Kiel Computer Science Series
Manual

Abstract

This manual describes the "Kiel Computer Science Series", the Institution Series of the Department of Computer Science (Institut für Informatik) at Kiel University (Christian-Albrechts-Universität zu Kiel), in the following called *Series*.

Advanced users of the Series' LaTeX style can consult Appendix C at the very end of this manual in order to follow recent development.

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1 The Kiel Computer Science Series

1.1 Scope

The following works written at the Department of Computer Science are eligible to be published in the Series:

▷ Dissertations[1] and habilitation treatises.

▷ Lecture notes and textbooks of sufficient quality.

▷ Surveys, collections, handbooks, and alike of sufficient quality.

The following works are *not* eligible to be published in the Series:

▷ Student's thesis, e. g., Bachelor's, Master's, and Diploma theses.

▷ Technical reports. There is a separate infrastructure for technical reports at the Department of Computer Science in Kiel.[2]

▷ Yet unpublished original research, save dissertations and habilitation treatises.

    The Series' LATEX style may be used also for works not published in the Series. However, only works published in the Series (which includes approval by our Quality Assurance, explained below) are allowed to bear the name "Kiel Computer Science Series" and its acronym KCSS. Also, the KCSS book cover may only be used when publishing in the Series.

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[1]Note that the electronic publication in this series is not the electronic publication the "Promotionsordnung" requires. However, you can simply submit the PDF produced for this series at the University Library to fulfill your obligations.

[2]http://www.informatik.uni-kiel.de/ifi/forschung/technische-berichte/

1.2 Rationale

The aims of this series are twofold.

(i) It shall provide technical and administrative support to authors. It shall help and encourage authors to create high-quality documents with a unified appearance, and publish them in printed and electronic form.

(ii) It shall provide a means for authors to emphasize the quality and maturity of their work. This is particularly interesting for lecture notes, text books, surveys, etc. The Series provides an alternative to the 'traditional' way of using a commercial publisher. Note that with the Series, all rights remain with the author – the Department of Computer Science merely demands that the author gives his or her permission to the Department to publish the work electronically (as PDF) without charge. This way it is ensured that a maximum number of people can benefit from the work, students in particular.

A LaTeX style was developed for the Series. This style is intended to 1) spare the author the burden of having to design a style from scratch, and to 2) achieve a common look and feel for all works published in the Series. This covers basic settings such as paper size and fonts but also details such as heading and enumeration styles. This style is carefully developed with an eye on good typography, or what at least a majority of literature presents as good typography. Thus we recommend to use the default settings, also in line with the objective of a common look and feel for the Series. However, the intention is that the KCSS and its style should serve the authors and not the other way around. Thus, the KCSS style provides many options to adjust the layout, and if an author *strongly* wishes to deviate from the default, for example to reduce the overall number of pages (see Section 4.4), the author should feel free to do so.

Experience has shown that the KCSS style is quite easy to use if it is used from the beginning on, rather than converting a document that is originally written in another style. We thus recommend to use this style right away, and to contact the style authors immediately if there are questions or comments.

Following the open-access spirit of the KCSS, the KCSS style itself may be freely used outside the KCSS as well. In particular, it is recommended to use this style also for Bachelor's and Master's theses, and the KCSS style provides specific package options for these use cases (see Section 3.3 for details on where to find appropriate examples).

1.3 Contacts and Locations

If you need help, the following people are available to help you:

▷ Reinhard von Hanxleden `rvh@informatik.uni-kiel.de` (Organization and QA)

▷ Sören Domrös `sdo@informatik.uni-kiel.de` (QA, LaTeX questions, website, and other technical questions)

The KCSS style itself is currently available at the following Git repository:

`https://git.informatik.uni-kiel.de/kcss/kcss-style`

The manual and various other documentation files (including a declaration of consent you need to sign to publish a book as part of the Series) are available at the following Git repository:

`https://git.informatik.uni-kiel.de/kcss/kcss-public`

2 Publishing in the Series

2.1 The Process

Writing and publishing your book is a considerable undertaking. This part of the manual will walk you through the different stages in quite a bit of detail. Each stage starts with a short description of what it is about, followed by a list of steps for you to follow.

Feel free to contact people if you want further information before starting on your quest. See Section 1.3 for details on who you should contact.

2.1.1 Preparations

Before you even start writing your book, you need to obtain the KCSS style and set everything up properly. Once that is done, you are ready to start the real work of writing your book.

1. Get the KCSS style from its Git repository (see Section 1.3). The best idea is to clone the repository to be able to follow any updates to the style.

2. Setup the repository you will be using for your book. Copy the required style files over to that repository (this will usually be all `.sty` files, but see the repository's readme file for details).

3. If you are writing a dissertation, review the University Library's content and cover requirements and read about the dissertation publication process there.[3] This may also be a good time to familiarize yourself with the process of getting your PhD as described by the faculty.[4]

4. Think about whether you want to produce printed copies of your book and find one if you do. Note that for dissertations, there is no way around producing printed copies. Furthermore, the printed copies must comply with the University Library's requirements (see Section 2.4 for details). Which printing service you choose will influence the page size you will be using. Making this decision early on will spare you the trouble of having to change the page size later, which would wreak havoc with your page layout. If you are not sure which printing service to choose, feel free to contact QA for suggestions.

5. Setup your document, possibly based on the example dissertation we provide (see Section 3.3). In particular, setup the page size properly and make sure you follow the general document structure outlined in Section 2.3. If you are unsure how the structure applies to the book you are writing, feel free to contact QA.

6. It might feel a bit early, but it is also a good idea to start setting up the cover now. Of course, you cannot finish that yet because you do not have all of the necessary information at this point.

2.1.2 Writing

Well, this stage is rather self-evident: do science and write about it! Collect conference papers and stick them together! Write the book you have always dreamed of writing! Whatever you do, produce text.

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[3] http://macau.uni-kiel.de/content/main/publicateDiss.xml
[4] http://www.tf.uni-kiel.de/de/promotionen-und-habilitationen

2.1.3 Submitting (Dissertations Only)

If what you are writing is a dissertation, this is where things start to get slightly complicated.[5] Over the course of the whole process, you will produce two distinct versions of your thesis. The first is the one you will submit to the reviewers to start the actual examination process. This stage is about producing that version. The second is the one you will publish in the Kiel Computer Science Series. We will talk about that version in upcoming stages.

1. Section 2.3 contains a table that lists which parts of the structure are required for each of the two versions. Make sure to remove all unnecessary parts and to prepare all necessary parts for the submission version. For example, at this stage you do not have enough data to generate the metadata page yet. Hence, that page should be removed. On the other hand, the University requires the submission version to contain a page on which you guarantee that you adhered to proper scientific conduct while producing the thesis. This page must be prepared and included.

2. Produce four printed copies of the submission version of your thesis. Note that this is not your final KCSS version *and is thus not the one produced by the printing service you selected previously*. Much rather, this will be a simple A4 printout printed by one of the local printing shops found around the University. Since the page size of your thesis will probably be smaller, you will need to scale it up to A4. Instead of setting a new page size on your thesis and thereby wrecking everything you have worked so hard to create, use `pdfjam` on the PDF file:

   ```
   pdfjam --paper a4 file.pdf
   ```

3. Hand in your four copies, along with all the documents the faculty requires you to hand in. See the "Promotionsordnung" for further details on what exactly you will have to submit. Follow the examination process and ace the defense!

2.1.4 Creating the Book Cover

Once you start to think about producing the final version of your book, it is time to announce this intention to the KCSS QA people to obtain information you need for your printing version.

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[5]Since things are complicated, you should *under no circumstances* rely only on the information given here. We have put those together based on the experience of former PhD students (successful ones, we should note), but things may be inaccurate or may simply have changed since then.

2.1 The Process

1. Contact QA to announce your intention to publish a KCSS book (see Section 1.3 for contact details). They will respond by issuing you a number (see Section 2.2).

2. QA will also respond with a link to the MACAU publication agreement that you will fill out later [6].

3. If you want your book to have its own ISBN number, it is your responsibility to request one. Your printing service may offer an ISBN number as part of your printing package (of course, all ISBN fees have to be covered by the author). Be sure to check with your printing service whether having a custom ISBN changes the way the printing service handles publishing rights. Some services require you to transfer copying rights, which is not a good idea since the printing service is not the only outlet where you will publish your thesis.[7]

4. Remember which printing service you selected when you started your quest. Go to its website and review its requirements for the book cover, including the size, bleeds, and so on. Setup the configuration of your book cover accordingly as described in Section 5. If you have not chosen a printing service and are unsure how to setup your cover, feel free to contact QA.

5. Write an interesting summary for your book to be printed on the cover's back, along with a short description of who you actually are. The summary may actually be an excerpt from your abstract.

6. Draw a fancy picture to be printed on the cover's front.[8]

7. Make sure that you include the correct KCSS number on your cover. If you have an ISBN, include that as well; if you do not, leave the ISBN field blank. In particular, do not produce a bar code of the series' ISSN instead!

2.1.5 Creating the Publishing Version

Having finished your book's cover, we now turn to configuring the book's content properly.

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[6] `https://macau.uni-kiel.de/content/publish/agreement.xml`

[7] Remember that the whole point of KCSS is to make information freely available.

[8] As one former PhD student notes: the picture should not be too fancy or else the existing covers would look lame in comparison. . .

1. Activate or deactivate the different parts of your book according to Table 1. For a dissertation, this includes listing your reviewers and your supervisor. Be sure to update your meta data page with the KCSS number you were given. The URN:NBN should no longer be included on the meta data page. It will, however, be issued after publishing on MACAU.

2. Your printing service may require your book's page count to be divisible by four. If so, make sure you include enough blank pages at the end.

2.1.6   Quality Assurance

Your book is almost finished. It is now time to check back with QA.

1. Check the QA checklist which is part of the KCSS documentation files (see Section 1.3). The list mentions the most common problems QA finds with KCSS submissions. Be sure to have those covered.

2. Some printing services allow you to upload your cover and content prior to its submission for printing to check for problems. If that is possible with your printing service, make use of this feature now and fix any problems the printing service finds.

3. Submit your book and cover PDF files to QA for approval. This will usually start a number of iterations of QA asking for changes and you implementing those changes until your book is ready to be published.

2.1.7   Publishing and Printing

It is almost over. Here's what you need to do to finish this.

1. Upload the files approved by QA to your printing service and produce the required number of printed copies. This number changes depending on what your are printing, as explained below. It is not important whether you produce soft covers or hard covers, but what is important is that you do not mix the two. Of course, you can skip this step if you have not chosen a printing service because you are not required to produce printed copies.

2. Send the final version of your book to QA as PDF files (one for the content, one for the cover). They are used to check whether the final version submitted to

MACAU is the same one. Since MACAU does only allow to submit one PDF you should either add the cover to the content-PDF or omit the cover. [9] [10] If printed copies can be ordered online, this should be added when publishing on MACAU.

3. Dissertation[11] are published on MACAU same as other electronic publications[12]. Be sure to select that your work is part of a series and select Kiel Computer Science Series in the following form. [13]

How many copies you need to produce and hand in depends on what kind of book you have written.

Dissertation If your book is your dissertation, there are a few copies you *have* to produce and a few more you will probably *want* to produce.

⊳ 2 copies to to be submitted for the university's library, as specified by the "Promotionsordnung". This is mandatory, along with submitting an electronic version of your dissertation to the university's library. Details can be found in the following footnote although this might change in the future. [14] A publication in this series includes a publication on MACAU, therefore, this is enough and your dissertation does not have to be published again on MACAU, as it was previously the case.

⊳ 1 copy each for your supervisor and your reviewers (optional)

⊳ 1 copy for yourself (optional)

⊳ 1 copy for each relative that might be interested in your academic career (very optional)

Something else If your book is not a dissertation, but you want to make printed copies available, what you have to do depends on your deal with the printing service.

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[9]It used to be the case that we asked for two versions of your content PDF: one to be printed, and one with reduced margins for electronic viewing. This is not the case anymore. We only ask for the printable version now.

[10]Formerly, content and cover could be submitted in two separate PDFs.

[11]https://macau.uni-kiel.de/content/publish/dissertation.xml

[12]https://macau.uni-kiel.de/content/publish/publication.xml

[13]Formerly, we collected author information that was added to the Journals system. MACAU, however, does only link to the orcid and has no separate user management.

[14]https://www.tf.uni-kiel.de/de/dateien/dekanat-1/promotionen-und-habilitationen/veroeffentlichung-der-dissertation-2021-03

If your printing service acts as your publisher, the printing service is required by law to send copies of your book to the National Library, so you don't need to do anything.

If your printing service does not act as your publisher, the responsibility lies with you to submit enough copies to fulfill the legal obligations:

▷ 2 copies for the German National Library (mandatory)

▷ 1 copy for the university's library (mandatory)

Note that the previous enumeration does not apply to dissertations but only to "Something else".

All copies can be submitted to Birgit Mähl or Grit Reich at the institute's "Fachbibliothek", who will pass them on to the relevant institutions.

If you are not sure which of these options applies to you, feel free to contact QA or your printing service.

Regardless of what you are printing, the following copies are optional, but have a certain potential to make people happy:

▷ 1 copy for the library of Schloss Dagstuhl,[15] the Leibniz Center for Informatics, which aims for an in-depth coverage of literature on computer science.[16]

▷ 1 copy for Kiel University's Fachbibliothek for Mathematics and Computer Science

2.2 Numbers and Revised Versions

Works in the Series are numbered consecutively for each year, starting with 1 in each new year. So a particular work can be referred to by giving its year and that counter within the year, e. g., the number "2011/7" designates the 7th work in year 2011. The number of a work is placed on the book cover at two locations: on the spine and on the front.

The number of a work never changes because its content can never change once it has been published. Nevertheless, there is the possibility of publishing a revised

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[15]http://www.dagstuhl.de/en/library/

[16]Should you attend a future Dagstuhl seminar, this copy will be on display on a special shelf in the library during the seminar.

edition under a new KCSS number.[17] To do so, simply announce your intention to publish a revised edition to QA. The process will for the most part be similar to the publishing process as described in Section 2.1.

The KCSS number appears at the beginning of the work on a page with meta data, for example as "2011/7". This information optionally may be followed by the word "dated" and then a date on which the version was published, in order to give the reader an idea of how recent the version is, how much time went by during two revisions, etc. If a date is given, it should be specified in ISO 8601 form, i. e., YYYY-MM-DD. For example, when work 2011/7 was first published on the 15th of November 2011, then we write "2011/7 dated 2011-11-15". If the work is a revision of a previous work, the previous work's KCSS number must be mentioned. The KCSS style's `\metapage` command provides an argument to do so.

2.3 Document Structure

Documents published in the Series should follow a particular structure. If you are in the process of writing a dissertation, some of the elements below are required for the final publication version, but not for the version of your dissertation you submit for review. This manual does not impose restrictions on the structure of Bachelor's or Master's theses since they are not published in the Series. However, many of the parts mentioned in the following lists simply do not make sense for them. The differences are summarized in Table 1.

1. Title page. A macro `\gentitlepage` is provided for generic title pages. For dissertations, a more specific title page can be generated with a macro `\disstitlepage`. The use of those macros is demonstrated below and explained in more detail in Section 3.2. For a student's thesis, a macro `\studtitlepage` is provided. See the examples referenced in Section 3.3. Alternatively, `\makegentitlepage`, `\makedisstitlepage`, or `\makestudtitlepage` can be used after setting parameters by appropriate `\renewcommands`, explained later.

2. Meta information, on one page. This page should be generated using the `\metapage` macro or alternatively by `\makemetapage` after setting parameters via `\renewcommand` as explained later. In particular, this macro prints the correct ISSNs. Its use is demonstrated below and explained in more detail in Section 3.2.

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[17]In the old days, published edition could be replaced by a new *version*. This is not possible any more. As explained, a revision requires a new document to be published, along with a new KCSS number.

3. A declaration of originality (for lack of a better word) to assert that the thesis is the author's own work. For bachelor's or master's theses, use the `\studeidesstatt` command. For dissertations, use the `\disseidesstatt` command.

4. A chapter titled "About this Series". The text for this chapter is the same for all works and is provided as a file `about-this-series.tex`, which can be included.

5. For dissertations, a page naming the reviewers and date of disputation. This page can be generated using the `\dissreviewerpage` macro or alternatively the `\makedissreviewerpage` macro after setting parameters via `\renewcommand` as explained later. For a student's thesis, a macro `\eidesstatt` is provided to be called at this point.

6. Abstract. For dissertations and habilitation treatises, it is common to include both an English and a German version of the abstract if the rest of the work is in English.

7. For dissertation and habilitation treatises, a preface written by the supervisor. This preface should be titled "Preface by *SUPERVISOR*", where it would be a splendid idea to replace *SUPERVISOR* by the supervisor's actual name.

8. A preface written by the author. If there is a preface by the supervisor, the preface by the author should be titled "Preface by the Author", otherwise just "Preface".

   This preface may contain acknowledgements in a section titled "Acknowledgements".

9. The table of contents, generated with `\tableofcontents`.

10. If applicable, the list of figures, generated with `\listoffigures`.

11. If applicable, the list of tables, generated with `\listoftables`.

12. The main part of the work, divided into chapters. Additional divisions may be introduced using parts.

13. Appendices, if any.

14. Bibliography. More information on bibliographies can be found in Section 4.2.

Table 1. Differences between the review and final version of a dissertation as well as student's theses (Bachelor's and Master's thesis). A check mark indicates mandatory elements; a check mark in parentheses indicates optional elements; the absence of a check mark indicates that an element should not be present.

Element	Review Diss.	Final Diss.	Student Thesis
Title page	✓	✓	✓
Meta information		✓	
Declaration of originality	✓		✓
About this series		✓	
Reviewers		✓	
Abstract	✓	✓	✓
Prefaces and acknowledgments	(✓)	(✓)	(✓)
Table of contents	✓	✓	✓
List of figures and tables	(✓)	(✓)	(✓)
Main content	✓	✓	✓
Appendices	(✓)	(✓)	(✓)
Bibliography	✓	✓	✓

2.4   Choosing a Printing Service

In general, each author can choose a printing service of his or her choice, because the Department of Computer Science has no interest in creating any frame contract with a specific service provider and does not want to profit financially. Sales revenues are only to be used by the author and hence, any legal contract is only between the author and the printing service.

However, publishing in the Series means that the Department of Computer Science at Kiel University is the *editor* of the work and thus wants to achieve a common look and feel of all issues. Hence, there are certain requirements to a printing service listed below. As there is not the one-and-only perfect printing service, recommendations of possible printing services can be obtained from QA. Services differ in conditions, in particular concerning the rights of the author. Another important detail is the pricing for printing in color. Some services will only charge extra for each page that contains color, whereas others will charge a higher price for *every* page in the book as soon as there is at least one page containing color.

Whatever printing service an author chooses, it should meet the following

criteria:

▷ Paper format of a book in the Series is US Trade, which is 15.24 cm × 22.86 cm and supported by at least one major printing service. The printing service should support this format or at least a format very close to this, e. g., 15.5 cm × 22 cm, as provided by another major printing service. This should be taken into consideration when you prepare the document, since paper format may have implications on layout.

▷ All works in the Series are also made available electronically (without charge) from a server run by the University. Hence it is required that the printing service allows that in the given circumstances.

▷ Authors may well make printed copies available for order online. If this is intended, the printing service needs to provide the necessary sales and distribution infrastructure for the book.

▷ If printed copies shall be made available for order, they should be offered as a laminated hardcover *and* as a paperback version. The latter is intended to provide a low-priced version affordable for students.

▷ The hardcover should be a casewrap, not a dustjacket one.

▷ The background for the book cover should be white. The book cover should be matte, but at least not high gloss.

▷ If the option is given, a round spine should be preferred over a flat one.

2.5   Choosing a Price for Printed Copies

Usually, the price charged to customers who buy a printed copy through the printing service can be set by the author. The Department of Computer Science does not impose any hard limits on how the author should choose that price. However, the Series' focus is on *maximum dissemination*, so authors are encouraged to choose a moderate price. Note also that everyone in principle is able and allowed to produce a printed copy for himself or herself from the PDF files available on the University's servers; this is intended.

3   Basic Usage of the LaTeX Style

The style consists of two files `ifiseries.sty` and `localTheorem.sty`. Compilation
should be done with `pdflatex`. The most basic usage is like so:

```
\documentclass[10pt]{book}
\usepackage{ifiseries}
\begin{document}
\end{document}
```

A multitude of useful packages is loaded by the style, so commonly you will
only need a very few additional `\usepackage` commands.

By default, no theorem environments are defined. To have a broad set of theorem
environments available, use the `theorems` option. It can be set to `numbersfirst` or
`numberslast`. Details are explained below. Here is a short example with theorems
enabled:

```
\documentclass[10pt]{book}
\usepackage[theorems=numbersfirst]{ifiseries}
\begin{document}
\end{document}
```

3.1   Compilation

Suppose the main file is `document.tex`. When using `biblatex`, the following sequence
will compile everything:

```
  pdflatex document
  biber --output_safechars document
  pdflatex document
```

The `--output_safechars` option may or may not be required in your case, but
usually does not hurt.

When using `bibtex`, use the following sequence:

```
  pdflatex document
  bibtex document
  pdflatex document
  pdflatex document
```

Sometimes, in particular when switching between bibliography systems, temporary and auxiliary files need to be deleted. This can be done by hand, or automated with a script or makefile. Many version control systems have an option to delete all non-tracked files, which can also be used for this (see Mercurial's `purge` command or Git's `clean` command). See Section 4.2 for more details on bibliographies.

3.2   Helpful Features

Latin Abbreviations: Smart macros for common abbreviations are provided: `\eg`, `\ie`, `\cf`, `\Eg`, `\Ie`, `\Cf`, `\etal`, `\etc`, `\vs`. The first six will automatically insert a comma and an `\xspace` if not followed by a comma already. The last three will insert a dot and an `\xspace` when not followed by a dot already. Any dots inserted by the macro, are also followed by `\@`, which signals that here is not the end of a sentence. This is important for horizontal spacing.

Enumerations: Compact versions of all three enumeration environments are provided:

```
compactitemize
compactenumerate
compactdescription
```

They are often more appropriate when the enumeration semantically is part of a paragraph.

(These environments are still provided when using `layout=false`, but then they are not compact anymore. The `layout` option is explained in Appendix A and is not required for publishing in the Series.)

Smart References: The `hyperref` package's `\autoref` feature is configured. Instead of `\ref` you can use `\autoref` and have the words "Chapter", "Section", "Theorem", etc. automatically inserted.

Acronyms: Acronyms like the Extensible Markup Language (XML) or Unified Modeling Language (UML) should be used with the `acronym` package, which is already loaded and configured by default. It handles many useful features about acronyms such as a list of acronyms or providing a long version of the acronym when it is used for the first time such as for XML and UML above. Additionally acronyms are typeset a little bit smaller in order to better integrate

into normal text. As an alternative to `acronyms`, the style also supports the `acro` package, as explained in Section 4.8.

Generic Title Page: For the generic title pages, the macro `\gentitlepage` is provided. It takes the following 4 arguments:

1. Title
2. Subtitle
3. Author(s)
4. A text to be set at the bottom of the title page

Alternatively, the title page can be generated with `\makegentitlepage` after using `\renewcommand` on the following commands: `\titlepagetitle`, `\titlepagesubtitle`, `\titlepageauthor`, `\titlepagetext`.

Dissertation Title Page: For the mandatory title page for dissertations, the macro `\disstitlepage` is provided (it performs an appropriate call to `\gentitlepage`). It takes the following 5 arguments:

1. Title
2. Subtitle
3. Name of candidate
4. Indicator for the type of degree: either `nat` or `ing`
5. Year of submission

Alternatively, the title page can be generated with `\makedisstitlepage` after using `\renewcommand` on the following commands: `\titlepagetitle`, `\titlepagesubtitle`, `\titlepageauthor`, `\disstitlepagedegree` (defaults to `nat`), `\disstitlepageyear`.

Meta Data Page: Each work must have a page with meta data. It can be created with the `\metapage` macro. It takes the following 9 arguments:

1. Number of the work in the Series and an optional date. E. g., if the number of the work is 2011/99 and it was released on 2011-11-12, then the first argument would be:

    ```
    2011/99 dated 2011-11-12
    ```

    Or, if omitting the date is preferred by the author, then just: `2011/99`

2. The number of a previous work the current work replaces, if any. E. g., if the new work replaces 2011/99, then the second argument would be:

   ```
   2011/99
   ```

   If the current work does not replace a previous one, simply leave this argument empty.

3. Contact information of the author, e. g., a permanent web or e-mail address. If no contact information shall be provided, leave this argument empty.

4. Name of the research group in the Department with which the author is affiliated.

5. An example how to cite this work.

6. The name of a file with an example BibTeX entry for the work. This will be included using `\lstinputlisting`.

7. Year of copyright and name of author.

8. Some additional text to be put below the other information. This argument may be left empty.

   When choosing *Books on Demand* as a printing service, the following text is required here: "Herstellung: Books on Demand GmbH, Norderstedt". Do not use the word "Verlag" here, it will cause confusion.

Note that the URN:NBN is no longer part of the metapage. Alternatively, this page can be generated with `\makemetapage` after using `\renewcommand` on the following commands: `\metapageversion`, `\metapagereplacedversion`, `\metapageurnnbn`, `\metapagecontact`, `\metapagegroup`, `\metapagecite`, `\metapagebibfile`, `\metapagecopyright`, `\metapagetext`.

Declaration of Originality Page: For the mandatory page that the thesis is the author's own work, the macros `\studeidesstatt` (for bachelor's and master's theses) and `\disseidesstatt` (for dissertations) produce an appropriately worded page for you to sign later.

Dissertation Reviewer Page: For the mandatory page stating the reviewers and date of disputation for dissertations, the macro `\dissreviewerpage` is provided. It takes the following 4 arguments:

1. First reviewer. To have a rule drawn, write an underscore: _

2. Second reviewer. The underscore works here as well.

3. Third reviewer. The underscore works here as well. In addition, this field can be left completely empty, for no third reviewer at all.

4. Date of disputation. The underscore works here as well.

Alternatively, this page can be generated with `\makedissreviewerpage` after using `\renewcommand` on the following commands: `\dissreviewerpagei` (defaults to underscore), `\dissreviewerpageii` (defaults to underscore), `\dissreviewerpageiii` (defaults to empty), `\dissreviewerpagedate`.

3.3 Examples

Several examples for using the style are available in its Git repository (see Section 1.3). These include both examples for dissertations as well as examples for using the style for student theses.

4 Important Options for the LaTeX Style

If in doubt, most of the default options are fine. In this section, a few options are presented that however commonly need to be adjusted. Any modifications beyond this which noticeably influence the layout must be approved by QA when publishing in the Series.

4.1 When Using an Outdated TeX Live

To use this style, we recommend a TeX Live at least as recent as version 2015. If something does not work because your TeXinstallation is too old, the first step should be to install a more recent version.

Many Linux distributions offer LaTeX as packages, but those can be outdated and not good enough. Installing TeX Live[18] manually is easy and gives an up-to-date LaTeX system. When using Ubuntu, be sure to install the `texlive-full` package.

4.2 Choosing a Bibliography Package

A reoccurring topic is which bibliography package to use and how to properly configure it. In general, the style supports `bibtex` as well as its more modern

---

[18]`http://www.tug.org/texlive/`

replacement, `biblatex`.[19] The latter is the default. To choose the former anyway, use `biblatex=false,natbib=true` when including the style. Note that the only reason to do so should be if you are forced to use an old LaTeX system.

Regardless of the package you use, the main bibliography should be created with `\tocbibliography` instead of `\bibliography`. The former takes care of a correct entry in the table of contents and the PDF bookmarks. The name of the bibliography (as it appears in the heading and table of contents) is "Bibliography" by default and "Bibliografie" if `language=german`. It can be adjusted using the `refname` option.

The `\tocbibliography` command does not take any arguments (contrary to `\bibliography`). The name of the BibTeX database can be given using the `bibresource` option to the style, e. g.,:

```
\usepackage[bibresource={my/database.bib}]{ifiseries}
```

With newer TeX systems, it is mandatory to specify the `.bib` suffix. When `biblatex` is used, additional bibliography databases can be specified in the preamble with `\addbibresource`, see the `biblatex` documentation. It is also admissable to leave the `bibresource` option empty and only use `\addbibresource` manually.

The font size of the bibliography can be influenced by redefining the `\bibfont` command like this:

```
\renewcommand*{\bibfont}{\small}
```

4.3   Setting the Paper Size and Binding Correction

The default paper size is US Trade, which is $15.24\,\text{cm} \times 22.86\,\text{cm}$. The $15.5\,\text{cm} \times 22\,\text{cm}$ format can be chosen by `paper=15522`. Paper sizes can also be specified explicitly, e. g., `paperwidth=15.5cm,paperheight=22cm` would do the same as `paper=15522`.

A binding correction can be set via `bindingcorrection`. The text block will be shifted outside (on left-hand side pages to the left, on right-hand side pages to the right) by this amount. The default is $0\,\text{mm}$. This parameter has no influence on the width of the text block. The printing service should provide indication on how large the binding correction should be for a given number of pages. If not, then the following simple and rough rule can help: if the number of logical pages is n, then the binding correction should be between $n/100\,\text{mm}$ and $n/80\,\text{mm}$. For example, for a 300 pages book, this rule recommends the range between $3\,\text{mm}$ and $3.75\,\text{mm}$.

---

[19]"BibTeX" is not to be confused with "bibtex". Roughly speaking, the former denotes a bibliography system, which we use in any case. The latter denotes a specific way to handle this system. A modern replacement for `bibtex` is `biblatex`.

The default page layout makes the outer margins twice the size of the inner margins. There are good reasons for this choice. However, for larger numbers of pages (say, 300 pages or more) it can lead to the inner margins appearing too small in the middle of the book, or even text being difficult to read. This can be counteracted by using a binding correction. Another possibility is to change the page layout such that inner and outer margins have the same size. This is done using the `hcenter=true` option. This parameter also has no influence on the width of the text block.

4.4   Creating More Efficient Pages

The KCSS defaults have been chosen such that they adhere to good, widely acknowledged typographical practice. For example, a typical recommendation is to not put more than 75 characters per line (Bringhurst [Bri08, p. 26]). However, some authors prefer to put more content on a single page, resulting in fewer pages overall. The KCSS defaults already give slightly longer lines, namely close to 77 characters per line on average. There are several ways to achieve substantially more efficient pages, as outlined in the following.

- Increase `marginfrac`. The default is 12, and a higher value gives smaller margins. When increasing this value, use of `hcenter` should be considered. Increasing `marginfrac` beyond 24 is perhaps not a good idea.

- Use a more efficient font, like `font=TX`. This should only be done if reducing margins alone is not enough. The extreme setting `marginfrac=24,font=TX` leads to almost 100 characters per line on average (with the default paper size), which may be considered typographically questionable.

- Use a larger paper size.

4.5   Declaring the Main Language

By default, English will be assumed to be the main language of the document. The language can be switched inside the document using the `\selectlanguage` command or the `otherlanguage` environment, see the documentation of the `babel` package for details. In case that German is the main language, the option `language=german` should be used. This makes German the default language and takes care of some additional adjustments, like dotted numbers in section headings.

Another important change concerns the bibliography if `bibtex` is used instead of `biblatex`. Then the style attempts to provide support for a German bibliography using `babelbib`. The default and recommended way however is to let the style use `biblatex` and *not* `bibtex`.

When using `biblatex`, be sure to add appropriate `hyphenation` fields in your BibTeX database to declare the language of each bibliography entry.

4.6   Choosing a Theorem System

A theorem system may be specified via the `theorems` option. The following two possibilities exist:

`theorems=numbersfirst` Theorems start with the number first, e. g., "3.2.7 Theorem". All theorem types (theorem, proposition, etc.) and equations share the same counter. Third-level numbers are reset in each section. Numbering is within sections, e. g., theorems in a section with number 3.2 are numbered 3.2.1, 3.2.2, and so on. To avoid confusion, numbering of subsections and below is disabled.

This numbering scheme makes it very comfortable to find a particular theorem or equation, given its number. It is also suited for numbering each paragraph.

`theorems=numberslast` The number comes second, e. g., "Theorem 3.2.7". All theorem types (theorem, proposition, etc.) share the same counter, but equations have their own counter. Numbering is within chapters.

The language for the theorem system (e. g., "Theorem" vs. "Satz") is deduced from the main language of the document, explained above.

The environment in which theorems are numbered is set to a reasonable default. The `theoremswithin` option can be used to change it. When there are no numbered sections, it should be set to `chapter` in order to avoid redundant "0" components in theorem designators.

4.7   Choosing a Figure System

The figure system provides means to format figures and their captions. You may choose between the following:

`figure=floatrow` The `floatrow` package is used. This is the default.

`figure=subfig` The `subfig` package is used. Additionally, the `sidecap` package is loaded.

4.8   Choosing an Acronyms System

The acronyms system provides a way to handle acronyms and have the system handle all the details, such as when to fully spell it out or producing a handy list of used acronyms. You may choose between the following:

acronymPackage=acronym The `acronym` package is used. This is the default. The package is configured to use a smaller font for printing the acronyms.

acronymPackage=acro The `acro` package is used. This package has more features than the other one. We provide a reasonable standard configuration, but that configuration can be changed by using the package's `\acsetup` command. The list of acronyms is setup in a way that extra information provided for acronyms are printed on a separate line in a smaller font. You should use the style's `acroLabelWidth` option to make sure that the list of acronyms renders properly.

4.9   Reducing Margins

While working on a thesis, producing a PDF without margins can help use the available screen space more efficiently. This is achieved easily with the `compact` option. Setting `compact=strong` creates the required PDF.

Note that publishing in the Series used to require providing a PDF for screen viewing, produced using the above mentioned option. This is not the case any more.

5   Book Cover

The package for the book cover is in the file `kcssCover.sty`. Several lengths and a few other options can be set when it is loaded. The contents of the cover (title, author, text on the back, etc.) can be specified by `\renewcommand`ing certain commands. The KCSS repository contains example covers that you can use to get started with your own cover.

5.1   Common Length Options

The following length options commonly have to be given. The repository contains a file called `cover-help.pdf` which explains the meaning of most options. If still unsure, you can experiment with different values and observe how the cover

changes. All those values should be based on information given by the printing service.

`coverwidth` Width of the cover (when the book is closed and without the binding).

`coverheight` Height of the cover.

`smallercoverwidth`, `smallercoverheight` The cover for the hardcover usually is slightly wider and higher than for the paperback. The cover style tries to make both versions look as similar as possible. To this end, the width and height of the paperback has to be specified. This is done via options `smallercoverwidth` and `smallercoverheight`. They must always be specified. When creating the paperback cover, they are the same as `coverwidth` and `coverheight`, respectively.

`spinewidth` Width of the spine. It depends on the number of pages. The printing service should offer some way to calculate the spine width.

`spinecorr` Spine correction. This should reflect the width of the binding on each the front and the back.

`bleed` Width of an additional margin all around the cover. Colored areas should extend fully into the bleed. The packages takes care of this with regard to the colored boxes, provided the correct bleed is specified.

`safety` Width of a margin inside the cover, where no important information should be placed. This option has no effect on layout, but it determines the positions of green help lines shown when `safetylines=true` is given. Those lines provide a way to check that no contents extends into the safety margin.

`frontgraphicxshift`, `frontgraphicyshift` Amount by which the graphic on the front is shiftet in x and y direction, respectively. Adjust that until you find the result pleasing. Giving zero values puts the graphic in the center of the front.

5.2   Boolean Options

`showlayoutlines` Whether to show black lines which mark key features of the layout. This can be helpful to get an idea of the logic of the layout, which in turn can help, e. g., to decide how to position the graphic on the front. Default is `false`.

showsafetylines Whether to show green lines which mark the safety margin. Default is `false`.

showbleedlines Whether to show red lines which mark the border of the cover and thus the beginning of the bleed area. Default is `true`, but it should be set to `false` for production.

germantext Whether to use the German version of the text about the Series on the back. Default is `false`, so the English text is used.

twolineresearchgroup Whether the name of the research group stretches accross two lines. The default is `false`, which indicates that the name of the research group occupies just a single line. This information is required to adjust the layout by a few millimeters.

5.3   Commands to be Redefined

Modest deviations from the text sizes given below (`\Large`, `\Huge`, etc.) are allowed if the text otherwise would not fit nicely.

`\spinetitle` The title how it appears on the spine. It should be `\Large` and `\textbf`. Example:

```
\renewcommand{\spinetitle}{\Large\textbf{My Fake Dissertation}}
```

`\spineauthor` The author how it appears on the spine. It should be `\Large`.

`\kcssnumber` The KCSS number, e.g., 2011/1. It should be given without any size modifiers.

`\fronttitle` The title how it appears on the front. It should be `\Huge` and `\textbf`. If it stretches over multiple lines, it may be a good idea to increase spacing between lines, e.g., by using `\\[.5m]` to end the line.

`\frontauthor` The author how it appears on the front. It should be `\LARGE`.

`\backtext` The text in the blue box on the back. It should be given without any size modifiers. The length of this text should be adjusted in order to fill an amount of space that makes the back of the book good-looking. The blue area should stretch far enough to the bottom, but should not get too close to the text about the Series, outside of the blue area.

The text should in large part (about $\frac{3}{4}$ to $\frac{2}{3}$) be a summary of the book's contents so designed to gain the potential reader's interest. The last part (about $\frac{1}{4}$ to $\frac{1}{3}$) should be a short CV of the author.

The CV may contain a photograph of the author. The text should be wrapped around the photograph. This can be achieved by means of the `wrapfigure` environment. Let us look at an example:

```
\par\medskip%
\begin{wrapfigure}[6]{l}{2.35cm}
  \vspace{-\baselineskip}
  \includegraphics[width=2.35cm]{no_photo}
\end{wrapfigure}%
\color{white}%
```

First, we introduce some vertical space to the rest of the test with a `\medskip`. Then the `wrapfigure` environment starts. It contains a photo scaled to 2.35 cm width; this width is also passed to the `wrapfigure` environment. A negative vertical space is necessary sometimes, here of length `-\baselineskip`. The `wrapfigure` environment takes two more arguments besides the width. First, we have to tell it the number of lines of text that shall be displayed to the side of the picture; this cannot be computed accurately enough in an automatic way. Then we have to specify whether the picture shall be left or right; it should be chosen to put it left. After the `wrapfigure` environment, it is necessary to explicitly switch back to white text color.

`\isbn` The ISBN bar code to be displayed on the back, if any. If none shall be displayed, define this command to be empty. If an ISBN bar code shall be displayed, this command usually will be a single `\includegraphics` command.

`\researchgroup` The name of the research group, to be displayed on the back below the Department's logo. It should be given without any size modifiers. It can be a single line or two lines, separated by \\. In the latter case, also set `twolineresearchgroup=true`.

5.4   Document Class and Packages

The document class should be `standalone`, and besides the `kcssCover`, the `ifiseries` package should also be loaded with the `pagelayout=false` option to prevent in-

terference with the layout. The base font size should be 12. Here is an example preamble:

```
\documentclass[12pt]{standalone}
\usepackage[pagelayout=false]{ifiseries}
\usepackage[%
showbleedlines=false,%
coverwidth=15.56cm,%
coverheight=23.50cm,%
bleed=1.905cm,%
smallercoverwidth=15.24cm,%
smallercoverheight=22.86cm,%
spinewidth=2cm,%
spinecorr=5mm,%
safety=5mm,%
frontgraphicxshift=0cm,%
frontgraphicyshift=-3cm,%
]{kcssCover}
```

After the preamble, \renewcommands follow. The actual cover is created using \makecover. The body of the document should look simply like this:

```
\begin{document}
\makecover
\end{document}
```

6 Troubleshooting

6.1 Embedding Fonts

Printing services require that all fonts are embedded in the PDF, and that should also be so for the PDFs offered on the Department's website. Under most circumstances, fonts are already embedded after a normal run of pdflatex. This can be checked using the command line utility pdffonts.

If graphics are included that were created with programs that do not embed fonts, some fonts may be missing. We made good experiences with the following command in such cases:

```
gs -sDEVICE=pdfwrite -q -dBATCH -dNOPAUSE -dSAFER \
```

```
-dPDFX \
-dPDFSETTINGS=/prepress \
-dAutoFilterColorImages=false \
-dColorImageFilter=/FlatEncode \
-dAutoFilterGrayImages=false \
-dGrayImageFilter=/FlatEncode \
-sOutputFile=myDiss-out.pdf \
-c '>setdistillerparams' \
-f myDiss.pdf \
-c quit
```

6.2   Lines Extending into Margins

When lines extend into margins, additional places for hyphenation can be defined or manual line breaks inserted. Another method is switching to sloppy mode temporarily. This is done by inserting the command \sloppy shortly before the unfortunate line break. Shortly after, the command \fussy should be issued. Alternatively, there is an environment called sloppypar. The sloppy mode can be particularly useful with long URLs.

Sloppy mode should not be used for larger parts of the document or for the whole document.

7   Pointers for Writing Good LaTeX

▷ General advice: pay attention to detail.

▷ Check "Obsolete commands and packages".[20]

▷ Read "Mathmode" by Herbert Voß.[21]

▷ Follow the booktabs packages to typeset tables.

▷ Check package documentation. Some useful packages that are already loaded by our style are: algorithm2e, enumitem, floatrow (or subfig and sidecap), hyperref, listings, numprint, varioref.

To check their documentation, type texdoc followed by the package's name.

---

[20]http://www.ctan.org/tex-archive/info/l2tabu/

[21]http://ctan.org/tex-archive/info/math/voss/mathmode/

▷ Use BibTeX (with `biblatex`) rather than writing the bibliography by hand.

▷ Define your own macros for recurring markup and constructions. This helps to give your document a consistent look. It also allows to make changes by just changing the macro definitions.

As an example, suppose constructions like the following appear frequently in your document: `\{x\in\mathds{R} ; \: x>0 \}`. First, you should have a macro for the real numbers:

```
\newcommand{\RR}{\mathds{R}}
```

Then you should have a macro for "the set of all elements such that...":

```
\newcommand{\setst}[2]{\{#1 ; \: #2 \}}
```

This reduces the construction to `\setst{x\in\RR}{x>0}`. This results in easier to write and also more readable code. Also, if one later would like to have a different symbol in there (instead of the semicolon), more space after the colon, or whatever, only a *single* command definition has to be changed.

▷ Pay attention to horizontal spacing. One typical pitfall is that horizontal space between sentences is enlarged, or what appears like the end of a sentence to LaTeX. This behavior can be turned off globally by using `\frenchspacing`, and this is the default since February 2015. To get the old behavior, use the `frenchspacing=false` option. If french spacing is disabled, the following must be considered. If a dot, exclamation mark, or question mark is *not* to signal the end of a sentence, follow it by `\@`, i.e., a backslash and the "at" sign. Be aware that the effect of one of those characters (dot, exclamation mark, question mark) on horizontal spacing can survive other characters in between; e.g., in the following, the space between the closing parenthesis and the next word would be enlarged: `(foo.) bar`. To prevent that, write: `(foo.\@) bar`.

▷ Only put small horizontal spaces after intermediate dots in series of initials, like so: `A.\,B.~Name`

The tilde is in order that no line break happens between initials and the last name.

▷ Pay attention to hyphenation. For English text, check the documentation of the `hyphenat` package, which is automatically loaded. For German text, check the relevant section in the `babel` package's manual.

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A common pitfall is that compound words with a dash, like "forward-compatibility", will not be subject to any hyphenation other than at the point of the given dash if simply written with a dash in the source code. For English text, use `\hyp` instead to allow the word to be hyphenated otherwise, so write: `forward\hyp{}compatibility`. Another option is to use the functionality of the extdash packages, that is: `forward\-/compatibility`. For German text, use: `"=` (These are two characters: double quotes, then an equal sign.)

In order to have a dash that should *not* act as a hyphenation point, the extdash packages offers `\=/`, for example: `$k$\=/coloring`

▷ End paragraphs by a blank line or `\par`. A double backslash `\\` does *not* mark the end of a paragraph! When additional vertical spacing between paragraphs is required, use `\smallskip`, `\medskip`, or `\bigskip`.

▷ In case of excessive or inconsistent vertical spacing, try `\raggedbottom` at the beginning of the document. Beware, however, that this option also has its drawbacks with respect to typography.

Alternatively, use `\par\vfill` at the end of problematic pages.

▷ Use `\label` and `\ref` or `\autoref`. Do not hard-code Chapter, Section, etc. numbers.

▷ Do not be afraid of floating figures. Our style adjusts several placement parameters to improve the placement mechanism. Only use the h option to the `figure` environment when you are sure that it is required and will not cause problems. When using h, pay attention that no sequence like this occurs: figure, one or two lines of text, and then a page break.

▷ When additional colors are required, e. g., for syntax highlighting in source code, have a look at the university colors.[22]

▷ When no changes to the text are expected anymore until the next release, check for unfortunate line and page breaks. It is admissible to enlarge single pages by one or two lines by use of one of the following:

```
\enlargethispage{\baselineskip}
\enlargethispage{2\baselineskip}
```

---

[22] http://www.uni-kiel.de/presse/service/index.php?page=cd-farben

▷ Write clean source code; follow a certain coding style. Use blank lines and comments to structure the source code.

Write short lines in your source code, preferably use semantic line breaks. Rule of thumb: break the line (i. e., press the Return or Enter key) after each clause of a sentence. This makes the code easier to `diff`. This makes the code easier to edit. Do not confuse a line break with the wrap function of your editor!

▷ Use a version control system (such as Mercurial, Git, or Subversion) to manage LaTeX code. This helps tracking changes and prevents data loss. The Department can help setting up the required repositories.

8 Credits

The Kiel Computer Science Series was initiated by Hauke Fuhrmann and Reinhard von Hanxleden in 2011. Its concept and the interior design were established by Hauke Fuhrmann, Reinhard von Hanxleden, Lasse Kliemann, and Christoph Daniel Schulze. The book cover design was conceived by Hauke Fuhrmann. All LaTeX implementations, the website, and the manual were originally written and maintained by Lasse Kliemann. The responsibility for maintaining everything has moved to Christoph Daniel Schulze in late 2016.

A Optional Arguments for the LaTeX Style

The style takes several optional arguments. Most of them can (and usually should) be left at their defaults when publishing in the Series (for a few exceptions see Section 4).

A.1 Document Class

The style works with the `book` and `article` classes. When publishing in the Series, `book` should be used. But for other use cases, `article` may be more appropriate. For example, this manual is written using the LaTeX style of the Series combined with the `article` class.

A.2 Basic Layout

layout A Boolean option. When set `false`, the style tries to suppress all major changes to the layout. This is useful when combining with a different style, e. g., as required by another publisher. Such a situation may arise when parts of a thesis are published in a conference proceedings or in a journal where a different style is mandatory.

pagelayout A Boolean option. If `false`, no changes to the page geometry (margins, text block, etc.) are made (unless `compact` is used). See also the `paper` option below. The default is `true`.

paper, paperwidth, paperheight Controls the paper size. All sizes known to the `geometry` package can be chosen via the `paper` option, including `a4paper` and `a5paper`. If a paper size is not known to the `geometry` package, you can specify its dimensions explicitly using `paperwidth` and `paperheight`. For example, one would write:

```
paperwidth=13.5cm,paperheight=21.5cm
```

This will overwrite any choice made via `paper`.

The default paper size is US Trade, which is $15.24\,\text{cm} \times 22.86\,\text{cm}$. If using much larger paper sizes than this (e. g., A4), it is recommended to also specify `largepaper=true` (see below). For larger paper sizes, it also might be appropriate to increase the basic font size.

Using `paper=` will cause the style not to set the paper size (unless `compact` is used, which works by redifining the paper size). Together with `pagelayout=false`, it can be used to avoid any calls to the `geometry` package's `\geometry` command.

largepaper A Boolean option. If set `true` then other defaults for `marginfrac`, `headsepmult`, and `footskipmult` are set, which are better suited for larger paper sizes, e. g., A4. See below for details. The default is `false`.

marginfrac If the `twoside` option is given to the document class (default for `book`) then this parameter controls which fraction of the paper width is used for the inner margin; the outer margin is twice that size. The same fraction of the paper height is used for the upper margin; the bottom margin is twice that size. This page layout follows a "sound, elegant and basic medieval structure" (Bringhurst [Bri08, p. 173]).

The default is 12; if using `largepaper=true` then the default is 9.

When the paper proportions are 2 : 3, as with US Trade or Royal, then a value of 9 gives an additional feature: the height of the text block is the paper width.

When the `oneside` option is given to the document class (default for `article`), then first the above construction is applied, but finally the text block is horizontally centered. The width of the text block is not changed, so each the left and the right margin are $\frac{3}{2}$ times the page width divided by `marginfrac`.

`headsepmult` This number multiplied by `\baselineskip` defines the distance between header and text block. The default is `1.5`. This should not be changed when printing on US Trade paper or paper of approximately the same size. When `largepaper` is set, the default is `2`.

`footskipmult` This number multiplied by `\baselineskip` defines the distance between page number and text block. The default is `3`. This should not be changed when printing on US Trade paper or paper of approximately the same size. When `largepaper` is set, the default is `3.5`.

`bindingcorrection` This text block is shifted outwards by this amount. The default is $0\,\mathrm{mm}$.

`includehead` If `true`, headers and footers are part of the text block, reducing the amount of space available for the actual text, but keeping the page margins free. If `false`, the header and the footer will be part of the margins. Default is `true`.

`hcenter` A Boolean option. If `true`, the inner and outer margins are made equally wide while maintaining the width of the text block. The default is `false` if the `twoside` class option is given (default for `book` class), otherwise the default is `true`.

`runningtitle` A Boolean option. If `false`, then running titles are not printed. This option has no influence on the size of the text block. The default is `true`.

`leftmarkright` A Boolean option. If `true`, then `\rightmark` is defined to be the same as `\leftmark`. This is mostly useful for the `book` document class when there are no sections. Then the left and the right running titles will show the name of the chapter. The default is `false`.

`compact` When publishing electronically, it is desirable to reduce margins. This makes it easier to read the PDF on a small screen, like the one of an e-book

reader. It also makes it easier to work with the PDF on a computer screen with multiple windows opened. The `compact` option allows to trim margins, headers, and footers, while leaving the rest of the document as it is – in particular all page breaks are maintained exactly as they are. (Exception: title pages created with `\gentitlepage` receive some extra vertical space at the top for a better appearance.) Possible choices are:

`compact=` Do nothing. This is the default and should be used for printing.

`compact=moderate` Trim margins to a minimum and move headers and footers as close as possible to the text block.

`compact=strong` Trim margins to a minimum, disable headers completely and move footers as close as possible to the text block.

`font` To select the font. Default is `Palatino`. Choices for fonts are:

`font=Bera` *Bera Serif* combined with *Bera Sans* and *Bera Mono*.

`font=Charter` *Charter* combined with *Bera Sans* and *Bera Mono*. This font sometimes has the problem: "Too many math alphabets used in version normal." Fixes for this are welcome.

`font=ConcreteEuler` *Computer Concrete* with sans-serif headings and combined with *Euler* math fonts and *Bera Mono*.

`font=Kerkis` *Kerkis* with semi-bold headings and combined with *Bera Sans* and *Bera Mono*. This font sometimes has trouble in math mode, e. g., tildas extending into symbols.

`font=KP` The *KP* fonts. They have some resemblance with *Palatino*.

`font=LatinModern` *Latin Modern* with sans-serif headings and combined with *Bera Mono*.

`font=Palatino` *Palatino* combined with *Bera Sans* and *Bera Mono*.

`font=Times` *Times* combined with *Helvetica* and *Bera Mono*.

`font=Termes` *TEX Gyre Termes* combined with *Bera Sans* and *Bera Mono*.

`font=Utopia` *Utopia* combined with *Bera Sans* and *Bera Mono*.

`dottednumbers` A Boolean option, controlling whether a dot is placed at the end of section and theorem counters. If set `false`, section headings will look like "1.4.2 Heading". If set `true`, headings will look like "1.4.2. Heading". The latter

is more common in German texts. The default of the option depends on the `language` option: if `language=english` (the default), then `dottednumbers=false` is default. If `language=german`, then `dottednumbers=true` is default.

`halfparskip` A Boolean option. If set `true`, it disables paragraph indentation and instead increases vertical space between paragraphs. This type of layout is typographically disputed, but may be justified in certain cases. It is justified for example when the document contains many short paragraphs.

`halfparskipfill` If using `halfparskip`, this option controls the fraction of a line that is kept blank at the end of a paragraph. This is needed to detect the end of a paragraph even if it is the last paragraph on a page. The default is `0.25`, i.e., $\frac{1}{4}$ of a line.

`frenchspacing` If set `true` (the default), then no additional horizontal space is added after punctuation marks. When turning this option off, please also read the corresponding comments in Section 7.

A.3   Bibliography

`biblatex` A Boolean option controlling whether the `biblatex` package is loaded. The default is `true`.

`biblatexstyle` The style to use with `biblatex`, if using `biblatex`. The value of this option is passed to the `style=` option of `biblatex`. The default is `alphabetic`.

`biblatexBackend` The value to be passed via the `backend` option to `biblatex`. Default is `biber`.

`biblatexOptions` Additional options to pass to the `biblatex` package, if loaded. Default is `maxbibnames=10,babel=other`.

`biblatexAdditionalOptions` Options to pass to `biblatex` in addition to `biblatexOptions`. Default is empty. This option is useful if one would like to use the default for `biblatexOptions` plus some additional options.

`babelbib` A Boolean option controlling whether the `babelbib` package is loaded. The default is `false`. Only change this option to `true` when you need to use `bibtex` instead of `biblatex` and the document's language is German.

natbib A Boolean option controlling whether the `natbib` package is loaded. The default is `false`.

natbibOptions Options to pass to the `natbib` package, if loaded. The default is `sort,numbers`.

bibliographystyle The bibliography style to use for `bibtex`. Default is `alphaurl`. This option is ignored when using `biblatex`; then `biblatexstyle` and `biblatexOptions` can be used to tune the bibliography style (and the citation style).

bibresource The BibTeX database file to use. If using `biblatex`, this is directly passed to `\addbibresource`, if non-empty. If using `bibtex`, this is passed to `\bibliography`.

refname The name of the bibliography as it appears in the heading and table of contents.

A.4   Environments

algorithm Whether the `algorithm2e` package should be loaded. Default is `true`.

algorithmOptions Options to pass to the `algorithm2e` package. Default is:

> `linesnumbered,ruled,vlined`

algorithmForwardCompatibility A Boolean option controlling whether certain forward-compatibility hacks for the `algorithm2e` package are loaded. The default is `true`. You can disable this if it should cause problems.

algorithmBackwardCompatibility The same for backward-compatibility. It is `true` by default, but can be safely disabled by users of recent TeX Live versions.

tikz A Boolean option whether the `tikz` package and several TikZ libraries are loaded. Default is `true`.

figure Which figure system to use. You can choose from the following options:

figure= No figure system is loaded. You can then manually load and configure a figure system of your choice.

figure=floatrow The `floatrow` package is used. This is the default.

figure=subfig The subfig package is used. Additionally, the sidecap package is loaded.

subfigOptions Options to be passed to the subfig package, if it is loaded. Whether it is loaded can be controlled via the figure option. The default for subfigOptions is caption=false,font=footnotesize.

theorems Which theorem numbering scheme to use. Per default, no theorem environments are defined. The following values can be chosen:

theorems=numbersfirst Theorems start with the number first, e.g., "3.2.7 Theorem". All theorem types (theorem, proposition, etc.) and equations share the same counter. Third-level numbers are reset in each section. Numbering is within sections, e.g., theorems in a section with number 3.2 are numbered 3.2.1, 3.2.2, and so on. To avoid confusion, numbering of subsections and below is disabled.

This numbering scheme makes it very comfortable to find a particular theorem or equation, given its number. It is also suited for numbering each paragraph.

theorems=numberslast The number comes second, e.g., "Theorem 3.2.7". All theorem types (theorem, proposition, etc.) share the same counter, but equations have their own counter. Numbering is within chapters.

You can also load a theorem system of your choice, e.g., ntheorem.

theoremswithin The environment in which theorems are numbered. If using theorems=numbersfirst, then the default is section when using the book class and subsection when using the article class. If theorems=numberslast, then the default is chapter when using the book class and section when using the article class. When there are no numbered sections in a book, it should be set to chapter in order to avoid redundant "0" components in theorem designators. When there are no numbered subsections in an article, it should be set to section for the same reason. The special setting theoremswithin=document will have theorems numbered consecutively 1, 2, 3, etc. across the entire document.

A.5   Misc Settings

acronymPackage Which package to use for handling acronyms. Valid options are acronyms and acro.

acronymOptions Options to be passed to the `acronym` package. The default is `smaller,nohyperlinks,printonlyused`.

acroLabelWidth If the `acro` package is used, this specified the amount of space reserved for the acronyms on the left side of the list of acronyms. The default is `4em`, and may have to be increased to suit your particular list of acronyms.

babelOptions Options to pass to the `babel` package. Default is `ngerman,english`, if also `language=english` is given (which is the default for the `language` option). If `language=german` is given, the default is `english,ngerman`. The language can be switched inside the document using the `\selectlanguage` command or the `otherlanguage` environment.

hyphenatOptions Options to pass to the `hyphenat` package. Default is empty.

inputencOptions The input encoding to choose. Default is `utf8`.

language Controls defaults for `babelOptions`, `variorefOptions`, `refname`, and `dottednumbers`. Possible values are `language=english` (the default) and `language=german`.

variorefOptions Options to pass to the `varioref` package. Default are no options if `language=english`. If `language=german` then the default is `ngerman`.

A.6 Missing an Option?

In case you would like to configure the style in a way not yet supported, please contact the implementation maintainer (Section 8). Do not use modified versions of the style file, unless you know exactly what you are doing.

A.7 Examples

A book in *Latin Modern* font:

```
\documentclass[10pt]{book}
\usepackage[font=LatinModern]{ifiseries}
\begin{document}
\end{document}
```

An article on A4 paper:

```
\documentclass[11pt,twoside]{article}
\usepackage[paper=a4paper,largepaper=true]{ifiseries}
\begin{document}
\end{document}
```

B Known Bugs

1. The PDF bookmarks for sections in the appendix are broken when using the `article` class. Any suggestions are welcome. Since publishing in the Series implies using the `book` class, this bug does not affect publishing in the Series.

C News

2022-01-18

Publication process change. URN:NBN is removed from `ifiseries.sty`. Publication is done via MACAU as detailed in Section 2.1.3. A dissertation does no longer be submitted twice but only once to MACAU, which will also be counted as a publication in the Series if the appropriate checkbox is checked

2019-09-21

Added a PDF to better explain the meaning of the different cover settings.

2019-03-05

The `\disseidesstatt` macro was changed to fit the new doctoral degree regulations (*Promotionsordnung*) from August 9th, 2018.

2018-10-24

The `\eidesstatt` macro was replaced by two macros: `\studeidesstatt` and `\disseidesstatt`. An implication is that the style finally has a ready-made declaration of originality page for you to use.

2017-06-02

The `\metapage` macro now takes two more arguments, both inserted after the first one (see Section 3.2 for details). Also, the "Eidesstattliche Erklärung" is now called "Selbstständigkeitserklärung" upon the examination office's request.

2017-04-13

Removed support for the `legacytexlive` option and updated the style to work with current installations. We now recommend to use at least TeX Live 2015. Also added support for the `acro` package.

2017-04-12

Major expansion of the manual and a general overhaul of the publication process, including changes to the people responsible for things.

2015-02-04

Make `\frenchspacing` the default, finally.

2015-01-27

Remove `bindingoffset` option, introduce `bindingcorrection` instead. The new option has no influence on the width of the text block and thus can be used for last-minute adjustments.

2012-03-11

For the bibliography, `biblatex` is now the default instead of `bibtex`. To get `bibtex` back, use `biblatex=false,natbib=true`. In any case, the `\tocbibliography` does not take an argument anymore. Instead, the bibliography database can (for `bibtex` it must) be specified using the `bibresource` option, e. g., `bibresource=my/bib/file`.

biblatex is almost a drop-in replacement for `bibtex` with many interesting features. In particular, it allows multilingual bibliographies easily – just add appropriate `hyphenation` fields to your BibTeX database entries. Please consult the `biblatex` documentation to learn more about the exciting new possibilities.

Unfortunately, `biblatex` is not available on the ancient TeX Live 2009, which still ships with Ubuntu at the time of writing. It is recommended to install a recent

TeX Live (at least 2011) manually. Compatibility with older versions is achieved via `legacytexlive=true`, but this of course will disable `biblatex`.

Bibliography

[Bri08]   Robert Bringhurst. *The elements of typographic style*. Hartley & Marks, 2008. ISBN: 978-0-88179-206-5.