry}
\usepackage{fancyhdr}\pagestyle{fancy}
\usepackage{pdfpages}

\begin{document}
\pdfinfo{%
  /Title    (Omega Becomes a Sign Processor)
  /Author   (Yannis Haralambous, Gábor Bella)
  /Subject  (Preprints EuroTeX2005 -- Pont-à-Mousson, France)
}
\setcounter{page}{8}
\fancyhead[LE,RO]{\large\sffamily Preprints EuroTeX2005 -- Pont-à-Mousson, France}%
\fancyhead[RE,LO]{\large\sffamily MOT02}%
\fancyfoot[RO,LE]{\large\sffamily\thepage}%
\fancyfoot[RE,LO]{\large\sffamily Omega Becomes a Sign Processor\\Yannis Haralambous, Gábor Bella}

\IfFileExists{../papers-final/MOT02.pdf}{%
              \includepdf[pages=-, scale=1.0,
                          pagecommand={}]{../papers-final/MOT02.pdf}}%
             {\Huge\mbox{}\vfill
              \centering\textsf{\textbf{PAPER NOT YET RECEIVED}}
              \vfill}
\end{document}
```

History
«html»/pdfTEX
Summary

Scripts
Generated script for pdf-file
«html»features«/html»
\pdfTEX{features}

»geometry« helps to keep the tight frame

```
\documentclass[twoside]{book}
\usepackage[papersize={595pt,792pt}, body={483pt, 680pt},
            top=54pt, left=56pt, head=18pt, headsep=15pt, footskip=32pt]{geometry}
\usepackage{fancyhdr}\pagestyle{fancy}
\usepackage{pdfpages}

\begin{document}
\pdfinfo{%
  /Title    (Omega Becomes a Sign Processor)
  /Author   (Yannis Haralambous, Gábor Bella)
  /Subject  (Preprints EuroTeX2005 -- Pont-à-Mousson, France)
}
\setcounter{page}{8}
\fancyhead[LE,RO]{\large\sffamily Preprints EuroTeX2005 -- Pont-à-Mousson, France}%
\fancyhead[RE,LO]{\large\sffamily MOT02}%
\fancyfoot[RO,LE]{\large\sffamily\thepage}%
\fancyfoot[RE,LO]{\large\sffamily Omega Becomes a Sign Processor\\Yannis Haralambous, Gábor Bella}

\IfFileExists{../papers-final/MOT02.pdf}{%
            \includepdf[pages=-, scale=1.0,
                        pagecommand={}]{../papers-final/MOT02.pdf}}%
            {\Huge\mbox{}\vfill
             \centering\textsf{\textbf{PAPER NOT YET RECEIVED}}
             \vfill}
\end{document}
```

History
‹html›/pdfT_EX
Summary

Scripts
Generated script for pdf-file
«html›-features‹/html›
\pdfT_EX{features}

»`fancyhdr`« prints header and footer information

```
\documentclass[twoside]{book}
\usepackage[papersize={595pt,792pt}, body={483pt, 680pt},
            top=54pt, left=56pt, head=18pt, headsep=15pt, footskip=32pt]{geometry}
\usepackage{fancyhdr}\pagestyle{fancy}
\usepackage{pdfpages}

\begin{document}
\pdfinfo{%
  /Title    (Omega Becomes a Sign Processor)
  /Author   (Yannis Haralambous, Gábor Bella)
  /Subject  (Preprints EuroTeX2005 -- Pont-à-Mousson, France)
}
\setcounter{page}{8}
\fancyhead[LE,RO]{\large\sffamily Preprints EuroTeX2005 -- Pont-à-Mousson, France}%
\fancyhead[RE,LO]{\large\sffamily MOT02}%
\fancyfoot[RO,LE]{\large\sffamily\thepage}%
\fancyfoot[RE,LO]{\large\sffamily Omega Becomes a Sign Processor\\Yannis Haralambous, Gábor Bella}

\IfFileExists{../papers-final/MOT02.pdf}{%
             \includepdf[pages=-, scale=1.0,
                         pagecommand={}]{../papers-final/MOT02.pdf}}%
             {\Huge\mbox{}\vfill
              \centering\textsf{\textbf{PAPER NOT YET RECEIVED}}
              \vfill}
\end{document}
```

History
<html>/pdfTₑX
Summary

Scripts
Generated script for pdf-file
«html>features</html>
\pdfTₑX{features}

»`pdfinfo`« transfers all meta info into the pdf file

```
\documentclass[twoside]{book}
\usepackage[papersize={595pt,792pt}, body={483pt, 680pt},
            top=54pt, left=56pt, head=18pt, headsep=15pt, footskip=32pt]{geometry}
\usepackage{fancyhdr}\pagestyle{fancy}
\usepackage{pdfpages}

\begin{document}
\pdfinfo{%
  /Title    (Omega Becomes a Sign Processor)
  /Author   (Yannis Haralambous, Gábor Bella)
  /Subject  (Preprints EuroTeX2005 -- Pont-à-Mousson, France)
}
\setcounter{page}{8}
\fancyhead[LE,RO]{\large\sffamily Preprints EuroTeX2005 -- Pont-à-Mousson, France}%
\fancyhead[RE,LO]{\large\sffamily MOT02}%
\fancyfoot[RO,LE]{\large\sffamily\thepage}%
\fancyfoot[RE,LO]{\large\sffamily Omega Becomes a Sign Processor\\Yannis Haralambous, Gábor Bella}

\IfFileExists{../papers-final/MOT02.pdf}{%
              \includepdf[pages=-, scale=1.0,
                          pagecommand={}]{../papers-final/MOT02.pdf}}%
             {\Huge\mbox{}\vfill
              \centering\textsf{\textbf{PAPER NOT YET RECEIVED}}
              \vfill}
\end{document}
```

History
<html>/pdfTEX
Summary

Scripts
Generated script for pdf-file
«html>features</html>
\pdfTEX{features}

»pdfpages« imbeds the (raw) paper

```
\documentclass[twoside]{book}
\usepackage[papersize={595pt,792pt}, body={483pt, 680pt},
            top=54pt, left=56pt, head=18pt, headsep=15pt, footskip=32pt]{geometry}
\usepackage{fancyhdr}\pagestyle{fancy}
\usepackage{pdfpages}

\begin{document}
\pdfinfo{%
  /Title    (Omega Becomes a Sign Processor)
  /Author   (Yannis Haralambous, Gábor Bella)
  /Subject  (Preprints EuroTeX2005 -- Pont-à-Mousson, France)
}
\setcounter{page}{8}
\fancyhead[LE,RO]{\large\sffamily Preprints EuroTeX2005 -- Pont-à-Mousson, France}%
\fancyhead[RE,LO]{\large\sffamily MOT02}%
\fancyfoot[RO,LE]{\large\sffamily\thepage}%
\fancyfoot[RE,LO]{\large\sffamily Omega Becomes a Sign Processor\\Yannis Haralambous, Gábor Bella}

\IfFileExists{../papers-final/MOT02.pdf}{%
               \includepdf[pages=-, scale=1.0,
                           pagecommand={}]{../papers-final/MOT02.pdf}}%
               {\Huge\mbox{}\vfill
                \centering\textsf{\textbf{PAPER NOT YET RECEIVED}}
                \vfill}
\end{document}
```

History
<html>/pdfTEX
Summary

Scripts
Generated script for pdf-file
«html>-features</html>
\pdfTEX{features}

»\IfFileExists« ensures that there is at least a paper with a note

```
\documentclass[twoside]{book}
\usepackage[papersize={595pt,792pt}, body={483pt, 680pt},
            top=54pt, left=56pt, head=18pt, headsep=15pt, footskip=32pt]{geometry}
\usepackage{fancyhdr}\pagestyle{fancy}
\usepackage{pdfpages}

\begin{document}
\pdfinfo{%
  /Title    (Omega Becomes a Sign Processor)
  /Author   (Yannis Haralambous, Gábor Bella)
  /Subject  (Preprints EuroTeX2005 -- Pont-à-Mousson, France)
}
\setcounter{page}{8}
\fancyhead[LE,RO]{\large\sffamily Preprints EuroTeX2005 -- Pont-à-Mousson, France}%
\fancyhead[RE,LO]{\large\sffamily MOT02}%
\fancyfoot[RO,LE]{\large\sffamily\thepage}%
\fancyfoot[RE,LO]{\large\sffamily Omega Becomes a Sign Processor\\Yannis Haralambous, Gábor Bella}

\IfFileExists{../papers-final/MOT02.pdf}{%
             \includepdf[pages=-, scale=1.0,
                         pagecommand={}]{../papers-final/MOT02.pdf}}%
             {\Huge\mbox{}\vfill
              \centering\textsf{\textbf{PAPER NOT YET RECEIVED}}
              \vfill}
\end{document}
```

History
«html»/pdfTEX
Summary

Scripts
Generated script for pdf-file
«html»features«/html»
\pdfTEX{features}

»pagenumber« is set after checking/counting all pages

```
\documentclass[twoside]{book}
\usepackage[papersize={595pt,792pt}, body={483pt, 680pt},
            top=54pt, left=56pt, head=18pt, headsep=15pt, footskip=32pt]{geometry}
\usepackage{fancyhdr}\pagestyle{fancy}
\usepackage{pdfpages}

\begin{document}
\pdfinfo{%
  /Title    (Omega Becomes a Sign Processor)
  /Author   (Yannis Haralambous, Gábor Bella)
  /Subject  (Preprints EuroTeX2005 -- Pont-à-Mousson, France)
}
\setcounter{page}{8}
\fancyhead[LE,RO]{\large\sffamily Preprints EuroTeX2005 -- Pont-à-Mousson, France}%
\fancyhead[RE,LO]{\large\sffamily MOT02}%
\fancyfoot[RO,LE]{\large\sffamily\thepage}%
\fancyfoot[RE,LO]{\large\sffamily Omega Becomes a Sign Processor\\Yannis Haralambous, Gábor Bella}

\IfFileExists{../papers-final/MOT02.pdf}{%
            \includepdf[pages=-, scale=1.0,
                        pagecommand={}]{../papers-final/MOT02.pdf}}%
            {\Huge\mbox{}\vfill
             \centering\textsf{\textbf{PAPER NOT YET RECEIVED}}
             \vfill}
\end{document}
```

History
<html>/pdfTₑX
Summary

Scripts
Generated script for pdf-file
«html>features</html>
\pdfTₑX{features}

»path« information are set in the `config` file

```
\documentclass[twoside]{book}
\usepackage[papersize={595pt,792pt}, body={483pt, 680pt},
            top=54pt, left=56pt, head=18pt, headsep=15pt, footskip=32pt]{geometry}
\usepackage{fancyhdr}\pagestyle{fancy}
\usepackage{pdfpages}

\begin{document}
\pdfinfo{%
  /Title    (Omega Becomes a Sign Processor)
  /Author   (Yannis Haralambous, Gábor Bella)
  /Subject  (Preprints EuroTeX2005 -- Pont-à-Mousson, France)
}
\setcounter{page}{8}
\fancyhead[LE,RO]{\large\sffamily Preprints EuroTeX2005 -- Pont-à-Mousson, France}%
\fancyhead[RE,LO]{\large\sffamily MOT02}%
\fancyfoot[RO,LE]{\large\sffamily\thepage}%
\fancyfoot[RE,LO]{\large\sffamily Omega Becomes a Sign Processor\\Yannis Haralambous, Gábor Bella}

\IfFileExists{../papers-final/MOT02.pdf}{%
              \includepdf[pages=-, scale=1.0,
                          pagecommand={}]{../papers-final/MOT02.pdf}}%
              {\Huge\mbox{}\vfill
               \centering\textsf{\textbf{PAPER NOT YET RECEIVED}}
               \vfill}
\end{document}
```

History
‹html›/pdfTEX
Summary

Scripts
Generated script for pdf-file
«html›features</html»
\pdfTEX{features}

»scaling« is determined by maximum of `crop`/`media`-box sizes

```
\documentclass[twoside]{book}
\usepackage[papersize={595pt,792pt}, body={483pt, 680pt},
            top=54pt, left=56pt, head=18pt, headsep=15pt, footskip=32pt]{geometry}
\usepackage{fancyhdr}\pagestyle{fancy}
\usepackage{pdfpages}

\begin{document}
\pdfinfo{%
  /Title    (Omega Becomes a Sign Processor)
  /Author   (Yannis Haralambous, Gábor Bella)
  /Subject  (Preprints EuroTeX2005 -- Pont-à-Mousson, France)
}
\setcounter{page}{8}
\fancyhead[LE,RO]{\large\sffamily Preprints EuroTeX2005 -- Pont-à-Mousson, France}%
\fancyhead[RE,LO]{\large\sffamily MOT02}%
\fancyfoot[RO,LE]{\large\sffamily\thepage}%
\fancyfoot[RE,LO]{\large\sffamily Omega Becomes a Sign Processor\\Yannis Haralambous, Gábor Bella}

\IfFileExists{../papers-final/MOT02.pdf}{%
              \includepdf[pages=-, scale=1.0,
                          pagecommand={}]{../papers-final/MOT02.pdf}}%
              {\Huge\mbox{}\vfill
               \centering\textsf{\textbf{PAPER NOT YET RECEIVED}}
               \vfill}
\end{document}
```

History
\<html>/pdfTeX
Summary

Scripts
Generated script for pdf-file
«html>features</html>
\pdfTeX{features}

\<html>features</html>

Built-in features:

1. Web pages and proceedings honor special characters,
2. Web pages are in Unicode (UTF8),
3. All names get proper accented characters and umlauts,
4. Proper math characters (in abstracts) on web pages,
5. Rule based sorting of names (accented letters, umlauts, . . .)

History
<html>/pdfTEX
Summary

Scripts
Generated script for pdf-file
«html>features</html»
\pdfTEX{features}

<html>feature="Accented Characters"</html>

Hàn Thế, Thành

Paper	Title	Page
TUT07	**Experiences with Micro-Typographic Extensions of pdfTEX in Practice**	81

- **Thành Hàn Thế**

PDFTEX provides two micro-typographic extensions: margin kerning (also known as character protrusion) and font expansion. Those extensions have been available for a while, however they are not used much yet, probably due to their complicated setup and not that visible benefits they bring. In this article I want to share some experiences, either good or bad, in using those extensions in practice, the tricky parts of them and how to get the best from what **PDFTEX** offers without having to know all the low-level details and messy font issues.

History
\<html\>/pdfTeX
Summary

Scripts
Generated script for pdf-file
«html>features</html>
\pdfTeX{features}

\<html\>feature="Math"\</html\>

Paper Title	**Page**

- **R.B. Fiorito**, A.G. Shkvarunets
  IREAP, Institute for Research in Electronics and Applied Physics, University of Maryland, College Park, MD, USA

OTR interferometry (OTRI) has been shown to be an excellent diagnostic for measuring the rms divergence and emittance of relativistic electron beams when the energy spread $\Delta\gamma/\gamma$ is less than the normalized rms divergence $\sigma = \gamma\Theta_{rms}$. This is the case for most beams previously diagnosed with OTRI. To extend this diagnostic capability to beams with larger energy spreads, we have calculated the effects of all the parameters effecting the visibility of OTR interferences, V; i.e. energy spread, angular divergence, the ratio of foil separation to wavelength ratio, d/λ and filter bandpass. We have shown that:

1. for a given $\Delta\gamma/\gamma$, the sensitivity of V to σ is proportional to the observation angle Θ_0, the fringe order **n** and the ratio d/λ;
2. the sensitivity of V to $\Delta\gamma/\gamma$ is independent of Θ_0 and **n** but is proportional to d/λ.

Thus, by adjusting d/λ, and choosing the appropriate fringe order, one can separate out and measure both the energy spread and divergence. However, the filter bandpass must decrease with Θ_0 and **n**. Results of our calculations will be given for various beams of interest.

History
<html>/pdfT_EX
Summary

Scripts
Generated script for pdf-file
«html>features</html>
\pdfT_EX{features}

<html>feature="Sorting Order" (i.e. ö ⟷ oe)</html>

DIPAC 2003 -- GSI, Mainz, Germany -
Proceedings
GSI, Mainz, Germany

Home | Session In
Keyword Index | Institute In

G

A B C D E F G H I J K L M N O P R S T U

Click on an author to display a list of papers.

Gall, A.
Gasior, M.
Giacomini, T.
Gikal, B.N.
Gillespie, W.A.
Glatz, J.
Gobulev, A.
Gössel, A.
Goethe, J.W.v.
Göttlicher, P.
Groening, L.
Gschwendtner, E.
Guimbal, Ph.
Gulbekian, G.G.

History
<html>/pdfTeX
Summary

Scripts
Generated script for pdf-file
«html>-features</html>
\pdfTeX{features}

<html>feature="Web Session page"</html>

History
<html>/pdfTEX
Summary

Scripts
Generated script for pdf-file
«html>features</html>
\pdfTEX{features}

<html>feature="Web Authors page"</html>

EuroTeX2005 - List of Authors - Mozilla

EuroTeX2005 - List of Authors

EuroTeX2005 - Preprints
Pont-à-Mousson, France

Home | Session Index | Authors Index |

List of Authors

B D F G H J K L M N R S T W Z

B

Bella, Gábor
Bezos, Javier

D

Detig, Christine
Dierker, Andre

F

Feuerstack, Thomas
Fine, Jonathan

G

Gundlach, Patrick

H

Hagen, Hans
Hàn Thê, Thành
Haralambous, Yannis
Hefferon, Jim
Hoekwater, Taco
Hufflen, Jean-Michel

J

Jackowski, Bogusław
Jans, Arne

Hagen, Hans

Paper	Title	Page
TUT03	The 16 Faces of a Dutch Math Journal	69

• **Hans Hagen**

Much of what ConTeXt originally provided originated from our daily needs, at that time dictated by educational consultancy and course development. However, the last couple of years most features find their origin in the demands of publishers, users as well as an occasional "Let's see (prove) if TeX can do it (better)". One of those users is the Dutch Math Society (NAW).

Quite a while ago the Dutch Math Society decided to restyle their journal and the decision was made to use ConTeXt as typesetting engine, one reason being its ability to typeset on a grid and place graphic in columns. Since it happened in the early days of ConTeXt, some of the demands resulted in rather complex and often weird macros.[1]

Advanced mixed font support, magazine-like column features, tight integration with MetaPost, flexible placement of elements etc. are nowadays supported in the kernel in a more natural way, if only because the core of ConTeXt has become more flexible and mature. And so the moment has come to let the editors switch the reimplemented journal style.

In this talk I will illustrate how needs by demanding users like the Dutch Math Society's Journal have brought ConTeXt to where it stands today and is heading tomorrow.

[1]These were written by Taco Hoekwater, who did a pretty good job, as proven by the fact that up to date these macros are still in use.

| THT01 | XML to PDF, where does TeX fit in | 144 |

• **Sebastian Rahtz**, Hans Hagen

No abstract has been submitted yet.

| FRT01 | ConTeXt | 150 |

• **Hans Hagen**

No abstract has been submitted yet.

History
<html>/pdfTeX
Summary

Scripts
Generated script for pdf-file
«html>features</html>
\pdfTeX{features}

\pdfTeX{features}

Built-in features:

1. printing of header and footer information,
2. transfer of all meta-information into pdf-file,
3. (down)scaling depending on size of crop/media-box,
4. setting of page numbers after counting of all pages,
5. the author index has links to articles,
6. inclusion of paper or "missing" note,
7. config file with settings for directories, sort-rules, dependencies etc.

History
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\pdfTEX{feature="Time Table"}

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11:00	TUT03	Hans Hagen
		The 16 Faces of a Dutch Math Journal
11:45	TUT04	Adam Twardoch
		Typographic Perfection with OpenType?
12:30 – 14:00	Lunch	
14:00	TUT05	Gerd Neugebauer
		Namespaces for εxTEX
14:30	TUT06	Patrick Gundlach
		contextgarden.net: The ConTEXt Wiki
15:00	TUT07	Thành Hàn Thé
		Experiences with Micro-Typographic Extensions of pdfTEX in Practice
15:30 – 16:00	Coffee Break	
16:00	TUT08	Johannes Küster
		NewMath and Unicode
16:30	TUT09	Bogusław Jackowski, Janusz M. Nowacki
		Latin Modern fonts: how less means more
17:00 – 19:00	TUT10	Panel discussion with Hermann Zapf and Donald Knuth
		'With a little help from the wizards'
20:00	Gala Diner	

Wednesday, March 9

8:30	WET01	Thomas Feuerstack
		ProTEXt, a new TEX-Collection for Beginners
9:00	WET02	Jean-Michel Hufflen
		Bibliography Styles Easier with MlBibTEX

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```
1  \begingroup
2    \namespace{tex}
3    \gdef\x{123}
4  \endgroup
5  \def\y{123}
```

One question which arises is, how the macro \import interacts with the grouping. The answer to this question is that the import should influence the current group only. Similar to the definition of \let the prefix command \global can be used to indicate that the imports should be applied globally instead of locally in the current group:

```
1  \global\import{tex.latex.dtk}
```

The macro \import has to take into account the \global prefix. Another inference of namespaces and groups can be seen in the following example:

```
1  \begingroup
2    \namespace{one}
3    \global\export{\x}
4    \gdef\x#1{-#1-}
5  \endgroup
```

Note that the \export declaration is preceded by a \global modifier. Consider the case that this modifier would not be there. Then the end of the group would revert the meaning of \export the previous binding. In general this would destroy the intended meaning. The \general modifier ensures that the intended meaning of \export survives the end of the group and can be used in subsequent imports.

7 Namespaces and Expansion

Let us consider the following example where a macro with an argument is exported:

```
1   \namespace{one}
2   \begingroup
3     \namespace{two}
4     \global\export{\x}
5     \gdef\x#1{-#1 \y-}
6     \gdef\y{in one}
7   \endgroup
8   \import{one}
9   \def\y{two}
10  \x\y
```

The intuitive meaning of the last expression \x\y is that \y is taken from the namespace two and \y is taken from the outer namespace one. Now we follow the expansion

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  MOT03 -- A Taxonomy of Automated Typesetting Systems
  MOT04 -- Designing an Implementation Language for a TeX Successor
  MOT05 -- CTAN Plans
  MOT06 -- MP2GL: prototyping 3D objects with Metapost
  MOT07 -- Metapost Developments
  MOT08 -- Verbatim Phrases and Listings in LaTeX
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  MOT10 -- TeX Forever!
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  TUT02 -- LaTeX3 News
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  TUT04 -- Typographic Perfection with OpenType?
  TUT05 -- Namespaces for XTeX
  TUT06 -- contextgarden.net: The ConTeXt Wiki
  TUT07 -- Experiences with Micro-Typographic Extensions of pdfTeX in Pr
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  TUT09 -- Latin Modern fonts: how less means more
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  WET02 -- Bibliography Styles Easier with MlBibTeX
  WET03 -- La machine à formulaires (The Forms' Machine)
  WET04 -- SäferTeX: Source Code Esthetics for Automated Typesetters
  WET05 -- The TeX Wrapper Structure: A Basic TeX Document Model Imp
  WET06 -- Case Study of TeX in Commercial Data Based Publishing: Cor
  WET07 -- The Bigfoot Bundle for Critical Editions
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  THT03 -- XTeX - Under the Hood
  THT04 -- Metapost
  THT05 -- TeXLive 2004 Windows Installer
  THT06 -- Installing and using Emacs, AUCTeX, RefTeX, preview-latex
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  FRT02 -- Advanced LaTeX
Appendices
  List of Authors
  Participants List

List of Authors   Preprints EuroTEX2005 -- Pont-à-Mousson, France

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Bold papercodes indicate primary authors

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Dierker, André	MOT09	Mittelbach, Frank	TUT02	
Feuerstack, Thomas	WET01	N., N.	FRT02	
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Hagen, Hans	TUT03, THT01, FRT01	Nowacki, Janusz M.	TUT09	
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Hoekwater, Taco	MOT07	Schäfer, Frank-René	WET04	
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Knuth, Donald	TUT10	Zapf, Hermann	TUT10	
Küster, Johannes	TUT08			

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\pdfTeX{feature="List of Participants"}

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Summary

- The whole exercise was to show that with pdfTEX and the help of Perl we have all means to put proceedings and preprints together in an easy way with a convincing quality in print.
- What's left to do:
    - translation of special characters to Unicode has to be extended
    - actually there are 65 accented characters,
    - 117 special characters,
    - 113 math symbols, and
    - 39 Greek letters.
    - at least one Vietnamese **:**-)

Thank you!

XML Workflows and the EuroTeX 2005 Proceedings

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TUG 2005
Wuhan
China P.R.
August, 2005