

A L^AT_EX class 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 scholarly open access journal (<http://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 L^AT_EX package currently maintained by Stefan Strecker (stefan.strecker@fernuni-hagen.de) and Martin Sievers (martin.sievers@schoenerpublizieren.de).

The EMISA L^AT_EX document class is provided for preparing manuscripts for submission to EMISA, and for preparing accepted submissions for publication as well as for typesetting the final publication by the editorial office. Articles in EMISA are published online at <http://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 three doctoral students. Editorial work at EMISA is best described as a volunteer effort for the scientific community. Please 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 L^AT_EX package consists of the EMISA L^AT_EX class `emisa.cls`, the biblatex bibliography style `emisa.bbx` and the biblatex citation style `emisa.cbx`. The package also includes the present instructions and guidelines for authors on formatting the source files of the manuscript to achieve a pleasing and typographically consistent visual appearance of the reviewed as well as the published document. Note that the package will (soon) be available from the COMPREHENSIVE T_EX ARCHIVE NETWORK (CTAN, <https://ctan.org/pkg/emisa>).

[//ctan.org](http://ctan.org)) and should then be available for installation through the respective T_EX distribution's package installer. In the meantime, a manual installation is required. For a manual installation, run `pdflatex emisa.ins` and `pdflatex emisa.dtx` twice, and copy the resulting files to the same folder / directory in which the source files for the manuscript will be maintained.

3 Instructions and guidelines

This document provides instructions and guidelines for authors for manuscript preparation for EMISA. It covers all major aspects of scholarly writing (e. g. citations, references, figures, tables, source code and pseudocode listings). 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 appearance in accordance with the journal's style specifications.

It is recommended to use these instructions as a checklist before submitting your manuscript to the journal's online submission system at <http://emisa-journal.org>. Note that these instructions are *not* intended as a general introduction to L^AT_EX2e and corresponding tools (see, for example, <https://www.ctan.org/tex-archive/info/lshort/english/> for 'The not so Short Introduction to L^AT_EX').

4 Preliminary remarks

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

The EMISA class builds on a number of standard L^AT_EX packages available in distributions such as T_EXLive and MikT_EX. It is highly recommended to install the *full* set of packages for the used distribution to make the required packages available to the EMISA class. Alternatively, missing packages may be installed on-the-fly.

The list of required packages for using the EMISA class is rather comprehensive (see `emisa.cls`) but the class implementation has taken care to use only packages commonly included in T_EX distributions such as T_EXLive and MikT_EX. Among the packages required by the EMISA class are `geometry`, `newtxtext`, `newtxmath`, `newtxtt`, `ntheorem`, `amsthm`, `booktabs`, `tabularx`, `XXX`.

UTF-8 The production process at the EMISA editorial office is based entirely on L^AT_EX, and runs pdfL^AT_EX and `biber` to produce the final proof and publication 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 the bibliography 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*, and that all line-drawing figures are submitted as vector graphics (*not* bitmap graphics) in PDF format, and that all other (non-schematic) figures are submitted in PDF, JPEG or PNG format.

5 Class Options

- `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.
- `referee, review` 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 the EMISA journal. Example: `\documentclass[referee]{emisa}`.

6 Author information

- `\author` Each author is added using the macro `\author{\langle author name \rangle}` followed by the corresponding address
- `\address` `\address{\langle author’s address (line 1) \rangle \dots \langle line 2 \rangle \dots}`. If you have multiple authors with the same address, please use `\address{\langle author’s address \rangle}` only for the first one of those and `\address[\langle letter of address \rangle]{\langle \rangle}` for all others.
- `\author*` There has to be one corresponding author stated by `\author*{\langle author’s name \rangle}{\langle email address \rangle}`.

7 Title, subtitle, abstract, and keywords

- `\title` The mandatory title and optional subtitle of a manuscript are typeset using `\title{\langle title \rangle}` and
- `\subtitle` `\subtitle{\langle subtitle \rangle}`. EMISA defines a `\title{\langle title \rangle}` and `\subtitle{\langle subtitle \rangle}` command
- `\abstract` for typesetting the manuscript title and subtitle. The abstract of the manuscript is typeset using
- `\keywords` `\abstract{\langle abstract \rangle}`. Each manuscript should provide an abstract of about 200 words. Keywords describing the manuscript are typeset using `\keywords{\langle keywords \rangle}` and concatenated using `\and`. For example, `\keywords{keyword1 \and keyword2}`. At least three keywords should be provided.

8 Additional information on the first (title) page

- `\acknowledgments` Acknowledgements, for example, of collaborators, funding agencies etc. may be added using `\acknowledgments{\langle acknowledgements \rangle}`. The acknowledgements are typeset in a footnote on the first page following the corresponding author’s email address.
- `\authornote` Additional information for reviewers and readers may be added in a footnote on the titlepage using `\authornote{\langle author note \rangle}`. This is typically used for stating earlier publications (e. g. in conference proceedings) on which the present manuscript is based.

9 Regular text

A few conventional rules apply to writing regular text: for publication in the EMISA journal.

- ▷ Manuscripts should *not* make use of outdated L^AT_EX commands such as `\em` but rather use the L^AT_EX2_ε 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 `~` to connect before `\ref{label}`, i. e., `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 achieve 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.
 - Use `non-proportional font` for language concepts, meta types, meta classes etc., e.g., `\texttt{AbstractGoalType}` to produce AbstractGoalType.
 - Use the sans-serif font face for type-level concepts etc., e.g., `\textsf{Goal}` to produce 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 be 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. The list of
`\etal` predefined abbreviations includes: `\eg \ie \ea`

- ▷ `\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 for
`\BPM` a consistent visual appearance. Note that the class uses `SMALLCAPS` for typesetting initialisms following
`\BPMN` Brinkhurst XXX. The list of predefined initialisms includes:

- `\UML`
- ▷ `\OMG` for OMG (Object Management Group).
 - ▷ `\BPM` for BPM (Business Process Management).
 - ▷ `\BPMN` for BPMN (Business Process Model and Notation).
 - ▷ `\UML` for UML (Unified Modeling Language).

11 Quotation marks

`\enquote` It is highly recommended to use the `\enquote{quotation}` command to produce correct quotation

marks in British English. 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{with in a quote}}`. Alternatively, 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` The EMISA journal uses its own author-year citation style predefined for the `biblatex` package
`\textcite` (`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
`\cite` use the citation commands properly to follow the journal’s style specifications.

- ▷ `\parencite` is used for citing in parentheses (usually at the end of a sentence). In most cases, page numbers should be provided. Example: `... is known \parencite[5]{Knuth1986}` produces ‘... is known (Knuth 1986, p. 5)’.
- ▷ `\textcite` allows for using the cited work as a subject in the grammatical structure of a sentence. Example: `\textcite{Knuth1986} states that ...` produces ‘Knuth (1986) states that ...’. Additionally, page numbers and further information can be provided, see the `biblatex` package documentation.
- ▷ `\cite` is used for typesetting the citation without parentheses, and is typically used within parentheses. Example: `(see \cite{Knuth1986})` produces ‘(see Knuth 1986)’. This variant is the least used and should be used with care.

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.

14 Tables

`tabularx`

15 Source code listings

`sourcecode` For marking up source code listings, the EMISA class uses the `lstlistings` package (see the package doc-
`java` umentation 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



Figure 1: Example. Non-schematic figure (bitmap graphic in JPEG format).

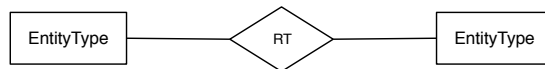


Figure 2: Example. Line-drawing figure (vector graphic in PDF format).

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

17 Implementation

Here, the code of the \LaTeX class `emisa` begins.

```
1 \*class
```

17.1 Options

`british option`

```
2 \PassOptionsToPackage{british}{babel}
```

draft option 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.

final option

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

```

3 \newif\if@draft
4 \DeclareOption{draft}{%
5   \@drafttrue
6   \overfullrule 10pt
7 }%
8 \DeclareOption{final}{%
9   \@draftfalse
10  \overfullrule\z@
11 }%
```

referee 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.

noreferee option

```

review option      12 \newif\if@referee
noreferee option   13 \DeclareOption{referee}{\@refereetrue}
@referee switch    14 \DeclareOption{noreferee}{\@refereefalse}
                   15 \DeclareOption{review}{\@refereetrue}
                   16 \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.

nocover option

```

\coveron           17 \newif\if@cover
\coveroff          18 \def\coveron{\@covertrue}
@cover switch      19 \def\coveroff{\@coverfalse}
                   20 \DeclareOption{cover}{\coveron}
                   21 \DeclareOption{nocover}{\coveroff}

                   22 \newif\if@microtype
                   23 \@microtypetrue
                   24 \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.

```

25 \PassOptionsToClass{a4paper,twoside,11pt}{article}%
26 \DeclareOption*{\PassOptionsToClass{CurrentOption}{article}}%
27 \ExecuteOptions{final,noreferee,nocover,oneside,openany}%
28 \ProcessOptions*\relax%

29 \IfFileExists{latexrelease.sty}%
30   {\RequirePackage[latest]{latexrelease}}%
31   {\RequirePackage{fixltx2e}}%
```

17.2 Loading the base class and packages

This class is build upon the L^AT_EX standard class article.

```
32 \LoadClass{article}[2001/06/01]%
```

```
33 \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 L^AT_EX 2_ε distribution.

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

Since many PostScript fonts only implement a subset of the T1 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 L^AT_EX base distribution to resolve the resulting problems [?].

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

The microtype package provides a L^AT_EX interface to the micro-typographic extensions of pdfT_EX: 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 [?]. 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.

```
36 \if@microtype
```

```
37   \RequirePackage{microtype}%
```

```
38 \else
```

```
39   \ClassWarning{emisa}{Package ‘microtype’ not loaded!\MessageBreak Output will differ from fi
```

```
40 \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 [?].

```
41 \RequirePackage{babel}%
```

This style option improves the interface for defining floating objects such as figures and tables in L^AT_EX [?]. 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.*).

```
42 \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) [?].

For more information on that see the [english](#), [russian](#), or [german](#) user documentation.

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


17.2.1 Colour and graphics

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

```
44 \RequirePackage{graphicx}%
```

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

```
45 \RequirePackage[fixinclude,table]{xcolor}%
```

The biblatex package [?] is a complete reimplement of the bibliographic facilities provided by L^AT_EX in conjunction with BibT_EX. It redesigns the way in which L^AT_EX interacts with BibT_EX at a fairly fundamental level. With biblatex, BibT_EX is only used to sort the bibliography and to generate labels. Instead of being implemented in BibT_EX’s style files, the formatting of the bibliography is entirely controlled by T_EX macros. Good working knowledge in L^AT_EX should be sufficient to design new bibliography and citation styles. There is no need to learn BibT_EX’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-T_EX and the etoolbox package. Installing the csquotes package is recommended.

```
46 \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).

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

```

47 \RequirePackage[%
48     style=emisa,%
49     natbib=true,%
50     backend=biber,%
51 ]{biblatex}

52 \ExecuteBibliographyOptions{%
53     maxcitenames=3,%
54     maxbibnames=999,%
55     terseinits=false,%
56     isbn=false,%
57     url=true,%
58     doi=false,%
59     eprint=false,%
60     dashed=false,%
61     bibencoding=inputenc,%
62     sorting=anyt,%
63     hyperref=true%
64 }%

```

This package provides advanced facilities for inline and display quotations [?]. 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.

```

65 \RequirePackage[babel=once,english=british]{csquotes}

```

17.2.2 Helpers

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

```

66 \RequirePackage{twoopt}%

```

`environ` provides a new method of defining environments [?].

```

67 \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 [?].

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.

```

68 \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.

```
69 \let\itemize\compactitem
70 \let\enditemize\endcompactitem
71 \let\enumerate\compactenum
72 \let\endenumerate\endcompactenum
73 \let\description\compactdesc
74 \let\enddescription\endcompactdesc
```

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

```
75 \setdefaultenum{1.}{a}{i.}{A}%
76 \setdefaultleftmargin{1em}{0.9em}{0.7em}{0.5em}{0.4em}{0.3em}%
77 \setlength{\plitemsep}{3\p@}%
78 \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 [?].

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 [?].

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

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

```
79 \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 [?].

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 `pdf \LaTeX`).

```
80 \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 [?].

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

17.2.3 Scripts, fonts, and maps

```
82 \RequirePackage{newtxtext}
83 \RequirePackage{newtxmath}
84 \RequirePackage[zerostyle=b, straightquotes]{newtxtt}
85 \if@microtype
86   \UseMicrotypeSet[protrusion]{basicmath} % disable protrusion for tt fonts
87 \fi%
```

To make figures and ligatures searchable when using pdfTeX ≥ 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.

```
88 \InputIfFileExists{glyphtounicode}%
89   {\ClassInfo{emisa}{Reading file 'glyphtounicode.tex'}
90    \pdfgentounicode=1}%
91   {\ClassWarning{emisa}{Couldn't find file 'glyphtounicode.tex'}}%

92 \RequirePackage{booktabs}
93 \RequirePackage{listings}
94 \lstset{basicstyle=\ttfamily\small}
95 \RequirePackage{amsmath}
96 \RequirePackage[amsmath, standard, hyperref]{ntheorem}
```

17.3 Hypertext

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

```
97 \RequirePackage{url}
98 \urlstyle{same}
99 \RequirePackage[%
100   colorlinks,
101   breaklinks,
102   pdfview=Fit,
103   bookmarksopen,
104   bookmarksnumbered,
105   linkcolor=black,
106   anchorcolor=black,
107   citecolor=black,
108   filecolor=black,
109   urlcolor=black,
110   hyperfootnotes=false
111 ]{hyperref}%

112 \RequirePackage{doclicense}
```

17.4 Tools

`\@ifempty` 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
`\@ifarg` `\@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:

```
\@ifempty{<arg>}{<Action_if_empty>}{<Action_if_not_empty>}
\@ifnoarg{<arg>}{<Action_if_empty>}
\@ifarg{<arg>}{<Action_if_not_empty>}

113 \begingroup
114 \catcode'\Z=3
115 \long\gdef\@M@T@#1#2Z#3#4#5\@nil{#4}
116 \long\gdef\@ifempty#1{\@M@T@#1ZZ\@secondoftwo\@firstoftwo\@nil}
117 \long\gdef\@ifarg#1{\@M@T@#1ZZ\@firstofone\@gobble\@nil}
118 \long\gdef\@ifnoarg#1{\@M@T@#1ZZ\@gobble\@firstofone\@nil}
119 \endgroup
```

17.5 Basic page layout

The geometry options using the keyval (*<key>=<value>*) 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.

```
120 \geometry{%
121   a4paper,%
122   portrait,%
123   twoside,%
124   ignoreall,%
125   hcentering,%
126   textwidth      = 162.5mm,%
127   textheight     = 220mm,%
128   heightrounded,%
129   columnsep      = 12.5mm,%
130   top            = 47mm,%
131   headheight     = 16mm,%
132   headsep        = 13mm,%
133   marginparwidth = 15mm,%
134   marginparsep   = 5mm,%
135   footskip       = 16mm%
136 }%
137 \marginparpush 5mm%

138 \AtBeginDocument{\baselineskip=13.6pt plus 0.5pt}%

139 \parindent=4mm%
```

```

140 \smallskipamount=.5\baselineskip
141 \medskipamount=2\smallskipamount
142 \bigskipamount=2\medskipamount

143 \flushbottom

144 \abovedisplayskip=.5\baselineskip plus .33\baselineskip
145                               minus .33\baselineskip
146 \belowdisplayskip=\abovedisplayskip
147 \abovedisplayshortskip= 0pt plus .33\baselineskip
148 \belowdisplayshortskip=.5\baselineskip plus .33\baselineskip
149                               minus .33\baselineskip

```

17.6 Scripts

`\pageheadfont` Assigning scripts to text elements.

`\pagenumfont` Page head and foot:

```

\pagefootfont 150 \def\pageheadfont{\normalfont}%
               151 \def\pagenumfont{\pageheadfont\bfseries}%
               152 \def\pagefootfont{\pageheadfont}%

```

`\authorfont` The elements of the article titles:

```

\titlefont 153 \def\authorfont{\normalfont\Large}%
\subtitlefont 154 \def\titlefont{\normalfont\bfseries\LARGE\boldmath}%
\abstractfont 155 \def\subtitlefont{\normalfont\bfseries\Large\boldmath}%
               156 \def\abstractfont{\normalfont\itshape}%

```

`\affiliationfont` The elements of the affiliation box:

```

\affiliationauthorfont 157 \def\affiliationfont{\normalfont}
\affiliationaddressfont 158 \def\affiliationauthorfont{\bfseries}
\affiliationemailfont 159 \def\affiliationaddressfont{\mdseries}
                     160 \def\affiliationemailfont{\mdseries}%

```

`\sectionfont` Section headlines:

```

\sec@font 161 \def\sectionfont{%
\para@font 162 \normalfont
           163 \bfseries
           164 \boldmath}%
165 \def\sec@font{\sectionfont\large}%
166 \def\para@font{\sectionfont}%

```

`\captionfont` Captions:

```

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

```

17.7 Colours

These are the colour definitions for a couple of elements.

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

```
covertextcolor color 168 \definecolor{coverbgcolor}{cmyk}{0.15,0.1,0.09,0}%
169 \definecolor{covertextcolor}{cmyk}{0.77,0.76,0.70,0.61}%
```

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

```
170 \definecolor{headtextcolor}{gray}{0.5}%
171 \definecolor{boxframecolor}{gray}{1}%
172 \definecolor{boxbgcolor}{gray}{0.8}%
```

17.8 Double line spacing

```
\displayskipstretch
\setdisplayskipstretch 173 \newcommand{\displayskipstretch}{\baselinestretch}
174 \newcommand{\setdisplayskipstretch}[1]{\def\displayskipstretch{#1}}
```

`\setstretch` Line space commands.

```
175 \newcommand{\setstretch}[1]{%
176   \def\baselinestretch{#1}%
177   \@currsiz
178 }
```

`\@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:

`\@setsize{<current size>}{}{<ignored (!)>}{}`

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

```
179 \def\@setsize#1#2#3#4{%
180   \@nomath#1%
181   \let\@currsiz#1%
182   \baselineskip #2%
183   \baselineskip=\baselinestretch\baselineskip
184   \parskip=\baselinestretch\parskip
185   \setbox\strutbox \hbox{%
186     \vrule height.7\baselineskip
187     depth.3\baselineskip
188     width\z@}%
```

```

189 \skip\footins=\baselinestretch\skip\footins
190 \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 eqnarray seem to be affected as expected).

```

191 \everydisplay\expandafter{%
192 \the\everydisplay
193 \abovedisplayskip \displayskipstretch\abovedisplayskip
194 \belowdisplayskip \displayskipstretch\belowdisplayskip
195 \abovedisplayshortskip \displayskipstretch\abovedisplayshortskip
196 \belowdisplayshortskip \displayskipstretch\belowdisplayshortskip
197 }

```

17.9 Document markup

17.9.1 Declaring issue data

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

`\journalname` The journal name.

```

198 \def\journalname#1{\@bsphack\def\@journalname{#1}\@esphack}%
199 \journalname{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.

```

200 \long\def\issn#1{\@bsphack\long\def\@issn{#1}\@esphack}%
201 \issn{%ISSN 1860-6059 (Print)\par
202 ISSN 1866-3621 (Online)}%

```

`\volume` Volume number.

```

203 \def\volume#1{\@bsphack\def\@volume{#1}\@esphack}%
204 \volume{\textcolor{red}{0}}%

```

`\issue` Issue number and date.

```

205 \def\issue#1#2{\@bsphack
206 \def\@issue{#1}%
207 \def\@issuedate{#2}%
208 \@esphack}%
209 \issue{\textcolor{red}{0}}{\textcolor{red}{month 0000}}%

```


<code>\specialissuetitle</code>	If the current issue is a <i>special issue</i> , the respective title goes here.
<code>\specialissuetitle*</code>	210 <code>\def\specialissuetitle{\@ifstar\@sspit\@spit}%</code>
<code>\specialissuetitleprefix</code>	211 <code>\newcommand{\@spit}[2][{}]{%</code>
	212 <code>\@bsphack</code>
	213 <code>\@ifempty{#2}%</code>
	214 <code>{\let\@specialissuetitle\relax}%</code>
	215 <code>{\@ifempty{#1}%</code>
	216 <code>{\def\@specialissuetitle{\@specialissuetitleprefix#2}}%</code>
	217 <code>{\def\@specialissuetitle{#1\space#2}}}%</code>
	218 <code>\@esphack}%</code>
	219 <code>\newcommand{\@sspit}[2][{}]{%</code>
	220 <code>\@bsphack</code>
	221 <code>\@ifempty{#2}%</code>
	222 <code>{\let\@specialissuetitle\relax}%</code>
	223 <code>{\def\@specialissuetitle{#2}}%</code>
	224 <code>\@esphack}%</code>
	225 <code>\newcommand{\specialissuetitleprefix}[1]{%</code>
	226 <code>\@bsphack</code>
	227 <code>\@ifempty{#1}%</code>
	228 <code>{\let\@specialissuetitleprefix\relax}%</code>
	229 <code>{\def\@specialissuetitleprefix{#1\space}}%</code>
	230 <code>\@esphack}%</code>
	231 <code>\specialissuetitle{}}%</code>
	232 <code>\specialissuetitleprefix{Special Issue on}%</code>
<code>\copyrightyear</code>	Copyright owner and year.
<code>\copyrightholder</code>	233 <code>\def\copyrightyear#1{\@bsphack\def\@copyrightyear{#1}\@esphack}%</code>
	234 <code>\copyrightyear{\the\year}%</code>
	235 <code>\def\copyrightholder#1{\@bsphack\def\@copyrightholder{#1}\@esphack}%</code>
	236 <code>\copyrightholder{\textcolor{red}{\copyright{}}holder}}%</code>
<code>\title</code>	Title, subtitle, and author information for the current article.
<code>\subtitle</code>	These macros are a bit special as they accept up to <i>two</i> optional arguments together with the obligatory one. The optional arguments are for the running-title (<i>short</i>) and the table-of-contents (<i>ToC</i>) versions, respectively, of the main entry, if there is any:
<code>\author</code>	

Syntax:

```

\title[<short_title>][<ToC_title>]{<title>}
\subtitle[<short_subtitle>][<ToC_subtitle>]{<subtitle>}
\author[<short_author>][<ToC_author>]{<author>}

```

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.

```

237 \renewcommandtwoopt*{\title}[3][[]]{%
238   \@bsphack
239   \def\@title{#3}%
240   \@ifempty{#1}{\def\@shorttitle{\@title}}{\def\@shorttitle{#1}}%
241   \@ifempty{#2}{\def\@toctitle{\@shorttitle}}{\def\@toctitle{#2}}%
242   \@esphack}%
243 \newcommandtwoopt*{\subtitle}[3][[]]{%
244   \@bsphack
245   \def\@subtitle{#3}%
246   \@ifempty{#1}{\def\@shortsubtitle{\@subtitle}}{\def\@shortsubtitle{#1}}%
247   \@ifempty{#2}{\def\@tocsubtitle{\@shortsubtitle}}{\def\@tocsubtitle{#2}}%
248   \@esphack}%
249 \def\email#1{%
250   \ifx\@email\@empty
251     \def\@email{#1}
252   \else
253     \ClassError{emisa}{There can only be one corresponding author!}{}
254   \fi}%
255 \renewcommand{\author}{\@ifstar{\@authorstar}{\@authornostar}}
256 \newcommand*{\@authornostar}[1]{%
257   \@bsphack
258   \if@referee
259     \def\@authors{}%
260     \def\@shortauthors{}
261   \else
262     \gdef\@address@sep{}%
263     \ifx\@authors\@empty
264       \protected@xdef\@authors{#1}
265       \protected@xappto\@shortauthors{#1}
266     \else
267       \protected@xappto\@authors{,\space #1}
268       \protected@xappto\@shortauthors{,\space #1}
269     \fi
270   \fi
271   \@esphack}%
272 \newcommandtwoopt*{\@authorstar}[3][[]]{%
273   \@bsphack
274   \if@referee
275     \def\@authors{}%
276     \def\@shortauthors{}%
277     \def\@tocauthors{}%
278     \def\@email{}%
279   \else
280     \gdef\@address@sep{}%
281     \ifx\@authors\@empty
282       \protected@xdef\@authors{#3\textsuperscript{*,}}

```

```

283         \protected@xappto\@shortauthors{#3}
284     \else
285         \protected@xappto\@authors{,\space #3\textsuperscript{*,}}
286         \protected@xappto\@shortauthors{,\space #3}
287     \fi%
288     \@ifempty{#1}{\def\@shortauthor{\@shortauthors}}{\def\@shortauthor{#1}}%
289     \@ifempty{#2}{\def\@tocauthor{\@shortauthors}}{\def\@tocauthor{#2}}%
290 \fi
291 \@esphack
292 \@ifnextchar\bgroup\email{\ClassError{emisa}{Please provide an E-mail address for the corre
293 \newcommand{\keywords}[1]{
294     \@bsphack
295     \def\and{\unskip\ \textbullet\ }%
296     \def\@keywords{#1}%
297     \@esphack}%
298 \newcommand{\authornote}[1]{
299     \@bsphack
300     \def\@authornote{#1}%
301     \@esphack}%
302 \newcommand{\editor}[1]{
303     \@bsphack
304     \def\@articleinfo@name{#1}%
305     \@esphack}%
306 \newcommand{\received}[1]{
307     \@bsphack
308     \def\@articleinfo@rdate{#1}%
309     \@esphack}%
310 \newcommand{\accepted}[2][ ]{
311     \@bsphack
312     \def\@articleinfo@rounds{#1}
313     \def\@articleinfo@adate{#2}%
314     \@esphack}%
315 \newcommand{\doitext}{DOI:}
316 \newcommand*{\outdoi}{%
317     \begingroup
318     \lccode'\~='#\relax
319     \lowercase{\def~{\#}}%
320     \lccode'\~='_\relax
321     \lowercase{\def~{\_}}%
322     \lccode'\~='<\relax
323     \lowercase{\def~{\textless}}%
324     \lccode'\~='>\relax
325     \lowercase{\def~{\textgreater}}%
326     \lccode'\~='0\relax
327     \catcode'\#=\active
328     \catcode'\_=\active
329     \catcode'\<=\active
330     \catcode'\>=\active
331     \@outdoi

```

```

332 }
333 \def\@outdoi#1{%
334   \let\#\relax
335   \let\_ \relax
336   \let\textless\relax
337   \let\textgreater\relax
338   \edef\x{\toks0={{#1}}}%
339   \x
340   \edef\#{@percentchar23}%
341   \edef\__{}%
342   \edef\textless{\@percentchar3C}% instead of {\string<} for Apple
343   \edef\textgreater{\@percentchar3E}% instead of {\string>} for Apple
344   \edef\x{\toks1={\noexpand\href{http://dx.doi.org/#1}}}%
345   \x
346   \edef\x{\endgroup\doitext\the\toks1 \the\toks0}%
347   \x
348 }
349 \newcommand*{\doi}[1]{
350   \@bsphack
351   \def\@doi{#1}
352   \@esphack}%
353 \newcommand{\acknowledgements}[1]{
354   \@bsphack
355   \def\@acknowledgements{#1}
356   \@esphack}%
357 \newif\if@licenseset
358 \newcommand{\licence}[1]{%
359   \@bsphack
360   \def\@licence{#1}
361   \@esphack}%
362 \let\license\licence
363 \newcommand{\CCBYNCSAThree}{%
364   \@licensesettrue%
365   \def\doclicense@type{CC}%
366   \def\doclicense@modifier@uppercase{BY-NC-SA}%
367   \def\doclicense@versionUsed{3.0}%
368 }%
369 \newcommand{\CCBYNCSAFour}{%
370   \@licensesettrue%
371   \def\doclicense@type{CC}%
372   \def\doclicense@modifier@uppercase{BY-NC-SA}%
373   \def\doclicense@versionUsed{4.0}%
374 }%
375 \newcounter{addresses}
376 \renewcommand{\theaddresses}{\alph{addresses}}
377 \newcommand{\address}[2][{}]{%
378   \@bsphack
379   \if@referee
380     \def\@addresses@list{}

```

```

381 \else
382 \ifempty{#2}{%
383 \ifempty{#1}{}{}%
384 \protected@xappto\@authors{\textsuperscript{\@address@sep #1}}
385 \gdef\address@sep{,}%
386 }{}%
387 \stepcounter{addresses}
388 \protected@xappto\@authors{\textsuperscript{\@address@sep\theaddresses}}
389 \gdef\@address@sep{,}%
390 \ifx\@addresses@list\empty
391 \protected@xdef\@addresses@list{\textsuperscript{\theaddresses}\ #2}
392 \else
393 \protected@xappto\@addresses@list{\newline\textsuperscript{\theaddresses}\ #2}
394 \fi}
395 \fi
396 \@esphack}%
397 \title{}%
398 \subtitle{}%
399 \author{}%
400 \address{}
401 \keywords{}%
402 \authornote{}%
403 \editor{}%
404 \received{}%
405 \accepted{}%
406 \doi{}%
407 \licence{}
408 \acknowledgements{}%
409 \def\abstract#1{\@bsphack\def\@abstract{#1}\@esphack}%
410 \abstract{}%
411 \def\@authors{}
412 \def\@shortauthor{}
413 \def\@shortauthors{}
414 \def\@tocauthor{}
415 \def\@tocauthors{}
416 \def\@email{}
417 \def\@addresses@list{}

```

\abstract This accepts the abstract text.

```

418 \def\abstract#1{\@bsphack\def\@abstract{#1}\@esphack}%
419 \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 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.

```

articleappendix*
420 \DeclareRobustCommand{\outputarticleappendix}{%
421 {%

```

```

422 \appendix
423 \@articleappendix
424 \global\let\@articleappendix\relax
425 }%
426 }%
427 \long\def\@wrap@articleappendix#1{\gappto{\@articleappendix}{\#1}}
428 \newenvironment{articleappendix}{%
429 \gappto{\@articleappendix}{\clearpage}%
430 \Collect@Body\@wrap@articleappendix}{%
431 \newenvironment{articleappendix*}{%
432 \Collect@Body\@wrap@articleappendix}{%
433 \let\@articleappendix\relax
434 \def\@makefnmark{\textsu{\@thefnmark}\ }%
435 \renewcommand\@makefntext[1]{%
436 \parindent 1em%
437 \noindent%
438 \@makefnmark#1}%

```

17.9.2 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 page width plus a bleed of three millimeters. It is logically restricted to `\textwidth` by subtracting `\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.

```

439 \newlength{\headwidth}%
440 \newlength{\bleed}%
441 \newlength{\headmargin}%
442 \newlength{\footrulewidth}%
443 \newlength{\headfootruleheight}%
444 \setlength{\bleed}{3mm}%
445 \setlength{\headfootruleheight}{0.4mm}%

```

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

```

446 \AtBeginDocument{%
447   \setlength{\headwidth}{\paperwidth+2\bleed}%
448   \setlength{\headmargin}{0.5\headwidth-0.5\textwidth}%
449   \setlength{\footrulewidth}{0.5\headwidth+0.5\textwidth}%

```

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

```

450 \newcommand{\headbox}[6]{\bgroup%
451   \setstretch{1}%
452   \reset@font\pageheadfont
453   \tabcolsep\z@
454   \arrayrulewidth\headfootruleheight
455   \hskip-\headmargin
456   \begin{tabular*}{\headwidth}[b]%
457     {@{\rule{\headmargin}{\z@}}%
458     >{\rule[-1.25mm]{\z@}{5mm-\arrayrulewidth}}%
459     l@{\extracolsep{\textwidth minus 1fill}}r%
460     @{\rule{\headmargin}{\z@}}}
461     #1 & #2\\
462     \hline
463     #3 & #4\\
464     \hline
465     #5 & #6\\
466     \hline
467   \end{tabular*}%
468   \hskip-\headmargin
469   \egroup
470 }%

```

`\theheadvolume` These macros are used to assemble the page head, ...

`\headpageoffset`

```

471 \newcommand{\theheadvolume}{%

```

`\theoddheadpage`

```

472   \begingroup\hypersetup{urlcolor=headtextcolor}\textcolor{headtextcolor}{Vol.\,\@volume, No.\,}

```

`\theevenheadpage`

```

473 \newlength{\headpageoffset}%
474 \setlength{\headpageoffset}{10mm}%
475 \def\theoddheadpage{%
476   \rlap{\makebox[\headpageoffset][r]{\pagenumfont\thepage}}}%

```

```

477 \def\theevenheadpage{%
478   \llap{\makebox[\headpageoffset][l]{\pagenumfont\thepage}}}%

@footrule switch ... and these are for the page foot.
\footruleoff 479 \newif\if@footrule%
\footruleon 480 \def\footruleoff{\global\@footrulefalse}%
\footrule 481 \def\footruleon{\global\@footruletrue}%
482 \def\footrule#1{%
483   \if@footrule
484     \makebox[\textwidth][#1]{%
485       \reset@font
486       \rule[\headfootruleheight]{\footrulewidth}{\headfootruleheight}%
487     }\fi}%

\headmarkstyle Sets the content marks in the running titles.
\markhead 488 \def\headmarkstyle#1{\@bsphack
\markarticle 489 \def\@headmarkstyle{#1}%
\markeditorial 490 \@esphack}%
491 \headmarkstyle{\color{headtextcolor}}%
492 \def\markhead#1#2{\@bsphack
493   \gdef\@evenmark{#1}%
494   \gdef\@oddmark{#2}%
495   \@esphack}%
496 \def\markarticle{\markhead{\@shortauthor}{\@shorttitle}}%
497 \def\markeditorial{\markhead{\@shorttitle}{\@shorttitle}}%

\ps@emisa Finally that all being thrown together gives the basic page style.
498 \def\ps@emisa{%
499   \def\@oddhead{%
500     \headbox{\@journalname}{}%
501     {\theheadvolume}{}%
502     {\@headmarkstyle\@oddmark}{\theoddheadpage}%
503   }%
504   \def\@evenhead{%
505     \headbox{\@journalname}%
506     {\theheadvolume}%
507     {\theevenheadpage}{\@headmarkstyle\@evenmark}}%
508   }%
509   \let\@oddmark\relax
510   \let\@evenmark\relax
511   \def\@oddfoot{\footrule{r}}%
512   \def\@evenfoot{\footrule{l}}%
513 }%

\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.

```



```

514 \def\ps@emisaarticle{%
515   \ps@emisa
516   \markarticle
517   \footruleoff
518 }%

519 \def\ps@emisaeditorial{%
520   \ps@emisa
521   \markeditorial
522   \footruleon
523 }%

524 \AtEndOfClass{\pagestyle{emisa}}%

```

17.9.3 Cover and advertisement pages

<p><code>\basecoverfont</code></p> <p><code>\covervolumefont</code></p> <p><code>\covertitlefont</code></p>	<p>These are the font and size definitions for cover pages. We are using the sansserif script from the Libertine package, called <i>Linux Biolinum</i>, in two different sizes with the title font being bold.</p> <pre> 525 \def\basecoverfont{\normalfont\sffamily}% 526 \def\covervolumefont{% 527 \basecoverfont\fontsize{6mm}{6mm}\selectfont}% 528 \def\covertitlefont{% 529 \basecoverfont\bfseries\fontsize{11mm}{16.5mm}\selectfont}% </pre>
<p><code>\coverIbname</code></p> <p><code>\coverIVbname</code></p> <p><code>\sigmobislogoname</code></p> <p><code>\gislogoname</code></p>	<p>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.</p> <pre> 530 \def\coverIbname{U1_bg}% 531 \def\coverIVbname{U4_bg}% 532 \def\sigmobislogoname{SIG-MOBIS-logo-300}% 533 \def\sigEMISAlagoname{EMISA-Logo-svg}% 534 \def\gislogoname{GIS-logo_with_text-300}% </pre>
<p><code>\AtPageDeadCenter</code></p> <p><code>\page@empty</code></p>	<p><code>\AtPageDeadCenter</code> centers its argument horizontally and vertically around the geometric page center.</p> <p>This macro is to be used inside some <code>eso-pic ShipoutPicture</code>.</p> <pre> 535 \newcommand{\AtPageDeadCenter}[1]{% 536 \AtPageCenter{\makebox[\z@][c]{% 537 \raisebox{-0.5\totalheight}{\z@}{\z@}{#1}}}% 538 }% 539 \def\page@empty{\relax}% </pre>
<p><code>\pagebg</code></p>	<p>Background color for one whole page plus bleed.</p> <pre> 540 \newcommand{\pagebg}[1]{% 541 \AtPageDeadCenter{% 542 \textcolor{#1}{\rule{\paperwidth+2\bleed}{\paperheight+2\bleed}}}% </pre>

`\thispagebackground` `\thispagebackground` put its obligatory argument into the background of the running page. If there is a non-empty optional argument it will be interpreted as the style of this page (using `\thispagestyle`).

```

543 \newcommand{\thispagebackground}[2][]{%
544   \ifarg{#1}{\thispagestyle{#1}}%
545   \AddToShipoutPicture*{%
546     \unitlength 1mm\relax%
547     {#2}%
548   }%

```

`\picturepage` `\picturepage` additionally empties and flushes the running page, thus producing a picture-only page.

```

549 \newcommand{\picturepage}[2][empty]{%
550   \thispagebackground[#1]{#2}%
551   \null\clearpage
552 }%

```

`\inputpagegraphic` This loads a picture file to generate a picture-only page from.

```

553 \newcommandtwopt*\inputpagegraphic}[3][empty][]{%
554   \thispagebackground[#1]{\includegraphics[width=\paperwidth,#2]{#3}}%
555   \null\clearpage
556 }%

```

`\coverpage` `\coverpage` is a special form of the `\picturepage`:

```

557 \newcommand{\coverpage}[2][]{%
558   \ifarg{#1}{\setcounter{page}{#1}}%
559   \picturepage{#2}%
560 }%

```

`\thecovervolumeline` These represent the

```

\thecovertitle
561 \newcommand{\thecovervolumeline}{%
562   \parbox[t]{130mm}{%
563     \raggedright
564     \color{covertextcolor}\covervolumefont%
565     Volume\space\@volume
566     \enspace\rule[-1mm]{0.5mm}{6mm}\enspace
567     No.\,\@issue\space\textbf{\@issuedate}\,[3mm]%
568     \@specialissuetitle
569   }%
570 }%
571 \def\thecovertitle{%
572   \parbox[t][30mm][s]{174mm}{%
573     \color{covertextcolor}%
574     \covertitlefont
575     \raggedright\@journalname\par
576     \vskip8mm
577     \covervolumefont
578     \raggedleft
579     \textbf{An International Electronic Journal\,}}%

```

`\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 17.9.3) from `eso-pic` [?].

```

580 \def\sigmobispage{%
581   \makebox[\z@][c]{%
582     \begin{minipage}[c][260mm][s]{\textwidth}
583       \sigmobispagehead
584       \medskip
585
586       The GI-SIG-MoBIS portal provides numerous resources on enterprise
587       modelling research, such as a full-text digital library, a
588       bibliography, conference announcements, a glossary and evaluation
589       reports. It is intended to establish the premier forum for an
590       international community in enterprise modelling. The new version
591       is based on a Content Management System allowing authorized users
592       to conveniently upload content. A \BibTeX{} interface allows for
593       conveniently integrating bibliographic data. Information about
594       this journal, such as guidelines for authors, tables of content
595       and full-text access to articles (for GI-SIG-MobIS members only)
596       are also available on the~portal.
597       \par
598       \medskip
599
600       \begin{center}
601         \includegraphics{GI-SIG-MOBIS_portal}
602       \end{center}
603
604       \medskip
605
606       GI encourages everybody who wants to participate in the
607       evolution of this community knowledge base to contribute to any of
608       the categories covered by the portal. Please contact Michael He\ss{}
609       (\href{mailto:m.hess@uni-duisburg-essen.de}{m.hess@uni-duisburg-essen.de})
610       for further~information.
611
612       \vfill
613
614       \sigmobispagefoot
615     \end{minipage}%
616   }%
617 }
```

`\sigmobispagehead` Elements of `\sigmobispage`.

`\sigmobispagefoot` `\def\sigmobispagerule#1{%`
`\sigmobispagerule`

```

619 \parbox[c][23mm][s]{\linewidth}{%
620   \centering
621   \textcolor{gray}{\rule{.92\linewidth}{1mm}}%
622   \par\vfill
623   \raisebox{-.4\height} [.5\totalheight] [.5\totalheight]{\huge#1}%
624   \par\vfill
625   \textcolor{gray}{\rule{.92\linewidth}{1mm}}}\par}%
626 \def\sigmobispagehead{\sigmobispagerule{SIG-MoBIS Portal}}
627 \def\sigmobispagefoot{\sigmobispagerule{http://wi-mobis.gi-ev.de/}}

```

\coverI Each of these prepares one of the cover pages.

```

\coverII 628 \def\coverI#1{\@ifempty{#1}%
\coverIII 629   {\let\@coverI\relax}%
\coverIV 630   {\def\@coverI{\coverpage[-2]{#1}}}%
631 \def\coverII#1{\@ifempty{#1}%
632   {\let\@coverII\relax}%
633   {\def\@coverII{\coverpage[-1]{#1}}}%
634 \def\coverIII#1{\@ifempty{#1}%
635   {\let\@coverIII\relax}%
636   {\def\@coverIII{\coverpage{#1}}}%
637 \def\coverIV#1{\@ifempty{#1}%
638   {\let\@coverIV\relax}%
639   {\def\@coverIV{\coverpage{#1}}}%

```

So we prepare the four cover pages.

```

640 \coverI{%
641   \pagebg{coverbgcolor}%
642   \AtPageUpperLeft{%
643     \raisebox{-\totalheight}{\includegraphics{\coverIbgname}}}%
644   \AtPageUpperLeft{\put(17,-28){\mbox{%
645     \includegraphics[height=19mm]{\sigmobislogoname}%
646     \hspace{5mm}%
647     \includegraphics[height=14.75mm]{\sigEMISAlgoname}%
648     }}}%
649   }%
650   \AtPageLowerLeft{\put(166,9){\includegraphics{\gislogoname}}}%
651   \AtPageLowerLeft{\put(17,44){\thecovervolumeline}}%
652   \AtTextLowerLeft{\put(-28,36){\framebox(200,62)[c]{}%
653   \AtPageLowerLeft{\put(17,112){\thecovertitle}}}%
654 }%
655 \coverII{\page@empty}%
656 \coverIII{\AtPageCenter{\sigmobispage}}%
657 \coverIV{%
658   \pagebg{coverbgcolor}%
659   \AtPageLowerLeft{%
660     \raisebox{167mm}{\includegraphics{\coverIVbgname}}}%
661   \AtPageLowerLeft{%
662     \put(6,9){\parbox[b]{10cm}{\raggedright\large\sffamily\@issn}}}%
663   \AtPageLowerLeft{%

```

```

664     \put(166,9){\includegraphics{GIS-logo_with_text-300}}}%
665 }%

666 \if@cover
667   \AtBeginDocument{%
668     \@coverI\@coverII
669     \setcounter{page}{1}%
670   }%
671   \AtEndDocument{%
672     \@coverIII\@coverIV
673   }%
674 \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 *figs_base/*; we provide for that by including the following line in the config file.

```

675 \graphicspath{{/figs_base/},{./figs_base/}}

```

17.9.4 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.

```

676 \newcounter{article}%
677 \@addtoreset{section}{article}%
678 \@addtoreset{footnote}{article}%
679 \@addtoreset{figure}{article}%
680 \@addtoreset{table}{article}%

```

`article` This encapsulates each article.

```

681 \newenvironment{article}[1]{%
682   \clearpage
683   \refstepcounter{article}%
684   \pagestyle{emisaarticle}%
685   \col@number=\tw@\relax
686   #1\relax
687   \l@article

```

Every article is its own bibliographical unit.

```

688   \begin{refsection}%
689   \maketitle
690   \ignorespaces
691 }{%
692 \end{refsection}%
693 \outputarticleappendix
694 \if@licenseset
695   \begin{minipage}{\textwidth}

```

```

696     \parbox[t]{\dimexpr .95\textwidth-\doclicense@imagewidth\relax}{\vskip 0pt\doclicenseLongT
697     \hfill%
698     \parbox[t]{\doclicense@imagewidth}{\vskip 0pt\doclicenseImage}%
699     \end{minipage}%
700 \else
701     \ifx\@licence\@empty\relax\else\par\noindent\@licence\fi%
702 \fi%
703 \onecolumn
704 \ignorespacesafterend}%

```

17.9.5 Formatting editorial content

`\edit@setup` This adjusts the basic page makeup for editorial material.

```

705 \newcommandtwoopt{\edit@setup}[3][[]]{%
706     \title[#1][#2]{#3}
707     \pagestyle{emisaeditorial}

```

Here, section titles are a bit larger than otherwise.

```

708     \def\sec@font{\sectionfont\Large}%
709     \def\para@font{\sectionfont}%
710     \setcounter{section}{0}%
711 }%

```

`editorialcontent` This encapsulates editorial content entries.

```

712 \newenvironment{editorialcontent}[1]{%
713     \onecolumn
714     \refstepcounter{article}%
715     \edit@setup{#1}%
716     \l@editorialcontent
717     \raisebox{5.5mm}[10mm][0pt]{\sec@font\@title}\

```

Every `editorialcontent` is its own bibliographical unit.

```

718     \begin{refsection}%
719     \ignorespaces
720 }{%
721     \end{refsection}%
722     \onecolumn
723     \ignorespacesafterend}%

```

17.9.6 Standard editorial content environments

Several types of standardized editorial contents.

`editorial` This encapsulates editorials.

```

\editorialname 724 \def\editorialname{Editorial Preface}%

```

```

725 \newenvironment{editorial}[1][\editorialname]{%
726 \clearpage
727 \edit@setup{#1}%
728 \twocolumn[\raisebox{5.5mm}[10mm][0pt]{\sec@font\@title}}}%
729 \l@editorialcontent

```

Every editorial is its own bibliographical unit.

```

730 \begin{refsection}%
731 \ignorespaces
732 }{%
733 \end{refsection}%
734 \onecolumn
735 \ignorespacesafterend}%

```

cfp Call for papers.

```

\cfpname 736 \def\cfpname{Call for Papers}%
737 \newenvironment{cfp}[1][\cfpname]%
738 {\editorialcontent{#1}}%
739 {\endeditorialcontent}%

```

\imprint Imprint.

```

\imprintname 740 \newcommandtwoopt{\imprint}[2][\@imprintname][\@imprintbody]{%
\imprintbody 741 \onecolumn
742 \edit@setup{#1}{\@journalname}%
743 \l@editorialcontent
744 \raisebox{5.5mm}[10mm][0pt]{\sec@font\@title}\
745 \ignorespaces
746 #2
747 \onecolumn\ignorespacesafterend}%
748 \def\imprintname#1{\@bsphack\def\@imprintname{#1}\@esphack}%
749 \long\def\imprintbody#1{\@bsphack\def\@imprintbody{#1}\@esphack}%

750 \imprintname{Imprint}%
751 \imprintbody{%
752 The journal \emph{\@journalname} is the official journal of the
753 Special Interest Group on Modelling Business Information Systems
754 within the German Informatics Society (GI-SIG MoBIS).
755
756 The journal Enterprise Modelling and Information Systems
757 Architectures is intended to provide a forum for those who prefer a
758 design-oriented approach. As the official journal of the German
759 Informatics Society (GI-SIG-MoBIS), it is dedicated to promote the
760 study and application of languages and methods for enterprise
761 modelling -- bridging the gap between theoretical foundations and
762 real world requirements. The journal is not only aimed at
763 researchers and students in Information Systems and Computer
764 Science, but also at information systems professionals in industry,
765 commerce and public administration who are interested in innovative
766 and inspiring concepts.

```

```

767
768 The journal's editorial board consists of scholars and practitioners
769 who are renowned experts on various aspects of developing, analysing
770 and deploying enterprise models. Besides Information Systems, they
771 cover various fields of Computer Science.
772
773 \section*{Subscription Information}
774
775 The journal is distributed free of charge for members of the
776 GI-SIG-MoBIS. Membership can be acquired through the German
777 Informatics Society (http://www.gi-ev.de/verein/mitgliedschaft/).
778 Single issues, priced at EUR\,25 each (plus shipment), can be ordered
779 online (http://www.fg-mobis.gi-ev.de/).}

```

`\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.

```

780 \newsavebox{\@editorial@box}%
781 \newlength{\editorialboxmaxheight}%
782 \setlength{\editorialboxmaxheight}{\textheight+10mm}%
783 \newcommandtwoopt{\editorialboard}[2]%
784 [\@editorialboardname][\@editorialboardbody]{%
785   \clearpage
786   \edit@setup[#1]{#1}%
787   \l@editorialcontent
788   \savebox{\@editorial@box}{%
789     \vbox{\centering%
790       \fbboxsep=5mm
791       \fcolorbox{boxframecolor}{boxbgcolor}{%
792         \begin{minipage}[t]{110mm}
793           \raggedright
794           #2
795         \end{minipage}}\*
796       }%
797     }%
798     \raisebox{15mm-\totalheight}[5mm][0mm]{\makebox[\textwidth][c]{%
799       \ifdim\ht\@editorial@box>\editorialboxmaxheight
800         \resizebox{!}{\editorialboxmaxheight}{\usebox{\@editorial@box}}%
801       \else
802         \usebox{\@editorial@box}%
803       \fi
804     }}\*
805     \raisebox{-\textheight}[0mm][0mm]{\makebox[\textwidth][l]{%
806       \parbox[t]{\textwidth}{\raggedleft\bfseries\@issn}%

```



```

807 }}%
808 \onecolumn\ignorespacesafterend
809 }%
810 \def\editorialboardname#1{%
811 \@bsphack\def\@editorialboardname{#1}\@esphack}%
812 \long\def\editorialboardbody#1{%
813 \@bsphack\def\@editorialboardbody{#1}\@esphack}%

814 \editorialboardname{Editorial Board}%
815 \editorialboardbody{%
816 \section*{\@title}\vskip1mm
817 {\Large Editors in Chief\[\[1mm]}
818 Ulrich Frank, University of Duisburg-Essen\\
819 Manfred Reichert, Ulm University\[\[1mm]
820 {\Large Associate Editors\[\[1mm]}
821 Wil van der Aalst, Eindhoven University of Technology\\
822 Witold Abramowicz, Poznan University of Economics\\
823 Colin Atkinson, University of Mannheim\\
824 J\"org Becker, University of M\"unster\\
825 J\"org Desel, University of Hagen\\
826 Werner Esswein, Dresden University of Technology\\
827 Fernand Feltz, Centre de Recherche Public Gabriel Lippmann\\
828 Andreas Gadatsch, Bonn-Rhine-Sieg University of Applied Sciences\\
829 Martin Glinz, University of Zurich\\
830 Norbert Gronau, University of Potsdam\\
831 Wilhelm Hasselbring, University of Kiel\\
832 Brian Henderson-Sellers, University of Technology, Sydney\\
833 Stefan Jablonski, University of Bayreuth\\
834 Manfred Jeusfeld, Tilburg University\\
835 Reinhard Jung, University of St.\,Gallen\\
836 Dimitris Karagiannis, University of Vienna\\
837 John Krogstie, University of Trondheim\\
838 Thomas K\"uhne, Victoria University of Wellington\\
839 Frank Leymann, University of Stuttgart\\
840 Stephen W. Liddle, Brigham Young University\\
841 Peter Loos, Johannes Gutenberg-University of Mainz\\
842 Oscar Pastor L\'opez, Universidad Polit\'ecnica de Val\'encia\\
843 Heinrich C. Mayr, University of Klagenfurt\\
844 Jan Mendling, Vienna University of Economics and Business\\
845 Markus N\"uttgens, University of Hamburg\\
846 Andreas Oberweis, University of Karlsruhe\\
847 Erich Ortner, Darmstadt University of Technology\\
848 Erik Proper, Radboud University Nijmegen\\
849 Michael Rebstock, University of Applied Sciences Darmstadt\\
850 Stefanie Rinderle-Ma, University of Vienna\\
851 Michael Rosemann, Queensland University of Technology\\
852 Matti Rossi, Aalto University\\
853 Elmar J. Sinz, University of Bamberg\\
854 Friedrich Steimann, University of Hagen\\
855 Stefan Strecker, University of Hagen\\

```

```

856 Bernhard Thalheim, University of Kiel\\
857 Oliver Thomas, University of Osnabr\\uck\\
858 Juha-Pekka Tolvanen, University of Jyv\\askyl\\a\\
859 Klaus Turowski, University of Augsburg\\
860 Gottfried Vossen, University of M\\unster\\
861 Mathias Weske, University of Potsdam\\
862 Robert Winter, University of St.\\,Gallen\\
863 Heinz Z\\ullighoven, University of Hamburg}%

```

\guidelines Guidelines for Authors.

```

\guidelinesname 864 \newcommandtwoopt{\guidelines}[2]%
\guidelinesbody 865 [ \@guidelinesname][ \@guidelinesbody]{%
866 \onecolumn
867 \edit@setup{#1}%
868 \l@editorialcontent
869 \raisebox{5.5mm}[10mm][0pt]{\sec@font\@title}\\
870 \ignorespaces
871 #2
872 \onecolumn\ignorespacesafterend}%
873 \def\guidelinesname#1{%
874 \@bsphack\def\@guidelinesname{#1}\@esphack}%
875 \long\def\guidelinesbody#1{%
876 \@bsphack\def\@guidelinesbody{#1}\@esphack}%

877 \guidelinesname{Guidelines for Authors}%
878 \guidelinesbody{%
879 The journal serves to publish results of innovative research on all
880 facets of creating and analysing enterprise models and information
881 systems architectures. For research papers, it is required to
882 satisfy academic standards in terms of originality, level of
883 abstraction and justification of results. Experience reports serve
884 to describe and analyse success stories as well as practical
885 obstacles and resulting research challenges. Topics covered by the
886 journal include, but are not restricted to the following subjects:
887 \begin{itemize}
888 \item Languages and Methods for Enterprise Modelling
889 \item Reusable Domain Models (Reference Models)
890 \item Analysis and Design Patterns
891 \item Modelling of Business Processes and Workflows
892 \item Process-Oriented System Architectures
893 \item Component-Oriented System Architectures
894 \item Conceptual Modelling for Component-Oriented Design
895 \item Ontologies for Enterprise Modelling
896 \item Modelling for Enterprise Application Integration
897 \item Modelling for Data Warehouses
898 \item Modelling to support Knowledge Management
899 \item Model-Driven Development
900 \item Aspect-Oriented Design
901 \item Agile Methods for Enterprise Modelling

```

```

902 \end{itemize}
903 Authors are asked for electronic submissions, which have to be sent
904 to the editor in chief as e-mail attachment. In case of multiple
905 authors, it is required to name one author who acts as contact
906 person. The submission should include a cover page with the paper's
907 title and the names, affiliations and e-mail addresses of all
908 authors. The first page of the paper starts with the title and does
909 not carry the authors' names. A manuscript must be either in MS
910 Word or PDF format. It should not exceed 5.000 words -- this
911 includes an abstract of around 150 words.
912
913 Submitted papers will be reviewed within no more than two months.
914 The review process is double blind. Authors who submit a manuscript
915 guarantee that it has not been published elsewhere, nor is intended
916 to be published elsewhere. Papers that were accepted for
917 publication must be written according to the style defined for the
918 journal. A comprehensive description as well as a corresponding
919 Word template is provided on the web portal of the GI-SIG-MobIS
920 (http://www.fg-mobis.gi-ev.de/).}

```

17.9.7 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.

```

921 \def\maketitle{%
922   \begingroup
923   \let\footnoterule\relax
924   \let\footnote\thanks
925   \let\thefootnote\relax
926   \def\@makefnmark{\textsuperscript{\@thefnmark}}%
927   \ifnum\col@number=\@ne
928     \@maketitle
929   \else
930     \twocolumn[\@maketitle]%
931   \fi
932   \global\@topnum\z@
933   \@thanks
934 \endgroup
935 \setcounter{footnote}{0}%
936 }%

```

`\@maketitle` This assembles and outputs the article title.

```

937 \def\@maketitle{%
938   \bgroup
939   \normalfont
940   \pretolerance=9999
941   \parskip\z@
942   \parindent\z@

```

```

943 \if!\@title!
944 \else
945 {\raggedright
946 \titlefont\ignorespaces
947 \strut\@title\strut\par}%
948 \vskip2mm\relax
949 \fi
950 \if!\@subtitle!
951 \vskip5mm\relax
952 \else
953 {\makebox[\textwidth][r]{%
954 \begin{minipage}{\textwidth-15mm}
955 \raggedright
956 \subtitlefont\ignorespaces
957 \strut\@subtitle\strut
958 \end{minipage}}}%
959 \par}%
960 \vskip5mm\relax
961 \fi
962 \if!\@authors!
963 \else
964 {\raggedright
965 \authorfont\ignorespaces
966 \strut\@authors
967 \ifx\@email\@empty
968 \ClassError{emisa}{There has to be one corresponding author!}{Please use \string\author*}
969 \else
970 \ignorespaces\makebox[0pt][l]{\footnote{*~Corresponding author.\newline E-mail.\ \url{\@email}}}%
971 \fi%
972 \ifx\@acknowledgements\@empty
973 \else
974 \ignorespaces\makebox[0pt][l]{\footnote{\@acknowledgements}}}%
975 \fi%
976 \strut\par}%
977 \vskip2mm\relax
978 \fi
979 \if!\@addresses@list!
980 \else
981 {\raggedright
982 \footnotesize\ignorespaces
983 \strut\@addresses@list\strut\par}%
984 \vskip8mm\relax
985 \fi
986 \if!\@authornote!
987 \else
988 \let\thefootnote\relax
989 \ignorespaces\makebox[0pt][l]{\footnote{Note: \@authornote}}}%
990 \fi
991 \if!\@abstract!

```

```

992 \else
993 {\abstractfont\ignorespaces
994 \strut\textup{Abstract.\ } \@abstract\strut\par}%
995 \vskip5mm\relax
996 \fi
997 \if!\@keywords!
998 \vskip3mm\relax
999 \else
1000 {\raggedright
1001 \ignorespaces
1002 \strut Keywords.\ \@keywords\strut\par}
1003 \vskip3mm\relax
1004 \fi
1005 \if!\@articleinfo@name!
1006 \if!\@articleinfo@rdate!
1007 \if!\@articleinfo@adate!
1008 \vskip\baselineskip\relax
1009 \fi
1010 \fi
1011 \else
1012 {\raggedright
1013 \small
1014 \ignorespaces
1015 \strut Communicated by\ \@articleinfo@name.%
1016 \if!\@articleinfo@rdate!%
1017 \else
1018 \space Received\ \@articleinfo@rdate.%
1019 \fi%
1020 \if!\@articleinfo@adate!%
1021 \else
1022 \space Accepted\ %
1023 \if!\@articleinfo@rounds!%
1024 \else%
1025 \ifnum\@articleinfo@rounds=1
1026 after \@articleinfo@rounds{} revision\space%
1027 \else
1028 after \@articleinfo@rounds{} revisions\space%
1029 \fi%
1030 \fi%
1031 on \@articleinfo@adate.
1032 \fi%
1033 \strut\par}
1034 \vskip5mm\relax
1035 \fi
1036 \egroup
1037 }

```

17.9.8 Sectioning

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

Syntax:

```
\@sect{<#1: name>}{<#2: level>}{<#3: indent>}{<#4: before skip>}{<#5: after skip>}{<#6: style>}[<#7: toc-heading>]{<#8: heading>}
```

Here is the meaning of all these parameters:

- <name>** The name of the current sectioning level, e.g., «subsection».
- <level>** 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 table 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»).
- <before skip>** 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.
- <after skip>** 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.
- <style>** Commands to set the output style. Since the June 1996 release of L^AT_EX 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, «`\bfseries\MakeUppercase`» would produce bold, uppercase headings.
- <toc-heading>** The optional string to be output in the table of contents (toc). If not given, the value from **<heading>** is used.
- <heading>** 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.

```
1038 \def\@sect#1#2#3#4#5#6[#7]#8{%
1039   \ifnum #2>\c@secnumdepth
1040     \let\@svsec\@empty
1041   \else
1042     \refstepcounter{#1}%
```

Since `\@secntformat` 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.

```
1043   \protected@edef\@svsec{\@secntformat{#1}}%
1044   \fi
1045   \@tempskipa #5\relax
1046   \ifdim \@tempskipa>\z@
```

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

```
1047   \begingroup
1048     #6{\noindent%
```

```

1049      \@hangfrom{\hskip #3\relax\@svsec}%
1050      \raggedright
1051      \interlinepenalty\@M
1052      \strut#8\strut
1053      \@@par}%
1054  \endgroup
1055  \csname #1mark\endcsname{#7}%
1056  \addcontentsline{toc}{#1}{%
1057    \ifnum #2>\c@secnumdepth \else
1058      \protect\numberline{\csname the#1\endcsname}%
1059    \fi
1060    #7}%
1061  \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.

```

1062  \def\@svsechd{%
1063    #6{\hskip #3\relax
1064    \@svsec #8}%
1065    \csname #1mark\endcsname{#7}%
1066    \addcontentsline{toc}{#1}{%
1067      \ifnum #2>\c@secnumdepth \else
1068        \protect\numberline{\csname the#1\endcsname}%
1069      \fi
1070      #7}}%
1071  \fi
1072  \@xsect{#5}}

```

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

Syntax:

```

\@ssect{<#1: indent>}{<#2: beforeskip>}{<#3: afterskip>}
      {<#4: style>}{<#5: heading>}

```

See also the list on p. 38.

```

1073 \def\@ssect#1#2#3#4#5{%
1074   \@tempskipa #3\relax
1075   \ifdim \@tempskipa>\z@
1076     \begingroup
1077       #4{\noindent%
1078         \hskip #1\relax
1079         \noindent%
1080         \parbox[t]{\linewidth}{%
1081           \raggedright\interlinepenalty\@M#5\strut}\@@par}%
1082     \endgroup
1083   \else
1084     \def\@svsechd{#4{\hskip #1\relax #5}}%
1085     \fi
1086     \@xsect{#3}}

```

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

```
1087 \def\@secntformat#1{%  
1088   \csname the#1\endcsname%  
1089   \relax\ \ }%
```

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

Syntax:

```
\@startsection{<#1: name>}{<#2: level>}  
  {<#3: indent>}{<#4: beforekip>}{<#5: afterskip>}  
  {<#6: style>}
```

See also the list on p. 38.

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.

```
1090 \def\section{\@startsection{section}%  
1091   {1}{\z@}%  
1092   {-1\baselineskip plus -2mm minus -2mm}%  
1093   {.5\baselineskip plus .25\baselineskip minus .125\baselineskip}%  
1094   {\sec@font}}%
```

`\subsection`

```
1095 \def\subsection{\@startsection{subsection}%  
1096   {2}{\z@}%  
1097   {-3mm plus -2mm minus -1.5mm}%  
1098   {.25\baselineskip plus .125\baselineskip minus .125\baselineskip}%  
1099   {\sec@font}}%
```

`\subsubsection`

```
1100 \def\subsubsection{\@startsection{subsubsection}%  
1101   {3}{\z@}%  
1102   {-3mm plus -2mm minus -1mm}%  
1103   {1sp}%  
1104   {\sec@font}}%
```

`\paragraph`

```
1105 \def\paragraph{\@startsection{paragraph}%  
1106   {4}{\z@}%  
1107   {-1.5mm plus -1mm minus -0.75mm}%  
1108   {1sp}%  
1109   {\para@font}}%
```


`\subparagraph`

```
1110 \def\subparagraph{\@startsection{subparagraph}%  
1111   {5}{\z@}%  
1112   {-1.5mm}%  
1113   {-1em}%  
1114   {\para@font}}%
```

17.9.9 The table of contents

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

```
1115 \def\tableofcontents{%  
1116   \onecolumn  
1117   \pagestyle{emisaeditorial}%  
1118   \footruleon  
1119   \title{Table of Contents}%  
1120   \null  
1121   \vskip10mm  
1122   \maketitle  
1123   \vskip15mm  
1124   \bgroup
```

. . . then, after some more adjustments, the entries are read from `\jobname.toc` using `\@starttoc{toc}` and output.

```
1125   \parindent\z@  
1126   \parskip\z@  
1127   \@starttoc{toc}%  
1128   \egroup  
1129   \onecolumn  
1130 }
```

`\l@article` These two routines output content lines to the ToC.

`\l@editorialcontent`

```
1131 \newcommand*\l@article{%  
1132   \if!\@subtitle!  
1133     \addtocentry{\@tocauthor}{\thepage}{\@toctitle}%  
1134   \else  
1135     \addtocentry{\@tocauthor}{\thepage}{\@toctitle\ --\ \@tocsubtitle}%  
1136   \fi}%  
1137 \newcommand*\l@editorialcontent{%  
1138   \addtocentry{\@toctitle}{\thepage}{}}%
```

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

```
1139 \newcommand*\addtocentry[4][toc]{%  
1140   \addtocontents{#1}{\string\emisa@tocentry{#2}{#3}{#4}}}%
```

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

```
1141 \newcommand{\emisa@tocentry}[3]{%
1142   \makebox[\textwidth][l]{%
1143     \parbox[t]{72.5mm-\@pnumwidth}{\raggedright\textbf{#1}}%
1144     \makebox[\@pnumwidth][r]{\textbf{#2}}%
1145     \hfill
1146     \parbox[t]{85mm}{\raggedright#3}}%
1147   \vspace{3mm}}%
```

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

```
1148 \setcounter{tocdepth}{-2}
```

17.9.10 A few abbreviations

`\ie` Macros for a couple of abbreviations used quite frequently.

```
\eg 1149 \newcommand*{\emisa@abbrv}[1]{#1\@xspace}
\cf 1150 \newcommand*{\emisa@abbrv}[2]{\gdef#1{\emisa@abbrv{#2}}}
\etal 1151 \newcommand*{\emisa@vabbrv}[1]{\textsc{#1}\xspace}
\emisa@abbrv 1152 \newcommand*{\ie}{\emisa@abbrv{i.e.,}}
\emisa@abbrv 1153 \newcommand*{\eg}{\emisa@abbrv{e.g.,}}
\emisa@vabbrv 1154 \newcommand*{\cf}{\emisa@abbrv{cf.}}
\OMG 1155 \newcommand*{\etal}{\emisa@abbrv{et~al.}}
\BPM 1156 \newcommand*{\OMG}{\emisa@vabbrv{omg}}
\BPMN 1157 \newcommand*{\BPM}{\emisa@vabbrv{bpm}}
\UML 1158 \newcommand*{\BPMN}{\emisa@vabbrv{bpnn}}
1159 \newcommand*{\UML}{\emisa@vabbrv{uml}}
```

17.10 Bibliographies

The infrastructure for that is already present in `LATEX` [?, `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.

```
1160 \def\@tempa#1\do\addbibresource#2\nil{%
1161   \ifx\relax#2\relax
1162   \else
```

```

1163 \def\@tempa##1\do\addbibresource##2\nil{\def\@preamblecmds{##1##2}}%
1164 \expandafter\@tempa\@preamblecmds\nil
1165 \fi
1166 }
1167 \expandafter\@tempa\@preamblecmds\do\addbibresource\nil
1168 \AfterEndPreamble{%
1169 \DeclareRobustCommand{\bibliography}[1]{%
1170 \addbibresource{#1}}%
1171 }%

1172 \tolerance 1414
1173 \hbadness 1414
1174 \emergencystretch 1.5em
1175 \hfuzz 0.3pt
1176 \widowpenalty=10000
1177 \displaywidowpenalty=10000
1178 \clubpenalty=5000
1179 \interfootnotelinepenalty=9999
1180 \brokenpenalty=2000
1181 \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.

```

1182 </class>
1183 <*biblatex>

```

17.10.1 The EMISA bibliography style

A biblatex *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 biblatex 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.

```

1184 <*bbx>

```

We start by declaring the file name and date.

```

1185 \ProvidesFile{emisa.bbx}[2012/12/21 0.4 EMISA bibliography style]

```

The EMISA bibliography style is built on top of the standard style *authoryear.bbx* being loaded here ...

```

1186 \RequireBibliographyStyle{authoryear}

```

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

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

```

1187 \newcommand*{\bibitemlabel}[1]{%
1188 \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.

```
1189 \defbibenvironment{bibliography}
1190   {\list{}}%
1191    {\setlength{\labelwidth}{\z@}%
1192     \setlength{\leftmargin}{\z@}%
1193     \setlength{\itemindent}{-\leftmargin}%
1194     \setlength{\itemsep}{.5\baselineskip\@plus.2\baselineskip\@minus.2\baselineskip}%
1195     \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 itself.

```
1196   }%
1197   \let\makelabel\bibitemlabel
```

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

```
1198   \tolerance 9999
1199   \emergencystretch 3em
1200   \hfuzz .5\p@
1201   \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.

```
1202   \clubpenalty 4000
1203   \@clubpenalty\clubpenalty
1204   \widowpenalty 4000
```

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

```
1205   \sfcode'\.\@m
```

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

```
1206   \renewcommand*{\finalnamedelim}{\addcomma\space}%
1207   }%
1208   {%
```

An empty `thebibliography` environment will cause a warning.

```
1209   \def\@noitemerr{\@latex@warning{Empty 'thebibliography' environment}}%
1210   \endlist}
1211   {\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 `BIBTEX` behavior (no linebreaks at `highnamepenalty` breakpoints) is reached by setting it to ‚Äòinfinite’ ($\geq 10\,000$).

`\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.

```
1212 \renewcommand*{\newunitpunct}{\space}
```

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

```
1213 \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.

```
1214 \renewcommand*{\bibsetup}{%
```

```
1215 \interlinepenalty=5000\relax
```

```
1216 \widowpenalty=10000\relax
```

```
1217 \clubpenalty=10000\relax
```

```
1218 \biburlsetup
```

```

1219 \flushbottom
1220 \frenchspacing
1221 \sloppy}

```

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

- ▷ `\interlinepenalty` is the penalty assigned to page breaks within a paragraph (i. e., in this case, a bibliography entry);
- ▷ `\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.

```

1222 \renewcommand*{\biburlsetup}{%
1223   \Urlmuskip=0mu plus 2mu\relax
1224   \mathchardef\UrlBreakPenalty=200\relax
1225   \mathchardef\UrlBigBreakPenalty=100\relax
1226   \mathchardef\UrlEmergencyPenalty=9000\relax
1227   \appto\UrlSpecials{%
1228     \do\0{\mathchar'\0\penalty\UrlEmergencyPenalty}%
1229     \do\1{\mathchar'\1\penalty\UrlEmergencyPenalty}%
1230     \do\2{\mathchar'\2\penalty\UrlEmergencyPenalty}%
1231     \do\3{\mathchar'\3\penalty\UrlEmergencyPenalty}%
1232     \do\4{\mathchar'\4\penalty\UrlEmergencyPenalty}%
1233     \do\5{\mathchar'\5\penalty\UrlEmergencyPenalty}%
1234     \do\6{\mathchar'\6\penalty\UrlEmergencyPenalty}%
1235     \do\7{\mathchar'\7\penalty\UrlEmergencyPenalty}%
1236     \do\8{\mathchar'\8\penalty\UrlEmergencyPenalty}%
1237     \do\9{\mathchar'\9\penalty\UrlEmergencyPenalty}}%
1238   \def\UrlBreaks{%
1239     \do\.\do\@\do\/\do\\\do\!\do\_ \do\|\do\;\do\>\do\]\do\)\do\}%
1240     \do\,\do\?\do\' \do\+\do\=\do\#\do\$ \do\&\do\*\do\^\do\"}%
1241   \def\UrlBigBreaks{\do\:\do\-\}%

```

URLs are typeset in sans-serif script.

```
1242 \def\UrlFont{\sffamily}%  
1243 }
```

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, see p. ??.

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

\DeclareFieldFormat[⟨entry type⟩]{⟨format⟩}{⟨code⟩} defines the formatting code given in *⟨code⟩* to be executed by `\printfield` on processing the field *⟨format⟩*. The value of the field will be passed to *⟨code⟩* as its first and only argument. If an *⟨entry type⟩* 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[⟨entry type⟩]{⟨alias⟩}[⟨format entry type⟩]{⟨format⟩} declares *⟨alias⟩* to be an alias of the field format *⟨format⟩*. If an *⟨entry type⟩* is specified, the alias is specific to that type. The *⟨format entry type⟩* is the entry type of the backend format. This is only required when declaring an alias of a type specific formatting directive.

\bibstring[⟨wrapper⟩]{⟨key⟩} prints the bibliography string identified by *⟨key⟩*. 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 *⟨wrapper⟩* argument is given, the string is passed to the *⟨wrapper⟩* for formatting. This is intended for font commands such as `\emph`.

\bibcpstring[⟨wrapper⟩]{⟨key⟩} Similar to `\bibstring` but the string is always capitalized.

\bibxstring{⟨key⟩} 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.

```
1244 \DeclareFieldFormat{citetitle}{#1}  
1245 \DeclareFieldFormat[article]{citetitle}{#1\isdot}  
1246 \DeclareFieldFormat[inbook]{citetitle}{#1\isdot}  
1247 \DeclareFieldFormat[incollection]{citetitle}{#1\isdot}  
1248 \DeclareFieldFormat[inproceedings]{citetitle}{#1\isdot}  
1249 \DeclareFieldFormat[patent]{citetitle}{#1\isdot}  
1250 \DeclareFieldFormat[thesis]{citetitle}{#1\isdot}  
1251 \DeclareFieldFormat[unpublished]{citetitle}{#1\isdot}
```

The following field formats are used for output in bibliographies.

```
1252 \DeclareFieldFormat{booktitle}{#1\isdot}  
1253 \DeclareFieldFormat{journaltitle}{#1}  
1254 \DeclareFieldFormat{issuetitle}{#1}  
1255 \DeclareFieldFormat{maintitle}{#1}  
1256 \DeclareFieldFormat{title}{#1}  
1257 \DeclareFieldFormat[article]{title}{#1\isdot}
```

```

1258 \DeclareFieldFormat[inbook]{title}{#1\isdot}
1259 \DeclareFieldFormat[incollection]{title}{#1\isdot}
1260 \DeclareFieldFormat[inproceedings]{title}{#1\isdot}
1261 \DeclareFieldFormat[patent]{title}{#1\isdot}
1262 \DeclareFieldFormat[thesis]{title}{#1\isdot}
1263 \DeclareFieldFormat[unpublished]{title}{#1\isdot}
1264 \DeclareFieldFormat[url]{\url{#1}}
1265 \DeclareFieldFormat{urldate}{\bibstring{urlseen}\addcolon\space#1}
1266 \DeclareFieldAlias[misc]{note}{urldate}
1267 \DeclareFieldAlias[report]{note}{urldate}
1268 \DeclareFieldAlias[thesis]{note}{urldate}
1269 \DeclareFieldFormat{version}{\bibcpstring{version}~#1}
1270 \DeclareFieldFormat{volume}{\bibcpstring{volume}~#1}
1271 \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.

\newbibmacro{<name>}[<arguments>][<optional>]{<definition>} defines a macro to be executed via `\usebibmacro` later. The syntax and argument handling of this command is very similar to `\newcommand` except that

- ▷ `<name>` may contain characters such as numbers and punctuation marks but no backslash, and
- ▷ `\newbibmacro` issues just a warning message if the macro is already defined, then falls back to `\renewbibmacro`.

\renewbibmacro{<name>}[<arguments>][<optional>]{<definition>} is similar to `\newbibmacro` but redefines `<name>`. If the macro is undefined, `\renewbibmacro` issues a warning message and falls back to `\newbibmacro`.

\usebibmacro{<name>} executes the biblatex macro `<name>`, as defined with `\newbibmacro`. If the macro takes any arguments, they are simply appended after `<name>`. `\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`.

```

1272 \DeclareNameFormat{emisa:names}{%
1273   \usebibmacro{name:last-firstinit}{#1}{#4}{#5}{#7}%
1274   \usebibmacro{name:andothers}}

```


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

me:last-firstinit

```
bibmacro 1275 \newbibmacro*{name:last-firstinit}[4]{%
1276   \usebibmacro{name:delim}{#2#3#1}%
1277   \usebibmacro{name:hook}{#2#3#1}%

Formatting: name prefix ('von part'), ...

1278   \ifblank{#3}{}{}%
1279   \mkbibnameprefix{#3}%\isdot
1280   \ifpunctmark{' }
1281   {}
1282   {\ifuseprefix{\addhighpenspace}\addlowpenspace}}%
```

... last name ...

```
1283   \mkbibnamelast{#1}\addhighpenspace
```

... name affix ('junior part'), ...

```
1284   \ifblank{#4}{}{\addlowpenspace\mkbibnameaffix{#4}\addlowpenspace}%
```

... and first name (initials).

```
1285   \ifblank{#2}{}{\mkbibnamefirst{#2}\isdot}%
1286 }%
```

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

```
1287 \renewbibmacro*{in:}{%
1288   \printtext{%
1289     \bibcpstring{in}%
1290     \intitlepunct}}
```

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

author bibmacro

```
1291 \renewbibmacro*{author}{%
1292   \ifthenelse{\ifuseauthor\AND\NOT\ifnameundef{author}}
1293     {\printnames{author}%
1294     \iffieldundef{authortype}
1295     {}
1296     {\setunit{\addspace}%
1297     \usebibmacro{authorstrg}}}
1298   {}}
```

```

1299 \renewbibmacro*{editor}{%
1300   \ifthenelse{\ifuseeditor\AND\NOT\ifnameundef{editor}}
1301     {\printnames{editor}%
1302      \setunit{\addspace}%
1303      \usebibmacro{editorstrg}%
1304      \clearname{editor}}
1305   {}

```

```

1306 \renewbibmacro*{editor+others}{%
1307 \ifthenelse{\ifuseeditor\AND\NOT\ifnameundef{editor}}
1308 {\printnames[emisa:names]{editor}%
1309 \setunit{\addspace}%
1310 \usebibmacro{editor+othersstrg}%
1311 \clearname{editor}}
1312 {}

```

```

1313 \renewbibmacro*{translator}{%
1314   \ifthenelse{\ifusetranslator\AND\NOT\ifnameundef{translator}}
1315     {\printnames{translator}%
1316      \setunit{\addspace}%
1317      \usebibmacro{translatorstr}%
1318      \clearname{translator}}
1319   {}

```

```

1320 \renewbibmacro*{translator+others}{%
1321   \ifthenelse{\ifusetranslator\AND\NOT\ifnameundef{translator}}
1322     {\printnames{translator}%
1323      \setunit{\addspace}%
1324      \usebibmacro{translator+othersstrg}%
1325      \clearname{translator}}
1326   {}

```

```

1327 \renewbibmacro*{editor+othersstrg}{%
1328   \iffieldundef{editortype}
1329     {\ifthenelse{\value{editor}>1\OR\ifandothers{editor}}
1330       {\def\abx@tempa{editors}}
1331       {\def\abx@tempa{editor}}}
1332     {\ifthenelse{\value{editor}>1\OR\ifandothers{editor}}
1333       {\edef\abx@tempa{\thefield{editortype}s}}
1334       {\edef\abx@tempa{\thefield{editortype}}}}}%
1335 \let\abx@tempb=\empty
1336 \ifnameequal{editor}{translator}
1337   {\appto\abx@tempa{tr}}%

```

```

1338 \appto\abx@tempb{\clearname{translator}}
1339 {}%
1340 \ifnamesequal{editor}{commentator}
1341 {\appto\abx@tempa{co}%
1342 \appto\abx@tempb{\clearname{commentator}}}
1343 {\ifnamesequal{editor}{annotator}
1344 {\appto\abx@tempa{an}%
1345 \appto\abx@tempb{\clearname{annotator}}}
1346 {}}%
1347 \ifnamesequal{editor}{introduction}
1348 {\appto\abx@tempa{in}%
1349 \appto\abx@tempb{\clearname{introduction}}}
1350 {\ifnamesequal{editor}{foreword}
1351 {\appto\abx@tempa{fo}%
1352 \appto\abx@tempb{\clearname{foreword}}}
1353 {\ifnamesequal{editor}{afterword}
1354 {\appto\abx@tempa{af}%
1355 \appto\abx@tempb{\clearname{afterword}}}
1356 {}}%
1357 \ifbibxstring{\abx@tempa}
1358 {\bibstring[\mkbibparens]{\abx@tempa}%
1359 \abx@tempb}
1360 {\usebibmacro{editorstrg}}}%

```

emisa:url+urldate bibmacro

```

1361 \newbibmacro*{emisa:url+urldate}{%
1362 \iffieldundef{url}
1363 {\printfield{howpublished}}
1364 {\printfield{url}}
1365 \setunit*{\addperiod\space}\newblock
1366 \iffieldundef{urlyear}
1367 {\printfield{note}}
1368 {\printtext[urldate]{\printurldate}}}

```

emisa:url+type+version+urldate

```

bibmacro 1369 \newbibmacro*{emisa:url+type+version+urldate}{%
1370 \iffieldundef{url}%
1371 {\printfield{url}}
1372 {\printfield{howpublished}}%
1373 \setunit*{\addcomma\space}\newblock
1374 \printfield{type}%
1375 \setunit*{\addcomma\space}\newblock
1376 \printfield{version}%
1377 \setunit*{\addcomma\space}\newblock
1378 \iffieldundef{urlyear}
1379 {\printfield{note}}
1380 {\printtext[urldate]{\printurldate}}}

```

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

```
1381 \renewbibmacro*{finentry}{}%
```

article bibdriver

```
1382 \DeclareBibliographyDriver{article}{%
1383   \usebibmacro{bibindex}%
1384   \usebibmacro{begentry}%
1385   \usebibmacro{author/translator+others}%
1386   \setunit{\labelnamepunct}\newblock
1387   \usebibmacro{title}%
1388   \newunit
1389   \printlist{language}%
1390   \newunit\newblock
1391   \usebibmacro{bytranslator+others}%
1392   \newunit\newblock
1393   \printfield{version}%
1394   \setunit{\addperiod\space}%
1395   \usebibmacro{in:}%
1396   \usebibmacro{journal+issuetitle}%
1397   \newunit\newblock
1398   \usebibmacro{editor+others}%
1399   \newunit\newblock
1400   \usebibmacro{note+pages}%
1401   \newunit\newblock
1402   \iftoggle{bbx:isbn}
1403     {\printfield{issn}}
1404     {}%
1405   \newunit\newblock
1406   \usebibmacro{doi+eprint+url}%
1407   \newunit\newblock
1408   \usebibmacro{addendum+pubstate}%
1409   \newunit\newblock
1410   \usebibmacro{pageref}%
1411   \usebibmacro{finentry}}
```

book bibdriver

```
1412 \DeclareBibliographyDriver{book}{%
1413   \usebibmacro{bibindex}%
1414   \usebibmacro{begentry}%
1415   \usebibmacro{author/editor+others/translator+others}%
1416   \setunit{\labelnamepunct}\newblock
1417   \usebibmacro{maintitle+title}%
1418   \newunit
1419   \printlist{language}%
```

```

1420 \newunit\newblock
1421 \usebibmacro{editor+others}%
1422 \setunit{\addcomma\space}%
1423 \newblock
1424 \printfield{edition}%
1425 \setunit{\addperiod\space}%
1426 \newblock
1427 \usebibmacro{series+number}%
1428 \newunit
1429 \newblock
1430 \iffieldundef{maintitle}
1431   {\printfield{volume}%
1432    \printfield{part}}
1433   {}%
1434 \newunit
1435 \printfield{volumes}%
1436 \setunit{\addperiod\space}%
1437 \newblock
1438 \printfield{note}%
1439 \setunit{\addperiod\space}%
1440 \newblock
1441 \usebibmacro{publisher+location+date}%
1442 \newunit\newblock
1443 \usebibmacro{chapter+pages}%
1444 \newunit
1445 \printfield{pagetotal}%
1446 \newunit\newblock
1447 \iftoggle{bbx:isbn}
1448   {\printfield{isbn}}
1449   {}%
1450 \newunit\newblock
1451 \usebibmacro{doi+eprint+url}%
1452 \newunit\newblock
1453 \usebibmacro{addendum+pubstate}%
1454 \newunit\newblock
1455 \usebibmacro{pageref}%
1456 \usebibmacro{finentry}}

```

booklet bibdriver

```

1457 \DeclareBibliographyDriver{booklet}{%
1458   \usebibmacro{bibindex}%
1459   \usebibmacro{begentry}%
1460   \usebibmacro{author/editor+others/translator+others}%
1461   \setunit{\labelnamepunct}\newblock
1462   \usebibmacro{title}%
1463   \newunit
1464   \printlist{language}%
1465   \newunit\newblock
1466   \usebibmacro{editor+others}%

```

```

1467 \newunit\newblock
1468 \printfield{howpublished}%
1469 \newunit\newblock
1470 \printfield{type}%
1471 \newunit\newblock
1472 \printfield{note}%
1473 \newunit\newblock
1474 \usebibmacro{location+date}%
1475 \newunit\newblock
1476 \usebibmacro{chapter+pages}%
1477 \newunit
1478 \printfield{pagetotal}%
1479 \newunit\newblock
1480 \usebibmacro{doi+eprint+url}%
1481 \newunit\newblock
1482 \usebibmacro{addendum+pubstate}%
1483 \newunit\newblock
1484 \usebibmacro{pageref}%
1485 \usebibmacro{finentry}}

```

collection bibdriver

```

1486 \DeclareBibliographyDriver{collection}{%
1487 \usebibmacro{bibindex}%
1488 \usebibmacro{begentry}%
1489 \usebibmacro{editor+others}%
1490 \setunit{\labelnamepunct}\newblock
1491 \usebibmacro{maintitle+title}%
1492 \newunit
1493 \printlist{language}%
1494 \newunit\newblock
1495 \usebibmacro{editor+others}%
1496 \setunit{\addcomma\space}%
1497 \newblock
1498 \printfield{edition}%
1499 \setunit{\addperiod\space}%
1500 \newblock
1501 \usebibmacro{series+number}%
1502 \newunit
1503 \newblock
1504 \iffieldundef{maintitle}
1505 {\printfield{volume}%
1506 \printfield{part}}
1507 {}%
1508 \newunit
1509 \printfield{volumes}%
1510 \setunit{\addperiod\space}%
1511 \newblock
1512 \printfield{note}%
1513 \setunit{\addperiod\space}%

```

```

1514 \newblock
1515 \usebibmacro{publisher+location+date}%
1516 \newunit\newblock
1517 \usebibmacro{chapter+pages}%
1518 \newunit
1519 \printfield{pagetotal}%
1520 \newunit\newblock
1521 \iftoggle{bbx:isbn}
1522   {\printfield{isbn}}
1523   {}%
1524 \newunit\newblock
1525 \usebibmacro{doi+eprint+url}%
1526 \newunit\newblock
1527 \usebibmacro{addendum+pubstate}%
1528 \newunit\newblock
1529 \usebibmacro{pageref}%
1530 \usebibmacro{finentry}}

```

inbook bibdriver

```

1531 \DeclareBibliographyDriver{inbook}{%
1532   \usebibmacro{bibindex}%
1533   \usebibmacro{begentry}%
1534   \usebibmacro{author/translator+others}%
1535   \setunit{\labelnamepunct}\newblock
1536   \usebibmacro{title}%
1537   \newunit
1538   \printlist{language}%
1539   \newunit\newblock
1540   \usebibmacro{in:}%
1541   \usebibmacro{bybookauthor}%
1542   \newunit\newblock
1543   \usebibmacro{maintitle+booktitle}%
1544   \newunit\newblock
1545   \usebibmacro{editor+others}%
1546   \setunit{\addcomma\space}%
1547   \newblock
1548   \printfield{edition}%
1549   \newunit
1550   \iffielddundef{maintitle}
1551     {\printfield{volume}%
1552       \printfield{part}}
1553     {}%
1554   \newunit
1555   \printfield{volumes}%
1556   \newunit\newblock
1557   \usebibmacro{series+number}%
1558   \newunit\newblock
1559   \printfield{note}%
1560   \newunit\newblock

```

```

1561 \usebibmacro{publisher+location+date}%
1562 \newunit\newblock
1563 \usebibmacro{chapter+pages}%
1564 \newunit\newblock
1565 \iftoggle{bbx:isbn}
1566   {\printfield{isbn}}
1567   {}%
1568 \newunit\newblock
1569 \usebibmacro{doi+eprint+url}%
1570 \newunit\newblock
1571 \usebibmacro{addendum+pubstate}%
1572 \newunit\newblock
1573 \usebibmacro{pageref}%
1574 \usebibmacro{finentry}}

```

incollection bibdriver

```

1575 \DeclareBibliographyDriver{incollection}{%
1576   \usebibmacro{bibindex}%
1577   \usebibmacro{begentry}%
1578   \usebibmacro{author/translator+others}%
1579   \setunit{\labelnamepunct}\newblock
1580   \usebibmacro{title}%
1581   \setunit{\addcomma\space}%
1582   \printlist{language}%

```

Period after title, if any

```

1583   \setunit{\addperiod\space}%
1584   \usebibmacro{in:}%
1585   \usebibmacro{editor+others}%
1586   \setunit{\addspace}%
1587   \newblock
1588   \usebibmacro{byauthor}%
1589   \newblock
1590   \usebibmacro{maintitle+booktitle}%

```

Colon after maintitle, if any

```

1591   \newblock
1592   \printfield{edition}%
1593   \setunit{\addperiod\space}%
1594   \newblock
1595   \usebibmacro{series+number}%
1596   \newunit
1597   \newblock
1598   \iffieldundef{maintitle}
1599     {\printfield{volume}%
1600      \printfield{part}}
1601     {}%
1602   \newunit
1603   \printfield{volumes}%

```



```

1604 \setunit{\addperiod\space}%
1605 \newblock
1606 \printfield{note}%
1607 \setunit{\addperiod\space}%
1608 \newblock
1609 \usebibmacro{publisher+location+date}%
1610 \setunit*{\addcomma\space}%
1611 \newblock
1612 \usebibmacro{chapter+pages}%
1613 \newunit\newblock
1614 \iftoggle{bbx:isbn}
1615   {\printfield{isbn}}
1616   {}%
1617 \newunit\newblock
1618 \usebibmacro{doi+eprint+url}%
1619 \newunit\newblock
1620 \usebibmacro{addendum+pubstate}%
1621 \newunit\newblock
1622 \usebibmacro{pageref}%
1623 \usebibmacro{finentry}}

```

inproceedings bibdriver

```

1624 \DeclareBibliographyDriver{inproceedings}{%
1625   \usebibmacro{bibindex}%
1626   \usebibmacro{begentry}%
1627   \usebibmacro{author/translator+others}%
1628   \setunit{\labelnamepunct}%
1629   \newblock
1630   \usebibmacro{title}%
1631   \setunit{\addcomma\space}%
1632   \printlist{language}%
1633   \newblock
1634   \usebibmacro{byauthor}%

```

Period after title, if any

```

1635   \setunit{\addperiod\space}%
1636   \usebibmacro{in:}%
1637   \usebibmacro{editor+others}%
1638   \setunit{\addspace}%
1639   \newblock
1640   \usebibmacro{byauthor}%
1641   \newblock
1642   \usebibmacro{maintitle+booktitle}%

```

Colon after maintitle, if any

```

1643   \newblock
1644   \usebibmacro{event+venue+date}%
1645   \setunit{\addperiod\space}%
1646   \newblock

```

```

1647 \usebibmacro{series+number}%
1648 \newunit
1649 \newblock
1650 \iffieldundef{maintitle}
1651   {\printfield{volume}%
1652    \printfield{part}}
1653   {}%
1654 \newunit
1655 \printfield{volumes}%
1656 \setunit{\addperiod\space}%
1657 \newblock
1658 \printfield{note}%
1659 \setunit{\addperiod\space}%
1660 \newblock
1661 \printlist{organization}%
1662 \setunit{\addperiod\space}%
1663 \newblock
1664 \usebibmacro{publisher+location+date}%
1665 \setunit{\addcomma\space}%
1666 \newblock
1667 \usebibmacro{chapter+pages}%
1668 \newunit\newblock
1669 \iftoggle{bbx:isbn}
1670   {\printfield{isbn}}
1671   {}%
1672 \newunit\newblock
1673 \usebibmacro{doi+eprint+url}%
1674 \newunit\newblock
1675 \usebibmacro{addendum+pubstate}%
1676 \newunit\newblock
1677 \usebibmacro{pageref}%
1678 \usebibmacro{finentry}}

```

manual bibdriver

```

1679 \DeclareBibliographyDriver{manual}{%
1680   \usebibmacro{bibindex}%
1681   \usebibmacro{begentry}%
1682   \usebibmacro{author/editor}%
1683   \setunit{\labelnamepunct}\newblock
1684   \usebibmacro{title}%
1685   \newunit
1686   \printlist{language}%
1687   \newunit\newblock
1688   \usebibmacro{byeditor}%
1689   \setunit{\addcomma\space}%
1690   \newblock
1691   \printfield{edition}%
1692   \newunit\newblock
1693   \usebibmacro{series+number}%

```

```

1694 \newunit\newblock
1695 \printfield{type}%
1696 \newunit
1697 \printfield{version}%
1698 \newunit
1699 \printfield{note}%
1700 \newunit\newblock
1701 \printlist{organization}%
1702 \newunit
1703 \usebibmacro{publisher+location+date}%
1704 \newunit\newblock
1705 \usebibmacro{chapter+pages}%
1706 \newunit
1707 \printfield{pagetotal}%
1708 \newunit\newblock
1709 \iftoggle{bbx:isbn}
1710   {\printfield{isbn}}
1711   {}%
1712 \newunit\newblock
1713 \usebibmacro{doi+eprint+url}%
1714 \newunit\newblock
1715 \usebibmacro{addendum+pubstate}%
1716 \newunit\newblock
1717 \usebibmacro{pageref}%
1718 \usebibmacro{finentry}}

```

misc bibdriver

```

1719 \DeclareBibliographyDriver{misc}{%
1720   \usebibmacro{bibindex}%
1721   \usebibmacro{begentry}%
1722   \usebibmacro{author/editor+others/translator+others}%
1723   \setunit{\labelnamepunct}\newblock
1724   \usebibmacro{title}%
1725   \newunit
1726   \printlist{language}%

```

Period after title, if any

```

1727   \setunit{\addperiod\space}%
1728   \usebibmacro{emisa:url+urldate}%
1729   \usebibmacro{finentry}}

```

online bibdriver

```

1730 \DeclareBibliographyDriver{online}{%
1731   \usebibmacro{bibindex}%
1732   \usebibmacro{begentry}%
1733   \usebibmacro{author/editor+others/translator+others}%
1734   \setunit{\labelnamepunct}\newblock
1735   \usebibmacro{title}%
1736   \newunit

```

```

1737 \printlist{language}%
1738 \newunit\newblock
1739 \usebibmacro{editor+others}%
1740 \newunit\newblock
1741 \printfield{version}%
1742 \newunit
1743 \printfield{note}%
1744 \newunit\newblock
1745 \printlist{organization}%
1746 \newunit\newblock
1747 \usebibmacro{date}%
1748 \newunit\newblock
1749 \iftoggle{bbx:eprint}
1750   {\usebibmacro{eprint}}
1751   {}%
1752 \newunit\newblock
1753 \usebibmacro{url+urldate}%
1754 \newunit\newblock
1755 \usebibmacro{addendum+pubstate}%
1756 \newunit\newblock
1757 \usebibmacro{pageref}%
1758 \usebibmacro{finentry}}

```

patent bibdriver

```

1759 \DeclareBibliographyDriver{patent}{%
1760   \usebibmacro{bibindex}%
1761   \usebibmacro{begentry}%
1762   \usebibmacro{author}%
1763   \setunit{\labelnamepunct}\newblock
1764   \usebibmacro{title}%
1765   \newunit
1766   \printlist{language}%
1767   \newunit\newblock
1768   \printfield{type}%
1769   \setunit*{\addspace}%
1770   \printfield{number}%
1771   \iflistundef{location}
1772     {}
1773     {\setunit*{\addspace}%
1774       \printtext[parens]{%
1775         \printlist[][-\value{listtotal}]{location}}}%
1776   \newunit\newblock
1777   \usebibmacro{byholder}%
1778   \newunit\newblock
1779   \printfield{note}%
1780   \newunit\newblock
1781   \usebibmacro{date}%
1782   \newunit\newblock
1783   \iftoggle{bbx:url}

```

```

1784     {\usebibmacro{url+urldate}}
1785     {}%
1786 \newunit\newblock
1787 \usebibmacro{addendum+pubstate}%
1788 \newunit\newblock
1789 \usebibmacro{pageref}%
1790 \usebibmacro{finentry}}

```

periodical bibdriver

```

1791 \DeclareBibliographyDriver{periodical}{%
1792   \usebibmacro{bibindex}%
1793   \usebibmacro{begentry}%
1794   \usebibmacro{editor}%
1795   \setunit{\labelnamepunct}\newblock
1796   \usebibmacro{title+issuetitle}%
1797   \newunit
1798   \printlist{language}%
1799   \newunit\newblock
1800   \usebibmacro{byeditor}%
1801   \newunit\newblock
1802   \printfield{note}%
1803   \newunit\newblock
1804   \iftoggle{bbx:isbn}
1805     {\printfield{issn}}
1806     {}%
1807   \newunit\newblock
1808   \usebibmacro{doi+eprint+url}%
1809   \newunit\newblock
1810   \usebibmacro{addendum+pubstate}%
1811   \newunit\newblock
1812   \usebibmacro{pageref}%
1813   \usebibmacro{finentry}}

```

proceedings bibdriver

```

1814 \DeclareBibliographyDriver{proceedings}{%
1815   \usebibmacro{bibindex}%
1816   \usebibmacro{begentry}%
1817   \usebibmacro{editor+others}%
1818   \setunit{\labelnamepunct}\newblock
1819   \usebibmacro{maintitle+title}%
1820   \newunit
1821   \printlist{language}%
1822   \newunit\newblock
1823   \usebibmacro{event+venue+date}%
1824   \newunit\newblock
1825   \usebibmacro{editor+others}%
1826   \setunit{\addperiod\space}%
1827   \newblock

```

```

1828 \usebibmacro{series+number}%
1829 \newunit
1830 \newblock
1831 \iffieldundef{maintitle}
1832   {\printfield{volume}%
1833    \printfield{part}}
1834   {}%
1835 \newunit
1836 \printfield{volumes}%
1837 \setunit{\addperiod\space}%
1838 \newblock
1839 \printfield{note}%
1840 \setunit{\addperiod\space}%
1841 \newblock
1842 \printlist{organization}%
1843 \setunit{\addperiod\space}%
1844 \newblock
1845 \usebibmacro{publisher+location+date}%
1846 \newblock
1847 \usebibmacro{chapter+pages}%
1848 \newunit
1849 \printfield{pagetotal}%
1850 \newunit\newblock
1851 \iftoggle{bbx:isbn}
1852   {\printfield{isbn}}
1853   {}%
1854 \newunit\newblock
1855 \usebibmacro{doi+eprint+url}%
1856 \newunit\newblock
1857 \usebibmacro{addendum+pubstate}%
1858 \newunit\newblock
1859 \usebibmacro{pageref}%
1860 \usebibmacro{finentry}}

```

Technical reports

author
title
year
type
number
institution
address
url
note

report bibdriver

```

1861 \DeclareBibliographyDriver{report}{%
1862   \usebibmacro{bibindex}%

```

```

1863 \usebibmacro{begentry}%
1864 \usebibmacro{author}%
1865 \setunit{\labelnamepunct}\newblock
1866 \usebibmacro{title}%
1867 \setunit{\addperiod\space}%
1868 \printfield{type}%
1869 \newunit
1870 \printfield{number}%
1871 \setunit{\addperiod\space}%
1872 \printlist{institution}%
1873 \setunit*{\addperiod\space}\newblock
1874 \printlist{location}%
1875 \setunit*{\addperiod\space}\newblock
1876 \printfield{url}%
1877 \setunit*{\addperiod\space}\newblock
1878 \printfield{note}%
1879 \newunit\newblock
1880 \usebibmacro{finentry}}%
1881 \DeclareBibliographyAlias{techreport}{report}%

```

thesis bibdriver

```

1882 \DeclareBibliographyDriver{thesis}{%
1883 \usebibmacro{bibindex}%
1884 \usebibmacro{begentry}%
1885 \usebibmacro{author}%
1886 \setunit{\labelnamepunct}\newblock
1887 \usebibmacro{title}%
1888 \newunit
1889 \printlist{language}%

```

Period after title, if any

```

1890 \setunit{\addperiod\space}%
1891 \printfield{type}%
1892 \setunit*{\addcomma\space}%
1893 \usebibmacro{institution+location+date}%
1894 \setunit{\addperiod\space}%
1895 \usebibmacro{chapter+pages}%
1896 \newunit
1897 \printfield{pagetotal}%
1898 \newunit\newblock
1899 \printfield{url}%
1900 \setunit*{\addperiod\space}\newblock
1901 \printfield{note}%
1902 \newunit\newblock
1903 \usebibmacro{addendum+pubstate}%
1904 \newunit\newblock
1905 \usebibmacro{pageref}%
1906 \usebibmacro{finentry}}

```

unpublished bibdriver

```
1907 \DeclareBibliographyDriver{unpublished}{%
1908   \usebibmacro{bibindex}%
1909   \usebibmacro{begentry}%
1910   \usebibmacro{author}%
1911   \setunit{\labelnamepunct}\newblock
1912   \usebibmacro{title}%
1913   \newunit
1914   \printlist{language}%
1915   \newunit\newblock
1916   \printfield{howpublished}%
1917   \newunit\newblock
1918   \printfield{note}%
1919   \newunit\newblock
1920   \usebibmacro{date}%
1921   \newunit\newblock
1922   \iftoggle{bbx:url}
1923     {\usebibmacro{url+urldate}}
1924     {}%
1925   \newunit\newblock
1926   \usebibmacro{addendum+pubstate}%
1927   \newunit\newblock
1928   \usebibmacro{pageref}%
1929   \usebibmacro{finentry}}
```

intitle+booktitle

```
      bibmacro 1930 \renewbibmacro*{maintitle+booktitle}{%
1931   \iffieldundef{maintitle}
1932     {}
1933     {\usebibmacro{maintitle}%
1934       \addspace
1935       \newblock
1936       \iffieldundef{volume}
1937         {}
1938         {\printfield{volume}%
1939           \printfield{part}%
1940           \addspace
1941           }}%
1942   \usebibmacro{booktitle}%
1943   \newunit}
```

journal+issuetitle bibmacro

```
1944 \renewbibmacro*{journal+issuetitle}{%
1945   \usebibmacro{journal}%
1946   \setunit*{\addspace}%
1947   \iffieldundef{series}
1948     {}
1949     {\newunit}
```



```

1950     \printfield{series}%
1951     \setunit{\addspace}}%
1952 \printfield{volume}%
1953 \printfield[parens]{number}%
1954 \setunit{\addcomma\space}%
1955 \printfield{eid}%
1956 \setunit{\addspace}%
1957 \usebibmacro{issue+date}%
1958 \setunit{\addcolon\space}%
1959 \usebibmacro{issue}%
1960 \newunit}

```

isa:doi+eprint+url

```

bibmacro 1961 \newbibmacro*{emisa:doi+eprint+url}{%
1962   \iftoggle{bbx:doi}
1963     {\printfield{doi}}
1964     {}%
1965   \newunit\newblock
1966   \iftoggle{bbx:eprint}
1967     {\usebibmacro{eprint}}
1968     {}%
1969   \newunit\newblock
1970   \iftoggle{bbx:url}
1971     {\usebibmacro{emisa:url+urldate}}
1972     {}%

```

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

```

1973 \renewbibmacro*{author}{%
1974   \ifthenelse{\ifuseauthor\AND\NOT\ifnameundef{author}}
1975     {\ifthenelse{\iffieldequals{fullhash}{\bbx@lasthash}\AND
1976       \NOT\iffirstonpage\AND
1977       \(\NOT\boolean{bbx@inset}\OR
1978       \iffieldequalstr{entrysetcount}{1}\)}}
1979     {\bibnamedash}
1980     {\usebibmacro{bbx:savehash}%
1981       \printnames[emisa:names]{author}%
1982       \iffieldundef{authortype}
1983       {\setunit{\addspace}}
1984       {\setunit{\addcomma\space}%
1985         \usebibmacro{authorstrg}%
1986         \setunit{\addspace}}}%
1987   }{%

```

```

1988 \global\undef\bbx@lasthash
1989 \usebibmacro{labeltitle}%
1990 \setunit*{\addspace}}%
1991 \usebibmacro{date+extrayear}}

```

bbx:editor bibmacro

```

1992 \renewbibmacro*{bbx:editor}[1]{%
1993 \ifthenelse{\ifuseeditor\AND\NOT\ifnameundef{editor}}
1994 {\ifthenelse{\iffieldequals{fullhash}{\bbx@lasthash}\AND
1995 \NOT\iffirstonpage\AND
1996 \(\NOT\boolean{bbx@inset}\OR
1997 \iffieldequalstr{entrysetcount}{1}\)}}
1998 {\bibnamedash}
1999 {\printnames[emisa:names]{editor}%
2000 \setunit{\addcomma\space}%
2001 \usebibmacro{bbx:savehash}}%
2002 \usebibmacro{#1}%
2003 \clearname{editor}%
2004 \setunit{\addspace}%
2005 }{\global\undef\bbx@lasthash
2006 \usebibmacro{labeltitle}%
2007 \setunit*{\addspace}%
2008 }%
2009 % \usebibmacro{date+extrayear}%
2010 }

```

bbx:translator bibmacro

```

2011 \renewbibmacro*{bbx:translator}[1]{%
2012 \ifthenelse{\ifusetranslator\AND\NOT\ifnameundef{translator}}
2013 {\ifthenelse{\iffieldequals{fullhash}{\bbx@lasthash}\AND
2014 \NOT\iffirstonpage\AND
2015 \(\NOT\boolean{bbx@inset}\OR
2016 \iffieldequalstr{entrysetcount}{1}\)}}
2017 {\bibnamedash}
2018 {\printnames[emisa:names]{translator}%
2019 \setunit{\addcomma\space}%
2020 \usebibmacro{bbx:savehash}}%
2021 \usebibmacro{translator+othersstrg}%
2022 \clearname{translator}%
2023 \setunit{\addspace}}%
2024 {\global\undef\bbx@lasthash
2025 \usebibmacro{labeltitle}%
2026 \setunit*{\addspace}}%
2027 \usebibmacro{date+extrayear}}

```

blisher+location+date

bibmacro

```

2028 \renewbibmacro*{publisher+location+date}{%
2029 \printlist{publisher}%

```

```

2030 \setunit*{\addcomma\space}%
2031 \printlist{location}%
2032 \newunit}

```

stitution+location+date

```

bibmacro 2033 \renewbibmacro*{institution+location+date}{%
2034 \printlist{institution}%
2035 \setunit*{\addcomma\space}%
2036 \printlist{location}%
2037 \newunit}

```

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

Localization

```

2038 \DefineBibliographyStrings{english}{%
2039 urlseen = {Last Access},
2040 techreport = {},%
2041 }%

2042 \DefineBibliographyStrings{german}{%
2043 urlseen = {Letzter Zugriff},%
2044 techreport = {},%
2045 }%

2046 \DefineBibliographyStrings{ngerman}{%
2047 urlseen = {Letzter Zugriff},%
2048 techreport = {},%
2049 }%

```

Unlocalization

```

2050 % year/month/day
2051 \protected\def\mkbibdateiso#1#2#3{%
2052 \iffieldundef{#1}{}{%
2053 \thefield{#1}%
2054 \iffieldundef{#2}{}{-}%
2055 \iffieldundef{#2}{}{%
2056 \mkdatezeros{\thefield{#2}}%
2057 \iffieldundef{#3}{}{-}%
2058 \mkdatezeros{\thefield{#3}}%
2059 }%

2060 \DefineBibliographyExtras{english}{\let\mkbibdateshort\mkbibdateiso}%
2061 \DefineBibliographyExtras{german}{\let\mkbibdateshort\mkbibdateiso}%
2062 \DefineBibliographyExtras{ngerman}{\let\mkbibdateshort\mkbibdateiso}%

```

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

```

2063 </bbx>

```

17.10.2 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.

```
2064 <*cbx>

2065 \ProvidesFile{emisa.cbx}[2010/09/24 0.3 EMISA citation style]
2066 \RequireCitationStyle{authoryear-comp}
2067 \renewcommand*{\nameyear delim}{\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”.

```
2068 \DeclareRangeChars*{f}
```

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

```
2069 </cbx>
2070 </biblatex>
2071 <*class>
```

Here, the \LaTeX class EMISA ends.

```
2072 </class>
```

17.11 Examples and templates

17.11.1 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.

```
2073 <*template>
2074 <*article>
2075 \documentclass[]{emisa}
2076 %% You can use this additional option (e.g., "[english,draft]"):
2077 %% draft -- this marks overfull lines
2078 </article>
```

```

2079 \documentclass[final,cover]{emisa}
2080 \begin{document}
2081 %% The following package imports are recommended, but not obligatory;
2082 %% you might want take a look into their respective manuals if you
2083 %% don't know what they do.
2084 \usepackage{amsmath,amssymb,mathtools}
2085 %% Additional package imports go here:
2086 \end{document}
2087 \begin{document}
2088 %% Insert here issue data:
2089 \volume{}% Volume No.
2090 \issue{}{}% Issue No. and Issue Date
2091 %% If there are any bibliography data bases to be used globally
2092 %% please indicate here:
2093 \bibliography{}
2094 %% Insert here any (relative or absolute) path to be searched for
2095 %% graphics files:
2096 \graphicspath{{./figs_base/},{}}
2097 %% Here you can alter the cover pages; e.g. this:
2098 %% \coverII{\AtPageDeadCenter{Something}}
2099 %% typesets the word "Something" centered on the inner side of the
2100 %% front sheet.
2101 %% You can also delete any cover pages at all by defining them empty,
2102 %% see below:
2103 \coverII{}
2104 %% This outputs the SIG-MOBIS page on the inner side of the back
2105 %% sheet:
2106 \coverIII{\AtPageCenter{\sigmobispage}}
2107 \end{document}
2108 \begin{document}
2109 %% Here, the normal text begins.
2110 \begin{document}
2111 \end{document}
2112 \begin{document}
2113 \tableofcontents
2114
2115 \begin{editorial}
2116 %% Please insert editorial text here.
2117
2118 \end{editorial}
2119 \end{document}
2120 \begin{document}
2121 \begin{article}{}%
2122 %% Please declare the title elements of your article here. Unused
2123 %% elements can either be deleted or commented out, or else just let
2124 %% empty. In either case they are not typeset.
2125 %% If the option referee or review is given, all author tags, address,
2126 %% email and acknowledgements will be likewise omitted.
2127 \title{}

```

```

2128 \subtitle{}
2129 \author*{<Name>}{<Email address>}
2130 \address{address line 1\\address line 2}
2131 \author{Name}
2132 \address[a]{}
2133 \abstract{}
2134 \keywords{Keyword 1 \and keyword 2\and keyword 3}
2135 \authornote{This article extends an earlier conference paper, see ...}
2136 </article | issue>
2137 <*issue>
2138 \editor{My self}
2139 \received{24 October 2014}
2140 \accepted[2]{1 November 2015}
2141 \doi{10.5073/EMISA.2011.11.1}
2142 </issue>
2143 <*article | issue>
2144 \acknowledgements{}
2145 %% Please declare here the bibliography data base(s) you want to use
2146 %% in this article:
2147 \bibliography{}
2148 }
2149 %% Please insert your article text here.
2150
2151
2152
2153 %% This directive typesets the bibliography. To achieve this, one has
2154 %% to run the biber program on the corresponding auxiliary file
2155 %% generated in the previous LaTeX run; you can just use the job name
2156 %% (the name of this file without ".tex")", e.g.: biber emisa-author-template
2157 \printbibliography
2158 %
2159 \end{article}
2160 </article | issue>
2161 <*issue>
2162
2163 %% Please insert as much article environments here as are needed.
2164 \begin{article}{%
2165 \title{}
2166 \subtitle{}
2167 \author*{<Name>}{<Email address>}
2168 \address{address line 1\\address line 2}
2169 \author{Name}
2170 \address[a]{}
2171 \abstract{}
2172 \keywords{Keyword 1 \and keyword 2\and keyword 3}
2173 \authornote{This article extends an earlier conference paper, see ...}
2174 \acknowledgements{}
2175 \editor{My self}
2176 \received{24 October 2014}

```

```
2177 \accepted[2]{1 November 2015}
2178 \doi{10.5073/EMISA.2011.11.1}
2179 \bibliography{}
2180 }
2181
2182
2183 \printbibliography
2184 \end{article}
2185
2186 \begin{cfp}
2187 %% Please insert your Call for papers here.
2188 \end{cfp}
2189
2190 \imprint
2191 \editorialboard
2192 \guidelines
2193 </issue>
2194 <article | issue>\end{document}
2195 </template>
```