A LATEX package for preparing manuscripts for submissions to the OA journal 'Enterprise Modelling and Information Systems Architectures – An International Journal' (EMISA)

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1 Introduction

Enterprise Modelling and Information Systems Architectures – An International Journal (EMISA) is a publisher-independent, peer-reviewed open access journal (https://emisa-journal.org). EMISA is published by the German Informatics Society (GI) and is a publication of its Special Interest Group (SIG) on Modelling Business Information Systems (SIG MoBIS) and its SIG on Design Methods for Information Systems (SIG EMISA). SIG MoBIS has sponsored the development of the EMISA LATEX package currently maintained by Stefan Strecker (stefan.strecker@fernuni-hagen.de) and Martin Sievers (martin.sievers@schoenerpublizieren.de).

The EMISA LATEX package is provided for preparing manuscripts for submission to EMISA, and for preparing accepted submissions for publication as well as for typesetting the final document by the editorial office. Articles in EMISA are published online at https://emisa-journal.org (in the Portable Document Format or PDF format). The EMISA editorial office is run (alongside many other tasks and projects) by the two Editors-in-Chief assisted by doctoral students. Editorial work at EMISA is best described as a volunteer effort for the scientific community. You can assist us by preparing your manuscript following the instructions and style guidelines described in this document: Your work will be published quicker with less (typographical) glitches and will have a professional appearance.

2 Installation

The EMISA LATEX package consists of the EMISA LATEX document class emisa.cls, the biblatex bibliography style emisa.bbx and the biblatex citation style emisa.cbx. The package also includes a quick-start template for authors emisa-author-template.tex and the present instructions emisa.pdf. The package is available from the Comprehensive TeX Archive Network (CTAN, https://ctan.org) and should be available for installation through the respective TeX distribution's

package installer (e. g. TEXLive's TEXLive Utility). For a manual installation, runpdflatex emisa.ins and pdflatex emisa.dtx twice, and copy the resulting files to the same directory (folder) in which the source files for the manuscript will be maintained.

3 Instructions and guidelines

This document provides instructions and style guidelines for authors. Follow the instructions and guidelines in the present document to set up your files, to type in your text, to format figures, tables, source code listings and algorithms, and to obtain a consistent visual appearance in accordance with the journal's style specifications. Before submitting your manuscript online to the journal's online submission system at http://emisa-journal.org, use these instructions and guidelines as a checklist. Note that these instructions are *not* intended as a general introduction to LaTeX2e and corresponding tools (see, for example, https://www.ctan.org/tex-archive/info/lshort/english/ for 'The Not So Short Introduction to LaTeX2e—Or LaTeX2e in 157 minutes').

4 Preliminary remarks

The EMISA document class is derived from the standard LaTeX article class, and produces a customised two-column layout with bibliographic information about the manuscript in a multi-line page headline (including the name of the journal, volume and issue number, date of publication, short title as well as author names) on A4-sized paper.

The EMISA class builds on a number of standard LATEX packages available in distributions such as TEXLive and MikTEX. It is highly recommended to install the *full* set of packages to make the required packages available to the EMISA package. Alternatively, missing packages may be installed on-the-fly. The list of required packages for using the EMISA package is rather comprehensive (see emisa.cls) but the implementation has taken care to use only packages commonly included in TEX distributions such as TEXLive and MikTEX. Among the packages required by the EMISA class are geometry, newtx-text, newtxmath, newtxtt, ntheorem, amsthm, booktabs, tabularx (see emisa.cls for a comprehensive overview).

The production process at the EMISA editorial office is based entirely on LaTeX, and runs pdfLaTeX and biber to produce the final proof and publication-ready PDF of an article. The biblatex package is used to typeset citations and references in conjunction with the biber tool. Make sure to use biber rather than bibtex to process your bibliography data base file(s). The production tool chain at the editorial office requires that all text files of an article are provided in *UTF-8 file encoding*.

5 Class Options

UTF-8

british British English is the language of choice for publishing in EMISA. The class option 'british' is preloaded by default to obtain the correct hyphenation for British English (as provided by the babel package). The class option *may be* used with the EMISA class to exemplify the use of British English. Example:

\documentclass[british]{emisa}. This is the standard option. Note that the \csquotes package is loaded with settings to produce proper quotation marks in British English (see below).

referee, review

\title

\subtitle

\abstract

\keywords

By default, a final version of the manuscript is typeset for online publication including the names and affiliations of authors. For reviewing purposes, the names and affiliations of the authors are omitted using the document option referee or review to allow for the anonymous (i. e. double blind) peer-review process of EMISA. Example: \documentclass[referee]{emisa}. Make sure to use the document option referee or review before typesetting the final PDF intended for submission to the journal.

6 Author information

\author* Exactly one author must be declared as corresponding author stated by using the starred version of the \author command: $\author^*{\langle author's name \rangle}{\langle email address \rangle}$.

7 Title, subtitle, abstract, and keywords

The mandatory title and optional subtitle of a manuscript are typeset using $\title{\langle title\rangle}$ and $\title{\langle subtitle\rangle}$. Note that the subtitle is indented. The abstract of the manuscript is typeset using $\title{\langle subtitle\rangle}$. Each manuscript should provide an abstract of about 200–400 words. Keywords describing the manuscript are typeset using $\title{\langle keywords\rangle}$ and are concatenated using the $\title{\langle subtitle\rangle}$. At least three keywords should be provided.

8 Additional information on the first (title) page

\acknowledgements Acknowledgements, for example, of collaborators, funding agencies etc. may be added using \acknowledgements{\acknowledgements\}. The acknowledgements are typset in a footnote on the first page below the corresponding author's email address.

\authornote Additional information for reviewers and readers may be added in a footnote on the titlepage using \authornote{\author note}}. This is typically used for stating earlier publications (e. g. in conference proceedings) on which the present manuscript is based.

9 Style guidelines for regular text

- Manuscripts should *not* make use of outdated LaTeX commands such as \em but rather use the LaTeX2e commands (e.g. \emph, \texttt).
- Do *not* make use of bold face (\textbf). Use \emph instead to typeset an important word in italics!
- ▶ Always use the tilde ~ to connect before $ref{\langle label \rangle}$, e. g., Sec.~ $ref{label}$ rather than the problematic: Sec. $ref{label}$.
- Do *not* write abbreviations such as e.g. but use the macros provided by the EMISA class (see below). Add punctuation when necessary, for example, write, \ie, to achive the correct punctuation for 'id est' (i.e.) rather than, i.e., which introduces two problems: A missing spacing after the first full stop and a wrong spacing after the second full stop.
- ▶ Follow the journal's style specification with respect to predefined text styles:
 - Use smallcaps for names of open-source projects, products and companies etc, e.g., \textsc{eclipse} to produce eclipse. Pay attention to lower case spelling.
- Use the sans-serif font face for type-level concepts etc., e.g., \textsf{Goal} to produce Goal when referring to a Goal type, or use the predefined macro \type{\langle type \rangle}, e.g., \type{Goal}.

10 Abbreviations and initialisms

- \eg To achieve consistent typesetting of common abbreviations, macros are predefined by the EMISA class.
- \ie These macros should *consistently* being used instead of writing the plain version. For example use \eg
- \cf rather than 'e.g.'. The macros take care of spacing within and after the abbreviations.

\etal

- ▶ \eg for e.g.
- ▶ \ie for i.e.
- ▶ \cf for cf.
- ▶ \etal for et al.
- \OMG In addition to common abbreviations, further initialisms are provided by the class for convenience and \BPM for a consistent visual appearance. Note that the class uses SMALLCAPS for typesetting initialisms. The
- \BPMN list of predefined initialisms comprises:

\UML

- ▶ \ОМG for омG (Object Managment Group).
- ▶ \ВРМ for врм (Business Process Management).
- ▶ \BPMN for BPMN (Business Process Model and Notation).
- ▶ \UML for UML (Unified Modeling Language).

For proper spacing, add either angle brackets such as \command{} or append a backslash plus a space such as \command\ (e. g. at the end of a sentence before the full stop use \OMG{}.).

11 Quotation marks

\enquote

It is highly recommended to use the \enquote{\((quotation) \)} command to produce correct quotation marks. Note that the command can be nested and will produce correct primary and secondary quotation marks in British English, for example \enquote{A quote \enquote{within a quote}}. Alternatively (but not recommended), the correct Unicode characters can be used, i.e., Unicode 2018 and Unicode 2019 for the primary quotation marks, and Unicode 201C as well as Unicode 201D for the secondary quotation marks. or LaTeX command \lq for the opening primary quotation mark, and Unicode 2019 or LaTeX command \rq for the closing primary quotation mark.

12 Citations and references section

\parencite \textcite The EMISA journal uses its own author-year citation style predefined for the biblatex package (emisa.cbx), and its own style for formatting entries in the list of references (emisa.bbx). Consult the biblatex package documentation for an introduction to the citation commands. It is important to use the citation commands properly to follow the journal's style specifications.

13 Figures

All line-drawings must be provided as vector graphics (*not* bitmap graphics) in PDF format and all other (non-schematic) figures (e. g. screenshots) must be provided in PDF, JPEG or PNG format in a proper (high) resolution for the intended size of the rendered image to avoid pixelation due to low resolution; bitmap graphics shown in full page width in the submission should at least be of a resolution of two (2) megapixels or at least 1920 pixels wide.

14 Tables

tabularx XXX Add instructions for author here XXX

15 Source code listings

sourcecode java For marking up source code listings, the EMISA class uses the lstlistings package (see the package documentation for further information), and provides two customised LaTeX environments: \sourcecode and \java XXX Hier kenne ich die Befehle zur Erstellung der Befehlsform nicht, \env gibt es nicht XXX. The java environment should be used to format source code listings in the Java programming language, and the sourcecode environment should be used to format source code in any other programming language. Note that the source code in either case is typset verbatim, i. e., the author must arrange the input LaTeX source code according to the intended output. Also note that the two environments have been predefined to always produce a two-column listing positioned at the top of the page. An example illustrates the use of both environments:

XXX enter two examples here XXX

16 Pseudocode and algorithms

algorithm algorithmicx

EMISA offers some environments for a comfortable integration of source code examples.

17 Example file for both, authors and editorial office

```
% Use the option [draft] to mark overfull lines.
\documentclass[british]{emisa}
% The following package imports are recommended, but not obligatory;
% you might want take a look into their respective manuals if you want to
   how they can be used:
\usepackage{amsmath,amssymb,mathtools}
\usepackage{algorithmicx,algorithm}
% Additional package imports go here:
% The document begins here:
\begin{document}
% Optionally, set the style for typesetting source code listings (see
   listings package).
% \lstset{language=Java}
% Take note of the following article environment!
\begin{article}{%
% Enter your bibliography database file here.
% Make sure to use UTF-8 character encoding in the bibliography data bases,
% and add the .bib extension for the biblatex package!
\bibliography{emisa.bib}
% Add editorial meta data to appear in the multiline page headline.
\editor{Enter corresponding editor here}
\received{Enter date of manuscript reception here}
\accepted[1]{Enter number of review rounds and date of acceptance here.}
\volume{11} % volume number
\issue{1}{31~Jan~2016} % issue number and issue date
```

```
\specialissuetitle{Title of special issue if publication belongs to a
   special issue}
% Enter bibliographic meta data about publication
\title[Insert shorttitle for page headline]{Enter full title here}
\subtitle{Enter subtitle here, or leave empty}
\author*{FirstName LastName of corresponding author}{email@address.org}
\address{Enter affiliation of first (corresponding) author here. Note that
   only the starred version of author* accepts a second argument requiring
   an email address for the corresponding author.}
\author{FirstName LastName}
\address{Enter affiliation of second and further authors here. Add further
   authors following this scheme.}
% Enter abstract, keywords, acknowledgements, authornotes
\abstract{Enter abstract here}
\keywords{Enter at a minimum three keywords here. Keyword1 \and Keyword2 \
    and Keyword3}
\acknowledgements{Enter acknowledgements here.}
\authornote{If your submission is based on a prior publication and revises /
    extends this work, enter a corresponding note here (This work is based
   on ...) but DO NOT cite the prior work during the reviewing process.
   INSTEAD provide full citations of all prior publications to the editors
   during the submission process (use the text field in the online
   submission system).}
% Take note of the following closing bracket!
\section{Introduction}\label{sec:introduction}
Enter your text here.
\subsection{Subsection title}\label{sec:somelabel}
% Example of a single-column figure (spanning only a single column)
\begin{figure}[htbp]
\centering
%\includegraphics[width=\columnwidth]{<filename>}
\caption{Enter your single-column figure caption here.}
\label{default}
\end{figure}
% Example of a double-column figure (spanning both columns)
\begin{figure*}[htb]
\centering
%\includegraphics[width=\textwidth]{<filename>}
\caption{Enter your double-column figure caption here.}
\label{default}
\end{figure*}
% Example of a double-column table. Tables should NOT be typeset in a single
    column!
```

```
% Note the use of \toprule, \midrule, and \bottomrule!
% DO NOT use vertical rules in tables!
\begin{table*}[tb]
\centering
\caption{Enter your table caption above the table here.}
\begin{tabular}{llllll}
\toprule
column head1 & column head2 & column head3 & column head4 & column head5 &
    column head6\\
\midrule
cell1 & cell2 & cell3 & cell4 & cell5 & cell6\\
cell1 & cell2 & cell3 & cell4 & cell5 & cell6\\
cell1 & cell2 & cell3 & cell4 & cell5 & cell6\\
cell1 & cell2 & cell3 & cell4 & cell5 & cell6\\
cell1 & cell2 & cell3 & cell4 & cell5 & cell6\\
\bottomrule
\end{tabular}
\label{tab:unique-label}
\end{table*}
% Example of a double-column source code listing.
\begin{lstlisting}[float=*htbp,%
caption={Enter your double-column listing caption here.},%
label={lst:helloworld}]
/**
 \mbox{\ensuremath{^{*}}} The HelloWorldApp class implements an application that
 * simply prints "Hello World!" to standard output.
 */
class HelloWorldApp {
    public static void main(String[] args) {
        System.out.println("Hello World!"); // Display the string.
}
\end{lstlisting}
% Example of a double-column pseudo code with algorithmicx.
\begin{...}
while (r > kRadius/2) {
               r--:
               double a = Math.sqrt(kernel[0][r])/(kRadius-r);
                if (a < sqrtSlope)</pre>
                    sqrtSlope = a;
                else
                   break;
\ensuremath{\mbox{end}} \{\dots\}
% Formatting the bibliographic data base:
% Please make sure to properly enter all data for each entry
```

```
% in the bibliographic database (.bib).
% Pay special attention to formatting names and page numbers,
% see the following example:
%@ARTICLE{key1,
% author = {{van der Aalst}, W. M. P.
% and {van Hee}, K. M.
% and {van Werf}, J. M.
% and Verdonk, M.},
% title = {{Auditing 2.0: Using
% Process Mining to Support
% Tomorrow's Auditor}},
% journal = {Computer},
% year = {2010},
% volume = {43},
% pages = \{90--93\},
% number = {3}
%}
\printbibliography
\end{article}
\end{document}
```

References

- [1] Package textcomp: LaTeX support for the Text Companion fonts. 18.2
- [2] Package microtype: An interface to the micro-typographic features of pdfTeX. 18.2
- [3] Package babel: Multilingual support for Plain TFX or LATFX. 18.2
- [4] Package float: Improved interface for floating objects. 18.2
- [5] Package caption: Customising captions in floating environments. 18.2
- [6] Package graphicx: Enhanced support for graphics. 18.2.1
- [7] Package xcolor: Driver-independent color extensions for LATEX and pdfLATEX. 18.2.1
- [8] Package biblatex: Bibliographies in LATEX using BibTEX for sorting only. 18.2.1
- [9] Package csquotes: Context sensitive quotation facilities. 18.2.1
- [10] Package twoopt: Definitions with two optional arguments. 18.2.2
- [11] Package environ: A new interface for environments in LATEX. 18.2.2
- [12] Package paralist: Enumerate and itemize within paragraphs. 18.2.2
- [13] Package afterpage: Execute command after the next page break. 18.2.2
- [14] Package xspace: Define commands that appear not to eat spaces. 18.2.2
- [15] Package calc: Simple arithmetic in LATeX commands. 18.2.2
- [16] Package geometry: Flexible and complete interface to document dimensions. 18.2.2
- [17] Package eso-pic: Add picture commands (or backgrounds) to every page. 18.2.2, 18.9.3
- [18] Package hyperref: Extensive support for hypertext in LATeX. 18.3
- [19] The LATEX 2ε Sources. 18.10

18 Implementation

Here, the code of the LATEX class emisa begins.

```
1 (*class)
```

18.1 Options

```
\@clearglobaloption
                      We need a macro to remove options from the global to avoid side-effects
                         2 \def\@clearglobaloption#1{%
                             \def\@tempa{#1}\%
                             \def\@tempb{\@gobble}%
                             \@for\next:=\@classoptionslist\do
                               {\ifx\next\@tempa
                                  \message{Cleared option \next\space from global list}%
                         7
                         8
                                  \edef\@tempb{\@tempb,\next}%
                         9
                        10
                             \let\@classoptionslist\@tempb
                        11
                             \expandafter\ifx\@tempb\@gobble
                        12
                               \let\@classoptionslist\@empty
                        13
                             \fi}
                        14
      british option
    UKenglish option
                        15 \DeclareOption{british}{%
                              \PassOptionsToPackage{british}{babel}
                        16
                              \PassOptionsToPackage{english=british}{csquotes}
                        17
                              \@clearglobaloption{british}}
                        18
                        19 \DeclareOption{UKenglish}{%
                              \PassOptionsToPackage{british}{babel}
                        20
                              \PassOptionsToPackage{english=british}{csquotes}
                        21
                              \@clearglobaloption{british}}
     american option
    USenglish option
                        23 \DeclareOption{american}{%
                              \PassOptionsToPackage{american}{babel}
                              \PassOptionsToPackage{english=american}{csquotes}
                        25
                              \@clearglobaloption{american}}
                        26
                        27 \DeclareOption{USenglish}{%
                              \PassOptionsToPackage{american}{babel}
                        28
```

draft option
final option
@draft switch

If the user requests draft we mark any overfull boxes. There is more interesting stuff to be added to this option; one could think of altered running titles or watermarks, for example.

As this option is handed along the package chain it might have other effects, too.

\PassOptionsToPackage{english=american}{csquotes}

\@clearglobaloption{american}}

31 \newif\if@draft

29

```
32 \DeclareOption{draft}{%
33     \@drafttrue
34     \overfullrule 10pt
35 }%
36 \DeclareOption{final}{%
37     \@draftfalse
38     \overfullrule\z@
39 }%
```

referee option noreferee option

The options referee and review switch to *referee mode*. In referee mode some information at the titlepage are removed in order to allow an anonymous submission.

review option
noreview option
@referee switch

40 \newif\if@referee

- 41 \DeclareOption{referee}{\@refereetrue}
- 42 \DeclareOption{noreferee}{\@refereefalse}
- 43 \DeclareOption{review}{\@refereetrue}
- 44 \DeclareOption{noreview}{\@refereefalse}

cover option

Switches cover production on or off. If cover is given then the four cover pages (outer and inner pages of front and back, respectively) are produced and added to the document.

\coveron
\coveroff
@cover switch

45 \newif\if@cover

- 46 \def\coveron{\@covertrue}
- 47 \def\coveroff{\@coverfalse}
- 48 \DeclareOption{cover}{\coveron}
- 49 \DeclareOption{nocover}{\coveroff}
- 50 \newif\if@microtype
- 51 \@microtypetrue
- 52 \DeclareOption{nomicrotype}{\@microtypefalse}

Completing option handling, by now unprocessed option are handed over to the base class article and the class options list is processed from the left to the right.

- 53 \PassOptionsToClass{a4paper,twoside,11pt}{article}%
- 54 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{article}}%
- $\verb|\ExecuteOptions{british, final, noreferee, no cover, one side, open any}| % if the property of the propert$
- 56 \ProcessOptions*\relax%
- 57 \IfFileExists{latexrelease.sty}%
- 58 {\RequirePackage[latest]{latexrelease}}%
- 59 {\RequirePackage{fixltx2e}}%

18.2 Loading the base class and packages

This class is build upon the LATEX standard class article.

- 60 \LoadClass{article}[2001/06/01]%
- 61 \RequirePackage[utf8]{inputenc}%

This loads font definitions for text and mathematics. The package allows the user to select font encodings, and for each encoding provides an interface to 'font-encoding-specific' commands for each font. Its most powerful effect is to enable hyphenation to operate on texts containing any character in the font. It is distributed as part of the \LaTeX $2_{\mathcal{E}}$ distribution.

```
62 \RequirePackage[T1]{fontenc}%
```

Since many PostScript fonts only implement a subset of the TS1 encoding which contains text symbols for use with the T1-encoded text fonts, many commands only produce black blobs of ink. The textcomp package is supplied as a part of the LATEX base distribution to resolve the resulting problems [1].

```
63 \RequirePackage[full]{textcomp}%
```

The microtype package provides a LaTeX interface to the micro-typographic extensions of pdfTeX: most prominently, character protrusion and font expansion, furthermore the adjustment of interword spacing and additional kerning, as well as hyphenatable letterspacing (tracking) and the possibility to disable all or selected ligatures [2]. It allows to apply these features to customisable sets of fonts, and to configure all micro-typographic aspects of the fonts in a straight-forward and flexible way. Settings for various fonts are provided.

```
64 \if@microtype
65 \RequirePackage{microtype}%
66 \else
67 \ClassWarning{emisa}{Package 'microtype' not loaded!%
68 \MessageBreak Output will differ from final result in the journal!%
69 \MessageBreak Please consult the documentation, if you%
70 \MessageBreak get an error when loading microtype}
71 \fi%
```

babel is a package providing an environment in which documents can be typeset in a language other than US English, or in more than one language [3].

```
72 \RequirePackage{babel}%
```

This style option improves the interface for defining floating objects such as figures and tables in LATEX [4]. It adds the notion of a 'float style' that governs appearance of floats. New kinds of floats may be defined using a \newfloat command analogous to \newtheorem. This style option also incorporates the functionality of David Carlisle's style option here, giving floating environments a [H] option which means *Put it here!* (as opposed to the standard [h] option which means *Put it here if possible, or otherwise at the next page if no alternative position is specified.*).

```
73 \RequirePackage{float}
```

The caption package gives the user the possibility to control the look & feel of the captions from floating environments like figure and table. Furthermore it does similar to the caption stuff coming from other packages (like the longtable or supertabular package) [5].

For more information on that see the english, russian, or german user documentation.

```
74 \RequirePackage[font={small}]{caption}
```

18.2.1 Colour and graphics

graphicx as part of the graphics package provides a key-value interface for optional arguments to the \includegraphics command [6].

75 \RequirePackage{graphicx}%

The package xcolor is a color extension for LATEX and pdfLATEX that provides easy driver-independent access to several kinds of colors, tints, shades, tones, and mixes of arbitrary colors by means of color expressions [7].

76 \RequirePackage[fixinclude,table]{xcolor}%

The bibliatex package [8] is a complete reimplementation of the bibliographic facilities provided by LaTeX in conjunction with BibTeX. It redesigns the way in which LaTeX interacts with BibTeX at a fairly fundamental level. With bibliatex, BibTeX is only used to sort the bibliography and to generate labels. Instead of being implemented in BibTeX's style files, the formatting of the bibliography is entirely controlled by TeX macros. Good working knowledge in LaTeX should be sufficient to design new bibliography and citation styles. There is no need to learn BibTeX's postfix stack language. Just like the bibliography styles, all citation commands may be freely (re)defined.

Apart from the features unique to biblatex, the package also incorporates core features of the following packages: babelbib, backref, bibtopic, bibunits, chapterbib, cite, citeref, inlinebib, mlbib, multibib, natbib, splitbib. There are also some conceptual parallels to the amsrefs package. The biblatex package supports split bibliographies, multiple bibliographies within one document, and separate lists of bibliographic shorthands. Bibliographies may be subdivided into parts (by chapter, by section, etc.) and/or segmented by topics (by type, by keyword, etc.). The package is fully localized and can interface with the babel package.

This package requires e-TeX and the etoolbox package. Installing the csquotes package is recommended.

77 \RequirePackage{etoolbox}%

We use it with these options:

style=emisa sets the base name of the bibliography and citation format files; thus we use *emisa.bbx* and *emisa.cbx* that are defined below.

natbib=true enables the use of natbib citation commands with biblatex.

maxcitenames=3 Author lists with more than two entries are abbreviated with "et al.". Note that in the bibliography listing author lists won't be shortened at all.¹

terseinits If Initials are given with (false) or without (true) punctuation and whitespace.

isbn=false In bibliographies, no ISBNS, ...

```
url=false... no URLs,...
doi=false... no DOIs,...
```

eprint=false . . . and no ePrint marks are displayed.

dashed=false Identical author entries of consecutive bibliography entries don't get replaced by a dash (beginning with the second one).

 $^{^{1}}$ That is, they will be shortened if there are more than 999 authors. That should occur not that often, though.

```
78 \RequirePackage[%
79
      style=emisa,%
      natbib=true,%
80
      backend=biber,%
81
82 ]{biblatex}
83 \ExecuteBibliographyOptions{%
     maxcitenames=3,%
     maxbibnames=999,%
85
      terseinits=false,%
86
     isbn=false,%
87
     url=true,%
     doi=false,%
     eprint=false,%
     dashed=false,%
91
     bibencoding=inputenc,%
92
     sorting=anyt,%
93
     hyperref=true%
94
95 }%
```

This package provides advanced facilities for inline and display quotations [9]. Quotation marks are switched automatically if quotations are nested and can adjust to the current language. There are additional facilities designed to cope with the more specific demands of academic writing, especially in the humanities and the social sciences. All quote styles as well as the optional active quotes are freely configurable.

96 \RequirePackage[autostyle=once]{csquotes}

18.2.2 Helpers

twoopt provides commands to define macros with *two* optional parameters. This package is part of the *Oberdiek* bundle [10].

```
97 \RequirePackage{twoopt}%
```

environ provides a new method of defining environments [11].

```
98 \RequirePackage{environ}%
```

paralist provides a few new list environments. Itemized and enumerated lists can be typesetted within paragraphs, as paragraphs and in a compact version. Most environments have optional arguments to format the labels. Additionally, the LaTeX environments itemize and enumerate can be extended to use a similar optional argument [12].

The options' meanings are as follows:

neveradjust The width of the labels is never adjusted, not even for environments where you defined the labels manually using the optional argument.

defblank The two environments inparablank and asparablank will be defined.

flushright The labels in the four lists mentioned above are set flush right.

99 \RequirePackage[neveradjust,defblank,flushright]{paralist}%

We make the traditional list environments equal the compact ones so there is no visual difference and they are both modifiable easily.

- 100 \let\itemize\compactitem
- 101 \let\enditemize\endcompactitem
- 102 \let\enumerate\compactenum
- 103 \let\endenumerate\endcompactenum
- 104 \let\description\compactdesc
- 105 \let\enddescription\endcompactdesc

These macros are imported from paralist, setting standard enumeration marks and list indentations.

- 106 \setdefaultenum{1.}{a)}{i.}{A}%
- 107 \setdefaultleftmargin{1em}{0.9em}{0.7em}{0.5em}{0.4em}{0.3em}%
- 108 \setlength{\plitemsep}{3\p@}%
- 109 \setlength{\pltopsep}{6\p@}

afterpage implements a command that causes the commands specified in its argument to be expanded after the current page is output [13].

The xspace package provides a single command that looks at what comes after it in the command stream, and decides whether to insert a space to replace one "eaten" by the TEX command decoder. The decision is based on what came after any space, not on whether there was a space (which is unknowable): so if the next thing proves to be punctuation, the chances are there was no space, but if it's a letter, there's probably a need for space [14].

calc adds infix expressions to perform arithmetic on the arguments of the LATEX commands \setcounter, \addtocounter, \setlength, and \addtolength [15].

All three packages are part of the tools bundle in the LATEX required distribution.

```
110 \RequirePackage{afterpage,xspace,calc}%
```

geometry provides an easy and flexible user interface to customize page layout, implementing auto-centering and auto-balancing mechanisms so that the users have only to give the least description for the page layout [16].

An important feature is the package's ability to communicate the paper size it's set up to the output (whether via DVI \specials or via direct interaction with pdfIATeX).

```
111 \RequirePackage{geometry}%
```

eso-pic adds one or more user commands to LaTeX's shipout actions, making it easy to add some picture commands to any and every page at absolute positions [17].

```
112 \RequirePackage{eso-pic}%
```

18.2.3 Scripts, fonts, and maps

```
113 \RequirePackage{newtxtext}
114 \RequirePackage{newtxmath}
115 \RequirePackage[zerostyle=b,straightquotes]{newtxtt}
116 \if@microtype
117 \UseMicrotypeSet[protrusion]{basicmath} % disable protrusion for tt fonts
118 \fi%
```

To make figures and ligatures searchable when using pdf $T_EX \ge 1.40$, glyph-to-unicode translation must be enabled. The default table glyphtounicode.tex contains mappings from glyph names to corresponding unicode for embedded fonts. It covers the AGL (Adobe Glyph List), names from texglyphlist.txt (part of lcdf-typetools) and zapfdingbats.txt, plus a few exceptions.

```
119 \InputIfFileExists{glyphtounicode}%
      {\ClassInfo{emisa}{Reading file 'glyphtounicode.tex'}
120
       \pdfgentounicode=1}%
121
      {\ClassWarning{emisa}{Couldn't find file 'glyphtounicode.tex'}}%
122
123
      \RequirePackage{booktabs}
      \RequirePackage{listings}
124
125
      \lstset{basicstyle=\ttfamily\small}
126
      \RequirePackage{amsmath}
      \RequirePackage[amsmath,standard,hyperref]{ntheorem}
127
```

18.3 Hypertext

The hyperref package [18] has to loaded as late as feasible so it can intercept changes to standard macros by other packages.

```
128 \RequirePackage{url}
129 \urlstyle{same}
130 \RequirePackage[%
     colorlinks,
131
     breaklinks,
132
133
     pdfview=Fit,
     bookmarksopen,
134
     bookmarksnumbered,
135
     linkcolor=black,
136
     anchorcolor=black.
137
     citecolor=black,
138
      filecolor=black,
139
     urlcolor=black,
140
141
     hyperfootnotes=false
142
     ]{hyperref}%
143 \RequirePackage{doclicense}
```

18.4 Tools

\@ifempty
 \@ifarg
\@ifnoarg

These determinate if an argument ist empty (or not) and to act consequently. An argument is ,empty', iff it contains nothing or just whitespace. All three macros first test their first argument. If it is empty \@ifempty then executes the second one, otherwise the third one. \@ifnoarg und \@ifarg execute their respective second argument iff the the first one is (not) empty.

Syntax:

```
\label{eq:continuous} $$ \left(\frac{arg}{\frac{arg}}{\frac{arg}{\frac{arg}}{\frac{arg}{\frac{arg}}{\frac{arg}{\frac{arg}}{\frac{arg}}}{\frac{arg}{\frac{arg}}{\frac{arg}{\frac{arg}}{\frac{arg}}{\frac{arg}}}} $$ \left(\frac{arg}{\frac{arg}{\frac{arg}}{\frac{arg}}{\frac{arg}}{\frac{arg}}{\frac{arg}}{\frac{arg}{\frac{arg}}{\frac{arg}}}} $$ \left(\frac{arg}{\frac{arg}}{\frac{arg}{\frac{arg}}{\frac{arg}}} $$ \right) $$ \left(\frac{arg}{\frac{arg}{\frac{arg}}{\frac{arg}{\frac{arg}{\frac{arg}}{\frac{arg}{\frac{arg}{\frac{arg}}{\frac{arg}{\frac{arg}{\frac{arg}}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{\frac{arg}{
```

18.5 Basic page layout

The geometry options using the keyval $(\langle key \rangle = \langle value \rangle)$ interface can be set either in the optional argument to the \usepackage command, or in the argument of the \geometry macro. In either case, the argument consists of a list of comma-separated keyval options. \geometry acts cumulative; so multiple use just appends options to the list.

```
151 \geometry{%
      a4paper,%
152
      portrait,%
153
      twoside,%
154
      ignoreall,%
155
      hcentering,%
156
      textwidth
                       = 162.5 \text{mm}, \%
157
      textheight
                       = 220mm, %
158
      heightrounded,%
159
      columnsep
                       = 12.5 \text{mm}, \%
160
                       = 47mm, %
161
      top
      headheight
                       = 16 \text{mm}.\%
162
      headsep
                       = 13mm, %
163
      marginparwidth = 15mm,%
164
165
      marginparsep
                       = 5 \text{mm}, \%
      footskip
                       = 16mm\%
166
      }%
167
   \marginparpush 5mm%
   \AtBeginDocument{\baselineskip=13.6pt plus 0.5pt}%
170 \parindent=4mm%
```

- 171 \smallskipamount=.5\baselineskip
- 172 \medskipamount=2\smallskipamount
- 173 \bigskipamount=2\medskipamount
- 174 \flushbottom
- 175 \abovedisplayskip=.5\baselineskip plus .33\baselineskip
- minus .33\baselineskip
- 177 \belowdisplayskip=\abovedisplayskip
- 178 \abovedisplayshortskip= Opt plus .33\baselineskip
- 179 \belowdisplayshortskip=.5\baselineskip plus .33\baselineskip
- 180
 minus .33\baselineskip

18.6 Scripts

\pageheadfont Assigning scripts to text elements.

\pagenumfont Page head and foot:

\pagefootfont

- 181 \def\pageheadfont{\normalfont}%
- 182 \def\pagenumfont{\pageheadfont\bfseries}%
- 183 \def\pagefootfont{\pageheadfont}%

\authorfont The elements of the article titles:

\titlefont

- 184 \def\authorfont{\normalfont\Large}%
- \subtitlefont
- 185 \def\titlefont{\normalfont\bfseries\LARGE\boldmath}%
- \abstractfont
- 187 \def\abstractfont{\normalfont\itshape}%

\affiliationfont The elements of the affiliation box:

\affiliationauthorfont

- 188 \def\affiliationfont{\normalfont}
- $\verb|\affiliationaddressfont| \\$
- 189 \def\affiliationauthorfont{\bfseries}
- \affiliationemailfont 190 \def\affiliationaddressfont{\mdseries}

 191 \def\affiliationemailfont{\mdseries}%

\sectionfont Section headlines:

\sec@font

- 192 \def\sectionfont{%
- \para@font
- 93 \normalfont
- 194 \bfseries
- 195 \boldmath}%
- 196 \def\sec@font{\sectionfont\large}%
- 197 \def\para@font{\sectionfont}%

\captionfont Captions:

198 \def\captionfont{\normalfont\small\itshape}

18.7 Colours

These are the colour definitions for a couple of elements.

coverbgcolor color covertextcolor color

The colours of the cover background (near 25% grey) and cover text (such as headlines, near 75% grey):

199 \definecolor{coverbgcolor}{cmyk}{0.15,0.1,0.09,0}%

200 \definecolor{covertextcolor}{cmyk}{0.77,0.76,0.70,0.61}%

headtextcolor color boxframecolor color boxbgcolor color These are the colours of the grey elements in column titles (50% grey) and of the frame and the background of text boxes like that one used in \editorialboard (100% grey = black and 20% grey, respectively).

- 202 \definecolor{boxframecolor}{gray}{1}%
- 203 \definecolor{boxbgcolor}{gray}{0.8}%

18.8 Double line spacing

\displayskipstretch \setdisplayskipstretch

```
204 \newcommand{\displayskipstretch}{\baselinestretch}
```

205 \newcommand{\setdisplayskipstretch}[1]{\def\displayskipstretch{#1}}

\setstretch Line space commands.

```
206 \newcommand{\setstretch}[1]{%
207 \def\baselinestretch{#1}%
208 \@currsize
209 }
```

\@setsize

Modification of the LaTeX command \@setsize. Stretch the baseline *before* calculating the strut size. This improves spacing below tabular environments etc., probably.

The meanings of the arguments to \@setsize appear to be (whatever these may signify):

Syntax:

219

```
\ensuremath{\mbox{\tt @setsize}} {\langle \textit{current size} \rangle} {\langle \textit{font baselineskip} \rangle} {\langle \textit{ignored (!)} \rangle} {\langle \textit{font size} \rangle}
```

Note that \@setsize (in modern LATeX, \@setfontsize, which is called by \@setsize) seems to be the only place in purely modern LaTeX where \@currsize is set, and *ltxguide.cls* seems to be the only file in the LaTeX base distribution that uses it.

```
210 \def\@setsize#1#2#3#4{%
211
     \@nomath#1%
     \let\@currsize#1%
212
     \baselineskip #2%
     \baselineskip=\baselinestretch\baselineskip
214
     \parskip=\baselinestretch\parskip
215
     \setbox\strutbox \hbox{%
216
       \vrule height.7\baselineskip
217
               depth.3\baselineskip
218
```

width\z@}%

```
\skip\footins=\baselinestretch\skip\footins
```

221 \normalbaselineskip\baselineskip#3#4}

Fix up spacing before and after displayed math (arraystretch seems to do a fine job for inside LaTeX displayed math, since array and equarray seem to be affected as expected).

```
222 \everydisplay\expandafter{%
223 \the\everydisplay
224 \abovedisplayskip \displayskipstretch\abovedisplayskip
225 \belowdisplayskip \displayskipstretch\belowdisplayskip
226 \abovedisplayshortskip \displayskipstretch\abovedisplayshortskip
227 \belowdisplayshortskip \displayskipstretch\belowdisplayshortskip
228 }
```

18.9 Document markup

18.9.1 Declaring issue data

The following macros save their argument(s) to internal variables for later usage:

\journalname The journal name.

```
229 \def\journalname#1{\@bsphack\def\@journalname{#1}\@esphack}%
```

 ${\tt 230 \setminus journal name \{Enterprise \ Modelling \ and \ Information \ Systems \ Architectures\}\%}$

\issn The International Standard Serial Number (ISSN) is the standardized international code which allows the identification of any serial publication, including electronic serials, independently of its country of publication, of its language or alphabet, of its frequency, medium, etc.; see the ISSN web site.

Here we have two of them, one for print and one for online issues.

240 \issue{\textcolor{red}{0}}{\textcolor{red}{month 0000}}%

If the current issue is a *special issue*, the respective title goes here. \specialissuetitle \specialissuetitle* 241 \def\specialissuetitle{\@ifstar\@sspit\@spit}% \specialissuetitleprefix $242 \newcommand{\ensuremath{\sc 0}} 1{\ensuremath{\sc 0}} 1{\ens$ \@bsphack 243 \@ifempty{#2}% 244 {\let\@specialissuetitle\relax}% 245 {\@ifempty{#1}% 246 {\def\@specialissuetitle{\@specialissuetitleprefix#2}}% 247 {\def\@specialissuetitle{#1\space#2}}}% 248 \@esphack}% 249 250 \newcommand{\@sspit}[2][]{% \@bsphack 251 $\ensuremath{\mbox{@ifempty}{\#2}\%}$ 252 253 {\let\@specialissuetitle\relax}% {\def\@specialissuetitle{#2}}% 254 \@esphack}% 256 \newcommand{\specialissuetitleprefix}[1]{% \@bsphack 257 \@ifempty{#1}% 258 {\let\@specialissuetitleprefix\relax}% 259 {\def\@specialissuetitleprefix{#1\space}}% 260 \@esphack}% 261 262 \specialissuetitle{}% 263 \specialissuetitleprefix{Special Issue on}% \copyrightyear Copyright owner and year. \copyrightholder 264 \def\copyrightyear#1{\@bsphack\def\@copyrightyear{#1}\@esphack}% 265 \copyrightyear{\the\year}% 266 \def\copyrightholder#1{\@bsphack\def\@copyrightholder{#1}\@esphack}% 267 \copyrightholder{\textcolor{red}{\copyright{}holder}}%

\title

Title, subtitle, and author information for the current article.

\subtitle \author

These macros are a bit special as they accept up to *two* optional arguments together with the obligatory one. The optional arguments are for the running-title (*short*) and the table-of-contents (*ToC*) versions, respectively, of the main entry, if there is any:

Syntax:

If *no* optional argument is given the obligatory argument will appear in all the respective places.

If *one* optional argument is given then its' value replaces both the *short* and the *ToC* entries.

If *two* optional arguments are given then the value of the first one becomes the *short* headline (et al.) entry, and the second one is reproduced in the table of contents.

If *both* optional arguments are given but the first one is left empty then the *short* entry defaults also to the main value, and only the *ToC* entry is changed.

```
\renewcommandtwoopt*{\title}[3][][]{%
     \@bsphack
269
     \def\@title{#3}%
270
     \@ifempty{#1}{\def\@shorttitle{\@title}}{\def\@shorttitle{#1}}%
271
             \@ifempty{#2}{\def\@toctitle{\@shorttitle}}{\def\@toctitle{#2}}%
272
273
     \@esphack}%
   \newcommandtwoopt*{\subtitle}[3][][]{%
275
     \@bsphack
     \def\@subtitle{#3}%
     277
     278
     \@esphack}%
279
   \def\end{1}1111
280
     \ifx\@email\@empty
281
        \def\@email{#1}
282
283
     \else
        \ClassError{emisa}{There can only be one corresponding author!}{}
284
285
   286
   \newcommand*{\@authornostar}[1]{%
287
     \@bsphack
288
     \if@referee
289
      \def\@authors{}%
290
      \def\@shortauthors{}
291
292
    \else
        \gdef\@address@sep{}%
293
        \ifx\@authors\@empty
294
            \protected@xdef\@authors{#1}
295
            \protected@xappto\@shortauthors{#1}
296
        \else
297
            \protected@xappto\@authors{,\space #1}
298
            \protected@xappto\@shortauthors{,\space #1}
299
        \fi%
300
     \fi
301
     \@esphack}%
302
   \newcommandtwoopt*{\@authorstar}[3][][]{%
303
      \@bsphack
304
      \if@referee
305
        \def\@authors{}%
306
        \def\@shortauthors{}%
307
        \def\@tocauthors{}%
308
        \def\@email{}\%
309
      \else
310
        \gdef\@address@sep{}%
311
        \ifx\@authors\@empty
312
            \protected@xdef\@authors{#3\textsuperscript{*,}}
313
```

```
\protected@xappto\@shortauthors{#3}
314
         \else
315
              \protected@xappto\@authors{,\space #3\textsuperscript{*,}}
316
              \protected@xappto\@shortauthors{,\space #3}
317
         \fi%
318
          \@ifempty{#1}{\def\@shortauthor{\@shortauthors}}{\def\@shortauthor{#1}}%
319
          \@ifempty{#2}{\def\@tocauthor{\@shortauthors}}{\def\@tocauthor{#2}}%
320
       \fi
321
322
        \@esphack
        \@ifnextchar\bgroup\email{\ClassError{emisa}{Please provide an E-mail address for the corre
323
   \newcommand{\keywords}[1]{
324
      \@bsphack
325
      \def\and{\unskip\ \textbullet\ }%
326
       \def\@keywords{#1}%
327
       \@esphack}%
328
329 \newcommand{\authornote}[1]{
      \@bsphack
330
331
      \if@referee
332
         \def\@authornote{}%
      \else
333
          \def\@authornote{#1}%
334
       \fi%
335
       \@esphack}%
336
   \newcommand{\editor}[1]{
337
338
       \@bsphack
      \def\@articleinfo@name{#1}%
339
       \@esphack}%
340
341 \newcommand{\received}[1]{
      \@bsphack
342
      \def\@articleinfo@rdate{#1}%
343
       \@esphack}%
344
345 \newcommand{\accepted}[2][]{
      \@bsphack
346
347
       \def\@articleinfo@rounds{#1}
      \def\@articleinfo@adate{#2}%
348
       \@esphack}%
349
350 \newcommand{\doitext}{DOI:}
   \newcommand*{\outdoi}{%
351
     \begingroup
352
     \lccode'\~='\#\relax
353
     \label{lowercase} $$ \operatorname{def}_{\ }^{\ }}%
354
     \lccode'\~='\_\relax
355
     \label{def-{\_}}%
356
     \lccode'\~='\<\relax
357
     \lowercase{\def~{\textless}}%
358
     \lccode'\~='\>\relax
359
     \lowercase{\def~{\textgreater}}%
360
     \lccode'\~=0\relax
361
```

\catcode'\#=\active

362

```
363
     \catcode'\_=\active
364
      \catcode'\<=\active
      \catcode'\>=\active
365
      \@outdoi
366
367 }
   \def\@outdoi#1{\%}
368
     \let\#\relax
369
     \let\_\relax
370
371
      \let\textless\relax
372
     \let\textgreater\relax
     \edsext{toks0={{#1}}}%
373
374
     \edef\#{\@percentchar23}%
375
     \left\{ -\left\{ _{-}\right\} \right\} 
376
     \edef\textless{\@percentchar3C}% instead of {\string<} for Apple</pre>
377
378
      \edef\textgreater{\@percentchar3E}% instead of {\string>} for Apple
      \edef\x{\toks1={\noexpand\href{http://dx.doi.org/#1}}}%
379
381
      \end{x}\operatorname{\endgroup\doitext\the\toks1 \the\toks0}
382
383 }
   \newcommand*{\doi}[1]{
384
       \@bsphack
385
       \def\@doi{\#1}
386
387
       \@esphack}%
   \newcommand{\acknowledgements}[1]{
       \@bsphack
389
390
       \def\@acknowledgements{#1}
       \@esphack}%
391
392 \newif\if@licenseset
   \newcommand{\licence}[1]{%
393
       \@bsphack
394
       \def\@licence{#1}
395
396
       \@esphack}%
397 \let\license\licence
   \newcommand{\CCBYNCSAThree}{%
       \@licensesettrue%
399
       \def\doclicense@type{CC}%
400
       \def\doclicense@modifier@uppercase{BY-NC-SA}%
401
       \def\doclicense@versionUsed{3.0}%
402
403 }%
   \newcommand{\CCBYNCSAFour}{%
404
       \@licensesettrue%
405
       \def\doclicense@type{CC}%
406
       \def\doclicense@modifier@uppercase{BY-NC-SA}%
407
       \def\doclicense@versionUsed{4.0}%
408
409 }%
410 \newcounter{addresses}
411 \renewcommand{\theaddresses}{\alph{addresses}}
```

```
412 \newcommand{\address}[2][]{%
                           413
                                \@bsphack
                                \if@referee
                           414
                                    \def\@addresses@list{}
                           415
                                \else
                           416
                                     \@ifempty{#2}{%
                           417
                                         \@ifempty{#1}{}{%
                           418
                                              \protected@xappto\@authors{\textsuperscript{\@address@sep #1}}
                           419
                                              \gdef\address@sep{,}%
                                     }}{%
                           421
                                           \stepcounter{addresses}
                           422
                                           \protected@xappto\@authors{\textsuperscript{\@address@sep\theaddresses}}
                           423
                                           \gdef\@address@sep{,}%
                           424
                                           \ifx\@addresses@list\@empty
                           425
                                               \protected@xdef\@addresses@list{\textsuperscript{\theaddresses}\ #2}
                           426
                           427
                                               \protected@xappto\@addresses@list{\newline\textsuperscript{\theaddresses}\ #2}
                           428
                                           \fi}
                           430
                                \fi
                                \@esphack}%
                           431
                           432 \title{}%
                           433 \subtitle{}%
                           434 \author{}%
                           435 \address{}
                           436 \keywords{}%
                           437 \authornote{}%
                           438 \editor{}%
                           439 \received{}%
                           440 \accepted{}%
                           441 \doi{}%
                           442 \licence{}
                           443 \acknowledgements{}%
                           444 \def\abstract#1{\@bsphack\def\@abstract{#1}\@esphack}%
                           445 \abstract{}%
                           446 \def\@authors{}
                           447 \def\@shortauthor{}
                           448 \def\@shortauthors{}
                           449 \def\@tocauthor{}
                           450 \def\@tocauthors{}
                           451 \def\@email{}
                           452 \def\@addresses@list{}
                         This accepts the abstract text.
                           453 \def\abstract#1{\@bsphack\def\@abstract{#1}\@esphack}%
                           454 \abstract{}%
\outputarticleappendix
                         The articleappendix and articleappendix* environments collect the material given within them
                         inside an article environment. The collected material is accumulated and output at the article's
     \@articleappendix
\@wrap@articleappendix
       articleappendix
      articleappendix*
```

very end. The basic form articleappendix begins a new page per instance while the starred form articleappendix* does not. Each appendix is wrapped into its own group so things remain local.

```
455 \DeclareRobustCommand{\outputarticleappendix}{%
456
     {%
      \appendix
457
458 \@articleappendix
459 \global\let\@articleappendix\relax
460
461 }%
462 \long\def\@wrap@articleappendix#1{\gappto{\@articleappendix}{{#1}}}
   \newenvironment{articleappendix}{%
     \gappto{\@articleappendix}{\clearpage}%
464
     \Collect@Body\@wrap@articleappendix}{}
465
466 \newenvironment{articleappendix*}{%
     \Collect@Body\@wrap@articleappendix}{}
467
468 \let\@articleappendix\relax
469 \def\@makefnmark{\textsu{\@thefnmark}\ }%
   \renewcommand\@makefntext[1]{%
       \parindent 1em%
471
472
       \noindent%
       \@makefnmark#1}%
473
```

18.9.2 Page styles

This is the standard page style:

```
Page Head: three lines of text, \textwidth wide and aligned to the inner and outer text body borders, respectively, each above a black horizontal line at full sheet width. The text entries comprise:
```

```
Line 1, inner side: journal name;
outer side: no text.

Line 2, inner side: volume/number/issue date, text colour is 50% grey;
outer side: no text.

Line 3, inner side:

▷ left pages: section name;
▷ common right pages: author's name(s);
▷ editorial content, both sides: section or category name;
text colour is 50% grey;
```

outer side: page number in bold type, coloured black, shifted by an amount of \headpageoffset to the outer edge of the page.

Page foot: Mostly empty; sometimes in editorial content sections it shows a black horizontal line from the outer text edge to the inner sheet edge (spine).

\headwidth Basic lengths for head and foot elements. \headwidth is the overall width of the headbox equalling the \headmargin page width plus a bleed of three millimeters. It is logically restricted to \textwidth by substracting \headmargin at both sides.

\bleed Bleed is a printing term that refers to printing beyond the edge of the sheet after trimming. The \bleed is a measure describing the (small) amount of space by which objects on the border of your document will extend. Please note that this length is not added automatically, but has to be added manually.

\footrulewidth The width of the foot rule. As it is drawn asymmetrically (running from the outer text edge to the spine) it has to be a bit smaller than the head box.

\headfootruleheight This is the width of all lines in head and foot.

```
474 \newlength{\headwidth}%
475 \newlength{\bleed}%
476 \newlength{\headmargin}%
477 \newlength{\footrulewidth}%
478 \newlength{\headfootruleheight}%
479 \setlength{\bleed}{3mm}%
480 \setlength{\headfootruleheight}{0.4mm}%
```

We want to be able to change \bleed in the preamble so we delay the calculations until \begin{document}.

```
481 \AtBeginDocument{%

482 \setlength{\headwidth}{\paperwidth+2\bleed}%

483 \setlength{\headmargin}{0.5\headwidth-0.5\textwidth}%

484 \setlength{\footrulewidth}{0.5\headwidth+0.5\textwidth}}%
```

\headbox The main formatting routine for the running head is a tabular* environment.

```
485 \newcommand{\headbox}[6]{\bgroup%
486
     \setstretch{1}%
     \reset@font\pageheadfont
487
     \tabcolsep\z@
     \arrayrulewidth\headfootruleheight
489
     \hskip-\headmargin
490
     \begin{tabular*}{\headwidth}[b]%
491
       {@{\rule{\headmargin}{\z@}}%
492
       >{\text{-1.25mm}}_{\text{5mm-}}
493
       1@{\extracolsep{\textwidth minus 1fill}}r%
494
495
       @{\rule{\headmargin}{\z@}}}
       #1 & #2\\
496
       \hline
497
       #3 & #4\\
498
       \hline
499
       #5 & #6\\
500
       \hline
501
     \end{tabular*}%
502
     \hskip-\headmargin
503
     \egroup
```

\theheadvolume
\headpageoffset
\theoddheadpage
\theevenheadpage

These macros are used to assemble the page head, . . .

```
506 \newcommand{\theheadvolume}{%
507 \begingroup\hypersetup{urlcolor=headtextcolor}\textcolor{headtextcolor}{Vol.\,\@volume, No.\,
```

```
508 \newlength{\headpageoffset}%
                       \setlength{\headpageoffset}{10mm}%
                    510 \def\theoddheadpage{%
                          \rlap{\makebox[\headpageoffset][r]{\pagenumfont\thepage}}}%
                    512 \def\theevenheadpage{%
                          \llap{\makebox[\headpageoffset][1]{\pagenumfont\thepage}}}%
 @footrule switch
                   ... and these are for the page foot.
    \footruleoff
                    514 \newif\if@footrule%
     \footruleon
                    515 \def\footruleoff{\global\@footrulefalse}%
       \footrule
                    516 \def\footruleon{\global\@footruletrue}%
                    517 \def\footrule#1{%
                         \if@footrule
                    519
                            \makebox[\textwidth][#1]{%
                              \reset@font
                    520
                              \rule[\headfootruleheight]{\footrulewidth}{\headfootruleheight}%
                    521
                              }\fi}%
                    522
                  Sets the content marks in the running titles.
  \headmarkstyle
       \markhead
                    523 \def\headmarkstyle#1{\@bsphack
    \markarticle
                          \def\@headmarkstyle{#1}%
                    524
  \markeditorial
                          \@esphack}%
                    525
                    526 \headmarkstyle{\color{headtextcolor}}%
                    527 \def\markhead#1#2{\@bsphack
                          \gdef\@evenmark{#1}%
                    528
                          \gdef\@oddmark{#2}%
                    529
                         \@esphack}%
                    531 \def\markarticle{\markhead{\@shortauthor}{\@shorttitle}}%
                    532 \def\markeditorial{\markhead{\@shorttitle}}%
       \ps@emisa Finally that all being thrown together gives the basic page style.
                    533 \def\ps@emisa{%
                         \def\@oddhead{%
                    534
                            \headbox{\@journalname}{}%
                    535
                                    {\theheadvolume}{}%
                    536
                                    {{\@headmarkstyle\@oddmark}}{\theoddheadpage}%
                    537
                    538
                          \def\@evenhead{%
                    539
                            \headbox{}{\@journalname}%
                    540
                                    {}{\theheadvolume}%
                    541
                                    {\theevenheadpage}{{\@headmarkstyle\@evenmark}}%
                    542
                          }%
                    543
                          \let\@oddmark\relax
                    544
                          \let\@evenmark\relax
                    545
                          \def\@oddfoot{\footrule{r}}%
                    546
                          \def\@evenfoot{\footrule{1}}%
                    548 }%
\ps@emisaarticle We have two minimally different page styles:
```

\ps@emisaeditorial

- ▶ \ps@emisaarticle for author-named articles, showing the author's names on the left and the article title on the right side;
- > \ps@emisaeditorial for editorial material, showing the the article title on both sides.

```
549 \def\ps@emisaarticle{%
     \ps@emisa
550
      \markarticle
551
     \footruleoff
552
553 }%
554 \def\ps@emisaeditorial{%
     \ps@emisa
555
     \markeditorial
556
     \footruleon
557
558 }%
559 \AtEndOfClass{\pagestyle{emisa}}%
```

18.9.3 Cover and advertisement pages

\basecoverfont \covervolumefont \covertitlefont These are the font and size definitions for cover pages. We are using the sansserif script from the Libertine package, called *Linux Biolinum*, in two different sizes with the title font being bold.

```
560 \def\basecoverfont{\normalfont\sffamily}%
561 \def\covervolumefont{%
562 \basecoverfont\fontsize{6mm}{6mm}\selectfont}%
563 \def\covertitlefont{%
564 \basecoverfont\bfseries\fontsize{11mm}{16.5mm}\selectfont}%
```

\coverIbgname \coverIVbgname \sigmobislogoname

\gislogoname

These are names for background graphics and logos. As these are subject to be changed from time to time these adjustments are put into the base config file, too.

```
565 \def\coverIbgname{U1_bg}%
566 \def\coverIVbgname{U4_bg}%
567 \def\sigmobislogoname{SIG-MOBIS-logo-300}%
568 \def\sigEMISAlogoname{EMISA-Logo-svg}%
569 \def\gislogoname{GIS-logo_with_text-300}%
```

 $\verb|\AtPageDeadCenter||$

\AtPageDeadCenter centers its argument horizontally and vertically around the geometric page center.

\page@empty This macro is to be used inside some eso-pic ShipoutPicture.

```
570 \newcommand{\AtPageDeadCenter}[1]{%
571 \AtPageCenter{\makebox[\z@][c]{%
572 \raisebox{-0.5\totalheight}[\z@][\z@]{#1}}}%
573 }%
574 \def\page@empty{\relax}%
```

\pagebg Background color for one whole page plus bleed.

```
575 \newcommand{\pagebg}[1]{%
576 \AtPageDeadCenter{%
577 \textcolor{#1}{\rule{\paperwidth+2\bleed}{\paperheight+2\bleed}}}}%
```

```
\thispagebackground put its obligatory argument into the background of the running page. If there is
\thispagebackground
                       a non-empty optional argument it will be interpreted as the style of this page (using \thispagestyle).
                         578 \newcommand{\thispagebackground}[2][]{%
                               \ensuremath{\ensuremath{\text{@ifarg}\{\#1\}\{\text{thispagestyle}\{\#1\}\}\%}
                         579
                               \AddToShipoutPicture*{%
                         580
                         581
                                 \unitlength 1mm\relax%
                                 {#2}%
                         582
                         583 }}%
                       \picturepage additionally empties and flushes the running page, thus producing a picture-only page.
                         584 \newcommand{\picturepage}[2][empty]{%
                               \thispagebackground[#1]{#2}%
                               \null\clearpage
                         587 }%
  \inputpagegraphic This loads a picture file to generate a picture-only page from.
                         588 \newcommandtwoopt*{\inputpagegraphic}[3][empty][]{%
                              \thispagebackground[#1]{\includegraphics[width=\paperwidth,#2]{#3}}%
                               \null\clearpage
                         591 }%
          \coverpage \coverpage is a special form of the \picturepage:
                         592 \newcommand{\coverpage}[2][]{%
                               \@ifarg{#1}{\setcounter{page}{#1}}%
                               \picturepage{#2}%
                         594
                         595 }%
                       These represent the
\thecovervolumeline
     \thecovertitle
                         596 \newcommand{\thecovervolumeline}{%
                               \parbox[t]{130mm}{%
                         597
                                 \raggedright
                         598
                                 \color{covertextcolor}\covervolumefont%
                         599
                                 Volume\space\@volume
                         600
                                 \enspace\rule[-1mm]{0.5mm}{6mm}\enspace
                         601
                                 No.\,\@issue\space\textbf{\@issuedate}\\[3mm]%
                         602
                                 \@specialissuetitle
                         603
                         604
                               }%
                         605 }%
                            \def\thecovertitle{%
                         606
                               \parbox[t][30mm][s]{174mm}{%
                         607
                                 \color{covertextcolor}%
                         608
                                 \covertitlefont
                         609
                                 \raggedright\@journalname\par
                         610
                                 \vskip8mm
                         611
                                 \covervolumefont
                         612
                         613
                                 \raggedleft
                                 \textbf{An International Electronic Journal\,}}}
                         614
```

\sigmobispage

This macro holds the complete announcement page on the GI-SIG-MoBIS portal to be published on the third cover page (backcover, inside).

\sigmobispage holds just the contents of the SIG-Mobis ad. It produces a box with an outer width of zero points and a height as specified by the inner minipage environment. When used as an advertising page it has to be centered horizontally and vertically in the page area. This is achieved most easily by using the \AtPageDeadCenter utility macro (see section 18.9.3) from eso-pic [17].

```
615 \def\sigmobispage{%
     \mbox[\z@][c]{\%}
616
       \begin{minipage}[c][260mm][s]{\textwidth}
617
618
          \sigmobispagehead
          \medskip
619
620
621
         The GI-SIG-MoBIS portal provides numerous resources on enterprise
         modelling research, such as a full-text digital library, a
622
         bibliography, conference announcements, a glossary and evaluation
623
624
         reports. It is intended to establish the premier forum for an
         international community in enterprise modelling. The new version
625
         is based on a Content Management System allowing authorized users
626
         to conveniently upload content. A \BibTeX{} interface allows for
627
         conveniently integrating bibliographic data. Information about
628
         this journal, such as guidelines for authors, tables of content
629
         and full-text access to articles (for GI-SIG-MobIS members only)
         are also available on the~portal.
631
632
          \par
         \medskip
633
634
         \begin{center}
635
            \includegraphics{GI-SIG-MOBIS_portal}
636
         \end{center}
637
638
639
         \medskip
640
         GI encourages everybody who wants to participate in the
641
          evolution of this community knowledge base to contribute to any of
642
     the categories covered by the portal. Please contact Michael He\ss{}
643
     (\href{mailto:m.hess@uni-duisburg-essen.de}{m.hess@uni-duisburg-essen.de})
644
     for further~information.
645
646
         \vfill
647
648
         \sigmobispagefoot
649
       \end{minipage}%
650
     }%
651
652 }
```

\sigmobispagehead \sigmobispagefoot \sigmobispagerule Elements of \sigmobispage.

653 \def\sigmobispagerule#1{%

```
654 \parbox[c][23mm][s]{\linewidth}{%
             655
                  \centering
                  \textcolor{gray}{\rule{.92\linewidth}{1mm}}%
             656
                  \par\vfill
             657
                  \raisebox{-.4\height}[.5\totalheight][.5\totalheight]{\huge#1}%
             658
                  \par\vfill
             659
                  \textcolor{gray}{\rule{.92\linewidth}{1mm}}}\par}%
             660
             661 \def\sigmobispagehead{\sigmobispagerule{SIG-MoBIS Portal}}
             662 \def\sigmobispagefoot{\sigmobispagerule{http://wi-mobis.gi-ev.de/}}
  \coverI
           Each of these prepares one of the cover pages.
 \coverII
             663 \def\coverI#1{\@ifempty{#1}%
\coverIII
             664
                   {\let\@coverI\relax}%
 \coverIV
                   {\def\@coverI{\coverpage[-2]{#1}}}}%
             666 \def\coverII#1{\@ifempty{#1}%
                   {\let\@coverII\relax}%
             667
                   {\def\@coverII{\coverpage[-1]{#1}}}}%
             668
             669 \def\coverIII#1{\@ifempty{#1}%
                   {\let\@coverIII\relax}%
             670
             671
                    {\def\@coverIII{\coverpage{#1}}}}%
             672 \def\coverIV#1{\@ifempty{#1}%
             673
                   {\let\@coverIV\relax}%
             674
                   {\def\@coverIV{\coverpage{#1}}}}%
           So we prepare the four cover pages.
             675 \coverI{%
                  \pagebg{coverbgcolor}%
             676
                  \AtPageUpperLeft{%
             677
                    \raisebox{-\totalheight}{\includegraphics{\coverIbgname}}}%
             678
                  \AtPageUpperLeft{\put(17,-28){\mbox{%
             679
                    \includegraphics[height=19mm]{\sigmobislogoname}%
             680
                    \hspace{5mm}%
             681
                    \includegraphics[height=14.75mm]{\sigEMISAlogoname}%
             682
                    }}%
             683
             684
                  \AtPageLowerLeft{\put(166,9){\includegraphics{\gislogoname}}}%
             685
                  \AtPageLowerLeft{\put(17,44){\thecovervolumeline}}%
                  \AtTextLowerLeft{\put(-28,36){\framebox(200,62)[c]{}}}
             687
             688
                  \AtPageLowerLeft{\put(17,112){\thecovertitle}}%
             689 }%
             690 \coverII{\page@empty}%
             691 \coverIII{\AtPageCenter{\sigmobispage}}%
             692
                \coverIV{%
                  \pagebg{coverbgcolor}%
             693
                  \AtPageLowerLeft{%
             694
                    \raisebox{167mm}{\includegraphics{\coverIVbgname}}}%
             696
                  \AtPageLowerLeft{%
                    \put(6,9){\parbox[b]{10cm}{\raggedright\large\sffamily\@issn}}%
             697
                  \AtPageLowerLeft{%
             698
```

```
\put(166,9){\includegraphics{GIS-logo_with_text-300}}}%
699
700 }%
701 \if@cover
     \AtBeginDocument{%
       \@coverI\@coverII
703
        \setcounter{page}{1}%
704
     }%
705
      \AtEndDocument{%
706
        \@coverIII\@coverIV
707
     }%
708
709 \fi
```

\graphicspath

The picture files used above have to be found. Normally they should be somewhere on the TEX \$PATH, probably in the same directory where EMISA is situated. As least as we are in Beta state one might put them into the local subdirectory <code>figs_base/</code>; we provide for that by including the following line in the config file.

```
710 \graphicspath{{/figs_base/},{./figs_base/}}
```

18.9.4 Formatting common articles

\c@article The article and editorialcontent environments maintain their own (common) counter. Although it is not referenced anywhere at the moment of writing it is used to reset a couple of other counters with every new one of those environments.

```
711 \newcounter{article}%
712 \@addtoreset{section}{article}%
713 \@addtoreset{footnote}{article}%
714 \@addtoreset{figure}{article}%
715 \@addtoreset{table}{article}%
```

article This encapsulates each article.

```
716 \newenvironment{article}[1]{%
717     \clearpage
718     \refstepcounter{article}%
719     \pagestyle{emisaarticle}%
720     \col@number=\tw@\relax
721     #1\relax
722     \l@article
```

Every article is its own bibliographical unit.

```
723 \begin{refsection}%
724 \maketitle
725 \ignorespaces
726 }{%
727 \end{refsection}%
728 \outputarticleappendix\par%
729 \vspace{\baselineskip}%
730 \noindent\ignorespaces
```

```
731
       \if@licenseset
 732
          \begin{minipage}{\columnwidth}
          \parbox[t]{\dimexpr 0.975\columnwidth-\doclicense@imagewidth\relax}{\vskip 0pt\raggedright
 733
          \hfill%
 734
          \parbox[t]{\doclicense@imagewidth}{\vskip Opt\doclicenseImage}%
 735
          \end{minipage}%
 736
 737
       \else
          \ifx\@licence\@empty\relax\else\par\noindent\@licence\fi%
 738
 739
       \fi%
 740
       \onecolumn
       \ignorespacesafterend}%
 741
18.9.5 Formatting editorial content
This adjusts the basic page makeup for editorial material.
 742 \newcommandtwoopt{\edit@setup}[3][][]{%
 743
       \title[#1][#2]{#3}
       \pagestyle{emisaeditorial}
Here, section titles are a bit larger than otherwise.
       \def\sec@font{\sectionfont\Large}%
       \def\para@font{\sectionfont}%
 746
 747
       \setcounter{section}{0}%
 748 }%
This encapsulates editorial content entries.
 749 \newenvironment{editorialcontent}[1]{%
       \onecolumn
 750
       \refstepcounter{article}%
 751
       \edit@setup{#1}%
 752
       \l@editorialcontent
 753
       754
Every editorial content is its own bibliographical unit.
```

```
\begin{refsection}%
755
```

\ignorespaces 756

}{% 757

\edit@setup

editorialcontent

\end{refsection}% 758

\onecolumn 759

\ignorespacesafterend}%

18.9.6 Standard editorial content environments

Several types of standardized editorial contents.

editorial This encapsulates editorials. \editorialname 761 \def\editorialname{Editorial Preface}%

```
762 \newenvironment{editorial}[1][\editorialname]{%
                                 763
                                             \clearpage
                                             \edit@setup{#1}%
                                 764
                                             \twocolumn[{\raisebox{5.5mm}[10mm][0pt]{\sec@font\@title}}]%
                                 765
                                            \l@editorialcontent
                                 766
                              Every editorial is its own bibliographical unit.
                                             \begin{refsection}%
                                 767
                                 768
                                            \ignorespaces
                                            }{%
                                 769
                                            \end{refsection}%
                                 770
                                 771
                                             \onecolumn
                                 772
                                            \ignorespacesafterend}%
                            Call for papers.
                   cfp
        \cfpname
                                 773 \def\cfpname{Call for Papers}%
                                 774 \newenvironment{cfp}[1][\cfpname]%
                                 775 {\editorialcontent{#1}}%
                                 776 {\endeditorialcontent}%
        \imprint
                              Imprint.
\imprintname
                                 777 \newcommandtwoopt{\imprint}[2][\@imprintname][\@imprintbody]{%
\imprintbody
                                 778
                                             \onecolumn
                                             \edit@setup[#1]{\@journalname}%
                                 779
                                            \l@editorialcontent
                                 780
                                 781
                                             \raisebox{5.5mm}[10mm][0pt]{\sec@font\@title}\\
                                            \ignorespaces
                                 782
                                            #2
                                 783
                                             \onecolumn\ignorespacesafterend}%
                                 784
                                 785 \def\imprintname#1{\@bsphack\def\@imprintname{#1}\@esphack}%
                                        \label{longdefimprintbody#1} $$ \end{area} $$ \label{longdefimprintbody#1} $$ \end{area} $$ \end{a
                                 787 \imprintname{Imprint}%
                                 788 \imprintbody{%
                                 789
                                            The journal \emph{\@journalname} is the official journal of the
                                             Special Interest Group on Modelling Business Information Systems
                                             within the German Informatics Society (GI-SIG MoBIS).
                                 791
                                 792
                                            The journal Enterprise Modelling and Information Systems
                                 793
                                            Architectures is intended to provide a forum for those who prefer a
                                 794
                                             design-oriented approach. As the official journal of the German
                                 795
                                             Informatics Society (GI-SIG-MoBIS), it is dedicated to promote the
                                 796
                                             study and application of languages and methods for enterprise
                                 797
                                 798
                                            modelling -- bridging the gap between theoretical foundations and
                                            real world requirements. The journal is not only aimed at
                                 799
                                            researchers and students in Information Systems and Computer
                                 800
                                             Science, but also at information systems professionals in industry,
                                 801
                                            commerce and public administration who are interested in innovative
                                 802
                                             and inspiring concepts.
                                 803
```

```
804
805
     The journal's editorial board consists of scholars and practitioners
     who are renowned experts on various aspects of developing, analysing
806
     and deploying enterprise models. Besides Information Systems, they
807
     cover various fields of Computer Science.
808
809
     \section*{Subscription Information}
810
811
     The journal is distributed free of charge for members of the
812
     GI-SIG-MoBIS. Membership can be acquired through the German
813
     Informatics Society (http://www.gi-ev.de/verein/mitgliedschaft/).
814
     Single issues, priced at EUR\,25 each (plus shipment), can be ordered
815
     online (http://www.fg-mobis.gi-ev.de/).}
816
```

\editorialboard Outputs the Editorial Board page.

\editorialboardname Sets the name of the Editorial Board for use in the table of contents and in \editorialboard.

\editorialboardbody Sets the contents of the Editorial Board for use in \editorialboard.

The vertical size of the Editorial Board will exceed page height if there are more than about 48 name entries and/or other material. To prevent that the grey box is scaled down to a height of \editorialboxmaxheight if its natural size is bigger than that.

```
817 \newsavebox{\@editorial@box}%
818 \newlength{\editorialboxmaxheight}%
819 \setlength{\editorialboxmaxheight}{\textheight+10mm}%
820 \newcommandtwoopt{\editorialboard}[2]%
    [\@editorialboardname][\@editorialboardbody]{%
821
     \clearpage
822
     \edit@setup[#1]{#1}%
823
     \l@editorialcontent
824
     \savebox{\@editorial@box}{%
825
       \vbox{\centering%
826
     \fboxsep=5mm
827
     \fcolorbox{boxframecolor}{boxbgcolor}{%
828
829 \begin{minipage}[t]{110mm}
     \raggedright
830
831
832 \end{minipage}}\\*
833 }%
834
     \raisebox{15mm-\totalheight}[5mm][0mm]{\makebox[\textwidth][c]{%
835
       \ifdim\ht\@editorial@box>\editorialboxmaxheight
836
     \resizebox{!}{\editorialboxmaxheight}{\usebox{\@editorial@box}}%
837
838 \else
     \usebox{\@editorial@box}%
839
840 \fi
     }}\\*
841
     \raisebox{-\textheight}[0mm][0mm]{\makebox[\textwidth][1]{%
     \parbox[t]{\textwidth}{\raggedleft\bfseries\@issn}%
```

```
844 }}%
```

- 845 \onecolumn\ignorespacesafterend
- 846 }%
- 847 \def\editorialboardname#1{%
- 848 \@bsphack\def\@editorialboardname{#1}\@esphack}%
- 849 \long\def\editorialboardbody#1{%
- 850 \@bsphack\def\@editorialboardbody{#1}\@esphack}%
- 851 \editorialboardname{Editorial Board}%
- 852 \editorialboardbody{%
- 853 \section*{\@title}\vskip1mm
- 854 {\Large Editors in Chief\\[1mm]}
- 855 Ulrich Frank, University of Duisburg-Essen\\
- 856 Manfred Reichert, Ulm University\\[1mm]
- 857 {\Large Associate Editors\\[1mm]}
- 858 Wil van der Aalst, Eindhoven University of Technology\\
- 859 Witold Abramowicz, Poznan University of Economics\\
- 860 Colin Atkinson, University of Mannheim\\
- 861 J\"org Becker, University of M\"unster\\
- 862 J\"org Desel, University of Hagen\\
- 863 Werner Esswein, Dresden University of Technology\\
- Fernand Feltz, Centre de Recherche Public Gabriel Lippmann\\
- 865 Andreas Gadatsch, Bonn-Rhine-Sieg University of Applied Sciences\\
- 866 Martin Glinz, University of Zurich\\
- 867 Norbert Gronau, University of Potsdam\\
- 868 Wilhelm Hasselbring, University of Kiel\\
- 869 Brian Henderson-Sellers, University of Technology, Sydney\\
- 870 Stefan Jablonski, University of Bayreuth\\
- 871 Manfred Jeusfeld, Tilburg University\\
- 872 Reinhard Jung, University of St.\,Gallen\\
- 873 Dimitris Karagiannis, University of Vienna\\
- 874 John Krogstie, University of Trondheim\\
- 875 Thomas K\"uhne, Victoria University of Wellington\\
- 876 Frank Leymann, University of Stuttgart\\
- 877 Stephen W. Liddle, Brigham Young University\\
- 878 Peter Loos, Johannes Gutenberg-University of Mainz\\
- 879 Oscar Pastor L\'opez, Universidad Polit\'ecnica de Val\'encia\\
- 880 Heinrich C. Mayr, University of Klagenfurt\\
- 881 Jan Mendling, Vienna University of Economics and Business\\
- 882 Markus N\"uttgens, University of Hamburg\\
- 883 Andreas Oberweis, University of Karlsruhe\\
- 884 Erich Ortner, Darmstadt University of Technology\\
- 885 Erik Proper, Radboud University Nijmegen\\
- 886 Michael Rebstock, University of Applied Sciences Darmstadt\\
- 887 Stefanie Rinderle-Ma, University of Vienna\\
- 888 Michael Rosemann, Queensland University of Technology\\
- 889 Matti Rossi, Aalto University\\
- 890 Elmar J. Sinz, University of Bamberg\\
- 891 Friedrich Steimann, University of Hagen\\
- 892 Stefan Strecker, University of Hagen\\

```
893 Bernhard Thalheim, University of Kiel\\
```

- 894 Oliver Thomas, University of Osnabr\"uck\\
- 395 Juha-Pekka Tolvanen, University of Jyv\"askyl\"a\\
- 896 Klaus Turowski, University of Augsburg\\
- 897 Gottfried Vossen, University of M\"unster\\
- 898 Mathias Weske, University of Potsdam\\
- 899 Robert Winter, University of St.\,Gallen\\
- 900 Heinz Z\"ullighoven, University of Hamburg}%

\guidelines Guidelines for Authors.

\guidelinesname \guidelinesbody

- 901 \newcommandtwoopt{\guidelines}[2]%
- 902 [\@guidelinesname][\@guidelinesbody]{%
- 903 \onecolumn
- 904 \edit@setup{#1}%
- 905 \l@editorialcontent
- 906 \raisebox{5.5mm}[10mm][0pt]{\sec@font\@title}\\
- 907 \ignorespaces
- 908 #2
- 909 \onecolumn\ignorespacesafterend}%
- 910 \def\guidelinesname#1{%
- 911 \@bsphack\def\@guidelinesname{#1}\@esphack}%
- 912 \long\def\guidelinesbody#1{%
- 913 \@bsphack\def\@guidelinesbody{#1}\@esphack}%
- 914 \guidelinesname{Guidelines for Authors}%
- 915 \guidelinesbody{%
- 916 The journal serves to publish results of innovative research on all
- 917 facets of creating and analysing enterprise models and information
- 918 systems architectures. For research papers, it is required to
- 919 satisfy academic standards in terms of originality, level of
- 920 abstraction and justification of results. Experience reports serve
- 921 to describe and analyse success stories as well as practical
- 922 obstacles and resulting research challenges. Topics covered by the
- 923 journal include, but are not restricted to the following subjects:
- 924 \begin{itemize}
- 925 \item Languages and Methods for Enterprise Modelling
- 926 \item Reusable Domain Models (Reference Models)
- 927 \item Analysis and Design Patterns
- 928 \item Modelling of Business Processes and Workflows
- 929 \item Process-Oriented System Architectures
- 930 \item Component-Oriented System Architectures
- 931 \item Conceptual Modelling for Component-Oriented Design
- 932 \item Ontologies for Enterprise Modelling
- 933 \item Modelling for Enterprise Application Integration
- 934 \item Modelling for Data Warehouses
- 935 \item Modelling to support Knowledge Management
- 936 \item Model-Driven Development
- 937 \item Aspect-Oriented Design
- 938 \item Agile Methods for Enterprise Modelling

```
939
     \end{itemize}
     Authors are asked for electronic submissions, which have to be sent
940
     to the editor in chief as e-mail attachment. In case of multiple
941
     authors, it is required to name one author who acts as contact
942
     person. The submission should include a cover page with the paper's
943
     title and the names, affiliations and e-mail addresses of all
944
     authors. The first page of the paper starts with the title and does
945
     not carry the authors' names. A manuscript must be either in MS
946
     Word or PDF format. It should not exceed 5.000 words -- this
     includes an abstract of around 150 words.
948
949
     Submitted papers will be reviewed within no more than two months.
950
     The review process is double blind. Authors who submit a manuscript
951
     guarantee that it has not been published elsewhere, nor is intended
952
953
     to be published elsewhere. Papers that were accepted for
954
     publication must be written according to the style defined for the
     journal. A comprehensive description as well as a corresponding
955
     Word template is provided on the web portal of the GI-SIG-MobIS
956
957
     (http://www.fg-mobis.gi-ev.de/).}
```

18.9.7 Making the title

\maketitle This takes a couple of prerequisites, then looks if we are in one- or twocolumn mode and finally outputs the information accordingly.

```
958 \def\maketitle{%
959
      \begingroup
       \let\footnoterule\relax
960
      \let\footnote\thanks
961
      \let\thefootnote\relax
962
       \def\@makefnmark{\textsuperscript{\@thefnmark}}%
963
      \ifnum\col@number=\@ne
964
          \@maketitle
965
      \else
966
          \twocolumn[\@maketitle]%
967
       \fi
968
       \global\@topnum\z@
969
       \@thanks
970
      \endgroup
971
      \setcounter{footnote}{0}%
972
973 }%
```

\@maketitle This assembles and outputs the article title.

```
974 \def\@maketitle{%
975 \bgroup
976 \normalfont
977 \pretolerance=9999
978 \parskip\z@
979 \parindent\z@
```

```
\if!\@title!
980
981
        \else
        {\raggedright
982
            \titlefont\ignorespaces
983
            \strut\@title\strut\par}%
984
        \vskip2mm\relax
985
986
      \if!\@subtitle!
987
      \vskip5mm\relax
      \else
989
        {\makebox[\textwidth][r]{%
990
          \begin{minipage}{\textwidth-15mm}
991
              \raggedright
992
              \subtitlefont\ignorespaces
993
              \strut\@subtitle\strut
994
995
            \end{minipage}}%
            \par}%
996
997
        \vskip5mm\relax
998
      \fi
      \if!\@authors!
999
      \else
1000
      {\raggedright
1001
       \authorfont\ignorespaces
1002
       \strut\@authors
1003
       \ifx\@email\@empty
1004
           \ClassError{emisa}{There has to be one corresponding author!}{Please use \string\author*
1005
1006
       \else
          1007
1008
       \ifx\@acknowledgements\@empty
1009
1010
          \ignorespaces\makebox[0pt][1]{\footnote{\@acknowledgements}}%
1011
       \fi%
1012
       \strut\par}%
      \vskip2mm\relax
1014
      \fi
1015
      \if!\@addresses@list!
1016
      \else
1017
        {\raggedright
1018
        \footnotesize\ignorespaces
1019
         \strut\@addresses@list\strut\par}%
1020
1021
        \vskip8mm\relax
      \fi
      \if!\@authornote!
1023
      \else
1024
        \let\thefootnote\relax
1025
        \ignorespaces\makebox[0pt][1]{\footnote{Note: \@authornote}}%
1026
1027
      \if!\@abstract!
1028
```

```
\else
1029
1030
        {\abstractfont\ignorespaces
        \strut\textup{Abstract.\ }\@abstract\strut\par}%
1031
        \vskip5mm\relax
1032
      \fi
1033
      \if!\@keywords!
1034
1035
        \vskip3mm\relax
1036
      \else
       {\raggedright
1037
        \ignorespaces
1038
        \strut Keywords.\ \@keywords\strut\par}
1039
        \vskip3mm\relax
1040
1041
      \fi
      \if!\@articleinfo@name!
1042
1043
        \if!\@articleinfo@rdate!
           \if!\@articleinfo@adate!
1044
             \vskip\baselineskip\relax
1045
           \fi
1046
        \fi
1047
      \else
1048
       {\raggedright
1049
        \small
1050
        \ignorespaces
1051
1052
        \strut Communicated by\ \@articleinfo@name.%
        \if!\@articleinfo@rdate!%
        \else
1054
            \space Received\ \@articleinfo@rdate.%
1055
        \fi%
1056
        \if!\@articleinfo@adate!%
1057
        \else
1058
1059
            \space Accepted\ %
            \if!\@articleinfo@rounds!%
1060
1061
            \else%
              \ifnum\@articleinfo@rounds=1
                 after \@articleinfo@rounds{} revision\space%
1063
              \else
1064
                 after \@articleinfo@rounds{} revisions\space%
1065
              \fi%
1066
            \fi%
1067
            on \@articleinfo@adate.
1068
         \fi%
1069
1070
        \strut\par}
        \vskip5mm\relax
1071
      \fi
1072
      \egroup
1073
1074 }
```

18.9.8 Sectioning

\@sect This internal macro facilitates the representation of unstarred sectioning commands using \@startsection.

Syntax:

```
 \begin{tabular}{ll} $$ (\#3: indent) { (\#4: beforeskip) } { (\#5: afterskip) } { (\#6: style) } [ (\#7: toc-heading) ] { (\#8: heading) } $$ (\#8: heading) } $$ (\#8: heading) } $$ (\#8: heading) }$$ (\#8: heading) }
```

Here is the meaning of all these parameters:

(*name*) The name of the current sectioning level, e.g., «subsection».

 $\langle level \rangle$ The level number, describing the hierarchical depth of the current sectioning level named in – e.g., chapter = 1, section = 2, etc. This is used namely in the tabel of contents.

(*indent*) The indentation of the heading, relative to the left margin. Positive values shift the heading to the right («inward»), negative values to the left («outward»).

(beforeskip) The absolute value represents the space to leave above the heading. If the value is negative, the first paragraph indent following the heading is suppressed.

(afterskip) If positive, then the section heading is typeset on its own line and the value determines the amount of vertical space to leave below the heading. If negative, then the section heading is typeset run-in and the absolute value determines the amount of horizontal space to leave between the heading and the following text.

 $\langle style \rangle$ Commands to set the output style. Since he June 1996 release of Last 2 ε the last command in this argument may be a command such as \MakeUppercase or \fbox that takes an argument. The section heading will be supplied as the argument to this command. So setting this to, say, $\$ where \MakeUppercase would produce bold, uppercase headings.

 $\langle toc\text{-heading} \rangle$ The optional string to be output in the table of contents (toc). If not given, the value from $\langle heading \rangle$ is used.

 $\langle heading \rangle$ The heading text to be output in the text body.

These parameters are used also in more high-level sectioning macros upto the familiar user level commands defined below.

```
1075 \def\@sect#1#2#3#4#5#6[#7]#8{%
1076  \ifnum #2>\c@secnumdepth
1077  \let\@svsec\@empty
1078  \else
1079  \refstepcounter{#1}%
```

Since \@seccntformat might end with an improper \hskip which is scanning forward for plus or minus we end the definition of \@svsec with \relax as a precaution.

If afterskip is positive, then its value denotes the amount of vertical skip to leave below the heading:

```
1084 \begingroup
1085 #6{\noindent%
```

```
\@hangfrom{\hskip #3\relax\@svsec}%
1086
               \raggedright
1087
               \interlinepenalty\@M
1088
               \strut#8\strut
1089
               \@@par}%
1090
        \endgroup
1091
        \csname #1mark\endcsname{#7}%
1092
        \addcontentsline{toc}{#1}{%
1093
           \ifnum #2>\c@secnumdepth \else
1094
             \protect\numberline{\csname the#1\endcsname}%
1095
          \fi
1096
          #7}%
1097
1098
      \else
```

If afterskip is negative, the its absolute value indicates the amount of horizontal skip to leave to the right of the run-in heading.

```
1099
        \def\@svsechd{%
           #6{\hskip #3\relax
1100
           \@svsec #8}%
1102
          \csname #1mark\endcsname{#7}%
           \addcontentsline{toc}{#1}{%
1103
             \ifnum #2>\c@secnumdepth \else
1104
               \protect\numberline{\csname the#1\endcsname}%
1105
             \fi
1106
             #7}}%
1107
1108
      \fi
      \@xsect{#5}}
```

\@ssect The mechanism is very similar for *starred* sectioning commands, but there are few parameters.

Syntax:

```
\ensuremath{\mbox{\@ssect}\{\langle \#1: indent\rangle\}\{\langle \#2: beforeskip\rangle\}\{\langle \#3: afterskip\rangle\}}
  \{\langle #4: style \rangle\} \{\langle #5: heading \rangle\}
See also the list on p. 43.
1110 \def\@ssect#1#2#3#4#5{%
         \@tempskipa #3\relax
1111
         \ifdim \@tempskipa>\z@
1112
           \begingroup
1113
              #4{\noindent%
1114
                 \hskip #1\relax
1115
                 \noindent%
1117
                 \parbox[t]{\linewidth}{%
                    \raggedright\interlinepenalty\@M#5\strut}\@@par}%
1118
           \endgroup
1119
1120
           \def\@svsechd{#4{\hskip #1\relax #5}}%
1121
         \fi
1122
         \@xsect{#3}}
1123
```

This formats the counters (including any whitespace) of sectioning headers. \@seccntformat

```
1124 \def\@seccntformat#1{%
      \csname the#1\endcsname%
1125
      \relax\ \ }%
1126
```

\section These are the sectioning commands, all being built on top of \@startsection.

Syntax:

1146

```
\{\langle \#3: indent \rangle\} \{\langle \#4: beforeskip \rangle\} \{\langle \#5: afterskip \rangle\}
  \{\langle #6: style \rangle\}
```

See also the list on p. 43.

All the user level sectioning commands are defined using \@startsection.

Normally the corresponding section level counter is incremented and printed out; the exact output is determined by the definition of the corresponding \the... macro. Additionally, the command uses the counter secnumdepth to determine the highest section level to be numbered at all. If an asterisk (*) follows the command, then the corresponding section level counter is *not* used and *no* [⟨altheading⟩] argument is allowed.

```
1127 \def\section{\@startsection{section}%
                 1128
                        {1}{\z@}%
                        {-1\baselineskip plus -2mm minus -2mm}%
                 1129
                        {.5\baselineskip plus .25\baselineskip minus .125\baselineskip}%
                 1130
                 1131
                        {\sec@font}}%
   \subsection
                 1132 \def\subsection{\@startsection{subsection}%
                 1133
                        {2}{\z@}%
                 1134
                        {-3mm plus -2mm minus -1.5mm}%
                        {.25\baselineskip plus .125\baselineskip minus .125\baselineskip}%
                 1135
                 1136
                        {\sec@font}}%
\subsubsection
                 1137 \def\subsubsection{\@startsection{subsubsection}%
                 1138
                        {3}{\z@}%
                        {-3mm plus -2mm minus -1mm}%
                 1139
                        {1sp}%
                 1140
                        {\sec@font}}%
                 1141
    \paragraph
                 1142 \def\paragraph{\@startsection{paragraph}%
                 1143
                        {4}{\z@}%
                        {-1.5mm plus -1mm minus -0.75mm}%
                 1144
                        {1sp}%
                 1145
                        {\para@font}}%
```

```
\subparagraph
```

18.9.9 The table of contents

\tableofcontents This typesets the table of contents (ToC). First the page style is set and the title line is typeset, . . .

```
1152 \def\tableofcontents{%
      \onecolumn
1153
      \pagestyle{emisaeditorial}%
1154
      \footruleon
1155
      \title{Table of Contents}%
1156
      \null
1157
      \vskip10mm
1158
      \maketitle
1159
1160
      \vskip15mm
1161
      \bgroup
```

... then, after some more adjustments, the entries are read from $\langle jobname \rangle$. tocusing \@starttoc{toc} and output.

```
1162 \parindent\z@
1163 \parskip\z@
1164 \@starttoc{toc}%
1165 \egroup
1166 \onecolumn
1167 }
```

\landbracktricle These two routines output content lines to the ToC.

\l@editorialcontent

```
1168 \newcommand*\l@article{%
1169 \if!\@subtitle!
1170 \addtocentry{\@tocauthor}{\thepage}{\@toctitle}%
1171 \else
1172 \addtocentry{\@tocauthor}{\thepage}{\@toctitle\ --\ \@tocsubtitle}%
1173 \fi}%
1174 \newcommand*\l@editorialcontent{%
1175 \addtocentry{\@toctitle}{\thepage}{}}%
```

\addtocentry \addtocentry adds an entry using the typical EMISA layout to the contents listing of choice (default: ToC).

```
1176 \newcommand*\addtocentry[4][toc]{%
1177 \addtocontents{#1}{\string\emisa@tocentry{#2}{#3}{#4}}}%
```

\emisa@tocentry \emisa@tocentry typesets that entry.

```
1178 \newcommand{\emisa@tocentry}[3]{%
1179 \makebox[\textwidth][1]{%
1180 \parbox[t]{72.5mm-\@pnumwidth}{\raggedright\textbf{#1}}%
1181 \makebox[\@pnumwidth][r]{\textbf{#2}}%
1182 \hfill
1183 \parbox[t]{85mm}{\raggedright#3}}%
1184 \vspace{3mm}}%
```

The output of ToC entries of level -1 (\part) and above is suppressed.

```
1185 \setcounter{tocdepth}{-2}
```

18.9.10 A few abbreviations

```
\ie
               Macros for a couple of abbreviations used quite frequently.
          \eg
                1186 \newcommand*{\emisa@abbrv}[1]{#1\@\xspace}
          \cf
                1187 \newcommand*{\emisaabbrv}[2]{\gdef#1{\emisa@abbrv{#2}}}
        \etal
                1188 \newcommand*{\emisa@vabbrv}[1]{\textsc{#1}\xspace}
                    \newcommand*{\ie}{\emisa@abbrv{i.e.,}}
\emisa@abbrv
                    \newcommand*{\eg}{\emisa@abbrv{e.g.,}}
                1190
 \emisaabbrv
                    \newcommand*{\cf}{\emisa@abbrv{cf.}}
\emisa@vabbrv
                    \newcommand*{\etal}{\emisa@abbrv{et~al.}}
                1192
         \OMG
                1193 \newcommand*{\OMG}{\emisa@vabbrv{omg}}
         \BPM
                1194 \newcommand*{\BPM}{\emisa@vabbrv{bpm}}
        \BPMN
                1195 \newcommand*{\BPMN}{\emisa@vabbrv{bpmn}}
         \UML
                1196 \newcommand*{\UML}{\emisa@vabbrv{uml}}
```

18.9.11 Other macros defined by EMISA

18.10 Bibliographies

The infrastructure for that is already present in LaTeX [19, ltbibl.dtx] so we have to tinker with just a couple of things.

\bibliography

biblatex defines this macro in a way that it prescribes the bibliography data base(s) globally for the whole of the document. As we need a means to use different bibliography data bases with different articles, we redefine \bibliography such that it (1) works globally (biblatex style), when used in the preamble; (2) works locally in the document body (as defined here); and (3) appends locally to any globally given bibliography data base(s).

Point 1 is met simply by postponing the redefinition until \begin{document}. That way we have the unchanged behaviour in the preamble and the new one after that.

Points 2 and 3 lead to redefining this macro the same way as it was (in principle; see the original definition in *biblatex.sty*) but limited to a local scope.

```
1199 \def\@tempa#1\do\addbibresource#2\ni1{%
       \ifx\relax#2\relax
1200
       \else
1201
       1202
       \expandafter\@tempa\@preamblecmds\nil
1203
       \fi
1204
1205 }
    \expandafter\@tempa\@preamblecmds\do\addbibresource\nil
   \AfterEndPreamble{%
      \DeclareRobustCommand{\bibliography}[1]{%
1208
         \addbibresource{#1}}%
1209
1210 }%
1211 \tolerance 1414
1212 \hbadness 1414
1213 \emergencystretch 1.5em
1214 \hfuzz 0.3pt
1215 \widowpenalty=10000
1216 \displaywidowpenalty=10000
1217 \clubpenalty=5000
1218 \interfootnotelinepenalty=9999
1219 \brokenpenalty=2000
1220 \vfuzz \hfuzz
```

Here, the generation of the main class module is paused by the first tag (there are more pieces below); instead, generating a few biblatex-related code files starts with the second tag.

```
1221 \langle /class \rangle
1222 \langle *biblatex \rangle
```

18.10.1 The EMISA bibliography style

A bibliatex *bibliography style* is a set of macros used to output the entries in the bibliography. Bibliography styles are defined in files with the suffix *bbx*. The selected one is loaded at the end of the bibliatex package.

Here we produce the EMISA bibliography style by the not so very surprising name *emisa.bbx*. This file will be generated on installation from the following code lines between the <*bbx> and </bbx> meta-tags.

```
1223 (*bbx)
```

We start by declaring the file name and date.

```
1224 \ProvidesFile{emisa.bbx}[2012/12/21 0.4 EMISA bibliography style]
```

The EMISA bibliography style is built on top of the standard style <code>authoryear.bbx</code> being loaded here

. . .

```
1225 \RequireBibliographyStyle{authoryear}
```

... to be expanded and modified in the following.

\bibitemlabel

The macro \bibitemlabel represents the formatting of the \bibitem labels.

```
1226 \newcommand*{\bibitemlabel}[1]{%
1227 \normalfont #1}
```

thebibliography

The implementation of the thebibliography environment typically makes use of the generic list environment. First a few length registers needed internally are adjusted. Note the infix notation used in some declarations facilitated by the calc package.

```
1228 \defbibenvironment{bibliography}
1229 {\list{}%
1230     {\setlength{\labelwidth}{\z@}%
1231     \setlength{\leftmargin}{\z@}%
1232     \setlength{\itemindent}{-\leftmargin}%
1233     \setlength{\itemsep}{.5\baselineskip\@plus.2\baselineskip\@minus.2\baselineskip}%
1234     \setlength{\parsep}{\bibparsep}%
```

In the bibliography listings we want the name lists not to be abbreviated. Well, a name list containing more than 999 names *will* be abbreviated nevertheless; but then, having a name list *this* long might be a problem in itsself.

```
1235 }%
1236 \let\makelabel\bibitemlabel
```

Adjusting short lines in small paragraphs can be rather hard, so some tolerance is added here.

```
1237 \tolerance 9999
1238 \emergencystretch 3em
1239 \hfuzz .5\p@
1240 \vfuzz\hfuzz
```

This is setting the normal (non-infinite) value of \clubpenalty for the whole of this environment, so we must reset its stored value also.

```
1241 \clubpenalty 4000
1242 \@clubpenalty\clubpenalty
1243 \widowpenalty 4000
```

This causes a «.» (period) not to produce an end-of-sentence space.

```
1244 \sfcode'\.\@m
```

Inside the bibliography we want no «and» in author lists.

An empty thebibliography environment will cause a warning.

```
1248 \def\@noitemerr{\@latex@warning{Empty 'thebibliography' environment}}%
1249 \endlist}
```

```
1250 {\item}
```

Formatting commands: punctuation and spacing, blocks and units The following code is taken from biblatex.def and modified at several places (see comments). These are some basic and/or generic macros and might be superseded afterwards by definitions taken from standard.cbx or authoryear.cbx.

The major segments of a bibliography entry are ,Äòblocks' and ,Äòunits'. A block is the larger segment of the two, a unit is shorter or at most equal in length. For example, the values of fields such as title or note usually form a unit which is separated from subsequent data by a period or a comma. A block may comprise several fields which are treated as separate units, for example publisher, location, and year. An entry is segmented by inserting \newblock and \newunit commands at suitable places and \finentry at the very end. The actual printed output of these is defined in the corresponding \...punct macros.

The following commands add punctuation marks but automatically prevent doubling and remove preceding whitespace. Note that the behavior described below is the package default which is adjustable using \DeclarePunctuationPairs. Just the commands used in EMISA are discussed here.

\addperiod adds a period unless it is preceded by an abbreviation dot or any other punctuation mark. This command may also be used to turn a previously inserted abbreviation dot into a period, for example at the end of a sentence.

\addcomma adds a comma unless it is preceded by another comma, a semicolon, a colon, or a period. \addcolon adds a colon unless it is preceded by a comma, a semicolon, another colon, or a period. \isdot turns a previously inserted literal period into an abbreviation dot. In contrast to \adddot, nothing is inserted if this command is not preceded by a period.

The following macros insert space.

\addspace adds a breakable interword space.

\addhighpenspace adds a space penalized by the value of the highnamepenalty counter which holds a penalty affecting line-breaking in names; please refer to the biblatex manual for explanation. The counter is initialized to \hyphenpenalty at load-time. Higher values lower the number of linebreaks and vice versa. The traditional BibTEXbehavior (no linebreaks at highnamepenalty breakpoints) is reached by setting it to ,Äòinfinite' (≥ 10 000).

\addlowpenspace adds a space penalized by the value of the lownamepenalty counter, similar to highnamepenalty. The counter is initialized to 0.5 \hyphenpenalty at load-time.

\newunitpunct

The separator inserted between "'units"' in the sense explained above. Here, the definition is just a space.

1251 \renewcommand*{\newunitpunct}{\space}

\finentrypunct

This inserts the punctuation printed at the very end of every bibliography entry. Here it is simply nothing.

1252 \renewcommand*{\finentrypunct}{\relax}

\bibsetup is a generic hook controlling the (low-level) layout of the bibliography and the list of shorthands. The default definition should work fine in most cases.

```
1253 \renewcommand*{\bibsetup}{%
1254 \interlinepenalty=5000\relax
```

```
1255 \widowpenalty=10000\relax
1256 \clubpenalty=10000\relax
1257 \biburlsetup
1258 \flushbottom
1259 \frenchspacing
1260 \sloppy}
```

The penalties above are not specific to biblatex but low-level TeX features.

- > \clubpenalty is an additional penalty assigned to page breaks after the first line of a paragraph;
- ▷ \widowpenalty is an additional penalty assigned to page breaks before the last line of a paragraph.

Note that the value 10000 means «infinite» as far as TeX is concerned. Setting some penalty to 10000 will unconditionally suppress the respective breakpoint.

The net effect of the above settings is as follows. Breaking a bibliography entry across pages is discouraged, but not suppressed altogether. If a bibliography entry spans less than four lines, TeX will always keep it on one page. If it spans four or more lines, it may be broken across pages, provided that there are at least two lines on the page before and after the break.

These penalties should normally be used in conjunction with \raggedbottom. If you don't like that and remove \raggedbottom from the definition of \bibsetup, make sure to provide some stretchability between bibliography entries by setting \bibitemsep to a suitable value, e.g.:

\setlength{\bibitemsep}{0.5\baselineskip plus 0.5\baselineskip}

\biburlsetup This is some local setup in order to use \url properly.

To ease the job of folding long URLs into narrow columns the following code allows linebreaks after numbers as a last resort. The macro also allows breaks after hyphens and adjusts \Urlmuskip to add some stretchability to URL strings.

```
1261 \renewcommand*{\biburlsetup}{%
      \Urlmuskip=0mu plus 2mu\relax
1262
      \mathchardef\UrlBreakPenalty=200\relax
1263
      \mathchardef\UrlBigBreakPenalty=100\relax
1264
      \mathchardef\UrlEmergencyPenalty=9000\relax
1265
1266
      \appto\UrlSpecials{%
        \do\0{\mathchar'\0\penalty\UrlEmergencyPenalty}%
1267
        \do\1{\mathchar'\1\penalty\UrlEmergencyPenalty}%
1268
        \do\2{\mathchar'\2\penalty\UrlEmergencyPenalty}%
1269
        \do\3{\mathchar'\3\penalty\UrlEmergencyPenalty}%
1270
1271
        \do\4{\mathchar'\4\penalty\UrlEmergencyPenalty}%
        \do\5{\mathchar'\5\penalty\UrlEmergencyPenalty}%
1272
        \do\6{\mathchar'\6\penalty\UrlEmergencyPenalty}%
1274
        \do\7{\mathchar'\7\penalty\UrlEmergencyPenalty}%
        \do\8{\mathchar'\8\penalty\UrlEmergencyPenalty}%
1275
        \do\9{\mathchar'\9\penalty\UrlEmergencyPenalty}}%
1276
      \def\UrlBreaks{%
1277
```

}

1282

For further details please see the documentation of the url package as well as the comments inside url.sty.

Miscellaneous field formatting directives This subsection introduces biblatex commands and utility macros used to define the formatting directives required by the data commands.

The following list shows a few frequently used ones; those more rarely used are described below.

\DeclareFieldFormat[$\langle entry\ type \rangle$]{ $\langle format \rangle$ }{ $\langle code \rangle$ } defines the formatting code given in $\langle code \rangle$ to be executed by \printfield on processing the field $\langle format \rangle$. The value of the field will be passed to $\langle code \rangle$ as its first and only argument. If an $\langle entry\ type \rangle$ is specified, the format is specific to that type; otherwise it applies to all entry types defined. The name of the field currently being processed is available in \currentfield.

\DeclareFieldAlias[\langle entry type \rangle] \{\langle alias \rangle} \[\langle format entry type \rangle] \{\langle format \rangle \} \] declares \(\langle alias \rangle \) to be an alias of the field format \(\langle format \rangle \). If an \(\langle entry type \rangle \) is specified, the alias is specific to that type. The \(\langle format entry type \rangle \) is the entry type of the backend format. This is only required when declaring an alias of a type specific formatting directive.

\bibstring[\langle wrapper \rangle] {\langle key \rangle} prints the bibliography string identified by $\langle key \rangle$. The string will be capitalized as required. Depending on the abbreviate package option, \bibstring prints the short or the long version of the string. If bibliography strings are nested, i. e., if \bibstring is used in another string, it will behave like \bibxstring. If the $\langle wrapper \rangle$ argument is given, the string is passed to the $\langle wrapper \rangle$ for formatting. This is intended for font commands such as \emph.

\bibcpstring[$\langle wrapper \rangle$]{ $\langle key \rangle$ } Similar to \bibstring but the string is always capitalized.

\bibxstring{ $\langle key \rangle$ } is a simplified but expandable version of \bibstring. Note that this variant does not capitalize automatically, nor does it hook into the punctuation tracker. It is intended for special cases in which strings are nested or an expanded bibliography string is required in a test.

The citetitle format is used to output the title field in citations.

```
1283 \DeclareFieldFormat{citetitle}{#1}
1284 \DeclareFieldFormat[article]{citetitle}{#1\isdot}
1285 \DeclareFieldFormat[inbook]{citetitle}{#1\isdot}
1286 \DeclareFieldFormat[incollection]{citetitle}{#1\isdot}
1287 \DeclareFieldFormat[inproceedings]{citetitle}{#1\isdot}
1288 \DeclareFieldFormat[patent]{citetitle}{#1\isdot}
1289 \DeclareFieldFormat[thesis]{citetitle}{#1\isdot}
1290 \DeclareFieldFormat[unpublished]{citetitle}{#1\isdot}
The following field formats are used for output in bibliographies.
1291 \DeclareFieldFormat{booktitle}{#1\isdot}
```

1292 \DeclareFieldFormat{journaltitle}{#1}

```
1293 \DeclareFieldFormat{issuetitle}{#1}
1294 \DeclareFieldFormat{maintitle}{#1}
1295 \DeclareFieldFormat{title}{#1}
1296 \DeclareFieldFormat[article]{title}{#1\isdot}
   \DeclareFieldFormat[inbook]{title}{#1\isdot}
   \DeclareFieldFormat[incollection]{title}{#1\isdot}
    \DeclareFieldFormat[inproceedings]{title}{#1\isdot}
1300 \DeclareFieldFormat[patent]{title}{#1\isdot}
1301 \DeclareFieldFormat[thesis]{title}{#1\isdot}
1302 \DeclareFieldFormat[unpublished]{title}{#1\isdot}
1303 \DeclareFieldFormat{url}{\url{#1}}
1304 \DeclareFieldFormat{urldate}{\bibstring{urlseen}\addcolon\space#1}
1305 \DeclareFieldAlias[misc]{note}{urldate}
1306 \DeclareFieldAlias[report]{note}{urldate}
1307 \DeclareFieldAlias[thesis]{note}{urldate}
1308 \DeclareFieldFormat{version}{\bibcpstring{version}~#1}
1309 \DeclareFieldFormat{volume}{\bibcpstring{volume}~#1}
1310 \DeclareFieldFormat{volumes}{#1~\bibcpstring{volumes}}
```

Formatting names and name lists The following code morsels are taken from *biblatex.def* and modified.

The section employs special biblatex commands to (re)define or use macros in bibliography and citation styles.

- > \(\lambda name \rangle \) may contain characters such as numbers and punctuation marks but no backslash, and

 $\ensuremath{\mbox{\sc Name}} [\langle arguments \rangle] [\langle optional \rangle] \{\langle definition \rangle\} \ \ \ensuremath{\mbox{\sc Name}} \} \ \ \ensuremath{\mbox{\sc Name}} \}.$ If the macro is undefined, \renewbibmacro issues a warning message and falls back to \newbibmacro.

\usebibmacro{ $\langle name \rangle$ } executes the biblatex macro $\langle name \rangle$, as defined with \newbibmacro. If the macro takes any arguments, they are simply appended after $\langle name \rangle$. \usebibmacro is robust.

All the formatting directives for name lists get the following «arguments»:

```
#1 = last name

#2 = last name (initials)

#3 = first name

#4 = first name (initials)

#5 = name prefix, a.k.a. 'von part'

#6 = name prefix (initials)

#7 = name affix, a.k.a. 'junior part'

#8 = name affix (initials)
```

This declares the output format of name lists to be used by \printnames.

```
1311 \DeclareNameFormat{emisa:names}{%
1312 \usebibmacro{name:last-firstinit}{#1}{#4}{#5}{#7}%
1313 \usebibmacro{name:andothers}}
```

This bibmacro formats the names of authors, editors or translators.

```
me:last-firstinit
```

```
bibmacro
           1314 \newbibmacro*{name:last-firstinit}[4]{%
           1315
                  \usebibmacro{name:delim}{#2#3#1}%
                  \usebibmacro{name:hook}{#2#3#1}%
           1316
           Formatting: name prefix ('von part'), ...
                  \ifblank{#3}{}{%
           1317
                    \mkbibnameprefix{#3}%\isdot
           1318
           1319
                    \ifpunctmark{'}
                      {}
           1320
                      {\ifuseprefix{\addhighpenspace}{\addlowpenspace}}}%
           1321
                  \mkbibnamelast{#1}\addhighpenspace
           1322
           ... name affix ('junior part'), ...
                  \ifblank{#4}{}{\addlowpenspace\mkbibnameaffix{#4}\addlowpenspace}%
           ... and first name (initials).
                  \ifblank{#2}{}{\mkbibnamefirst{#2}\isdot}%
           1324
           1325 }%
```

in: bibmacro

This outputs the «in:» tag, as in bibliography entries for proceedings, collections, edited books and so on.

```
1326 \renewbibmacro*{in:}{%
1327 \printtext{%
1328 \bibcpstring{in}%
1329 \intitlepunct}}
```

Generic bibliography macros In this subsection the generic bibmacros outputting the typical name fields in bibliographies are customised.

author bibmacro

```
editor bibmacro
                           1338 \renewbibmacro*{editor}{%
                                  \ifthenelse{\ifuseeditor\AND\NOT\ifnameundef{editor}}
                            1339
                                    {\printnames{editor}%
                            1340
                                     \setunit{\addspace}%
                            1341
                                     \usebibmacro{editorstrg}%
                            1342
                                     \clearname{editor}}
                            1343
                            1344
                                    {}}
   editor+others bibmacro
                            1345 \renewbibmacro*{editor+others}{%
                                  \ifthenelse{\ifuseeditor\AND\NOT\ifnameundef{editor}}
                            1346
                                    {\printnames[emisa:names]{editor}%
                            1347
                                     \setunit{\addspace}%
                           1348
                                     \usebibmacro{editor+othersstrg}%
                            1349
                                    \clearname{editor}}
                            1350
                            1351
                                    {}}
      translator bibmacro
                            1352 \renewbibmacro*{translator}{%
                                  \ifthenelse{\ifusetranslator\AND\NOT\ifnameundef{translator}}
                           1353
                            1354
                                    {\printnames{translator}%
                                     \setunit{\addspace}%
                            1355
                            1356
                                     \usebibmacro{translatorstrg}%
                            1357
                                     \clearname{translator}}
                                    {}}
                            1358
translator+others bibmacro
                           1359 \renewbibmacro*{translator+others}{%
                                  \ifthenelse{\ifusetranslator\AND\NOT\ifnameundef{translator}}
                            1360
                                    {\printnames{translator}%
                           1361
                                     \setunit{\addspace}%
                            1362
                                     \usebibmacro{translator+othersstrg}%
                            1363
                                     \clearname{translator}}
                            1364
                            1365
                                    {}}
editor+othersstrg bibmacro
                           1366 \renewbibmacro*{editor+othersstrg}{%
                                  \iffieldundef{editortype}
                            1367
                                    {\ifthenelse{\value{editor}>1\OR\ifandothers{editor}}}
                            1368
                                       {\def\abx@tempa{editors}}
                            1369
                            1370
                                       {\def\abx@tempa{editor}}}
                                    1371
                                       {\edef\abx@tempa{\thefield{editortype}s}}
                            1372
                                       {\edef\abx@tempa{\thefield{editortype}}}}%
                            1373
                                  \let\abx@tempb=\empty
                            1374
                                  \ifnamesequal{editor}{translator}
                            1375
                                    {\appto\abx@tempa{tr}%
```

```
1377
                                      \appto\abx@tempb{\clearname{translator}}}
                             1378
                                     {}%
                                   \ifnamesequal{editor}{commentator}
                             1379
                                     {\appto\abx@tempa{co}%
                             1380
                                      \appto\abx@tempb{\clearname{commentator}}}
                             1381
                                     {\ifnamesequal{editor}{annotator}
                             1382
                                         {\appto\abx@tempa{an}%
                             1383
                                 \appto\abx@tempb{\clearname{annotator}}}
                             1384
                                   \ifnamesequal{editor}{introduction}
                             1386
                                     {\appto\abx@tempa{in}%
                             1387
                                      \appto\abx@tempb{\clearname{introduction}}}
                             1388
                                     {\ifnamesequal{editor}{foreword}
                             1389
                                         {\appto\abx@tempa{fo}%
                             1390
                                 \appto\abx@tempb{\clearname{foreword}}}
                             1391
                             1392
                                         {\ifnamesequal{editor}{afterword}
                                            {\appto\abx@tempa{af}%
                             1393
                                             \appto\abx@tempb{\clearname{afterword}}}
                             1394
                             1395
                                            {}}}%
                                   \ifbibxstring{\abx@tempa}
                             1396
                                     {\bibstring[\mkbibparens]{\abx@tempa}%
                             1397
                                      \abx@tempb}
                             1398
                                     {\usebibmacro{editorstrg}}}%
                             1399
                             1400 \newbibmacro*{emisa:url+urldate}{%
                                   \iffieldundef{url}
                             1401
                                     {\printfield{howpublished}}
                             1402
                                     {\printfield{url}}
                             1403
                             1404
                                   \setunit*{\addperiod\space}\newblock
                                   \iffieldundef{urlyear}
                             1405
                             1406
                                     {\printfield{note}}
                                     {\printtext[urldate]{\printurldate}}}
                             1407
isa:url+type+version+urldate
                             1408 \newbibmacro*{emisa:url+type+version+urldate}{%
                                   \iffieldundef{url}%
                             1409
                                     {\printfield{url}}
                             1410
                                     {\printfield{howpublished}}%
                             1411
                                   \setunit*{\addcomma\space}\newblock
                             1412
                                   \printfield{type}%
                             1413
                                   \setunit*{\addcomma\space}\newblock
                             1414
                                   \printfield{version}%
                             1415
                                   \setunit*{\addcomma\space}\newblock
                             1416
                             1417
                                   \iffieldundef{urlyear}
                                     {\printfield{note}}
                             1418
                                     {\printtext[urldate]{\printurldate}}}
                             1419
```

emisa:url+urldate bibmacro

bibmacro

This is the end of the code taken (and modified) from biblatex.def.

Code from standard.bbx The following code is taken from *standard.bbx* and modified at several places (see comments). This sections's definitions supersede those taken from *standard.cbx* and might in turn be superseded by the following code from *authoryear.bbx*.

finentry bibmacro

```
1420 \renewbibmacro*{finentry}{}%
```

article bibdriver

- 1421 \DeclareBibliographyDriver{article}{%
- 1422 \usebibmacro{bibindex}%
- 1423 \usebibmacro{begentry}%
- 1424 \usebibmacro{author/translator+others}%
- 1425 \setunit{\labelnamepunct}\newblock
- 1426 \usebibmacro{title}%
- 1427 \newunit
- 1428 \printlist{language}%
- 1429 \newunit\newblock
- 1430 \usebibmacro{bytranslator+others}%
- 1431 \newunit\newblock
- 1432 \printfield{version}%
- 1433 \setunit{\addperiod\space}%
- 1434 \usebibmacro{in:}%
- 1435 \usebibmacro{journal+issuetitle}%
- 1436 \newunit\newblock
- 1437 \usebibmacro{editor+others}%
- 1438 \newunit\newblock
- 1439 \usebibmacro{note+pages}%
- 1440 \newunit\newblock
- 1441 \iftoggle{bbx:isbn}
- 1442 {\printfield{issn}}
- 1443 {}%
- 1444 \newunit\newblock
- 1445 \usebibmacro{doi+eprint+url}%
- 1446 \newunit\newblock
- 1447 \usebibmacro{addendum+pubstate}%
- 1448 \newunit\newblock
- 1449 \usebibmacro{pageref}%
- 1450 \usebibmacro{finentry}}

book bibdriver

- 1451 \DeclareBibliographyDriver{book}{%
- 1452 \usebibmacro{bibindex}%
- 1453 \usebibmacro{begentry}%
- 1454 \usebibmacro{author/editor+others/translator+others}%
- 1455 \setunit{\labelnamepunct}\newblock
- 1456 \usebibmacro{maintitle+title}%
- 1457 \newunit
- 1458 \printlist{language}%

- 1459 \newunit\newblock
- 1460 \usebibmacro{editor+others}%
- 1461 \setunit{\addcomma\space}%
- 1462 \newblock
- 1463 \printfield{edition}%
- 1464 \setunit{\addperiod\space}%
- 1465 \newblock
- 1466 \usebibmacro{series+number}%
- 1467 \newunit
- 1468 \newblock
- 1469 \iffieldundef{maintitle}
- 1470 {\printfield{volume}%
- 1471 \printfield{part}}
- 1472 {}%
- 1473 \newunit
- 1474 \printfield{volumes}%
- 1475 \setunit{\addperiod\space}%
- 1476 \newblock
- 1477 \printfield{note}%
- 1478 \setunit{\addperiod\space}%
- 1479 \newblock
- 1480 \usebibmacro{publisher+location+date}%
- 1481 \newunit\newblock
- 1482 \usebibmacro{chapter+pages}%
- 1483 \newunit
- 1484 \printfield{pagetotal}%
- 1485 \newunit\newblock
- 1486 \iftoggle{bbx:isbn}
- 1487 {\printfield{isbn}}
- 1488 {}%
- 1489 \newunit\newblock
- 1490 \usebibmacro{doi+eprint+url}%
- 1491 \newunit\newblock
- 1492 \usebibmacro{addendum+pubstate}%
- 1493 \newunit\newblock
- 1494 \usebibmacro{pageref}%
- 1495 \usebibmacro{finentry}}

booklet bibdriver

- 1496 \DeclareBibliographyDriver{booklet}{%
- 1497 \usebibmacro{bibindex}%
- 1498 \usebibmacro{begentry}%
- 1499 \usebibmacro{author/editor+others/translator+others}%
- 1500 \setunit{\labelnamepunct}\newblock
- 1501 \usebibmacro{title}%
- 1502 \newunit
- 1503 \printlist{language}%
- 1504 \newunit\newblock
- 1505 \usebibmacro{editor+others}%

- 1506 \newunit\newblock
- 1507 \printfield{howpublished}%
- 1508 \newunit\newblock
- 1509 \printfield{type}%
- 1510 \newunit\newblock
- 1511 \printfield{note}%
- 1512 \newunit\newblock
- 1513 \usebibmacro{location+date}%
- 1514 \newunit\newblock
- 1515 \usebibmacro{chapter+pages}%
- 1516 \newunit
- 1517 \printfield{pagetotal}%
- 1518 \newunit\newblock
- 1519 \usebibmacro{doi+eprint+url}%
- 1520 \newunit\newblock
- 1521 \usebibmacro{addendum+pubstate}%
- 1522 \newunit\newblock
- 1523 \usebibmacro{pageref}%
- 1524 \usebibmacro{finentry}}

collection bibdriver

- 1525 \DeclareBibliographyDriver{collection}{%
- 1526 \usebibmacro{bibindex}%
- 1527 \usebibmacro{begentry}%
- 1528 \usebibmacro{editor+others}%
- 1529 \setunit{\labelnamepunct}\newblock
- 1530 \usebibmacro{maintitle+title}%
- 1531 \newunit
- 1532 \printlist{language}%
- 1533 \newunit\newblock
- 1534 \usebibmacro{editor+others}%
- 1535 \setunit{\addcomma\space}%
- 1536 \newblock
- 1537 \printfield{edition}%
- 1538 \setunit{\addperiod\space}%
- 1539 \newblock
- 1540 \usebibmacro{series+number}%
- 1541 \newunit
- 1542 \newblock
- 1543 \iffieldundef{maintitle}
- 1544 {\printfield{volume}%
- 1545 \printfield{part}}
- 1546 {}%
- 1547 \newunit
- 1548 \printfield{volumes}%
- 1549 \setunit{\addperiod\space}%
- 1550 \newblock
- 1551 \printfield{note}%
- 1552 \setunit{\addperiod\space}%

```
1553 \newblock
1554 \usebibma
```

1554 \usebibmacro{publisher+location+date}%

1555 \newunit\newblock

1556 \usebibmacro{chapter+pages}%

1557 \newunit

1558 \printfield{pagetotal}%

1559 \newunit\newblock

1560 \iftoggle{bbx:isbn}

1561 {\printfield{isbn}}

1562 {}%

1563 \newunit\newblock

1564 \usebibmacro{doi+eprint+url}%

1565 \newunit\newblock

1566 \usebibmacro{addendum+pubstate}%

1567 \newunit\newblock

1568 \usebibmacro{pageref}%

1569 \usebibmacro{finentry}}

inbook bibdriver

```
1570 \DeclareBibliographyDriver{inbook}{%
```

1571 \usebibmacro{bibindex}%

1572 \usebibmacro{begentry}%

1573 \usebibmacro{author/translator+others}%

1574 \setunit{\labelnamepunct}\newblock

1575 \usebibmacro{title}%

1576 \newunit

1577 \printlist{language}%

1578 \newunit\newblock

1579 \usebibmacro{in:}%

1580 \usebibmacro{bybookauthor}%

1581 \newunit\newblock

1582 \usebibmacro{maintitle+booktitle}%

1583 \newunit\newblock

1584 \usebibmacro{editor+others}%

1585 \setunit{\addcomma\space}%

1586 \newblock

1587 \printfield{edition}%

1588 \newunit

1589 \iffieldundef{maintitle}

1590 {\printfield{volume}%

1591 \printfield{part}}

1592 {}%

1593 \newunit

1594 \printfield{volumes}%

1595 \newunit\newblock

1596 \usebibmacro{series+number}%

1597 \newunit\newblock

1598 \printfield{note}%

1599 \newunit\newblock

```
\usebibmacro{publisher+location+date}%
1600
       \newunit\newblock
1601
       \usebibmacro{chapter+pages}%
1602
       \newunit\newblock
1603
       \iftoggle{bbx:isbn}
1604
         {\printfield{isbn}}
1605
1606
       \newunit\newblock
1607
       \usebibmacro{doi+eprint+url}%
       \newunit\newblock
1609
       \usebibmacro{addendum+pubstate}%
1610
       \newunit\newblock
1611
1612
       \usebibmacro{pageref}%
       \usebibmacro{finentry}}
1613
1614 \DeclareBibliographyDriver{incollection}{%
1615
       \usebibmacro{bibindex}%
1616
       \usebibmacro{begentry}%
       \usebibmacro{author/translator+others}%
1617
       \setunit{\labelnamepunct}\newblock
1618
       \usebibmacro{title}%
1619
       \setunit{\addcomma\space}%
1620
       \printlist{language}%
1621
Period after title, if any
       \setunit{\addperiod\space}%
1622
       \usebibmacro{in:}%
1623
       \usebibmacro{editor+others}%
1624
       \setunit{\addspace}%
1625
1626
       \newblock
1627
       \usebibmacro{byauthor}%
1628
       \newblock
       \usebibmacro{maintitle+booktitle}%
1629
Colon after maintitle, if any
       \newblock
1630
1631
       \printfield{edition}%
1632
       \setunit{\addperiod\space}%
       \newblock
1633
1634
       \usebibmacro{series+number}%
       \newunit
1635
       \newblock
1636
       \iffieldundef{maintitle}
1637
         {\printfield{volume}%
1638
1639
          \printfield{part}}
1640
         {}%
1641
       \newunit
```

\printfield{volumes}%

1642

incollection bibdriver

- ${\tt 1643} \qquad \verb|\setunit{\addperiod\space}| \%$
- 1644 \newblock
- 1645 \printfield{note}%
- 1646 \setunit{\addperiod\space}%
- 1647 \newblock
- 1648 \usebibmacro{publisher+location+date}%
- 1649 \setunit*{\addcomma\space}%
- 1650 \newblock
- 1651 \usebibmacro{chapter+pages}%
- 1652 \newunit\newblock
- 1653 \iftoggle{bbx:isbn}
- 1654 {\printfield{isbn}}
- 1655 {}%
- 1656 \newunit\newblock
- 1657 \usebibmacro{doi+eprint+url}%
- 1658 \newunit\newblock
- 1659 \usebibmacro{addendum+pubstate}%
- 1660 \newunit\newblock
- 1661 \usebibmacro{pageref}%
- 1662 \usebibmacro{finentry}}

inproceedings bibdriver

- 1663 \DeclareBibliographyDriver{inproceedings}{%
- 1664 \usebibmacro{bibindex}%
- 1665 \usebibmacro{begentry}%
- 1666 \usebibmacro{author/translator+others}%
- 1667 \setunit{\labelnamepunct}%
- 1668 \newblock
- 1669 \usebibmacro{title}%
- 1670 \setunit{\addcomma\space}%
- 1671 \printlist{language}%
- 1672 \newblock
- 1673 \usebibmacro{byauthor}%

Period after title, if any

- 1674 \setunit{\addperiod\space}%
- 1675 \usebibmacro{in:}%
- 1676 \usebibmacro{editor+others}%
- 1677 \setunit{\addspace}%
- 1678 \newblock
- 1679 \usebibmacro{byauthor}%
- 1680 \newblock
- 1681 \usebibmacro{maintitle+booktitle}%

Colon after maintitle, if any

- 1682 \newblock
- 1683 \usebibmacro{event+venue+date}%
- 1684 \setunit{\addperiod\space}%
- 1685 \newblock

```
1686
      \usebibmacro{series+number}%
1687
      \newunit
      \newblock
1688
      \iffieldundef{maintitle}
1689
        {\printfield{volume}%
1690
         \printfield{part}}
1691
1692
        {}%
      \newunit
1693
      \printfield{volumes}%
1694
      \setunit{\addperiod\space}%
1695
      \newblock
1696
      \printfield{note}%
1697
      \setunit{\addperiod\space}%
1698
      \newblock
1699
1700
      \printlist{organization}%
1701
      \setunit{\addperiod\space}%
1702
      \usebibmacro{publisher+location+date}%
1703
1704
      \setunit{\addcomma\space}%
      \newblock
1705
      \usebibmacro{chapter+pages}%
1706
      \newunit\newblock
1707
      \iftoggle{bbx:isbn}
1708
        {\printfield{isbn}}
1709
1710
1711
      \newunit\newblock
      \usebibmacro{doi+eprint+url}%
1712
1713
      \newunit\newblock
      \usebibmacro{addendum+pubstate}%
1714
      \newunit\newblock
1715
      \usebibmacro{pageref}%
1716
      \usebibmacro{finentry}}
1717
```

manual bibdriver

1718 \DeclareBibliographyDriver{manual}{% \usebibmacro{bibindex}% 1719 1720 \usebibmacro{begentry}% 1721 \usebibmacro{author/editor}% 1722 \setunit{\labelnamepunct}\newblock \usebibmacro{title}% 1723 \newunit 1724 \printlist{language}% 1725 \newunit\newblock 1726 \usebibmacro{byeditor}% 1727 \setunit{\addcomma\space}% 1728 \newblock 1730 \printfield{edition}% \newunit\newblock 1731 \usebibmacro{series+number}% 1732

- 1733 \newunit\newblock
- 1734 \printfield{type}%
- 1735 \newunit
- 1736 \printfield{version}%
- 1737 \newunit
- 1738 \printfield{note}%
- 1739 \newunit\newblock
- 1740 \printlist{organization}%
- 1741 \newunit
- 1742 \usebibmacro{publisher+location+date}%
- 1743 \newunit\newblock
- 1744 \usebibmacro{chapter+pages}%
- 1745 \newunit
- 1746 \printfield{pagetotal}%
- 1747 \newunit\newblock
- 1748 \iftoggle{bbx:isbn}
- 1749 {\printfield{isbn}}
- 1750 {}%
- 1751 \newunit\newblock
- 1752 \usebibmacro{doi+eprint+url}%
- 1753 \newunit\newblock
- 1754 \usebibmacro{addendum+pubstate}%
- 1755 \newunit\newblock
- 1756 \usebibmacro{pageref}%
- 1757 \usebibmacro{finentry}}

misc bibdriver

- 1758 \DeclareBibliographyDriver{misc}{%
- 1759 \usebibmacro{bibindex}%
- 1760 \usebibmacro{begentry}%
- 1761 \usebibmacro{author/editor+others/translator+others}%
- ${\tt 1762} \qquad \verb|\setunit{\labelnamepunct} \verb|\newblock|$
- 1763 \usebibmacro{title}%
- 1764 \newunit
- 1765 \printlist{language}%

Period after title, if any

- 1766 \setunit{\addperiod\space}%
- 1767 \usebibmacro{emisa:url+urldate}%
- 1768 \usebibmacro{finentry}}

online bibdriver

- 1769 \DeclareBibliographyDriver{online}{%
- 1770 \usebibmacro{bibindex}%
- 1771 \usebibmacro{begentry}%
- 1772 \usebibmacro{author/editor+others/translator+others}%
- 1773 \setunit{\labelnamepunct}\newblock
- 1774 \usebibmacro{title}%
- 1775 \newunit

```
\printlist{language}%
                  1776
                         \newunit\newblock
                  1777
                         \usebibmacro{editor+others}%
                  1778
                         \newunit\newblock
                  1779
                         \printfield{version}%
                  1780
                         \newunit
                  1781
                  1782
                         \printfield{note}%
                         \newunit\newblock
                  1783
                         \printlist{organization}%
                  1784
                         \newunit\newblock
                  1785
                         \usebibmacro{date}%
                  1786
                         \newunit\newblock
                  1787
                         \iftoggle{bbx:eprint}
                  1788
                           {\usebibmacro{eprint}}
                  1789
                  1790
                           {}%
                  1791
                         \newunit\newblock
                         \usebibmacro{url+urldate}%
                  1792
                  1793
                         \newunit\newblock
                  1794
                         \usebibmacro{addendum+pubstate}%
                         \newunit\newblock
                  1795
                         \usebibmacro{pageref}%
                  1796
                  1797
                         \usebibmacro{finentry}}
patent bibdriver
                  1798 \DeclareBibliographyDriver{patent}{%
                         \usebibmacro{bibindex}%
                  1799
                  1800
                         \usebibmacro{begentry}%
                         \usebibmacro{author}%
                         \setunit{\labelnamepunct}\newblock
                  1802
                         \usebibmacro{title}%
                  1803
                         \newunit
                  1804
                         \printlist{language}%
                  1805
                         \newunit\newblock
                  1806
                         \printfield{type}%
                  1807
                         \setunit*{\addspace}%
                  1808
                  1809
                         \printfield{number}%
                         \iflistundef{location}
                  1811
                           {\setunit*{\addspace}%
                  1812
                            \printtext[parens]{%
                  1813
                              \printlist[][-\value{listtotal}]{location}}}%
                  1814
                         \newunit\newblock
                  1815
                         \usebibmacro{byholder}%
                  1816
                         \newunit\newblock
                  1817
                  1818
                         \printfield{note}%
                         \newunit\newblock
                  1819
                         \usebibmacro{date}%
                  1820
                         \newunit\newblock
                  1821
                         \iftoggle{bbx:url}
```

1822

```
{\usebibmacro{url+urldate}}
                       1823
                       1824
                                {}%
                              \newunit\newblock
                       1825
                              \usebibmacro{addendum+pubstate}%
                       1826
                              \newunit\newblock
                       1827
                              \usebibmacro{pageref}%
                       1828
                       1829
                              \usebibmacro{finentry}}
 periodical bibdriver
                       1830 \DeclareBibliographyDriver{periodical}{%
                       1831
                              \usebibmacro{bibindex}%
                              \usebibmacro{begentry}%
                       1832
                              \usebibmacro{editor}%
                       1833
                              \setunit{\labelnamepunct}\newblock
                       1834
                              \usebibmacro{title+issuetitle}%
                       1835
                       1836
                              \newunit
                              \printlist{language}%
                       1837
                              \newunit\newblock
                       1838
                              \usebibmacro{byeditor}%
                              \newunit\newblock
                       1840
                              \printfield{note}%
                       1841
                              \newunit\newblock
                       1842
                              \iftoggle{bbx:isbn}
                       1843
                                {\printfield{issn}}
                       1844
                       1845
                                {}%
                              \newunit\newblock
                       1846
                              \usebibmacro{doi+eprint+url}%
                       1847
                              \newunit\newblock
                              \usebibmacro{addendum+pubstate}%
                       1849
                              \newunit\newblock
                       1850
                              \usebibmacro{pageref}%
                       1851
                              \usebibmacro{finentry}}
                       1852
proceedings bibdriver
                       1853 \DeclareBibliographyDriver{proceedings}{%
                       1854
                              \usebibmacro{bibindex}%
                              \usebibmacro{begentry}%
                       1855
                              \usebibmacro{editor+others}%
                       1856
                       1857
                              \setunit{\labelnamepunct}\newblock
                       1858
                              \usebibmacro{maintitle+title}%
                              \newunit
                       1859
                              \printlist{language}%
                       1860
                              \newunit\newblock
                       1861
                       1862
                              \usebibmacro{event+venue+date}%
                              \newunit\newblock
                       1863
                              \usebibmacro{editor+others}%
                       1864
                              \setunit{\addperiod\space}%
                              \newblock
                       1866
```

```
\usebibmacro{series+number}%
1867
       \newunit
1868
       \newblock
1869
       \iffieldundef{maintitle}
1870
         {\printfield{volume}%
1871
          \printfield{part}}
1872
1873
         {}%
1874
       \newunit
       \printfield{volumes}%
1875
       \setunit{\addperiod\space}%
1876
       \newblock
1877
       \printfield{note}%
1878
       \setunit{\addperiod\space}%
1879
       \newblock
1880
1881
       \printlist{organization}%
1882
       \setunit{\addperiod\space}%
1883
       \usebibmacro{publisher+location+date}%
1884
1885
       \newblock
       \usebibmacro{chapter+pages}%
1886
       \newunit
1887
       \printfield{pagetotal}%
1888
1889
       \newunit\newblock
1890
       \iftoggle{bbx:isbn}
         {\printfield{isbn}}
1891
         {}%
1892
       \newunit\newblock
1893
       \usebibmacro{doi+eprint+url}%
1894
       \newunit\newblock
1895
       \usebibmacro{addendum+pubstate}%
1896
1897
       \newunit\newblock
       \usebibmacro{pageref}%
1898
1899
       \usebibmacro{finentry}}
Technical reports
 author
 title
 year
 type
 number
 institution
 address
 url
 note
1900 \DeclareBibliographyDriver{report}{%
```

\usebibmacro{bibindex}%

report bibdriver

1901

- 1902 \usebibmacro{begentry}%
- 1903 \usebibmacro{author}%
- 1904 \setunit{\labelnamepunct}\newblock
- 1905 \usebibmacro{title}%
- 1906 \setunit{\addperiod\space}%
- 1907 \printfield{type}%
- 1908 \newunit
- 1909 \printfield{number}%
- 1910 \setunit{\addperiod\space}%
- 1911 \printlist{institution}%
- 1912 \setunit*{\addperiod\space}\newblock
- 1913 \printlist{location}%
- 1914 \setunit*{\addperiod\space}\newblock
- 1915 \printfield{url}%
- 1916 \setunit*{\addperiod\space}\newblock
- 1917 \printfield{note}%
- 1918 \newunit\newblock
- 1919 \usebibmacro{finentry}}%
- 1920 \DeclareBibliographyAlias{techreport}{report}%

thesis bibdriver

- 1921 \DeclareBibliographyDriver{thesis}{%
- 1922 \usebibmacro{bibindex}%
- 1923 \usebibmacro{begentry}%
- 1924 \usebibmacro{author}%
- 1925 \setunit{\labelnamepunct}\newblock
- 1926 \usebibmacro{title}%
- 1927 \newunit
- 1928 \printlist{language}%

Period after title, if any

- 1929 \setunit{\addperiod\space}%
- 1930 \printfield{type}%
- 1931 \setunit*{\addcomma\space}%
- 1932 \usebibmacro{institution+location+date}%
- 1933 \setunit{\addperiod\space}%
- 1934 \usebibmacro{chapter+pages}%
- 1935 \newunit
- 1936 \printfield{pagetotal}%
- 1937 \newunit\newblock
- 1938 \printfield{url}%
- 1939 \setunit*{\addperiod\space}\newblock
- 1940 \printfield{note}%
- 1941 \newunit\newblock
- 1942 \usebibmacro{addendum+pubstate}%
- 1943 \newunit\newblock
- 1944 \usebibmacro{pageref}%
- 1945 \usebibmacro{finentry}}

unpublished bibdriver

intitle+booktitle

ournal+issuetitle bibmacro

bibmacro

```
1946 \DeclareBibliographyDriver{unpublished}{%
      \usebibmacro{bibindex}%
1947
      \usebibmacro{begentry}%
1948
      \usebibmacro{author}%
1949
      \setunit{\labelnamepunct}\newblock
1950
      \usebibmacro{title}%
1951
      \newunit
1952
      \printlist{language}%
1953
      \newunit\newblock
1954
      \printfield{howpublished}%
1955
      \newunit\newblock
1956
1957
      \printfield{note}%
      \newunit\newblock
      \usebibmacro{date}%
1959
      \newunit\newblock
1960
1961
      \iftoggle{bbx:url}
        {\usebibmacro{url+urldate}}
1962
         {}%
1963
      \newunit\newblock
1964
      \usebibmacro{addendum+pubstate}%
1965
1966
      \newunit\newblock
      \usebibmacro{pageref}%
1967
      \usebibmacro{finentry}}
1968
    \renewbibmacro*{maintitle+booktitle}{%
      \iffieldundef{maintitle}
1970
1971
        {\usebibmacro{maintitle}%
1972
        \addspace
1973
        \newblock
1974
        \iffieldundef{volume}
1975
          {}
1976
1977
          {\printfield{volume}%
           \printfield{part}%
1978
           \addspace
1979
       }}%
1980
      \usebibmacro{booktitle}%
1981
      \newunit}
1982
1983 \renewbibmacro*{journal+issuetitle}{%
1984
      \usebibmacro{journal}%
      \setunit*{\addspace}%
1985
      \iffieldundef{series}
1986
         {}
1987
1988
         {\new unit}
```

```
\printfield{series}%
1989
         \setunit{\addspace}}%
1990
      \printfield{volume}%
1991
      \printfield[parens]{number}%
1992
      \setunit{\addcomma\space}%
1993
      \printfield{eid}%
1994
      \setunit{\addspace}%
1995
      \usebibmacro{issue+date}%
1996
      \setunit{\addcolon\space}%
      \usebibmacro{issue}%
1998
      \newunit}
1999
```

isa:doi+eprint+url

bibmacro

```
\newbibmacro*{emisa:doi+eprint+url}{%
      \iftoggle{bbx:doi}
2001
         {\printfield{doi}}
2002
2003
      \newunit\newblock
2004
      \iftoggle{bbx:eprint}
2005
         {\usebibmacro{eprint}}
2006
2007
      \newunit\newblock
2009
      \iftoggle{bbx:url}
         {\usebibmacro{emisa:url+urldate}}
2010
2011
```

This is the end of the code taken (and modified) from standard.bbx.

Code from authoryear.bbx The following code is taken from authoryear.bbx and modified at several places (see comments). The macros in this subsection will supersede any previous definition by the same name(s).

author bibmacro

```
2012 \renewbibmacro*{author}{%
      \ifthenelse{\ifuseauthor\AND\NOT\ifnameundef{author}}
2013
       {\ifthenelse{\iffieldequals{fullhash}{\bbx@lasthash}\AND
2014
2015
                     \NOT\iffirstonpage\AND
2016
                     \(\NOT\boolean{bbx@inset}\OR
                     \iffieldequalstr{entrysetcount}{1}\)}
2017
         {\bibnamedash}
2018
         {\usebibmacro{bbx:savehash}%
2019
2020
          \printnames[emisa:names]{author}%
          \iffieldundef{authortype}
2021
            {\setunit{\addspace}}
2022
            {\setunit{\addcomma\space}%
2024
             \usebibmacro{authorstrg}%
             \setunit{\addspace}}}%
2025
       }{%
2026
```

```
\global\undef\bbx@lasthash
                                2027
                                          \usebibmacro{labeltitle}%
                                2028
                                          \setunit*{\addspace}}%
                                2029
                                        \usebibmacro{date+extrayear}}
                                2030
       bbx:editor bibmacro
                                2031 \renewbibmacro*{bbx:editor}[1]{%
                                        \ifthenelse{\ifuseeditor\AND\NOT\ifnameundef{editor}}
                                2032
                                          {\ifthenelse{\iffieldequals{fullhash}{\bbx@lasthash}\AND
                                2033
                                2034
                                                         \NOT\iffirstonpage\AND
                                                         \(\NOT\boolean{bbx@inset}\OR
                                2035
                                                         \iffieldequalstr{entrysetcount}{1}\)}
                                2036
                                            {\bibnamedash}
                                2037
                                            {\printnames[emisa:names]{editor}%
                                2038
                                             \setunit{\addcomma\space}%
                                2039
                                2040
                                             \usebibmacro{bbx:savehash}}%
                                           \usebibmacro{#1}%
                                2041
                                           \clearname{editor}%
                                2042
                                           \setunit{\addspace}%
                                          }{\global\undef\bbx@lasthash
                                2044
                                           \usebibmacro{labeltitle}%
                                2045
                                           \setunit*{\addspace}%
                                2046
                                          }%
                                2047
                                          \usebibmacro{date+extrayear}%
                                2048 %
                                2049
                                       }
  bbx:translator bibmacro
                                2050 \renewbibmacro*{bbx:translator}[1]{%
                                        \ifthenelse{\ifusetranslator\AND\NOT\ifnameundef{translator}}
                                2051
                                2052
                                          {\tt \{\fifthenelse\{\fiftieldequals\{fullhash\}\{\bbx@lasthash\}\AND\fifthenelse\{\fiftieldequals\{fullhash\}\{\bbx@lasthash\}\and\fifthenelse\{\fiftieldequals\{fullhash\}\{\bbx@lasthash\}\and\fifthenelse\{\fiftieldequals\{fullhash\}\}\}\}}
                                                         \NOT\iffirstonpage\AND
                                2053
                                      \(\NOT\boolean{bbx@inset}\OR
                                2054
                                         \iffieldequalstr{entrysetcount}{1}\)}
                                2055
                                             {\bibnamedash}
                                2056
                                             {\printnames[emisa:names]{translator}%
                                2057
                                     \setunit{\addcomma\space}%
                                2058
                                     \usebibmacro{bbx:savehash}}%
                                2059
                                           \usebibmacro{translator+othersstrg}%
                                2060
                                2061
                                           \clearname{translator}%
                                2062
                                           \setunit{\addspace}}%
                                          {\global\undef\bbx@lasthash
                                2063
                                           \usebibmacro{labeltitle}%
                                2064
                                           \setunit*{\addspace}}%
                                2065
                                2066
                                        \usebibmacro{date+extrayear}}
blisher+location+date
                   bibmacro
                                2067 \renewbibmacro*{publisher+location+date}{%
                                        \printlist{publisher}%
                                2068
```

```
2069 \setunit*{\addcomma\space}%
2070 \printlist{location}%
2071 \newunit}

2072 \renewbibmacro*{institution+location+date}{%
2073 \printlist{institution}%
2074 \setunit*{\addcomma\space}%
2075 \printlist{location}%
```

This is the end of the code taken (and modified) from authoryear.bbx.

Localization

2076

\newunit}

stitution+location+date

bibmacro

```
2077 \DefineBibliographyStrings{english}{%
2078 urlseen = {Last Access},
2079 techreport = {},%
2080 }%
2081 \DefineBibliographyStrings{german}{%
2082 urlseen = {Letzter Zugriff},%
2083 techreport = {},%
2084 }%
2085 \DefineBibliographyStrings{ngerman}{%
2086 urlseen = {Letzter Zugriff},%
2087 techreport = {},%
2088 }%
```

Unlocalization

```
2089 % year/month/day
2090 \protected\def\mkbibdateiso#1#2#3{%
      \iffieldundef{#1}{}{%
2091
        \thefield{#1}%
2092
        \iffieldundef{#2}{}{-}}%
2093
      \iffieldundef{#2}{}{%
2094
2095
        \mkdatezeros{\thefield{#2}}%
        \left\{ fifieldundef\{\#3\}\{\}\{-\}\}\right\}
      \mkdatezeros{\thefield{#3}}%
2097
2098 }%
2099 \DefineBibliographyExtras{english}{\let\mkbibdateshort\mkbibdateiso}%
2100 \DefineBibliographyExtras{german}{\let\mkbibdateshort\mkbibdateiso}%
2101 \DefineBibliographyExtras{ngerman}{\let\mkbibdateshort\mkbibdateiso}%
```

Here, the EMISA bibliography style file emisa.bbx ends.

```
2102 (/bbx)
```

18.10.2 The EMISA citation style

A citation style is a set of commands such as \ite which print different types of citations. Such styles are defined in files with the suffix *cbx*. The biblatex package loads the selected citation style file at the end of the package. Note that a small repertory of frequently used macros shared by several of the standard citation styles is also included in biblatex.def. This file is loaded at the end of the package as well, prior to the selected citation style.

The EMISA citation style is defined in the file *emisa.cbx* which is generated from the following code lines between the <*cbx> and </cbx> meta-tags.

```
2103 \langle *cbx \rangle
2104 \ProvidesFile{emisa.cbx}[2010/09/24 0.3 EMISA citation style]
2105 \RequireCitationStyle{authoryear-comp}
2106 \renewcommand*{\nameyeardelim}{\addspace}
```

\DeclareRangeChars configures the \ifnumerals and \ifpages tests. The setup will also affect \iffieldnums and \iffieldpages as well as \mkpageprefix and \mkpagetotal. The argument is an undelimited list of characters which are to be considered as range indicators. The regular version of this command replaces the current setting, the starred version appends its argument to the current list. The default setting is {~,;-+/}, so strings like "3–5", "35+", "8/9" and so on will be considered as a range.

Here we add the character f to enable ranges like "123f" and "456ff".

```
2107 \DeclareRangeChars*{f}
```

Here, the EMISA citation style file emisa.cbx ends.

```
2108 \langle /cbx \rangle
2109 \langle /biblatex \rangle
2110 \langle *class \rangle
```

Here, the LATEX class EMISA ends.

```
2111 (/class)
```

18.11 Examples and templates

18.11.1 Document templates

Here we add a couple of small document templates to ease the creation of documents: emisa-article-template.tex for article authors and emisa-issue-template.tex for copy editors. Both are generated from the following piece.

```
2112 \ *template \\
2113 \ \ *article \\
2114 \ \ documentclass[british]{emisa}
2115 %% You can use this additional option (e.g.,"[english,draft]"):
2116 %% draft -- this marks overfull lines
2117 \ \ /article \\
```

```
2118 (issue)\documentclass[final,cover]{emisa}
2119 (*article | issue)
2120 %% The following package imports are recommended, but not obligatory;
2121 %% you might want take a look into their respective manuals if you
2122 %% don't know what they do.
2123 \usepackage{amsmath,amssymb,mathtools}
2124 \usepackage{algorithmicx,algorithm}
2125 %% Additional package imports go here:
2126 (/article | issue)
2127 (*issue)
2128 %% Insert here issue data:
2129 \volume{}% Volume No.
2130 \issue{}{}% Issue No. and Issue Date
2131 %% If there are any bibliography data bases to be used globally
2132 %% please indicate here:
2133 \bibliography{}
2134 %% Insert here any (relative or absolute) path to be searched for
2135 %% graphics files:
2136 \graphicspath{{./figs_base/},{}}
2137 %% Here you can alter the cover pages; e.g. this:
2138 %% \coverII{\AtPageDeadCenter{Something}}
2139 %% typesets the word "Something" centered on the inner side of the
2140 %% front sheet.
2141 %% You can also delete any cover pages at all by defining them empty,
2142 %% see below:
2143 \coverII{}
2144 %% This outputs the SIG-MOBIS page on the inner side of the back
2145 %% sheet:
2146 \coverIII{\AtPageCenter{\sigmobispage}}
2147 (/issue)
2148 (*article | issue)
2149 %% Here, the normal text begins.
2150 \begin{document}
2151 (/article | issue)
2152 (*issue)
2153 \tableofcontents
2154
2155 \begin{editorial}
2156 %% Please insert editorial text here.
2157
2158 \end{editorial}
2159 (/issue)
2160 (*article | issue)
2161 \begin{article}{%
2162 %% Please declare the title elements of your article here. Unused
2163 %% elements can either be deleted or commented out, or else just let
2164 %% empty. In either case they are not typeset.
2165 %% If the option referee or review is given, all author tags, address,
2166 %% email and acknowledgements will be likewise omitted.
```

```
2167
      \title{}
2168
      \subtitle{}
      \author*{<Name>}{<Email address>}
2169
      \address{address line 1\\address line 2}
2170
      \author{Name}
2171
      \address[a]{}
2172
      \abstract{}
2173
      \keywords{Keyword 1 \and keyword 2\and keyword 3}
2174
      \authornote{This article extends an earlier conference paper, see ...}
2175
2176 (/article | issue)
2177 (*issue)
      \editor{My self}
2178
      \received{24 Octover 2014}
2179
      \accepted[2]{1 November 2015}
2180
      \doi{10.5073/EMISA.2011.11.1}
2181
2182 (/issue)
2183 (*article | issue)
      \acknowledgements{}
2185 %% Please declare here the bibliography data base(s) you want to use
2186 %% in this article (make sure to add the file extension, e.g. .bib):
      \bibliography{}
2187
      }
2188
2189 %% Please insert your article text here.
2190 \section{Introduction}
2191 \subsection{The research problem}
2192 %% Remember to provide a unique label for each section, table, figure, listing and algorithm for
2194 %% This directive typesets the bibliography. To achieve this, one has
2195 %% to run the biber program on the corresponding auxiliary file
2196 %% generated in the previous LaTeX run; you can just use the job name
2197 %% (the name of this file without ".tex")", e.g.: biber emisa-author-template
2198 \printbibliography
2199 %
2200 \end{article}
2201 (/article | issue)
2202 (*issue)
2203
2204 %% Please insert as much article environments here as are needed.
2205 \begin{article}{%
       \title{}
2206
       \subtitle{}
2207
       \author*{<Name>}{<Email address>}
2208
       \address{address line 1\\address line 2}
       \author{Name}
2210
       \address[a]{}
2211
       \abstract{}
2212
       \keywords{Keyword 1 \and keyword 2\and keyword 3}
2213
2214
       \authornote{This article extends an earlier conference paper, see ...}
       \acknowledgements{}
2215
```

```
\editor{My self}
2216
        \received{24 Octover 2014}
2217
        \accepted[2]{1 November 2015}
2218
        \doi{10.5073/EMISA.2011.11.1}
2219
        \bibliography{}
2220
       }
2221
2222
2223
2224 \printbibliography
2225 \end{article}
2226
2227 \begin{cfp}
2228 %% Please insert your Call for papers here.
2229 \end{cfp}
2230
2231 \imprint
2232 \editorialboard
2233 \guidelines
2234 (/issue)
2235 ⟨article | issue⟩\end{document}
2236 \langle / \text{template} \rangle
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