Aalto University

The aaltoseries class

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URL: https://version.aalto.fi/gitlab/latex/aaltoseries

Abstract

The aaltoseries class provides the LaTeX definitions to be used in publications published in the Aalto University publication series. The layout recommendations for the Aalto University publication series are implemented by the class. In addition, the class provides a selection of commands and environments for an easy-to-use access of the features of different publication types.

Contents

Notation used in this documentation   LaTeX code fragments given in this document use the `typewriter` (i.e., `monospace`) font. The color of a code fragment indicates the type of the code with the Aalto University gray corresponding to commands and variable naming conventions and the Aalto University (darker) green color corresponding to command or package variables and options.

Preface

Aalto University[2] has five publication series for university's own publications. Each of these series are dedicated for a certain topic. Three publication series are named after the large research and teaching topics of Aalto University and they are *Business + Economy*, *Art + Design + Architecture*, and *Science + Technology*. In addition, there is a series Crossover for multidisciplinary publications and a series *Doctoral Dissertations*, as its name suggests, for doctoral dissertations from all disciplines. In addition, in every publication series (except Dissertations) there are four *levels* each of which correspond to a certain type of publication. One of the publication types is *compiled works* which is used for article and essay collections, conference proceedings, etc. Another type is *report* which is dedicated for research reports, annual reports, etc. The two remaining types are dedicated for *study and teaching materials* and for *working papers*.

The aaltoseries class takes into account the different demands of the different publication types and therefore of the abovementioned publication types can be typeset using it. In addition, the class can be used to typeset an individual article of a compiled work and abstracts that contain special characters (like math) and/or formatting for the abovementioned publication types. The aaltoseries class implements the document layout guidelines of the Aalto University publication series and it provides commands and environments for an easy-to-use access of the features of different publication types.

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[1]This section is directly copied from the aaltologo package (used by the aaltoseries class for the official Aalto-LaTeX fonts) documentation.

[2]Webpage: http://www.aalto.fi/

The remainder of this document is organized as follows. In Section 1, a quick introduction to the use of the aaltoseries class is provided. Instructions on how to read the rest of documentation are also given. Section 2 presents the available class options that are used to control the available features of the class. The features that are common for all publication types one can produce with the aaltoseries class are presented in Section 3. Some standard commands that have been redefined to produce slightly different result than usually are also discussed. In Section 4, the features available only in a certain publication type (i.e. the publication series level) are introduced. The interfaces the aaltoseries provides to these features are also presented. Instructions to the use of the code examples accompanying this documentation, a troubleshooting guide, comments on the applicable math fonts that can be used with this class, and the customization interfaces to the features of the aaltoseries class are given in Appendix.

Installation

Put the aaltoseries class, i.e. the file named as `aaltoseries.cls`, to a place where LaTeX can find it. This means that you need to put the file either in the texmf tree (global installation) or in the folder that contains your source files (local installation only to those documents in that folder).

Note that the aaltoseries class uses the aaltologo package. Therefore, if you don't have the aaltologo package installed, you need to install that package too. The aaltologo package is available at the Aalto-LaTeX git repository, https://version.aalto.fi/gitlab/latex/aaltologo.

Publication licenses

The aaltoseries class The aaltoseries class, the file `aaltoseries.cls`, has been published under the Creative Commons Attribution No-Derivative license[3]. This means that you can use the class freely in your own documents but it also means that you cannot base your own Aalto University publication series class/package upon this class. However, you can use this class as an example in designing your own classes/packages that implement the publication series recommendations of another university or company.

The aaltoseries class documentation This document, the documentation for the aaltoseries class, has been published under the Creative Commons Attribution license[4]. This means that you can freely write your own documentation for the aaltoseries class based on this document as long as you give credit for the original documentation by citing it appropriately.

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[3]Available online at http://creativecommons.org/licenses/by-nd/1.0/

[4]Available online at http://creativecommons.org/licenses/by/1.0/

Changes

Version 1.2 [JP] The commands `\widefloatshift` and `\widetableshift` as well as the lengths `\widefloatwidth` and `\widetablewidth` are available. The option to typeset a note in the errata list before the contents of the first publication specific errata is enabled. A command to add a publication supplement (PDF) is introduced. A bug fix for the dissertation mode.

Version 1.2.1 [MV] Several bug fixes, and short version of chapter title now also used in page header, thanks Jussi Tarvainen. Added option `math` for using package fouriernc for better looking math. Better looking vertical layout – option `vertlayout` – and use of package microtype, thanks Hassan Naseri. Optional language-check note.

Version 1.2.2 [MV] Added the option `oneside` to allow single-sided output (nobody does that anymore).

Added the experimental option `pdfa`, to allow the use of the pdfx package for producing PDF/A ("archival format") output as required for long-term archival on the Internet.

Version 1.2.3 [MV] Added the elements List of Figures, List of Tables, Abbreviations and Symbols to the format, with correctly pointing entries in the table of contents and side panel for hyperref.

Version 1.1 Several bug fixes. Option to typeset abstracts that contain special characters (like math) and/or formatting. Option to suppress the page numbers from the publication information pages in article dissertations.

Version 1.1.1 Several bug fixes. Incompatibility with the hyperref package is fixed. New class options `nopagenumbers` and `abstracts` for special formatting, see Sections 2, 3.1.2, and 3.1.3 for further details.

Version 1.1.2 Bug fixes in commands `\widefigureshift`, `\adderrata`, and `\addcontribution`.

Version 1.0 Initial publication of the class. Offers the series layout definitions, the `preface` environment, and some specialized commands for the article collection, dissertation, and report series.

Versions 0.X Progress towards Version 1.0. Different features of Version 1.0 were introduced cumulatively.

Development plan   The features of the current version have been carefully designed and the interfaces to the available features has been designed to be as user-friendly as possible. However, if you would like to have a feature that is currently not implemented or you find the interface to a certain feature inaccessible, contact the class maintainer. Your feature or interface proposal(s) may be implemented in the future versions of the aaltoseries class.

1   Quick introduction to the use of the class

The aaltoseries class is taken into use using the standard LATEX document class definition command \documentclass. That is, you need to start your document preamble with

```
% Set the document class and its options
\documentclass[<class options>]{aaltoseries}
% Set required packages for input encoding etc.
\usepackage[<package options>]{<packages>}
% However, do not define font encoding nor any fonts!
```

so that you define the publication type by giving an appropriate class option. However, note that the aaltoseries class can be used also without class options. In that case the publication type is reverted to the default type. In addition, you can set the drafting mode on by giving an appropriate class option.

Note that the aaltoseries class uses the aaltologo package that implements the visual guidelines of Aalto University. This package is not a standard LATEX package, so you need to get it from the Aalto-LATEX git repository, https://version.aalto.fi/gitlab/latex/aaltologo. Since the aaltologo package is included automatically by the aaltoseries class, you don't need to include by yourself. The aaltologo package sets the document fonts and font encoding automatically. Note that this means that you are not allowed to define any fonts or the font encoding in the preamble[5].

The
aaltoseries
class *requires*
the aaltologo
package

If you nevertheless include, in your document, the call

```
\usepackage[school,institute names]{aaltologo}
```

you will get the error message "LATEX Error: Option clash for package aaltologo.". You can suppress this with the aaltoseries class option `nologo`.

Alternatively to including the above \usepackage command, just set the school or institute strings explicitly using, e.g.,

---

[5]However, you are allowed to change the math font, see Appendix C for further discussion on this.

```
\renewcommand\AaltoLogoSchool{ENG}
```

and the same for `\AaltoLogoInstitute`.

If you are writing in Finnish or Swedish (or in any other language) or if you are writing a multilingual publication, it is recommended that you use the babel package with an appropriate language option (`finnish` and `swedish`, respectively). With the use of the babel package some automatic texts (like the header for the table of contents) are automatically translated. Similarly, many automatic texts the aaltoseries class uses will also be translated. Note that if you give multiple language options to the babel package, the language given last will be set as the document language. The content of the publication is written between `\begin{document}` and `\end{document}` using the LaTeX commands and environments as usual, that is, by using the standard commands and environments, the commands and environments provided by the packages you have included, and the commands and environments the aaltoseries class provides. However, you should *not* use margin notes. Since the margins of the document produced with the aaltoseries class are quite narrow, there simply is not enough space for margin notes. For this reason, the standard command used to typeset margin notes have been redefined. Therefore, the commands provided by packages that extend the capabilities of typesetting margin notes may not produce the desired result, and hence they are *not* recommended to be included.

Not writing in English (only)?
```
\usepackage%
[<language>]%
{babel}
```

1.1 How to proceed in reading this document

First of all, read Section 2 for the options that you can use in selecting the type of your publication. Then read Section 3 to find out the features that are available or unavailable in your selected publication type.

If you are writing study/teaching material or a working paper, then you can start writing your publication. Otherwise you should read Section 4. If you are writing (or editing) a compiled work (for example, an article collection, essay collection, seminar proceedings, or conference proceedings), consult Section 4.1 for the features specific to the article collection mode of the class. If you are writing an individual article for a compiled work, see Section 4.2 for the available features. If you are writing a report (a research report, annual report, or a technical report), consult Section 4.3 that introduces the features available for reports. If you are writing a doctoral dissertation, Section 4.4 presents the available features for dissertations.

If you want to perform some customization of the publication type specific features, consults Appendix D for the customization reference guide.

2 Class options

The class accepts two kinds of options. The publication type is selected by giving the of the type name as a class option. The available publication type selection options are presented in Section 2.1. In addition to the type selection options, there are a few general options that can be used in (almost) all publication types, and they are discussed in Section 2.2. Section 2.2 also presents two dissertation-specific options. Multiple options can be given, separated by commas.

2.1 Publication type selection options

As mentioned above, the publication type is selected by giving the type name as a class option. The available type selection options are

Select the publication type

- `articlecollection` for compiled works,

- `dissertation` for doctoral dissertations,

- `report` for reports,

- `teachingmaterial` for teaching and study materials, and

- `workingpaper` for working papers.

If the publication type option is not given, the `report` option is used as the default publication type option. Note that if multiple publication types are given, the type given as the last option is taken into use.

2.1.1 Individual articles

In addition, since the aaltoseries class can be used to typeset individual articles for a compiled work, there is also an option

- `article`

Select the publication type that sets the class to provide the features specific to individual articles.

2.1.2 Generating abstracts for the publication platform

The aaltoseries class also provides an option

- `abstracts`

with which abstracts that contain special characters (like math) and/or formatting can be typeset. This option is *intended to produce abstract pages for entry into the publication platform*, without margins!

Only the abstracts will be usable, the rest of the document will look a mess with this option.

For this special feature, see also Section 3.1.2.

2.2   General options

The aaltoseries class accepts a few general options that do not affect the selected publication type. These general options are

- `draft`,
- `draft`*,
- `final`,
- `nochapters`.
- `math`,
- `vertlayout`,
- `oneside`,
- `nologo`,

and

- `pdfa`.

However, these general options may affect the end result of the compilation depending on the publication type, as discussed next.

The option `draft` sets the draft mode on in the aaltoseries class and in all included packages that have a draft mode. However, it does not affect the layout or any other typographic setting of the manuscript. This option has three effects on the aaltoseries class. First, it automatically includes the manuscript information on the first page. Second, it enables the author to include an abstract for the draft version of the manuscript, see Section 3.4 for further information. Third, it affects the inclusion of PDF articles in the article collection and dissertation modes. For this special behavior, consult Sections 4.1 and 4.4.   Drafting

The option `draft*` (note the asterisk) sets the draft mode on only in the aaltoseries class. The other included packages are typically included with their "final" mode on. However, if an included package accepts an option `draft*`, this option is also passed to that package.

The class option `final` is the negation of `draft` and `draft*`. If multiple drafting options are given, the mode defined by the option given as the last is selected.

The option `nochapters` affects how the sections of the publication are numbered. The aaltoseries class enables one to use chapters (see Section 3.2 for further information) which causes sections (and subsections), figures, tables, and equations to have the chapter number also in their numbering. If you are writing a very short publication that has only a few sections and you don't want to use chapters, you can drop the chapter number from the section numbering by giving the `nochapters` option to the class.

Numbering of sections

Typically chapters are used in these kinds of publications. However, in the *article collection* mode (obtained with the `articlecollection` class option) and in the *individual article* mode (the `article` class option) the effects of the `nochapters` option are taken into use automatically. This is due to the fact that the titles of the individual articles are typeset using the "starred" (unnumbered) `\chapter` command. In addition, in the *dissertation* mode (obtained with the `dissertation` class option) chapters are always used, and hence the `nochapters` option does not have any effect.

The option `math` sets fouriernc as the math font package, being a good match for the *New Century Schoolbook* text font.

Math, fouriernc

The option `vertlayout` makes the vertical layout, especially the page headers and footers and line spacing, a bit more harmonious-looking. Thanks Hassan Naseri.

Vertical layout

The option `oneside` allows the document to be output using only one side of the paper, as used to be the practice for dissertation manuscripts.

Onesided text

In addition, the aaltoseries class accepts an option

Suppressing Author's Contribution listing in article dissertations

- `nocontribution`

that suppresses the Author's Contribution list that would automatically printed after the List of Publications in article dissertations. More information about this class option is given in Section 4.4. In other publication types this option has no effect.

Furthermore, the aaltoseries class accepts an option

Suppressing the page numbers from the publication information pages in article dissertations

- `nopagenumbers`

that suppresses the page numbers from the publication information pages in article dissertations. In other publication types this option has no effect.

2.3 PDF/A

The option `pdfa` allows the output of a document in PDF/A format as required for archival storage on the Internet. This format aims to be self-contained, unambiguous, and readily indexable by search engines.

PDF/A output

For this, the LaTeX package pdfx is called with the option `a-1b`. It requires the creation of a file

```
<mydoc>.xmpdata
```

containing relevant metadata decribing the document, it origin and contents. Here, `<mydoc>` should be substituted by the LaTeX name of your document file, e.g., `dissertation.xmpdata`.

A further file needed is

```
sRGB_IEC61966-2-1_black_scaled.icc
```

containing a colour profile kindly provided by the International Color Consortium (© 2009). Both of these files should be placed in your working directory, or another place where LaTeX finds it[6].

It should be noted that this feature is currently *rather immature*[7], as well as only available in recent LaTeX distributions:

1. Validators for PDF/A compatibility, like the one Aalto recommends, PDF Tools Online, may reject the file produced. Don't take this too negatively: both the metadata included and the way the UTF8 text content is formatted, will make your document file more search-engine friendly, even if not 100% compliant.

2. The package pdfx on which this is based, will pre-load `hyperref` and `inputenc`. This may interfere with some things, so you have to load your own options with the `\hypersetup` and `\inputencoding` commands. See the convoluted logic at the start of `examples/dissertation.tex` for illustration.

3. The option may cause trouble when using LyX, because of the `hyperref` issue. If you run into that, you may want to

    (a) export to `.tex`, edit the file in a text editor, and run `pdflatex` and your preferred bibliography and indexing packages from the command line instead.

    (b) alternatively, include to the end of aaltoseries.cls the following stanza which silences the LyX/LaTeX error:

---

[6]On the Aalto servers, you may run into the problem that the colour profile file is not found though it is present in your working directory. Then, place the colour profile file (like the above mentioned `sRGB_IEC61966-2-1_black_scaled.icc`) into `~/texmf/tex/latex` under your home directory. Create these three directories as needed.

[7]Problems that may be detected by the PDF Tools Online validator include non-embedded fonts and colour transparency (disallowed). Also it may complain about "A device-specific color space" not having "an appropriate output intent". All these are typically related to images.

```
\usepackage{silence}
\ErrorFilter{latex}{Option clash for package hyperref}
\ActivateErrorFilters[latex]
```

With LyX, you should also turn off the use of hyperref (in document settings ▷ PDF properties), as well as inputenc (in document settings ▷ Language), as pdfx calls these packages itself.

4. The presence of non-embedded fonts in PDF image files may be detected by the utility pdffonts, and fixed by

```
pdf2ps <img>.pdf
ps2pdf14 -dPDFSETTINGS=/prepress <img>.ps <outimg>.pdf
```

and, after visually verifying the output image, renaming it to the original.

In the XFig software, use always LaTeX fonts, never PostScript$^{\text{TM}}$ fonts.

5. Also colour transparency is typically brought in by image files. For PNG files, transparency may be removed in the GIMP, by "Layer ▷ Transparency ▷ Remove alpha channel".

6. PDF Tools Online may complain about font character widths, especially if you chose the `math` option for using the fouriernc math font package. The problem appears caused by special math symbols that are built from pieces, like the big square brackets around matrices, and have a glyph width of zero which is disallowed.

A fix for the fouriernc problem has been introduced: "shadow copies" of `fourier.sty` and `fouriernc.sty` have been created from which the support for gyttFourier-Math-Extension has been removed. Computer Modern glyps will be used instead. The two files, `fourier2.sty` and `fouriernc2.sty`, should be in a place where LaTeX finds them, e.g., the working directory.

3   Features common to all publication types

In this section, the features that are common to all publication types are discussed. In Section 3.1, the use of some standard LaTeX commands and environments are discussed. Section 3.2 presents the available sectioning commands. In Section 3.3, the preface environment is introduced, and Section 3.4 presents the draft mode features of the class.

3.1 On the use of standard LaTeX commands and environments

All standard LaTeX commands and environments, like `\footnote`, `\LaTeX`, and `itemize`, are available in the aaltoseries class. However, the use of some of them may not be reasonable in some publication types. Therefore, it is the duty of the author (or the editor) to make sure that the publication is produced using reasonable commands and environments.

3.1.1 Standard commands that have been redefined

There are two commands that have been redefined to have a slightly different end result than normally. The first is the `\maketitle` command that is used to print the document information. For the most publication types this command has been redefined to do nothing because the information pages are typeset using the Aalto publication platform[8]. However, in the article collection mode this command is used to print the information of individual articles. Therefore, it is not recommend to be used in the beginning of the document in the article collection mode. For this special behavior in the article collection mode, consult Section 4.1. Similarly, in the *individual article* mode the `\maketitle` command typesets the information of the article, see Section 4.2.

`\maketitle`

It should also be noted that commands `\author`, `\title`, and `\date` are typically meaningful only with the `\maketitle` command. However, in the aaltoseries class, the `\author` and `\title` commands are meaningful for drafting of the publication manuscript (see Section 3.4). Therefore, it is recommended that these commands are used in the document *preamble*. By doing so the requirement of using the `\author` command before the `preface` environment (presented in Section 3.3) is also fulfilled. The `\date` command is meaningful only in the preface environment, and hence it should also be used in the document preamble. If it is not invoked, the date field that is printed by the `preface` environment is reverted to value given by `\today`.

`\author`
`\title`
`\date`

In addition to the drafting of the publication manuscript, the `\author` and `\title` commands can be used in the *article collection* and the *individual article* modes to modify the information of individual articles, see Sections 4.1 and 4.2 for further information.

The second redefined command is the `\marginpar` command that is used to typeset its argument in the (outer) margin of the document (as seen here). However, as mentioned in Section 1, the margins in the Aalto publication series guidelines that the aaltoseries class implements are quite narrow, so there is not enough space for margin notes. Therefore, the `\marginpar` command has been redefined to produce a *footnote* of its argument, i.e. it

`\marginpar`

---

[8]See https://inside.aalto.fi/display/AboutAalto/Aalto+publication+series for further information (requires Aalto login).

is equal to `\footnote{<argument>}`. Note that the `\marginpar` command also accepts an optional argument that is typeset in the left margin whereas the second (the "normal") argument is typeset in the right margin. In this form of the command both arguments are typeset as individual footnotes by the aaltoseries class.

3.1.2 The `abstract` environment

The use of the `abstract` environment is a bifolded issue. In all publication types the abstract(s) that appear in the beginning of the publication are typeset using the Aalto publication platform. Therefore, it is not recommended that the `abstract` environment is used in the beginning of the document.

<div class="marginnote">abstract</div>

However, the `abstract` environment can be used inside the document. Typically this is not reasonable and hence not recommended, but for example the abstract(s) of an individual article in a compiled work can be typeset using the `abstract` environment. In fact, it is recommended that the abstracts of the individual articles are typeset using the abstract environment.

<div class="marginnote">The abstract environment in individual articles</div>

Note, however, that the publication platform does not support special characters, like mathematical and chemical symbols, or special formatting, like bolding. To have such abstracts in your publication, the publication platform allows you to upload the abstract as a PDF document. The aaltoseries class allows the user to generate these PDF documents when you give the class option `abstracts`. However, in that case the document cannot contain other material because the PDF abstracts have a special page size.

<div class="marginnote">Publication abstracts containing special characters and/or formatting</div>

When you need to typeset these special abstracts, it is required that you use the `abstract` environment. If you need to typeset the abstract using a language that is not the document language, you can either select the language before the abstract contents using command `\selectlanguage` or by giving the language as an optional argument for the `abstract` environment in square brackets. In other words, these abstracts are typeset either

```
\begin{abstract}
\selectlanguage{<language>}% Add a comment after the command
Abstract text...
\end{abstract}
```

or

```
\begin{abstract}[<language>]
Abstract text...
\end{abstract}
```

Note that you should add a comment mark (that is, %) immediately after the `\selectlanguage` command to suppress possible spaces that would be typeset before the abstract text. The language change given for the `abstract` environment is temporary, i.e. it applies only for the abstract.

3.1.3 Page numbering

Since the first pages (information and the abstracts) are typeset in the Aalto publication platform, the publication platform adds a few pages to the resulting final publication. If you want to take these pages into account in the page numbering, you need to set the page number counter by yourself using the `\setcounter{page}{<value>}` command *immediately* after `\begin{document}`.

The number of pages to be added depends on how many pages are typeset with the publication platform. Therefore it is the duty of the author/editor to ensure that the page number is set correctly. Furthermore, remember to compile the document twice to get the page number references (for example in the entries of Table of Contents) right.

If you are writing an article dissertation and you want to suppress the page numbers from the publication information pages, you need to give the class option `nopagenumbers`. Normally the publication information pages are paginated.

3.1.4 Bibliography and citation style

The aaltoseries class leaves the choice of the citation style to the author. In addition, it does not prefer the thebibliography environment over the `\bibliography` command. Both of these approaches begin an unnumbered chapter[9] with a header **Bibliography**. If the document language is changed to Finnish or Swedish using the babel package, the bibliography header is automatically translated[10]. If you want to change the default header, this can be done by calling `\renewcommand{\bibname}{<header>}`.

3.1.5 Quotes, quotations, and verses

You can use the `quote`, `quotation`, and `verse` environments to typeset (short, single-paragraph) quotes, (long, multi-paragraph) quotations, and verses, respectively, as usually is done in LaTeX documents. However, note that it is recommended that the text following these environments is not indented. Therefore, you should either use command `\noindent` before the paragraph following the environment or you start writing the paragraph immediately from the next line following the `\end{<environment>}` command. The latter can also be performed by putting the comment mark (that is, %) to the empty lines between the environment end and the beginning of the paragraph.

---

[9]If the `nochapters` class option is used, they start an unnumbered section.

[10]In Finnish **Kirjallisuutta**, in Swedish **Litteraturförteckning**. Other languages are supported if the babel package, or the document author, provides the translation.

3.1.6 Lists

Similarly, the paragraph following a list, i.e., one of `itemize`, `enumerate`, and `description`, should not be indented. Therefore, the comments concerning the quotes and quotations apply also for lists. In addition, it is recommended that if the list contains only items whose contents do not span over multiple lines, the items should follow each other without any additional space between the items. By default, the aaltoseries class automatically assumes that the item contents span over multiple lines, and hence it puts an empty line between list items. This assumption is on in all list depths (a list within a list). If your list contains *only* single-line items, you should use the command `\setlength{\itemsep}{0mm}` *after* the list beginning and *before* the first item. However, if your list contains both single-line and multi-line items, this `\itemsep` length redefinition *should not be* done. Similarly, if your list contains nested lists of which some items span over multiple lines, the `\itemsep` length *should not be* redefined.

<div style="float:right">`itemize`
`enumerate`
`description`</div>

The single-line lists can also be typeset using environments `singleitems` and `singleenums`. These environments are simply wrapper environments that start (and close) the `itemize` or `enumerate` environments, respectively, and that set the `\itemsep` length to zero.

<div style="float:right">`singleitems`
`singleenums`</div>

When you want to continue a numbered list (`enumerate`) after a text paragraph, you shouldn't use a special package to do that. Instead, you should give a command `\setcounter{<cntr>}{<value>}`, where `<cntr>` is the enumerated list counter, i.e.

<div style="float:right">Continued
`enumerate` lists</div>

- `enumi` for the first level enumerated lists,

- `enumii` for the second level enumerated lists,

- `enumiii` for the third level enumerated lists, or

- `enumiv` for the fourth level enumerated lists,

and `<value>` is the value of the *last item entry* in the previous list that is continued, after the `\begin{enumerate}` (or `\begin{singleenum}`) line and before the first `\item` of the list.

If you want to change the formatting of the "numbers" in the numbered list (`enumerate`), you should redefine commands

<div style="float:right">Formatting of
the `enumerate`
"numbers"</div>

- `\labelenumi` for the first level enumerate lists,

- `\labelenumii` for the second level enumerate lists,

- `\labelenumiii` for the third level enumerate lists, and

- `\labelenumiv` for the fourth level enumerate lists

using the `\renewcommand` command. For example, the numbering of the first level numbered list is changed to uppercase alphabets by invoking a command `\renewcommand{\labelenumi}{\Alph{enumi}}`.

Similarly, if you want to change the formatting of the bullets in the unnumbered list, you should redefine commands

- `\labelitemi` for the first level itemize lists,

- `\labelitemii` for the second level itemize lists,

- `\labelitemiii` for the third level itemize lists, and

- `\labelitemiv` for the fourth level itemize lists.

3.1.7 Floats: Figures, tables, etc.

Figures and tables, as well as any other floats, can be typeset as is normally done in LaTeX. However, the Aalto publication series guidelines allow one to extend the floats to inner margin so that the distance from the float edge to the inner side of the paper is equal to the outer margin. To do so, the float contents need to shifted to the left in odd pages (but not on even pages) and the float width needs to be specified to be overwide. The aaltoseries class provides a command for the required shift, and the command checks whether the page number is odd on the page where the float is put and shifts the float if needed. In addition, the aaltoseries class offers a length for the width of the oversized float.

The shifting command is `\widefloatshift[<scale>]` where the optional argument is a scaling factor of the shift. The default value of the scaling factor is one. If the scaling factor is negative, the command does not perform the shift, and if the scaling factor is larger than one, it is set to one. This command should be given immediately before the float inclusion command or immediately before the environment that you use to typeset the float. Note that this command is *required* to be given if the float is desired to be oversized. Moreover, note that when you add an oversized float, you need to compile your document twice to see the effect if the float will be typeset on an odd page.

The width of the oversized float is `\widefloatwidth`. Note that this length depends on the scaling factor given to the `\widefloatshift` command. The `\widefloatwidth` length is given as the width argument for the float inclusion command or for the float typesetting environment (if supported by the command or the environment).

In addition, the aaltoseries class provides the commands `\widefigureshift` and `\widetableshift`, which are aliases to `\widefloatshift`. Furthermore are defined the lengths `\widefigurewidth` and `\widetablewidth`, which are aliases to `\widefloatwidth`.

A typical example of the overwide float is a wide figure. In that case, you need to give the shifting command immediately before the command you use to include the figure (like `\includegraphics`) or the environment that you use to draw the figure yourself (like `tikzpicture`). Note that if you are including a float that has subfloats (typically using the commands the subfigure package offers), you need to give the shifting command before the first command that you use to specify a subfloat (like `\subfigure` or `\subtable`).

Similar to quotes, quotations, verses, and lists, if the float is put in the middle of the page (i.e. there are text paragraphs above and below the float), the paragraph following the float is not recommended to be indented (see Sections 3.1.5 and 3.1.6 above). Note that this recommendation applies also in cases where the float is at the top of the page and when it is followed by a newly started paragraph.

Using wrapfigure The package wrapfigure is reported not to work properly with aaltoseries. David Ing reports that the package floatflt, which serves the same purpose, does work – with a little tinkering. It allows a narrow figure to be placed at the margin with text flowing around it.

3.2   Sectioning commands

The aaltoseries class is based on the standard report class. Therefore, the available commands for structuring the publication into chapters, sections etc. are `\part`, `\chapter`, `\section`, `\subsection`, `\subsubsection`, `\paragraph`, and `\subparagraph`, and their corresponding "starred", i.e., unnumbered, versions `\part*`, `\chapter*`, `\section*`, `\subsection*`, `\subsubsection*`, `\paragraph*`, and `\subparagraph*`.

Sectioning commands

However, note that the normal sectioning commands are numbered until the second level[11] (i.e. `\subsection`). This is set according to the typographic guidelines of the Aalto publication series, and therefore it is recommended that the section number depth (counter `secnumdepth`) is not modified.

Furthermore, you should note that in some publication types some of the sectioning commands have a special meaning. Therefore it is recommended that you read first the parts of this documentation that deal with the publication type you are writing to check out the special features of the sectioning commands related to your publication.

3.3   The `preface` environment

The aaltoseries class provides an environment for typesetting the preface of the publication, and this environment is, surprisingly, `preface`. The `preface`

preface

---

[11]In terms of LaTeX sectioning levels, i.e. the value of the `secnumdepth` counter.

environment accepts one optional argument that is given in square brackets, i.e. the environment begins with `\begin{preface}[<option>]`. The optional argument is used to annotate the location where the publication is written (since prefaces typically end with this information). If the optional argument is not given, the location is reverted to the default location **Helsinki**, which is the *official* hometown of Aalto University[12]. The `preface` environment starts an unnumbered chapter to which it typesets the contents of the environment. The header of the chapter which the `preface` command creates is by default **Preface**. However, if the document language is changed to Finnish or Swedish using the babel package, the preface header is automatically translated[13]. Similarly, if the document language is changed to Swedish using the babel package, the default location is automatically translated to **Helsingfors**, the Swedish name of Helsinki.

After the contents of the environment, the `preface` environment automatically typesets the location (as discussed above) and the argument given to the `\date` command (or the day of compilation, if the `\date` command is not used), separated by a comma. Below the location and the date, the `preface` environment typesets the author's name, if the `\author` command has been used before the environment.

For example, the `preface` environment call

```
\author{John Doe}
\begin{preface}[Ouagadougou, Burkina Faso]
Preface text
%...
\end{preface}
```

results in

Ouagadougou, Burkina Faso, March 11, 2012,

John Doe

Note that the date was not set in the code, and therefore it reverted to the day of the compilation of this example (the day when this documentation was compiled). If the optional location is omitted, e.g.,

```
\author{Maija Meikäläinen}
\date{June 1, 2050}
% The date is set now \begin{preface}
Preface text
```

---

[12]In fact, the registered domicile of the Aalto University Foundation, https://goo.gl/gXyeGT.
[13]In Finnish **Esipuhe**, in Swedish **Förord**. Other languages are supported if the babel package, or the document author, provides the translation.

```
%...
\end{preface}
```

would result the following preface ending:

Helsinki, June 1, 2050,

Maija Meikäläinen

3.4 Drafting: manuscript information and the `\draftabstract` command

If the draft mode option `draft` or `draft*` is given to the aaltoseries class, the class automatically inserts the document title and author and the current date on the first page together with a note that the document is a draft. The contents of the document are typeset from the second page on. With this feature, the publication manuscript compiled with the draft mode on always carries the information of what document it is. Since this feature typesets the document title and author, they are recommended to be defined in the document preamble. In the final mode the document information is not typeset.

Document information in the draft mode

Since the abstract(s) appearing in the beginning of the publication are normally typeset using the Aalto publication platform (see Section 3.1.2), the `abstract` environment is not recommended to be used in the beginning of the document. However, for drafting purposes the aaltoseries class provides a command that typesets its argument only when the draft mode is on. This command is `\draftabstract`. The `\draftabstract` command can also take an optional argument that is the language of the abstract. If the babel package is included, the abstract header (i.e. **Abstract**) is translated[14] and the hyphenation of the abstract text is changed to follow the guidelines of the given language. If the optional argument is not given, the document language is used. The language change given for the `\draftabstract` command is temporary, i.e. it applies only for the abstract.

`\draftabstract`

In the final mode the `\draftabstract` command does not typeset its contents, which means that you don't need to remove the commands from the final version of the manuscript.

4 Publication type specific features

In this section, the features that are specific only to a certain publication type are introduced. If you are writing (or editing) a compiled work (for ex-

---

[14]In Finnish **Tiivistelmä**, in Swedish **Sammanfattning**. Other languages are supported if the babel package, or the document author, provides the translation.

ample, an article collection, essay collection, seminar proceedings, or conference proceedings), consult Section 4.1 for the features specific to the article collection mode of the class. If you are writing an individual article for a compiled work, see Section 4.2 for the available features. If you are writing a report (a research report, annual report, or a technical report), Section 4.3 introduces the features available for reports. If you are writing a doctoral dissertation, Section 4.4 presents the available features for dissertations.

If you want to perform some customization of the publication type specific features, consults Appendix D for the reference guide.

4.1 Article collections

In the other use of the aaltoseries class, the table of contents (obtained with the `\tableofcontents` command) contains the headers of all numbered sections. However, in the article collection mode, the table of contents contains only the two highest levels of sections (i.e. `part` and `chapter`). Since the titles of individual articles are of the `chapter` level, they appear automatically in the table of contents. In addition to the titles of the articles, the table of contents contains also the authors of the articles below the article title.

`\tableofcontents`

There are two ways to include individual articles to an article collection. In the first approach, the contents of the individual articles are typeset in LaTeX, and the article collection mode features related to that alternative are discussed in Section 4.1.1. The other approach includes readily typeset articles in PDF format to the collection. The easy to use interface the aaltoseries class provides is presented in Section 4.1.2.

4.1.1 Writing the individual articles directly to the document

As discussed in Section 3.1, the article collection mode of the aaltoseries class enables you to use the `\maketitle` command to typeset the information of individual articles, essays, etc. The authors and the titles of the individual articles are set using the `\author` and `\title` commands. In addition, the aaltoseries class provides the `\affiliation` command for including the author's affiliation to the article information. If an article has more than one author and their affiliations are different, the authoraffiliation pairs can be distinguished using the `\aff` command. Note that the `\title`, `\author`, and `\affiliation` command should be used *before* the `\maketitle` command to get the article information correct.

`\maketitle`

`\author`
`\title`
`\affiliation`

`\aff`

If you want to give the article a label with which you can refer to it in the text, you need to give as an optional argument to the `\maketitle` command, i.e. `\maketitle[<label>]`. Further information on referring to the articles in a compiled work is given in Section 4.1.3.

All authors are written into the argument of the `\author` command and the distinction is done by inserting the \aff command, which typesets its argu-

ment in superscript, after the author's names. All affiliations are written into the argument of the `\affiliation` command with the `\aff` commands preceeding the distinct affiliations. In order to avoid confusion, the argument given to the \aff command that is associated to a certain pair (or pairs) should be the same both in the `\author` and `\affiliation` commands.

However, it should be noted that in the article collection mode the aaltoseries class puts automatically the author(s) and the title of the individual articles into the running header. Therefore, if the `\aff` command is used in the argument of the `\author` command, the affiliation markers are also typeset in the running header. In order to avoid this, the affiliation markers should be removed by calling the \author command with an optional argument that does not use the \aff command, i.e., `\author[Author list without \aff` `\author` `commands]{Author list with \aff commands}`. In addition, with the optional argument the affiliation markers are removed from the author list appearing in the table of contents (see above). '

On the other hand, the running header can overflow if the combination of the author list and the title is too wide. In that case, the title can be shortened by calling the \title command with an optional argument, i.e., `\title[Short title]{Long title that would overflow}`. Similarly, the au- `\title` thor list appearing in the running header can be shortened[15] with the optional argument of the `\author` command as described above. However, it should be noted that the title of the article appearing in the table of contents is the long form.

Obviously, the article contents can be contained in a separate `.tex` file that is included to the main document (the collection) using the file input command `\input{<filename>}` where the argument is the path to the `.tex` file. However, in that case make sure that either the included file contains the necessary commands or that you invoke them before the inclusion command in the main document.

The use of the `\tableofcontents` command is discouraged in individual arti- `\tableofcontents` cles as it does not produce the desired outcome. This also means that if the article contents are in a separate `.tex` file, the file should not contain the `\tableofcontents` command. However, if the table of contents of individual articles are desired to be used, it can be generated with the help of the titletoc package that enables you to create partial table of contents[16]. The use of this feature is quite advanced, and therefore you should use it only if you know what you are doing.

---

[15]As a rule of thumb, use the last names if there are less than three authors. If there are three or more authors, use the last name of the first author followed by et al.

[16]Consult the documentation of the titlesec and titletoc packages, available online at http://www.ctan.org/tex-archive/macros/latex/contrib/titlesec/titlesec.pdf.

4.1.2   Including PDF articles into the document

If the articles that you are including in the collection are readily available in PDF format, the aaltoseries provides you an easy to use interface to include articles correctly. The command the class provides is   `\addpdfarticle`

```
\addpdfarticle[<pdfpages_options>]%
{<filename>}{<label>}%
{Full Title}{Full Author (List)}%
{Short Title}{Short Author (List)}
```

where

`<pdfpages_options>` (optional) provides optional arguments for the actual PDF inclusion command (see below),

`<filename>` is the name of the PDF file that you are including,

`<label>` is a label with which you can refer to the publication (see Section 4.1.3),

`Full Title` is, as the name suggests, the full title of the article,

`Full Author (List)` is the full author (list) of the article without any affiliation markings,

`Short Title` is the short title that appears in the running header, and

`Short Author` (List) is the short author (list), without any affiliation markings, that appears in the running header.

If the short title and the short author (list) arguments are empty[17], they are reverted to the corresponding full version. The full title and the full author (list) are included to the table of contents automatically.

Note that the `\addpdfarticle` command automatically includes all pages of the PDF file and this cannot be modified. If you want to skip some of the pages or to include only a part of the PDF file, you need to do these selections externally, e.g. by printing the desired pages to another PDF file with a PDF reader application. Furthermore, the `\addpdfarticle` command fits the PDF to the A4 paper size that is used by the aaltoseries class. However, if you want to do minor processing for the PDF file before it is included, give the processing commands in the optional argument[18]. Note, however, that these processing commands are applied to all pages of the PDF file.

---

[17]They, however, are *required* arguments in the command.

[18]Consult the documentation of the pdfpages package (available online at `http://www.ctan.org/tex-archive/macros/latex/contrib/pdfpages/pdfpages.pdf`) for detailed listing of available options.

Moreover, it should be noted that the `\addpdfarticle` command typesets the page number and the running header on top of the included PDF file. Therefore, the author(s) of the individual articles should be advised to keep both the top and bottom margins large enough[19] to prevent the running header and the page number to be inserted over the content of the article. In addition, the author(s) of individual articles should be advised not to paginate their articles. Otherwise the article pages would contain two page number.

If you are using this command, remember that the document needs to be compiled using the pdfLATEX compiler. Otherwise, the aaltoseries class casts a warning and the PDF pages won't be included. Moreover, a reminder text will appear on the page where the first page of the PDF file would have been included.

4.1.3 Referring to a specific article

The aaltoseries class provides four different commands that can be used to refer to an article that is included to the document using either method described above. A `\refart` command takes the label of the article to be referred to as an argument and prints the full title of the article. The short title is printed with a `\ra` command. If the authors of an article are wanted to be referred to, a `\refartauth` command prints the short author (list). Note that the short author printout does not contain the affiliation markings, and therefore it is used.

`\refart`

`\ra`
`\refartauth`

The reference commands that print the title of the article accept also an optional argument with which the reference can further specified to, for instance, a certain page, section, or figure. If the optional argument is given, the specified reference is typeset without additional formatting after the basic form of the reference separated by a comma.

In addition, the articles can be referred to using the standard LATEX reference command `\ref`. This command will produce exactly the same output as the `\refart` command. Furthermore, the page number from which the publication begins can be referred to with the standard LATEX command `\pageref`.

`\ref`

`\pageref`

4.2 Individual articles

Writing an individual article for an article collection (or like) using the aaltoseries class is done like writing the article directly to the document. Therefore, the guidelines given in Section 4.1.1 also apply for individual articles.

---

[19]Absolute minimum measures: top 0.7 cm; bottom 1.6 cm. Suggested (minimum) measures: top 1.2 cm; bottom: 2.3 cm.

4.3   Reports

When several authors are writing a report publication and it is required that the authors of the chapters are indicated somehow, the author of a chapter can be included with a \chapterauthor command. The command argument is typeset below the chapter header, and as the argument any properly formatted LaTeX text or code is accepted. That means that if the chapter author affiliation is also wanted to be included, the affiliation information needs to be given and formatted in the \chapterauthor command argument.

\chapterauthor

4.4   Dissertations

The following features are available in the dissertation mode of the aaltoseries class. However, they are meaningful only to article dissertations. Therefore, if you are writing a monograph dissertation, this section does not provide you any further information. In that case you can start writing the dissertation immediately. If you are writing an article dissertation, i.e. a thesis that consists of an overview and a selection of publications, keep on reading the rest of this section.

4.4.1   Adding publications to the end of an article dissertation

The aaltoseries class provides a set of commands that are used to include publications to the end of an article dissertation. These commands are used to set the publication information, the dissertation author's contribution in that publication, and the publication's errata, and to include the publication PDF file.

The first command is used to set the publication information, and this command *needs to be the first command* when a new publication is added. This command, \addpublication takes eight (8) arguments and an optional argument that is used to specify that the publication is a part of a collection, e.g. conference proceedings, or that it is either accepted or submitted for publication. The full command call is

\addpublication

```
\addpublication[<type>]{Authors}%
{Publication title}{Publication media}%
{Detailed information}{Month}{Year}%
{Copyright owner}{<label>}
```

where

<type>, the optional argument, is used to indicate that the publication is an article in a collection or that it has been accepted or submitted for publication,

Authors is the author list of the publication,

Publication title is the title of the publication,

Publication media is the publication media where the publication has been published (that is, the journal name, the conference proceedings book name, the report series, etc.),

Detailed information is the detailed information of the publication in the publication media (volume and issue, page numbers, conference location, etc., if available),

Month and **Year** are the month and the year when the publication was published,

Copyright owner is the owner of the publication copyright, and

<label> is a label with which you can refer to the publication (see Section 4.4.3).

The `\addpublication` command prints the publication information page and puts the needed information available for certain commands (these are presented later in this section).

If the optional argument `<type>` is `conference`, the `\addpublication` command processes the publication to be added as an article that has appeared in a conference proceedings. In that case, the word 'in'[20] will be inserted before the publication media in the publication information. Note that this option also needs to be used for articles that appeared in other collections than conference proceedings.

Conference publications

When `accepted` is given as the optional argument, the publication to be added is processed as an article that has been accepted for publication. A phrase 'accepted for publication in'[21] will be inserted before the publication media in the publication information. Note that this option can be used for all publications.

Accepted publications

If the optional argument is `submitted`, the `\addpublication` command processes the publication to be added as an article that has been submitted for publication and that the paper is under review ~~if and only if the draft mode is set on~~. In that case, a phrase 'submitted to'[22] will be inserted before the publication media in the publication information. Note that this option can be used for all publications. ~~Moreover, it should be noted that the optional argument submitted can be used only in manuscripts that are~~

Submitted publications

---

[20]If the babel package is included and the language is Finnish, this word is **kirjassa**, and if the language is Swedish, it is **i**.

[21]This is also translated, if the babel package is used. In Finnish this phrase is **hyväksytty julkaistavaksi julkaisussa**, and in Swedish it is **accepterad för publicering i**.

[22]Again, if the babel package is used, this phrase is translated to **lähetetty julkaisuun** (Finnish) and **lämnats till** (Swedish).

~~submitted for pre-examination. Therefore, if the draft mode is not used, the paper is considered as published~~[23].

When a submitted paper is included, it does not have detailed publication information (journal volume and issue, page numbers, etc.) available. Similarly, this information may not be available for accepted publications.

In that case, the `Detailed information` argument can be left blank, which suppresses the printing of this information. The submission or acceptance date can be given in the `Month` argument.

Note that if the optional argument is omitted or it is not `conference`, `accepted`, or `submitted`, the regular mode of the publication information is used.

The publication information page contains a header **Publication X**, where X is a Roman numeral that corresponds to the publication number, below which the publication information is typeset. Below the publication information, the copyright owner is acknowledged, followed by a note **Reprinted with permission**, if the paper has been published or it is accepted for publication. For submitted publications the copyright information is not printed. If the document language is changed to Finnish or Swedish using the babel package, the automatic texts of the publication information page are automatically translated[24]. In addition to the textual content described above, the publication information has a black box in the outer margin to mark the beginning of a publication.

After the `\addpublication` command you can give the author's contribution in the given publication with a command `\addcontribution{<text>}`. The contribution is written in the command argument. In addition, if the current publication has been found to contain errors, these are annotated with a command `\adderrata{<errors>}`, where the errors are given as a properly formatted LaTeX text in the command argument. The order in which these two commands are called is irrelevant. However, they need to appear after the corresponding `\addpublication` command.

Finally, the article PDF is included after the abovementioned commands using the command

```
\addpublicationpdf[<pdf_options>]{filename}
```

where

`<pdf_options>` contains the optional arguments for the actual PDF inclusion command (see below) and

`filename` is the name of the PDF file that you are including.

---

[23]Starting from version 1.2.1, it is possible to use 'submitted' also for the final version, as the rules in some Aalto schools have changed to allow this.

[24]In Finnish **Julkaisu** and **Julkaistu luvalla**, in Swedish **Publikation** and **Publiceras med tillstånd**. Other languages are not supported at the moment.

Since the `\addpublicationpdf` command uses the pdfpages package internally to include the PDF files, you can give any of the available options that the pdfpages package's command accepts[25].

It should be noted that the margins of publication can differ quite much from the margins of the introductory part of the disseration. However, it is not necessary to shift the pages of the PDF publications as long as the inner margin is large enough. In practice, this means that the inner margin should be at least 1.5 centimeters, which is usually the case. If the inner margin is too narrow, the author should use the \includepdf command the pdfpages package provides to include the publication pages separately with appropriate offsets.

If you are having a publication that has supplementary material that also needs to be added to the dissertation, you can include it as a PDF using a command `\addsupplementpdf`

```
\addsupplementpdf[<pdf_options>]{filename}
```

where

`<pdf_options>` contains the optional arguments for the actual PDF inclusion command and

`filename` is the name of the PDF file that you are including.

The supplement PDF starts from the next page after the preceding publication.

4.4.2 Adding the list of publications, author's contribution list, and errata

The abovementioned commands that are used to define the publication information, the author's contribution in the publications, and the possible errata write the corresponding information into auxiliary files. These auxiliary files are processed by two commands that are used to typeset the list of publications, author's contribution list, and errata.

The first command, `\listofpublications`, processes the auxiliary files that `\listofpublications` contain the information of the publications and the author's contributions in the publications. Both of these files are typeset in lists that are automatically generated by the \listofpublications command. The list of publications starts an unnumbered chapter with a header List of Publications. After the header there is first an automatic text This thesis consists of an overview and of the following publications which are referred to in the text by their Roman numerals. The automatic text is followed by an ordered list of the

---

[25]Consult the pdfpages package documentation, available online at http://www.ctan.org/tex-archive/macros/latex/contrib/pdfpages/pdfpages.pdf.

publications that are numbered with Roman numerals. Again, if the document language is changed to Finnish or Swedish using the babel package, the automatic texts are automatically translated[26].

The `\listofpublications` command automatically generates the author's contribution list that starts an unnumbered chapter with a header Author's Contribution[27] if the class option `nocontribution` is not given. In the author's contribution list every publication is listed as a section header with a prefix **Publication X**[28], where X is the Roman numeral that corresponds to the publication number, that is followed by the publication title in double quotes. Below the publication title is given the author's contribution as given for the `\addcontribution` command.

If the class option `nocontribution` is given, the author's contribution list is not printed. In this case, it is the duty of the author to clearly indicate the author's contribution, for example, by listing the publications in the end of the introductory part of the thesis according to the author's preference. Typically this is done either in the end of the Introduction chapter or in a separate chapter that follows the Conclusion(s) chapter.

The second command, `\errata`, processes the auxiliary file that contains the errata information of the publications. Typically this command is invoked just before the publications are included. The `\errata` command starts an unnumbered chapter with header **Errata**[29]. In this chapter, the publications that have been given errata are listed with a section header **Publication X**[30], where X is the Roman numeral that corresponds to the publication number, followed by the corresponding errata as a (formatted) paragraph.

`\errata`

If you have a systematic error[31] in multiple publications you are adding, you can add this information to the errata list by giving the error description as an optional argument to the `\errata` command. The description you give will be typeset before the first publication-specific errata. In other words, if you invoke the `\errata` command as

```
\errata[<common errata>]
```

the errata page will include `<common errata>` after the chapter header **Errata** and before the first **Publication X** section header.

---

[26]In Finnish **Julkaisuluettelo** and **Tämä väitöskirja koostuu yhteenvedosta ja seuraavista julkaisuista, joihin viitataan tekstissä roomalaisin numeroin.**, in Swedish **Publikationförteckning** and **Denna doktorsavhandling består av en översikt och i följande publikationer som avses i texten som deras romerska siffror.** Other languages are not supported at the moment.

[27]The chapter header is automatically translated to Finnish (**Tekijän osuus**) or Swedish (**Författarens bidrag**) if the document language is changed using the babel package. Other languages are not supported at the moment.

[28]Translates to Finnish or Swedish if needed.

[29]The same in all languages.

[30]Also translated to Finnish and Swedish automatically.

[31]Hopefully only one or two errors.

4.4.3 Acknowledging the language check

As required by some schools, a note of acknowledgement and explanation on the language check will be added under the list of author's contributions. This note is triggered by calling the command

```
\languagecheck{<name of language checker>
```

before the `\listofpublications` command. The note will be in the babel language specified.

4.4.4 Referring to the publications

The aaltoseries class provides three commands for referring to the included publications. The first command, `\citepub{<publabel>}`, typesets a "long form" `\citepub` reference **Publication X**[32] where X is the Roman numeral that corresponds to the number of the publication that was given label `<publabel>`. A "short form" reference **PX**[33] can be obtained by using the second reference command `\cpub{<publabel>}`. The third reference command, i.e., `\cp{<publabel>}`, `\cpub` prints only the number of the publication. `\cp`

Note, however, that these commands do not support multiple references at the moment, i.e. the command could take several arguments separated by commas. Therefore, if multiple publications are desired to be referred to, it needs to typeset as

```
% The prefix needs to be given explicitly
Publications \cp{<label_of_the_first>}--\cp{<label_of_the_last>}
% Prints P<number_of_first>--<number_of_last>
\cpub{<label_of_the_first>}--\cp{<label_of_the_last
```

where the labels are selected as desired. The publication reference commands accept also an optional argument with which the reference can further specified to, for instance, a certain page, section, or figure. If the optional argument is given, the specified reference is typeset without additional formatting after the basic form of the reference separated by a comma. Note, however, that the optional argument may not be reasonable to be used with all reference types.

In addition, the publications can be referred to using the standard LaTeX reference command `\ref{<publabel>}`. This command will produce exactly `\ref` the same output as the `\citepub` command. Furthermore, the page number from which the publication begins can be referred to with the standard LaTeX command `\pageref`. `\pageref`

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[32]Again, translates to Finnish and Swedish if needed.

[33]If the document language is changed to Finnish using the babel package, the short form is translated **JX**.

Appendices

A   Code examples

The code examples given in the examples folder distributed together with the aaltoseries were saved using the utf-8 file encoding. If your editor with which you type your LaTeX code does not support utf-8, change the option for package inputenc according to the encoding your system uses. The names of the example files correspond to the following examples:

articlecollection is an example of a compiled work, includes both directly typeset and PDF articles;

article is an example of an individual article that is written for a compiled work;

dissertation is an example of a doctoral dissertation (an article dissertation);

report is an example of a report;

teachingmaterial is an example of study and teaching material;

workingpaper is an example of a (short) working paper.

You can use these example files as a starting point, i.e. a template, in your writing process. However, note that those example files are bare skeletons and many features you may want to use you need to be set by yourself.

In addition, you find two files, abstracts.tex and specialthings.tex, that exemplify the special features of the aaltoseries class. In the file abstracts.tex, an example of the specially formatted abstracts is given (though the text in them is not formatted in a special way). The file specialthings.tex presents all the special text- and float-specific features of the class. Therefore, you can examine these two files if you want to find examples of the special features of the aaltoseries class.

B   Troubleshooting guide

Below are given some errors and warnings that you may face when compiling your document that uses the aaltoseries class. In addition, troubleshooting for cases where the outcome is not the desired is presented. Before proceeding, try first trashing the .aux file and recompile. If this didn't help, check whether your LaTeX distribution is compatible with the aaltologo package from the Aalto-LaTeX wiki (URL: https://wiki.aalto.fi/display/aaltolatex/Distribution+compatibility). If your system should be compatible, then proceed to the questions.

Note on old MikTeX

For some reason, unknown to the class writer, there may be some clashes with the (pre-2009?) MikTeX distribution (Microsoft Windows). These clashes are typically informed to the user as language-related error messages. It should be noted that the aaltoseries class (and the aaltologo package too) has been written using the guidelines for LaTeX class and package writers[34], so the problem is most likely related to the distribution itself or to the compiler the distribution offers. Debugging of these clashed is beyond the time and efforts of the aaltoseries class maintainer, so it is more recommendable to first update the LaTeX distribution to a newer (that is, the latest) one and then test the class again with the new distribution. If the clash is not removed, you could use an alternative distribution. For example the TeXlive distribution[35], with which the aaltoseries class is written and tested by the maintainer, is a cross-platform distribution.

Compilation errors

Your LaTeX distribution does not have package 'nnnn.sty' installed. The aaltoseries class uses and takes advantage of the following packages LaTeX Error: File 'nnnn.sty' not found.

- report (class),
- ifthen,
- aaltologo (not a standard package),
- geometry,
- caption,
- tocbibind,
- ifpdf (in the article collection and dissertation modes),
- pdfpages (in the article collection and dissertation modes) and
- mfirstuc (in the dissertation mode).

In addition, the aaltoseries class takes advantage of the babel package if it is included by the user.

In order to get rid of this error, download the standard packages from CTAN and the aaltologo from the Aalto-LaTeX git repository[36]. An easier way is to

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[34]The LATEX3 Project, "LaTeX 2 for class and package writers", http://www.latex-project.org/guides/clsguide.pdf.

[35]Webpage: http://www.tug.org/texlive/.

[36]URL: https://version.aalto.fi/gitlab/latex/aaltologo

update (or ask your system administrator to update) your LaTeX distribution. However, these packages should be included in the recent distributions, so the first thing to do if you don't have these packages is to update your LaTeX distribution.

Package babel Error: You haven't specified a language option.

You have included the babel package but you haven't specified the language to be used. Make sure that you have a line

```
\usepackage[<language options>]{babel}
```

in your document preamble and with *at least one* language option given to the babel package.

Package babel Error: You haven't loaded the option 'nnnn' yet.

You gave the babel package at least one language option, compiled your file, then changed the babel package option so that you have as the last option a language that you didn't give before the compilation, compiled again, and got this error message, right? This is nothing harmful, you just messed up the document language processing the babel package performs. Compile your document once again and you will not get this error message.

! Undefined control sequence. 'commandname'

You have either a typo in the command name (see the error message for the incorrect form) or you are using a command that is not available in the publication mode you are currently using. In the first case check the command call while in the latter you need either to change the publication mode or to remove the command from your document.

Compilation warnings

Package lcg Warning: Using an already existing counter rand on input line NN.

Ignore. This is due to reinitialization of the random number generator used by the aaltologo package (version < 1.2).

Outcome troubleshooting

> *I tried to use the* `\maketitle` *command to add the document information on the first page of the manuscript but it didn't do anything / it started a chapter! What's wrong in my code?*

Nothing is wrong. The `\maketitle` command has been redefined to do nothing in most publication modes of the aaltoseries class. In the article collection and the individual article modes the `\maketitle` command starts a new "chapter". Consult Sections 3.1, 4.1, and 4.2 for further information.

> *Why there isn't a way to typeset the information table with the supervisor/opponent/abstract appearing in the beginning of a dissertation (or any other publication) as there previously have been?*

This information is typeset in the Aalto publication platform[37], therefore there is no need to do it in the manuscript.

> *I used the `\draftabstract` command to typeset the abstract but it is not printed! What's wrong?*

The argument of the `\draftabstract` is printed only in the draft mode. You need to give a class option `draft` or `draft*` to the class to set the draft mode on.

> *I modified <a feature> that is allowed to be modified. However, the change wasn't applied when I compiled the document. What's wrong?*

Note that LaTeX writes many things, like the section headers for table of contents, into auxiliary files during the compilation which are then read in the next compilation. Many things that you are allowed to modify are like them, and since the changes in the auxiliary files are applied on the next read, the document needs to be compiled twice to make the changes to happen. Therefore, compile your document yet another time.

> *I don't like this and that typographic choice the class makes. How can I change them to those I like?*

Check Appendix D first if the thing that you want to change can be modified with an easy to use interface. If the thing is not on that list, you should either deal with the current choices or use another class.

Bugs, coding efficiency, etc.

> *I found a bug in the code!*

Normal use of the class has been tested thoroughly and there shouldn't be any bugs. However, if you manage to find one, please contact the class maintainer(s) as soon as possible with a detailed description on the bug and the situation in which it was found out.

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[37]See https://inside.aalto.fi/display/AboutAalto/Aalto+publication+series for further information (requires Aalto login).

> *Your code is inefficient, you could have more efficient imple-*
> *mentation of this and that feature.*

Thank you for your comment. If you have more efficient realizations, please contact the class maintainer(s) who will take a look at them.

C   Setting the math font[38]

It should be noted that the aaltologo package does not define the font for mathematical typesetting. All mathematical text is written using the default font of the class (*New Century Schoolbook* in the case of the aaltoseries class) and the special mathematical characters are written using the *Computer Modern* math font if the math font is not redefined. The choice of the math font is left for the user, but there are a couple of things that should be kept in mind before choosing the math font.

It should be noted that many packages that change the math font also change (at least one of) the basis (serif, sans serif, `typewriter`) font definitions. There are two safe choices, namely fouriernc (included in standard LaTeX distributions) and millennial (*not* included in standard LaTeX distributions), that use and that are matched to *New Century Schoolbook* serif font. These packages can be included without affecting the sans serif and the `typewriter` fonts.

D   Customization of the class features

There are a few features of the aaltoseries class that can be customized. These features are listed below, and any other feature mentioned in this document should not be modified in any way.

Common features

Since the aaltoseries class relies on the standard report class, some automatic texts are inherited from that class. Below is given a list (though incomplete) of these automatic texts.

`\abstractname` – the header of the abstract

`\bibname` – the header of the bibliography

`\contentsname` – the header of the table of contents

`\listfigurename` – the header of the list of figures

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[38]This section is directly copied from the aaltologo package (used by the aaltoseries class for the official Aalto-LaTeX fonts) documentation.

`\listtablename` – the header of the list of tables

`\prefacename` – the header of the preface

These can be redefined with the `\renewcommand` command after the preamble, i.e. after `\begin{document}`.

Added automatic texts

`\abbrevname` – the header of list of abbreviations

`\symbolsname` – the header of list of symbols.

Article collections and individual articles

The `\aff` command is allowed to be redefined. By default it typesets its (text) argument in superscript, but you can modify it to use for example a counter.

Dissertations

The other features that can be customized are all related to the dissertation mode of the aaltoseries class. The dissertation mode defines the following automatic texts:

`\listofpublicationsname` – the header of the list of publications

`\listofpublicationspreamble` – the automatic note of the dissertation structure, given in the beginning of list of publications

`\authorscontributionname` – the header of the authors's contribution

`\errataname` – the header of the errata

`\publicationname` – the Publication prefix that appears in many headers and in the "long form" publication reference

`\pubname` – the P prefix in the "short form" publication reference

`\publicationsname` – the header that appears in the table of contents to point to the beginning of the publications

`\reprintname` – the Reprinted with permission note in the publication information page

which can be redefined with the `\renewcommand` command after the preamble, i.e. after `\begin{document}`.

In addition to the automatic text customization, the dissertation mode allows the user to customize the citation style of the publications of the article dissertation. By default the publications are typeset using the `plain` citation style. For the citation style customization the aaltoseries class provides the following commands.

First, the order in which the citation data is typeset can be changed with a command

```
\publicationdataorder{<first>}{<second>}%
{<third>}{<fourth>}{<fifth>}{<sixth>}
```

where each of the arguments is one of the following:

- `author`,

- `title`,

- `publication` (used for the publication media),

- `information` (the publication information),

- `month`, and

- `year`.

The `\publicationdataorder` command affects only the order in which the arguments of the \addpublication command are typeset. In other words, the arguments of the `\addpublication` command need to be given in the order as described in Section 4.4.1.

Since the `\publicationdataorder` command changes the order of the citation data, the punctuation of the citation may get messed up. To fix this, a command

```
\publicationpunctuation[<in>]{<first>}%
{<second>}{<third>}{<fourth>}{<fifth>}
```

where the punctuation characters are given as the arguments, can be used. Note that the punctuation characters come inbetween the citation data entries. The optional argument `<in>` can be used to set the punctuation after the word 'in' that appears in citations to publications from conference proceedings (or collections in general)[39]. It should also be noted that the punctuation change command is applied only to the publications whose information is printed after the command. This means that if the punctuation

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[39]Or after the phrases 'accepted for publication in' and 'submitted to' in the cases of accepted and submitted publications, respectively.

is modified after the `\listofpublications` command, the publications listing will have the original punctuation.

For formatting the citation data entries, e.g. by changing the font weight to bold, the aaltoseries class provides a command

```
\publicationformatting[<in>]{<first>}{<second>}%
{<third>}{<fourth>}{<fifth>}{<sixth>}
```

where the arguments are valid LaTeX formatting commands like `\itshape` or `\bfseries`. The optional argument can be used to set the formatting of the word 'in'. Note that if the word 'in' will appear in a place where it is preceeded by a period (.), its first letter should be in uppercase. In such case give a command `\Uppercasefirst` as the last formatting option in the optional argument. Furthermore, it should be noted that the given formatting options are not global, i.e. they do not affect the formatting of the text following the data entry.

The data entries can be enclosed to parentheses or quotes and like with commands

```
\publicationadditionalpreformatting{<first>}%
{<second>}{<third>}{<fourth>}{<fifth>}{<sixth>}
\publicationadditionalpostformatting{<first>}%
{<second>}{<third>}{<fourth>}{<fifth>}{<sixth>}
```

that set the given arguments before and after, respectively, of the corresponding citation data entry. For example, with command calls

```
\publicationdataorder{author}{year}{title}%
{publication}{month}{information}
\publicationpunctuation[:]{}{.}{,}{,}{,}
\publicationformatting[]{}{\bfseries}{}{\em}{}{}
\publicationadditionalpreformatting{}{(}{"}{}{}{}
\publicationadditionalpostformatting{}{)}{"}{}{}{}
```

a publication information would be printed like

John Smith (2011). "Title of the publication", in: Proceedings Book Title, February, pp. 1–14.

Note that the quotation mark in the end of the title is before the punctuation because the post-formatting argument is typeset immediately after the corresponding citation data entry. If the punctuation is desired to be within the quotation marks, you should leave the corresponding punctuation argument empty and put the punctuation before the quotation mark in the post-formatting argument.

In addition to the formatting of the publication data, the formatting of the publication titles appearing in the Author's Contribution listing can be modified using a command `\contributionformatting`. The command takes two arguments, i.e. the command is invoked as

```
\contributionformatting{<pre>}{<post>}
```

where the first argument sets the pre- and the second the postformatting of the title.

E   Incompatibilities with other packages

1. As noted, packages that redefine margin notes may cause problems. Avoid them.

2. `subfigure` is deprecated and will give errors. Use `subfig` instead. (h/t Anna-Kaisa von Lerber)

3. `wrapfigure` doesn't work, try `floatflt`. (h/t David Ing)