The **dccpaper** bundle: Classes for submissions to IJDC and IDCC

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Abstract

This is the documentation for the dccpaper bundle, consisting of the following classes:

- ijdc-v14, which corresponds to the template used by the International Journal of Digital Curation (IJDC), beginning with volume 14.

- ijdc-v9, which corresponds to the template used by the International Journal of Digital Curation for volumes 9 to 13 inclusive.

- idcc, which corresponds to the template used for the International Digital Curation Conference, beginning with IDCC15.

The version to which it relates is v2.6, last revised 2025-06-13.

The code for this bundle is maintained at https://github.com/alex-ball/dccpaper.

Please note that the DOI attached to this document is fake and should not be used for identification purposes.

> **Disclaimer:** Only the Microsoft Word templates are officially supported at the time of writing (though the IJDC accepts conversions to ODT format). These LaTeX classes are maintained primarily to support legacy documents.

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Introduction

The LaTeX class **ijdc-v14** produces camera-ready papers and articles suitable for inclusion in the International Journal of Digital Curation (IJDC), with applicability from volume 14 onwards. This is a minor change to the template used for volumes 9–13, which remains available as **ijdc-v9**. The similar **idcc** class produces submissions for the International Digital Curation Conference (IDCC), beginning with the 2015 conference. This document explains how to use these classes.

Dependencies

Certain aspects of the template design have been implemented using third-party packages, aside from those that are required parts of the LaTeX system. Therefore you should ensure that you have these packages installed on your system before attempting to use the class.

- atbegshi is used for switching geometry between pages.

- Tables in your document must be formatted according to the design principles promoted and supported by the booktabs package.

- caption is used to format the figure and table captions.

- etoolbox is used behind the scenes for patching commands.

- footmisc is used to format the footnotes.

- titlesec is used to format the section headings.

- hyperxmp is used for including an XMP metadata packet.

- iftex is used to test which TeX engine you are using. If you use LuaLaTeX or X‌ELaTeX you will also need fontspec.

In some cases the class prefers to use packages that are not part of the base installation (but are nevertheless commonly available in TeX distributions), but will fall back to their base equivalents if necessary.

- If using the **ijdc-v14** class or the **idcc** class for conferences from 2020, the main text font will be the first available out of Baskerville, BaskervilleF (baskervillef), Baskervaldx (baskervaldx), Baskervald (baskervaldadf), or the standard Computer Modern/Latin Modern. The sans-serif font will be the first available out of Lucida Sans, Go Sans (gofonts) or Helvetica (helvet).

- If using the **ijdc-v9** class or the **idcc** class for conferences up to 2019, newtx will be used if available in place of mathptmx, and tgheros will be used in place of helvet.

- xcolor will be used if available in place of color.

For referencing, you are encouraged to use either biblatex-apa (preferred) or apacite.

Loading the Classes

International Journal of Digital Curation

The class is loaded in the usual way with `\documentclass[⟨options⟩]{ijdc-v14}`. The following options are available:

`paper` Use this for research papers.

`article` Use this for general articles if you like, but you do not have to as the class defaults to this state.

`conference` Use this for a conference paper.

`brief` Use this for a brief report.

`editorial` Use this for an editorial.

`preprint` Use this for a conference preprint.

International Digital Curation Conference

The class is loaded in the usual way with `\documentclass[⟨options⟩]{idcc}`. Two types of option are available. The first relates to the conference to which the submission will be made:

`15`, `16`, . . . , `25`, `26` Use this to select the year of the conference, e.g. `26` for 2026.

The second relates to the type of submission:

`lightning` Use this for lightning talk proposals.

`paper` Use this for conference papers and extended abstracts. It is normally the default.

`poster` Use this for poster proposals.

`workshop` Use this for workshop proposals.

`abstract` (Legacy.) Use this for conference paper extended abstracts. This becomes the default if you select one of the options for the 2019 to 2022 conferences inclusive.

`research` (Legacy.) Use this for full research papers.

`practice` (Legacy.) Use this for full practice papers. This becomes the default if you select one of the options for the 2015 to 2018 conferences inclusive.

`demo` (Legacy.) Use this for demonstration proposals.

`bof` (Legacy.) Use this for Birds of a Feather session proposals.

`data` (Legacy.) Use this for data paper abstracts and full data papers.

> To emulate a conference paper/extended abstract from 2024, use the `ijdc-v14` class with the `conference` option, rather than the `idcc` class.

Preamble Commands

The following commands should be given in the preamble to fill out the document metadata.

The following command should be used in all submissions.

`\title[`⟨*name*⟩`]{`⟨*full version*⟩`}` The long version of the title is shown on the cover page of the submission, while the short version appears in the (even page) headers.

The following commands should be given in general articles and IDCC submissions. They should *not* be given in peer-reviewed IJDC papers until after the peer review process is complete.

`\author{`⟨*name*⟩`}` The name of one author. Repeat the command for each additional author.

It is customary in IJDC and IDCC papers to group authors by institution. Within each institution, the authors are ordered by the level of contribution (or alphabetically where this is equal), and the institutional groups are ordered by the level of contribution of the first author in the group (or alphabetically by first author where this is equal). A different convention may be used if appropriate.

`\affil{`⟨*name*⟩`}` The affiliation (institution, company) of the immediately preceding author(s). This command may be repeated as necessary.

`\correspondence{`⟨*name, postal address.*⟩ `Email: \email{`⟨*email address*⟩`}}` Name, address and email address of the corresponding author. This information appears in the footer of the cover page.

If an IJDC submission is a conference paper (that has not already been formally published), for reasons of transparency the name of the conference should be given.

`\conference{`⟨*name of conference*⟩`}`
`\conference*{`⟨*name of conference*⟩`}` The conference at which the earlier version of the paper was presented, e.g. 'the International Digital Curation Conference IDCC24, 19-21 February 2024'. Use the unstarred command if this paper is a reworked version of the conference paper; use the starred command if the paper is unchanged from the conference version.

For IDCC papers, authors are invited to record the date on which they made their submission.

`\submitted{`⟨*date*⟩`}` The date on which the initial submission was made to the conference by the authors.

Some additional commands are used by the editorial team when preparing a submission for publication. Though authors would not normally need to use them, here they are for completeness.

`\received{`⟨*date*⟩`}`   The date on which the initial submission was received by the editorial team (IJDC papers only).

`\revised{`⟨*date*⟩`}`   The date on which the latest revision was received by the editorial team.

`\accepted{`⟨*date*⟩`}`   The date on which the submission was accepted for publication.

`\subno{`⟨*number*⟩`}`   The submission number allocated by the IJDC Open Journal System.

`\volume{`⟨*number*⟩`}`   The number of the IJDC volume in which the submission will be published.

`\issue{`⟨*number*⟩`}`   The number of the IJDC issue in which the submission will be published.

`\date{`⟨*year*⟩`}`   The year in which the submission will be published.

Document Body

When it comes to writing the body of the submission, the template should allow you to use the usual LaTeX markup without much adaptation. So, for example, for a full paper or an IDCC extended abstract, you would start as in Figure 1.

```
\begin{document}
\maketitle

\begin{abstract}
Text of the abstract\dots
\end{abstract}

\section{Introduction}

The text of the introduction starts here\dots
```

Figure 1. Sample code for the beginning of an IJDC submission or IDCC paper.

Please note that if submitting a poster, lightning talk or demonstration proposal to the IDCC instead of a paper, you should *not* use the abstract environment. Instead, start with a section headed 'Abstract' as in Figure 2 (for posters or lightning talks) or Figure 3 (overleaf, for demonstrations). Further guidance on how to write such submissions is given on the conference website.

If submitting a workshop proposal, please see the second document template in Appendix D.

```
\begin{document}
\maketitle

\section{Abstract}

The text of the proposal starts here\dots
```

Figure 2. Sample code for the beginning of an IDCC proposal.

IJDC and IDCC papers follow the formatting conventions specified by the American Psychological Association (APA, 2010), with a few minor changes. There are some instances where this affects how you write your submission.

Headings

Five levels of heading are defined (`\section` down to `\subparagraph`) but most authors only need the first one or two levels. `\section` and `\subsection` headings should be written in title case, that is, with Each Significant Word Given an Initial Capital, while the remaining headers should be written in sentence case as if running text. Do not end your heading names with full stops/periods.

```
\begin{document}
\maketitle

\begin{description}
\item[Demo Organiser(s):]~\\
Name, position, organization.
\end{description}

\section{Abstract}

The text of the proposal starts here\dots
```

Figure 3. Sample code for the beginning of an IDCC demonstration proposal.

Quotations

Quotations should be put in a `quote` environment, wrapped in inverted commas, with the citation placed in parentheses at the end.

> 'Cras porttitor dictum lacus. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos hymenaeos. In consectetuer, diam at volutpat elementum, libero lectus pulvinar sem.' (Borgman, 2007)

Tables

- Table text should be in the `\small` font size.

- Tables should not use vertical lines to separate columns, and ideally should not use horizontal lines to separate rows in the body of the table; white space and text alignment should be sufficient. The top and bottom rules should be drawn with `\toprule` and `\bottomrule` respectively, with other rules drawn with `\midrule` or `\cmidrule`. See the documentation of the `booktabs` package for more information.

- Text in the body of tables should normally be left-aligned. Numeric data should be aligned at the decimal point among itself but centred with respect to the heading; the D column type from the `dcolumn` package and the S column type from the `siunitx` package are particularly useful for this.

- Where decked (subdivided) headings are used, there should be a border beneath the upper-level heading (column spanner) indicating to which of the lower-level headings it applies.

- Empty cells can either be left blank or represented by an em dash. A blank cell indicates non-applicability, while an em dash signifies that the data was not collected or has been omitted.

- Captions should end in a full stop/period and appear above the table.

Table 1 on the following page demonstrates these features. The code used to produce the table is shown in Figure 4 (the `dcolumn` package was loaded in the preamble). Note the different relative positions of the table and figure captions.

Reference List and Citations

As mentioned above, you are encouraged to use either `biblatex-apa` (with `biblatex`/`biber`) or `apacite` (with BibTeX) to generate your reference list and citations.

- To use `biblatex` for your reference list, add the following to your preamble:

  ```
  \usepackage[style=apa]{biblatex}
  \addbibresource{⟨bib file⟩.bib}
  ```

  Prior to the release of `biblatex-apa` v7.5, you also needed this line:

  ```
  \DeclareLanguageMapping{british}{british-apa}
  ```

  Include `\printbibliography` at the end of the document to print the list.

- To use `apacite` for your reference list, add the following to your preamble:

  ```
  \usepackage{apacite}
  \bibliographystyle{apacite}
  ```

  and include `\bibliography{⟨bib file⟩}` at the end of the document.

In-text citations are given parenthetically in author–date format. If author forms part of the narrative, as with Rinaldo et al. (2011), only the date is added in parenthesis, otherwise both author and date are given (Smith et al., 2003). Where multiple citations are given at once, the order should be the same as in the reference list, i.e. alphabetically by author, with co-authored works coming after singly-authored works, then chronologically (Borgman et al., 2006; Digital Curation Centre, 2005; Mazairac & Beetz, in press; Santini, 2004a, 2004b; Smith et al., 2003; Witten & Frank, 2005). Please consult the documentation of the package you are using for how to achieve this.

Please **do not cite entire websites** through the reference list mechanism. Instead, provide the title of the website (in English) and the URL in a footnote.[1] If the title of the website is not clear from the visible pages, the contents of the HTML title element may be used. Other explanatory notes, whether about the body text or cited items, should also be given as footnotes rather than as endnotes or reference list annotations.[2]

Please **provide digital object identifiers** (DOIs) for referenced items where available.

The data underlying the results presented in the submission should be placed in an appropriate custodial environment and cited (Waterton et al., 2013), with the reference placed in the reference list. The `biblatex-apa` package provides a `data` entry type which should be used for datasets; the `entrysubtype` value should be 'Data set' or similar. If using `apacite`, use the `misc` entry type with a `type` value of 'Data set' or similar.

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[1] Digital Curation Centre: http://www.dcc.ac.uk/
[2] This avoids unnecessary page turning or scrolling.

Table 1. Papers and articles published in the IJDC in 2008 and 2009.

Issue	Frequency		Percentage	
	Peer-reviewed	General	Peer-reviewed	General
3(1)	9	7	56.3	43.8
3(2)	5	7	41.7	58.3
4(1)	10	4	71.4	28.6
4(2)	8	6	57.1	42.9
4(3)	3	15	16.7	83.3

```
\begin{table}
\caption{Papers and articles published in the IJDC in 2008 and 2009.}
\label{tab:issues}
\centering\small
\begin{tabular}{lD..{2.0}D..{2.0}D..{2.1}D..{2.1}}
\toprule
& \multicolumn{2}{c}{Frequency} & \multicolumn{2}{c}{Percentage} \\
\cmidrule(lr){2-3}\cmidrule(l){4-5}
Issue
& \multicolumn{1}{c}{Peer-reviewed} & \multicolumn{1}{c}{General}
& \multicolumn{1}{c}{Peer-reviewed} & \multicolumn{1}{c}{General} \\
\midrule
3(1) & 9 & 7 & 56.3 & 43.8 \\
3(2) & 5 & 7 & 41.7 & 58.3 \\
4(1) & 10 & 4 & 71.4 & 28.6 \\
4(2) & 8 & 6 & 57.1 & 42.9 \\
4(3) & 3 & 15 & 16.7 & 83.3 \\
\bottomrule
\end{tabular}
\end{table}
```

Figure 4. Code used to typeset Table 1.

Acknowledgements

References

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Author.

Borgman, C. L. (2007). *Scholarship in the digital age: Information, infrastructure, and the Internet*. MIT Press.

Borgman, C. L., Wallis, J. C., & Enyedy, N. (2006). Building digital libraries for scientific data: An exploratory study of data practices in habitat ecology. In J. Gonzalo, C. Thanos, M. F. Verdejo & R. C. Carrasco (Eds.), *Lecture Notes in Computer Science: Vol. 4172. Research and Advanced Technology for Digital Libraries* (pp. 170–183). doi:10.1007/11863878_15.

Consultative Committee for Space Data Systems. (2012). *Reference model for an Open Archival Information System (OAIS)* (Magenta Book No. CCSDS 650.0-M-2). http://public.ccsds.org/publications/archive/650x0m2.pdf

Digital Curation Centre. (2005). *Digital curation and preservation: Defining the research agenda for the next decade* (Report of the Warwick Workshop, November 7–8, 2005). http://www.dcc.ac.uk/webfm_send/346

Esanu, J., Davidson, J., Ross, S., & Anderson, W. (2004). Selection, appraisal, and retention of digital scientific data: Highlights of an ERPANET/CODATA workshop. *Data Science Journal*, *3*, 227–232. http://www.jstage.jst.go.jp/browse/dsj

Mazairac, W., & Beetz, J. (in press). BIMQL: An open query language for building information models. *Advanced Engineering Informatics*. doi:10.1016/j.aei.2013.06.001.

National Science Foundation, Blue-Ribbon Advisory Panel on Cyberinfrastructure. (2003). *Revolutionizing science and engineering through cyberinfrastructure*. http://www.nsf.gov/publications/pub_summ.jsp?ods_key=cise051203

Rinaldo, C., Warnement, J., Baione, T., Kalfatovic, M. R., & Fraser, S. (2011). Retooling special collections digitisation in the age of mass scanning. *Ariadne*, *67*. http://www.ariadne.ac.uk/issue67/rinaldo-et-al/

Santini, M. (2004a). *A shallow approach to syntactic feature extraction for genre classification* [Paper presented at the Seventh Annual Colloquium for the UK Special Interest Group for Computational Linguistics, Birmingham, UK]. ftp://ftp.itri.bton.ac.uk/reports/ITRI-04-02.pdf

Santini, M. (2004b). *State-of-the-art on automatic genre identification* (Technical Report No. ITRI-04-03). Information Technology Research Institute. ftp://ftp.itri.bton .ac.uk/reports/ITRI-04-03.pdf

Smith, M., Barton, M., Bass, M., Branschofsky, M., McClellan, G., Stuve, D., & Walker, J. H. (2003). DSpace: An open source dynamic digital repository. *D-Lib Magazine*, *9*(1). doi:10.1045/january2003-smith.

Waterton, C., Watson, N., & Norton, L. (2013). *Understanding and acting in Loweswater, 2007–2010* [Data set]. doi:10.5255/UKDA-SN-7359-1.

Witten, I. H., & Frank, E. (2005). *Data mining: Practical machine learning tools and techniques* (2nd ed.). Morgan Kaufmann.

Appendix A: Change History

v2.6 2025-06-13

Added details of IDCC 2026 and `paper` option to `idcc` class. Added `brief` option to `ijdc-v14` class. Removed some unused internal settings.

v2.5 2024-08-23

Added details of IDCC 2025.

v2.4 2023-08-11

Added details of and update documentation for IDCC 2024.

v2.3 2022-01-27

Added details of IDCC 2022. Added `conference` option to `ijdc-v14` class.

v2.2 2021-09-03

Updated procedure for inserting XMP packet into PDF output.

v2.1 2021-01-25

Added details of IDCC 2021.

v2.0 2020-01-15

Added new formatting for IJDC volume 14 and IDCC 2020.

v1.8.1 2019-10-07

Updated to work with changed LaTeX internals.

v1.8 2019-03-08

Added details of IDCC 2020.

v1.7.1 2018-05-14

Fixed loading of maths fonts. Reverted experimental formatting.

v1.7 2018-05-01

Added details of IDCC 2019, along with new formatting and submission types.

v1.6 2017-10-20

Added details of IDCC 2018. Allowed files to be unpacked by TeX without compiling. Refactored some documentation commands for efficiency.

v1.5 2016-08-05

Added details of IDCC 2017. Slightly refactored code to convert dccpaper-base.tex into a package, dccpaper-base.sty.

v1.4.1 2015-06-22

Fixed bug preventing compilation in DVI mode.

v1.4 2015-05-22

Added details of IDCC 2016. Improved whitespace handling. Fixed bug triggered by `demo` option. Fixed missing use of `\Authfont`. Added missing DOI tweak for biblatex-apa.

v1.3.2 2015-01-21

Removed dependence on user supplying a title. Fixed bug triggered by numbered sections.

v1.3.1 2014-10-14

Fixed typographical error relating to details of IDCC 2015.

v1.3 2014-08-07

Added documentation of `\conference` command. Improved display of footnotes, footnote markers and `itemize/enumerate` lists. Fixed a bug in the handling of author information. Fixed and improved how the transition from first to subsequent page geometry is achieved. Updated the details of IDCC 2015.

v1.2 2014-04-11

Added implementation, installation and licence sections to the Appendix of the documentation. Moved the majority of the file postamble information to the README, and synchronized the latter with the GitHub version. Improved the adaptation of `apacite` referencing to the house style.

v1.1 2014-03-06

Refactored the source for distribution through CTAN, and to allow the addition of the `idcc` class.

v1.0 2013-12-18

First public release of `ijdc-v9` class.

Appendix B: Implementation

ijdc-v14.cls and ijdc-v9.cls

The type of paper is recorded in `\dccp@type`. The possible values are 'General Article', 'Research Paper' (was 'Peer-Reviewed Paper'), or 'Editorial'. The latter is provided through the constant `\dccp@editorial` so we can test for it later with ease.

```
21  \def\dccp@type{General Article}
22  \def\dccp@editorial{Editorial}
```

We provide a boolean for whether to underline the masthead.

```
23  \newif\ifdcp@mast@ul
```

These five options set `\dccp@type` appropriately. The `editorial` option additionally switches page numbers to roman numerals.

```
24  \DeclareOption{editorial}{\let\dccp@type=\dccp@editorial%
25    \AtBeginDocument{% Editorials use Roman numerals for page numbers
26      \pagenumbering{roman}%
27      \renewcommand{\thelastpage}{\@roman\c@lastpage}%
28    }%
29  }
```

The `ijdc-v14` template uses the term 'Research Paper'.

```
30  \DeclareOption{paper}{\def\dccp@type{Research Paper}}
```

The `ijdc-v9` template uses the term 'Peer-Reviewed Paper'.

```
30  \DeclareOption{paper}{\def\dccp@type{Peer-Reviewed Paper}}
```

The `article` option is redundant, but included for symmetry with `paper`.

```
31  \DeclareOption{article}{\def\dccp@type{General Article}}
32  \DeclareOption{conference}{\def\dccp@type{Conference Paper}}
33  \DeclareOption{brief}{\def\dccp@type{Brief Report}}
34  \DeclareOption{preprint}{\def\dccp@type{Conference Preprint}}
35  \ProcessOptions\relax
```

These definitions are used to fill out the headers and footers. They include some details that are defined in `dccpaper-base` and provided by the user: `\thedate`, `\thevolume`, `\theissue`, `\thelastpage`, `\thedoi`.

```
37  \def\dccp@publ@long{International Journal of Digital Curation}
38  \def\dccp@publ@short{IJDC}
39  \def\dccp@publ@msg{The \emph{\dccp@publ@long} is an international journal
40  committed to scholarly excellence and dedicated to the advancement of digital
41  curation across a wide range of sectors. The \dccp@publ@short\ is published by
```

```
42  the University of Edinburgh on behalf of the Digital Curation Centre. ISSN:
43  1746-8256. URL: \url{http://www.ijdc.net/}}
44  \def\dccp@titlefoot@bib{%
45    \dccp@publ@long\\
46    \thedate, Vol.\ \thevolume, Iss.\ \theissue, \thepage--\thelastpage.%
47  }
48  \def\dccp@titlefoot@doi{%
49    \url{https://doi.org/\thedoi}\\
50    DOI: \thedoi
51  }
52  \def\dccp@normhead@doi{doi:\thedoi}
```

\dccp@subject will be used for the PDF subject, and will specify the journal and the issue.

```
53  \def\dccp@subject{\dccp@publ@long, \thedate, Vol.\ \thevolume, Iss.\ \theissue}
```

Different fonts are used depending on the volume. The `ijdc-v14` template uses Baskerville as the main text font.

```
55  \def\dccp@variant{baskerville}
```

The `ijdc-v9` template uses Times.

```
55  \def\dccp@variant{times}
```

The class is based on the article class, and uses A4 paper.

```
57  \LoadClass[a4paper,12pt,twoside]{article}
```

The rest of the formatting happens in the following file.

```
59  \RequirePackage{dccpaper-base}
```

idcc.cls

These definitions are used to fill out the headers and footers. The ones for \dccp@publ@short and \dccp@publ@msg are a fallback, defined here but ordinarily overridden using a package option.

```
21  \def\dccp@publ@long{International Digital Curation Conference}
22  \def\dccp@publ@short{IDCC}
23  \def\dccp@publ@msg{The \dccp@publ@long\ takes place on [TBC] in [TBC]. URL:
24  \url{https://www.dcc.ac.uk/events/idcc}}
```

\dccp@subject will be used for the PDF subject. The value here is again a fallback, ordinarily overridden using a package option.

```
25  \def\dccp@subject{\dccp@publ@long}
```

We provide a boolean for whether to underline the masthead.

```
27  \newif\ifdcp@mast@ul
28  \dcp@mast@ultrue
```

We provide a boolean for deciding whether to print 'Workshop' or 'Workshop Proposal'.

```
29  \newif\ifdcp@wplong
30  \dcp@wplongtrue
```

Paper type is recorded in `\dccp@type`. The values are normally set by an option key. Over the years there are have been several different default values (representing the most popular submission type).

```
31  \def\dccp@type@practice{Practice Paper}
32  \def\dccp@type@abstract{Extended Abstract}
33  \def\dccp@type@paper{Conference Paper}
34  \def\dccp@type@fallback{\dccp@type@paper}
35  \def\dccp@type{\dccp@type@fallback}
```

These options set the value of `\dccp@type` appropriately.

```
36  \DeclareOption{abstract}{\def\dccp@type{\dccp@type@abstract}}
37  \DeclareOption{paper}{\def\dccp@type{\dccp@type@paper}}
38  \DeclareOption{research}{\def\dccp@type{Research Paper}}
39  \DeclareOption{lightning}{\def\dccp@type{Lightning Talk}}
40  \DeclareOption{data}{\def\dccp@type{Data Paper}}
41  \DeclareOption{poster}{\def\dccp@type{Poster}}
42  \DeclareOption{demo}{\def\dccp@type{Demonstration}}
43  \DeclareOption{bof}{\def\dccp@type{Birds of a Feather}}
44  \DeclareOption{workshop}{\def\dccp@type{Workshop\ifdcp@wplong\space Proposal\fi}}
45  \DeclareOption{practice}{\def\dccp@type{\dccp@type@practice}}
```

Different fonts are used depending on the year of the conference. Since 2020, Baskerville is used as the main text font. Previously, Times was used.

```
46  \def\dccp@variant{baskerville}
```

The details for each conference are slightly different, so they each have an associated option for overriding the fallback definitions for `\dccp@publ@short`, `\dccp@publ@msg` and `\dccp@subject`.

```
47  \DeclareOption{15}{%
48    \def\dccp@publ@short{IDCC15}
49    \def\dccp@publ@msg{The 10th \dccp@publ@long\ takes place on 9--12 February
50    2015 in London. URL: \url{http://www.dcc.ac.uk/events/idcc15/}}
51    \def\dccp@subject{10th \dccp@publ@long, 2015}
52    \def\dccp@type@fallback{\dccp@type@practice}
53    \def\dccp@variant{times}
54    \dcp@mast@ulfalse
55    \dcp@wplongfalse
```

```
 56 │ }
 57 │ \DeclareOption{16}{%
 58 │   \def\dccp@publ@short{IDCC16}
 59 │   \def\dccp@publ@msg{The 11th \dccp@publ@long\ takes place on 22--25 February
 60 │   2016 in Amsterdam. URL: \url{http://www.dcc.ac.uk/events/idcc16/}}
 61 │   \def\dccp@subject{11th \dccp@publ@long, 2016}
 62 │   \def\dccp@type@fallback{\dccp@type@practice}
 63 │   \def\dccp@variant{times}
 64 │   \dcp@mast@ulfalse
 65 │   \dcp@wplongfalse
 66 │ }
 67 │ \DeclareOption{17}{%
 68 │   \def\dccp@publ@short{IDCC17}
 69 │   \def\dccp@publ@msg{The 12th \dccp@publ@long\ takes place on 20--23 February
 70 │   2017 in Edinburgh. URL: \url{http://www.dcc.ac.uk/events/idcc17/}}
 71 │   \def\dccp@subject{12th \dccp@publ@long, 2017}
 72 │   \def\dccp@type@fallback{\dccp@type@practice}
 73 │   \def\dccp@variant{times}
 74 │   \dcp@mast@ulfalse
 75 │   \dcp@wplongfalse
 76 │ }
 77 │ \DeclareOption{18}{%
 78 │   \def\dccp@publ@short{IDCC18}
 79 │   \def\dccp@publ@msg{The 13th \dccp@publ@long\ takes place on 19--22 February
 80 │    2018 in Barcelona. URL: \url{http://www.dcc.ac.uk/events/idcc18/}}
 81 │   \def\dccp@subject{13th \dccp@publ@long, 2018}
 82 │   \def\dccp@type@fallback{\dccp@type@practice}
 83 │   \def\dccp@variant{times}
 84 │   \dcp@mast@ulfalse
 85 │ }
 86 │ \DeclareOption{19}{%
 87 │   \def\dccp@publ@short{IDCC19}
 88 │   \def\dccp@publ@msg{The 14th \dccp@publ@long\ takes place on 4--7 February
 89 │    2019 in Melbourne. URL: \url{http://www.dcc.ac.uk/events/idcc19/}}
 90 │   \def\dccp@subject{14th \dccp@publ@long, 2019}
 91 │   \def\dccp@type@fallback{\dccp@type@abstract}
 92 │   \def\dccp@variant{times}
 93 │   \dcp@mast@ulfalse
 94 │ }
 95 │ \DeclareOption{20}{%
 96 │   \def\dccp@publ@short{IDCC20}
 97 │   \def\dccp@publ@msg{The 15th \dccp@publ@long\ takes place on 17--20 February
 98 │    2020 in Dublin. URL: \url{http://www.dcc.ac.uk/events/idcc20/}}
 99 │   \def\dccp@subject{15th \dccp@publ@long, 2020}
100 │   \def\dccp@type@fallback{\dccp@type@abstract}
101 │ }
102 │ \DeclareOption{21}{%
103 │   \def\dccp@publ@short{IDCC}
104 │   \def\dccp@publ@msg{The 16th \dccp@publ@long\ takes place on 19 April
105 │    2021, Edinburgh, Scotland.\par\bigskip URL: \url{https://dcc.ac.uk/events/
       │          idcc2021}}
106 │   \def\dccp@subject{16th \dccp@publ@long, 2021}
107 │   \def\dccp@type@fallback{\dccp@type@abstract}
108 │ }
109 │ \DeclareOption{22}{%
110 │   \def\dccp@publ@short{IDCC}
111 │   \def\dccp@publ@msg{The 17th \dccp@publ@long\ takes place on 13--16 June
```

```
112        2022, Edinburgh, Scotland.\par\bigskip URL: \url{https://www.dcc.ac.uk/events/
               idcc22}}
113      \def\dccp@subject{17th \dccp@publ@long, 2022}
114      \def\dccp@type@fallback{\dccp@type@abstract}
115    }
116    \DeclareOption{24}{%
117      \def\dccp@publ@short{IDCC}
118      \def\dccp@publ@msg{The 18th \dccp@publ@long\ takes place on 19--21 February
119        2024 in Edinburgh, Scotland.\par\bigskip URL: \url{https://www.dcc.ac.uk/
               events/idcc24}}
120      \def\dccp@subject{18th \dccp@publ@long, 2024}
121    }
122    \DeclareOption{25}{%
123      \def\dccp@publ@short{IDCC25}
124      \def\dccp@publ@msg{The 19th \dccp@publ@long\ takes place on 17--19 February
125        2025 in The Hague, Netherlands.\par\bigskip URL: \url{https://www.dcc.ac.uk/
               events/idcc25}}
126      \def\dccp@subject{19th \dccp@publ@long, 2025}
127    }
128    \DeclareOption{26}{%
129      \def\dccp@publ@short{IDCC26}
130      \def\dccp@publ@msg{The 20th \dccp@publ@long\ takes place on 16--18 February
131        2026 in Zagreb, Croatia.\par\bigskip URL: \url{https://www.dcc.ac.uk/events/
               idcc26}}
132      \def\dccp@subject{20th \dccp@publ@long, 2026}
133    }
134    \ProcessOptions\relax
```

The `demo` option, if passed, would be passed on to the `graphics` package wreaking havoc with each and every included image. To avoid this, we clear it from the list of class options using code from Enrico Gregorio.

```
136    \def\@clearglobaloption#1{%
137      \def\@tempa{#1}%
138      \def\@tempb{\@gobble}%
139      \@for\next:=\@classoptionslist\do{%
140        \ifx\next\@tempa
141          \message{Option \next\space has been hidden from subsequent packages}%
142        \else
143          \edef\@tempb{\@tempb,\next}%
144        \fi
145      }%
146      \let\@classoptionslist\@tempb
147      \expandafter\ifx\@tempb\@gobble
148        \let\@classoptionslist\@empty
149      \fi
150    }
151    \@clearglobaloption{demo}
```

The class is based on the `article` class, and uses A4 paper.

```
153    \LoadClass[a4paper,12pt,twoside]{article}
```

The rest of the formatting happens in the following file.

```
155   \RequirePackage{dccpaper-base}
```

dccpaper-base.sty

The dccpaper classes are deliberately very similar. This package contains the common code.

We use British English orthography.

```
21   \RequirePackage[british]{babel}
```

The macro patching commands from etoolbox and xpatch come in useful for handling author and date information, and also for compatibility with apacite.

```
22   \RequirePackage{etoolbox,xpatch}
```

The code for setting fonts is a little complicated to cope with several variations of what people might have installed, plus the two typographical variants of the IJDC and IDCC templates. Generally speaking, we use OTF fonts with LuaLaTeX and XꟾLaTeX, Type 1 fonts with PDFLaTeX, and newtxmath for mathematics.

Please note that newtxmath v1.55 is incompatible with biblatex, but earlier and later versions (starting v1.551) are compatible.

Here is the font selection cascade when PDFLaTeX is used. Our options are limited by the support files available through CTAN. Users of the Lucida fonts from TUG are invited to feed back on whether this works successfully or not.

```
23   \RequirePackage{iftex}
24   \ifPDFTeX
25     \RequirePackage[T1]{fontenc}
26     \ifdefstring{\dccp@variant}{baskerville}{%
27       \IfFileExists{baskervillef.sty}{
28         \RequirePackage[scaled=.95]{baskervillef}
29         \RequirePackage[baskerville,vvarbb]{newtxmath}
30       }{
31         \IfFileExists{Baskervaldx.sty}{
32           \RequirePackage[scaled=.95]{baskervaldx}
33           \RequirePackage[baskervaldx,vvarbb]{newtxmath}
34         }{
35           \IfFileExists{baskervald.sty}{
36             \RequirePackage{baskervald}
37             \RequirePackage[baskervaldx,vvarbb]{newtxmath}
38           }{}
39         }
40       }
41       \IfFileExists{lsr.pfb}{%
42         \renewcommand{\sfdefault}{hls}
43         \def\hls@scale{0.805}
44       }{%
45         \IfFileExists{GoSans.sty}{%
46           \RequirePackage[scale=.8]{GoSans}
47         }{%
48           \RequirePackage[scaled=0.82]{helvet}}}
```

```
49   }{%
```

When `newtxtext` is use, it emulates `tgheros` so all we have to do is set the scaling factor; but it also switches the monospaced font, so we have to switch it back.

```
50     \IfFileExists{newtxtext.sty}{%
51       \RequirePackage{newtxtext,newtxmath}
52     }{%
53       \RequirePackage{mathptmx}}
54     \IfFileExists{tgheros.sty}{%
55       \ifx\undefined\qhv@scale
56         \RequirePackage[scale=0.92]{tgheros}\else
57         \def\qhv@scale{0.92}\fi
58     }{%
59       \RequirePackage[scaled=0.92]{helvet}}
60     \renewcommand{\ttdefault}{cmtt}
61   }
```

Here is the font selection cascade used for LuaLaTeX and XƎLaTeX. There are a few more options that come from system fonts people may have installed. We have to be a little careful when mixing OTF and Type 1 fonts.

Here is the Baskerville/Lucida selection:

```
62   \else
63     \RequirePackage{fontspec}
64     \ifdefstring{\dccp@variant}{baskerville}{%
65       \IfFontExistsTF{Baskerville}{%
66         \setmainfont{Baskerville}
67         \RequirePackage[baskerville,vvarbb]{newtxmath}
68       }{%
69         \IfFileExists{baskervillef.sty}{%
70           \setmainfont[Scale=.95]{BaskervilleF}
71           \RequirePackage[baskerville,vvarbb]{newtxmath}
72         }{%
73           \IfFileExists{Baskervaldx.sty}{%
74             \setmainfont[Scale=.95]{baskervaldx}
75             \RequirePackage[baskervaldx,vvarbb]{newtxmath}
76           }{%
77             \IfFileExists{baskervald.sty}{%
78               \RequirePackage[T1]{fontenc}
79               \RequirePackage{baskervald}
80               \RequirePackage[baskervaldx,vvarbb]{newtxmath}
81             }{}
82           }
83         }
84       }
85       \IfFontExistsTF{Lucida Sans}{%
86         \setsansfont[Scale=.805]{Lucida Sans}
87       }{
88         \IfFontExistsTF{LucidaSansOT}{%
89           \setsansfont[Scale=.805]{LucidaSansOT}
90         }{%
91           \IfFileExists{GoSans.sty}{%
92             \RequirePackage[scale=.8]{GoSans}
93           }{%
```

```
 94          \@ifpackageloaded{fontenc}{}{%
 95            \appto\sffamily{\fontencoding{T1}\selectfont}
 96          }
 97          \RequirePackage[scaled=0.82]{helvet}
 98        }
 99      }
100    }
101  }{%
```

Here is the Times/Helvetica selection:

```
102    \IfFileExists{newtxtext.sty}{%
103      \setmainfont{TeXGyreTermesX}
104      \RequirePackage{newtxmath}
105    }{%
106      \RequirePackage[T1]{fontenc}
107      \RequirePackage{mathptmx}
108    }
109    \IfFontExistsTF{texgyreheros-regular.otf}{%
110      \setsansfont{texgyreheros}%
111        [ Extension = .otf
112        , UprightFont = *-regular
113        , ItalicFont = *-italic
114        , BoldFont = *-bold
115        , BoldItalicFont = *-bolditalic
116        , Scale = 0.92
117        ]
118    }{%
119      \IfFileExists{newtxtext.sty}{%
120        \appto\sffamily{\fontencoding{T1}\selectfont}%
121      }{}
122      \RequirePackage[scaled=0.92]{helvet}
123    }
124  }
```

In both variants, the monospaced font is left untouched as the fontspec default.

Using newtxmath for mathematics generally works, but the package assumes certain characters will fall back to text equivalents, which works under T1 encoding but not under the TU encoding used by fontspec. This solution is from egreg's answer on TeX.se: https://tex.stackexchange.com/a/394139.

```
125  \@ifpackageloaded{newtxmath}{%
126    \DeclareSymbolFont{oldoperators}{OT1}{ntxtlf}{m}{n}
127    \SetSymbolFont{oldoperators}{bold}{OT1}{ntxtlf}{b}{n}
128    \AtBeginDocument{%
129 \DeclareMathSymbol{0}{\mathalpha}{operators}{`0}%
130 \DeclareMathSymbol{1}{\mathalpha}{operators}{`1}%
131 \DeclareMathSymbol{2}{\mathalpha}{operators}{`2}%
132 \DeclareMathSymbol{3}{\mathalpha}{operators}{`3}%
133 \DeclareMathSymbol{4}{\mathalpha}{operators}{`4}%
134 \DeclareMathSymbol{5}{\mathalpha}{operators}{`5}%
135 \DeclareMathSymbol{6}{\mathalpha}{operators}{`6}%
136 \DeclareMathSymbol{7}{\mathalpha}{operators}{`7}%
137 \DeclareMathSymbol{8}{\mathalpha}{operators}{`8}%
138 \DeclareMathSymbol{9}{\mathalpha}{operators}{`9}%
```

```
139  \DeclareMathSymbol{\Gamma}{\mathalpha}{oldoperators}{"00}%
140  \DeclareMathSymbol{\Delta}{\mathalpha}{oldoperators}{"01}%
141  \DeclareMathSymbol{\Theta}{\mathalpha}{oldoperators}{"02}%
142  \DeclareMathSymbol{\Lambda}{\mathalpha}{oldoperators}{"03}%
143  \DeclareMathSymbol{\Xi}{\mathalpha}{oldoperators}{"04}%
144  \DeclareMathSymbol{\Pi}{\mathalpha}{oldoperators}{"05}%
145  \DeclareMathSymbol{\Sigma}{\mathalpha}{oldoperators}{"06}%
146  \DeclareMathSymbol{\Upsilon}{\mathalpha}{oldoperators}{"07}%
147  \DeclareMathSymbol{\Phi}{\mathalpha}{oldoperators}{"08}%
148  \DeclareMathSymbol{\Psi}{\mathalpha}{oldoperators}{"09}%
149  \DeclareMathSymbol{\Omega}{\mathalpha}{oldoperators}{"0A}%
150  \DeclareMathSymbol{!}{\mathclose}{operators}{"21}%
151  \DeclareMathSymbol{+}{\mathbin}{operators}{"2B}%
152  \DeclareMathSymbol{:}{\mathrel}{operators}{"3A}%
153  \DeclareMathSymbol{;}{\mathpunct}{operators}{"3B}%
154  \DeclareMathSymbol{=}{\mathrel}{operators}{"3D}%
155  \DeclareMathSymbol{?}{\mathclose}{operators}{"3F}%
156  \DeclareMathDelimiter{(}{\mathopen} {operators}{"28}{largesymbols}{"00}%
157  \DeclareMathDelimiter{)}{\mathclose}{operators}{"29}{largesymbols}{"01}%
158  \DeclareMathDelimiter{[}{\mathopen} {operators}{"5B}{largesymbols}{"02}%
159  \DeclareMathDelimiter{]}{\mathclose}{operators}{"5D}{largesymbols}{"03}%
160  \DeclareMathAccent{\acute}{\mathalpha}{operators}{"B4}%
161  \ifLuaTeX\DeclareMathAccent{\grave}{\mathalpha}{operators}{"60}\fi
162  \DeclareMathAccent{\ddot}{\mathalpha}{operators}{"A8}%
163  \DeclareMathAccent{\tilde}{\mathalpha}{oldoperators}{"7E}%
164  \DeclareMathAccent{\bar}{\mathalpha}{oldoperators}{"16}%
165  \DeclareMathAccent{\breve}{\mathalpha}{oldoperators}{"15}%
166  \DeclareMathAccent{\check}{\mathalpha}{oldoperators}{"14}%
167  \DeclareMathAccent{\hat}{\mathalpha}{oldoperators}{"5E}%
168  \DeclareMathAccent{\dot}{\mathalpha}{oldoperators}{"5F}%
169  \DeclareMathAccent{\mathring}{\mathalpha}{oldoperators}{"17}%
170  \DeclareMathSymbol{\mathdollar}{\mathord}{operators}{"24}%
171      }%
172    }
173  \fi
```

We will need support for included graphics and colour. The structural elements are a medium turquoise, while the links are slightly darker to make them easier to read on screen.

```
174  \RequirePackage{graphicx}
175  \IfFileExists{xcolor.sty}%
176    {\RequirePackage{xcolor}}%
177    {\RequirePackage{color}}
178  \definecolor[named]{struct}{rgb}{0,0.5,0.5}
179  \definecolor[named]{links}{rgb}{0,0.4,0.4}
```

We will calculate some lengths later.

```
180  \RequirePackage{calc}
```

Ragged right text is easier to read on screen, but fully justified text looks better. The \raggedyright layout from Peter Wilson's memoir class (2005/09/25 v1.618) is an excellent compromise. The code below replicates it.

First we save the original definitions of `\\` and `\parindent` as `\OrigLineBreak` and `\RaggedParindent` respectively.

```
182  \let\OrigLineBreak\\
183  \newdimen\RaggedParindent
184  \setlength{\RaggedParindent}{\parindent}
```

The `\raggedyright` layout more or less lays text out as with full justification, but then lets the shorter lines relax a bit from the right margin. It is the default for DCC papers.

```
186  \newcommand{\raggedyright}[1][2em]{%
187    \let\\\@centercr\@rightskip \z@ \@plus #1\relax
188    \rightskip\@rightskip
189    \leftskip\z@skip
190    \parindent\RaggedParindent}
191  \AtBeginDocument{\raggedyright}
```

The `\flushleftright` layout restores full justification, in case it is needed.

```
193  \newcommand*{\flushleftright}{%
194    \let\\\OrigLineBreak
195    \leftskip\z@skip
196    \rightskip\leftskip
197    \parfillskip\@flushglue
198    \everypar{}}
```

PdfTeX 1.40.15 introduced the facility to include dummy interword spaces to improve text extraction and reflow. It would be really, really nice if we could switch this on if available, but unfortunately it triggers a long-standing bug in MikTeX: https://tex.stackexchange.com/q/318425

```
200  \RequirePackage{ifpdf}
201  \newtoggle{dccp@dummyspaces}
202  \def\fixspaces{\toggletrue{dccp@dummyspaces}}
203  \def\nofixspaces{\togglefalse{dccp@dummyspaces}}
204  \AtBeginDocument{%
205  \iftoggle{dccp@dummyspaces}{%
206    \ifpdf
207      \ifdef{\pdfinterwordspaceon}{\pdfinterwordspaceon}{}%
208    \fi
209  }{}%
210  }
```

The classes have some special metadata requirements. We start with the author information.

The macro `\thecorrespondence` is used in the title page footer for the name, postal address and email address of the corresponding author.

```
212  \def\thecorrespondence{}
213  \newcommand*{\correspondence}[1]{\def\thecorrespondence{#1}}
```

The handling of authors here is inspired by Patrick W Daly's `authblk`, (2001/02/27 1.3), and defines the familiar user commands. Authors are presented in blocks, one affiliation but perhaps several authors per block.

We make the presentation of the author information configurable (just in case) with some hooks and lengths:

- `\Authfont` is the font used for author names;

- `\Affilfont` is the font used for affiliations;

- `\affilsep` is the line spacing between author names and affiliations;

- `\authblksep` is the line spacing between author name/affiliation blocks.

```
214  \newcommand*{\Authfont}{\normalfont}
215  \newcommand*{\Affilfont}{\normalfont\small}
216  \newlength{\affilsep}\setlength{\affilsep}{0pt}
217  \newlength{\authblksep}\setlength{\authblksep}{1.5\baselineskip}
```

The `\AuthorBlock` command will be used to collect all the author information.

```
218  \newcommand{\AuthorBlock}{}
```

The `\MainAuthor` command collects abbreviated author information for use in the headers.

```
219  \newcommand{\MainAuthor}{}
```

The `\dccp@author` command, meanwhile, collects a full list of authors for the PDF metatdata.

```
220  \newcommand{\dccp@author}{}
```

We define counters for

- the total number of authors defined;

- the number of authors in the current block;

- the number of blocks defined.

```
221  \newcounter{authors}
222  \newcounter{authorsinblock}
223  \newcounter{block}
```

The `block` counter will increase once in the preamble, and again when the information is typeset, so we need to reset it at the beginning of the document.

```
224  \AtBeginDocument{\setcounter{block}{0}}
```

The new definition of the author command starts here.

```
225  \renewcommand{\author}[1]{%
```

If this is the first or second \author command, we add the name to our abbreviated list of authors. Otherwise, we replace the name of the second and subsequent authors with 'et al.' in that list.

At the same time, we use a simpler technique to populate \dccp@author.

```
226    \ifnum\theauthors=0
227      \def\dccp@author{#1}%
228      \def\MainAuthor{#1}%
229    \else
230      \appto\dccp@author{, #1}%
231      \ifnum\theauthors=1%
232        \def\OtherMainAuthors{ and #1}%
233        \appto\MainAuthor{\OtherMainAuthors}%
234      \else
235        \ifnum\theauthors=2%
236          \def\OtherMainAuthors{ et al.}%
237        \fi
238      \fi
239    \fi
240    \stepcounter{authors}%
```

Each block has its author names collected in a macro like \blocki@auth, and its affiliation collected in a macro like \blocki@affil (the 'i' is a serial number).

If this is the first author in a block, we need to create the block and add it to \AuthorBlock; second and subsequent blocks are preceded by a \quad of space.

```
241    \ifnum\theauthorsinblock=0%
242      \stepcounter{block}%
243      \expandafter\def\csname block\roman{block}@auth\endcsname{\Authfont#1}%
244      \ifnum\theblock>1\appto\AuthorBlock{\quad}\fi
245      \appto\AuthorBlock{%
246        \stepcounter{block}%
247        \begin{minipage}[t]{0.45\textwidth}\centering
248        \csname block\roman{block}@auth\endcsname
249        \ifx\undefined\csname block\roman{block}@affil\endcsname
250        \else
251          \\[\affilsep]\csname block\roman{block}@affil\endcsname
252        \fi
253        \end{minipage}%
254        \rule{0pt}{2\baselineskip}%
255        }
256    \else
```

Otherwise we just add the name to the right \blocki@auth-style macro.

```
257      \csappto{block\roman{block}@auth}{, #1}%
258    \fi
259    \stepcounter{authorsinblock}%
260  }
```

The `\affil` command adds an affiliation to the current block and closes it by resetting the `authorsinblock` counter.

```
261  \newcommand{\affil}[1]{%
262    \expandafter\def\csname block\roman{block}@affil\endcsname{\Affilfont#1}%
263    \setcounter{authorsinblock}{0}%
264  }
```

The `\HeadTitle` collects the abbreviated title for use in the headers.

```
266  \newcommand*{\HeadTitle}{}
```

We wrap the normal `\title` command with code to populate `\HeadTitle` with the optional argument if provided, or the mandatory one otherwise. We also provide a persistent `\thetitle` macro, stripped of any `\thanks`.

```
267  \let\ProperTitle=\title
268  \renewcommand{\title}[2][\empty]{
269    \ifx\empty #1%
270      \renewcommand*{\HeadTitle}{#2}%
271    \else
272      \renewcommand*{\HeadTitle}{#1}%
273    \fi%
274    \begingroup\let\footnote\@gobble
275    \ProperTitle{#2}%
276    \begingroup
277      \renewcommand{\thanks}[1]{}
278      \protected@xdef\thetitle{#2}
279    \endgroup\endgroup
280  }
```

To prevent LaTeX throwing an error if no title is supplied, we supply a fallback value and issue a warning instead.

```
281  \def\thetitle{%
282    Please supply a title
283    \ClassWarning{dccpaper}{%
284      Please supply a title in the preamble with \noexpand\title{}%
285    }
286  }
```

We make `\thedate` persistent, borrowing the technique used in Peter Wilson's `memoir` class (2005/09/25 v1.618).

```
288  \xpretocmd{\date}{\begingroup\let\footnote\@gobble}{}{}%
289  \xapptocmd{\date}{%
290    \begingroup
291      \renewcommand{\thanks}[1]{}
292      \protected@xdef\thedate{#1}
293    \endgroup\endgroup%
294  }{}{}
```

We ensure `\thedate` is defined using a dummy date.

```
295   \date{20xx}
```

IJDC articles have extra bibliographic information:

- `\volume` sets the volume number, `\thevolume`;

- `\issue` sets the issue number, `\theissue`;

- `\subno` sets the submission number, `\thesubno`.

These numbers are used to build the DOI, `\thedoi`.

```
297   \newcommand*{\thevolume}{0}
298   \newcommand*{\volume}[1]{\renewcommand*{\thevolume}{#1}}
299   \newcommand*{\theissue}{0}
300   \newcommand*{\issue}[1]{\renewcommand*{\theissue}{#1}}
301   \newcommand*{\thesubno}{0}
302   \newcommand*{\subno}[1]{\renewcommand*{\thesubno}{#1}\fixspaces}
303   \newcommand*{\thedoi}{10.2218/ijdc.v\thevolume i\theissue .\thesubno}
```

They also display the page range. The following code was borrowed from Peter Wilson's memoir class (2005/09/25 v1.618). It defines a counter `lastpage` which, on the second run, will contain the number of the last page.

```
304   \newcounter{lastpage}
305   \setcounter{lastpage}{0}
306   \newcommand{\dol@stpage}{%
307     \if@filesw
308       \addtocounter{page}{-1}%
309       \immediate\write\@auxout%
310         {\string\setcounter{lastpage}{\the\c@page}}%
311       \stepcounter{page}%
312     \fi
313   }
314   \AtBeginDocument{\AtEndDocument{\clearpage\dol@stpage}}
```

DCC papers display some important dates. We collect these in `\dccp@dates`, initially setting the value to something sensible for papers in draft.

```
316   \def\dccp@dates{\emph{Draft from} \today}
```

Several types of date can be added:

- `\submitted` for when the authors submitted the paper (intended for IDCC papers).

- `\received` for when the paper was received by the editorial board (intended for IJDC papers).

- `\revised` for when the most recent version was received by the editorial board.

- `\accepted` for when the paper was accepted by the editorial board.

```
317  \newcommand*{\submitted}[1]{%
318    \def\dccp@dates{\emph{Submitted} #1}}
319  \newcommand*{\received}[1]{%
320    \def\dccp@dates{\emph{Received} #1}}
321  \newcommand*{\revised}[1]{%
322    \appto\dccp@dates{%
323      \space\space\space
324      \ifdefstring{\dccp@variant}{baskerville}{~}{\textbar}%
325      \space\space\space
326      \emph{Revision received} #1}%
327    }
328  \newcommand*{\accepted}[1]{%
329    \appto\dccp@dates{%
330      \space\space\space
331      \ifdefstring{\dccp@variant}{baskerville}{~}{\textbar}%
332      \space\space\space
333      \emph{Accepted} #1}%
334    }
```

IJDC papers need to say if they had a previous life as a conference paper. This statement goes in `\dccp@conf`, which is initially empty. The user command for setting this text is `\conference`. The starred variant gives slightly less verbose wording.

```
335  \let\dccp@conf=\empty
336  \newif\ifdccp@revision
337  \newcommand*{\conference@nostar}[1]{%
338    \renewcommand*{\dccp@conf}{An earlier version of this paper was presented at #1.
         }%
339  }
340  \newcommand*{\conference@star}[1]{%
341    \renewcommand*{\dccp@conf}{This paper was presented at #1.}%
342  }
343  \newcommand*{\conference}{\@ifstar\conference@star\conference@nostar}
```

The macro `\FixTextHeight` will be useful when switching from the first page geometry to the regular geometry for the rest of the paper. It is based on code from Hideo Umeki's geometry package (2002/07/08 v3.2).

```
344  \newcommand{\FixTextHeight}{%
345    \setlength\@tempdima{\textheight}%
346    \addtolength\@tempdima{-\topskip}%
347    \@tempcnta\@tempdima
348    \@tempcntb\baselineskip
349    \divide\@tempcnta\@tempcntb
350    \setlength\@tempdimb{\baselineskip}%
351    \multiply\@tempdimb\@tempcnta
352    \advance\@tempdima-\@tempdimb
353    \global\advance\footskip\@tempdima
354    \multiply\@tempdima\tw@
355    \ifdim\@tempdima>\baselineskip
356      \addtolength\@tempdimb{\baselineskip}%
```

```
357      \global\advance\footskip-\baselineskip
358    \fi
359    \addtolength\@tempdimb{\topskip}%
360    \global\textheight\@tempdimb
361  }
```

The width of the textblock (on all pages) is 150mm, which on A4 paper implies margins of 30mm each. (Making both horizontal margins the same in a two-sided context makes the paper more pleasant to read on screen).

```
363  \setlength{\textwidth}{150mm}
364  \setlength{\oddsidemargin}{30mm - \hoffset - 1in}
365  \setlength{\evensidemargin}{30mm - \hoffset - 1in}
```

It is rare to have marginal notes, but in case we ever do, we centre them in the margin.

```
366  \setlength{\marginparwidth}{30mm - 2\marginparsep}
```

We also want a distance of 15mm from the top of the page to the top of the header, and two blank lines between the bottom of the header and the top of the textblock.

```
367  \setlength{\topmargin}{15mm - \voffset - 1in}
368  \setlength{\headsep}{2\baselineskip}
```

IJDC editorials have slightly different headers and footers. This requires testing for \dccp@editorial if it exists. In case it doesn't, we provide it.

```
370  \providecommand{\dccp@editorial}{Editorial}
```

The height of the footer can vary a lot. To keep it a fixed distance from the bottom of the page rather than the top, we need to vary the \textheight accordingly. This means we need to measure the height of the footer. (The header is more predictable but we may as well measure it while we are at it).

Here we define the header and footer of the title page (i.e. the title page style), making sure we save them to auxiliary macros \TitleHead and \TitleFoot so we can measure them.

```
371  \def\ps@title{%
372    \def\@oddhead{%
373      \begin{minipage}{\textwidth}%
374        \centering
375        \ifdefstring{\dccp@variant}{baskerville}{\huge\sffamily}{\LARGE\bfseries}%
376        \color{struct}%
377        \ifx\dccp@type\dccp@editorial
378          \dccp@publ@long
379        \else
380          \dccp@publ@short\space\space\textbar\space\space\emph{\dccp@type}%
381        \fi
382        \par
383        \ifdcp@mast@ul\rule[0.4em]{\textwidth}{0.5pt}\fi
384      \end{minipage}%
```

```
385      }%
386      \let\@evenhead=\@oddhead
387      \let\TitleHead=\@oddhead
388      \def\@oddfoot{%
389        \begin{minipage}[b]{\textwidth}%
390          \fontsize{9pt}{11pt}\selectfont
391          \ifx\dccp@type\dccp@editorial
392          \else
393            {\centering\dccp@dates\par}
394            \bigskip
395            Correspondence should be addressed to \thecorrespondence\par
396            \bigskip
397          \fi
398          \ifx\empty\dccp@conf
399          \else
400            \dccp@conf\par
401            \bigskip
402          \fi
403          \dccp@publ@msg\par
404          \bigskip
405          \begin{minipage}[b]{\linewidth - 25mm}
406          Copyright rests with the authors. This work is released under a Creative
407          Commons Attribution 4.0 International Licence. For details please see
408          \url{http://creativecommons.org/licenses/by/4.0/}%
409          \end{minipage}\hfill
410          \begin{minipage}[b]{19mm}
411            \href{http://creativecommons.org/licenses/by/4.0/}%
412              {\includegraphics[width=\hsize]{dccpaper-by}}%
413          \end{minipage}
414          \par
415          \bigskip
416          \makebox[0pt][l]{\parbox{0.4\hsize}{%
417            \ifx\undefined\dccp@titlefoot@bib\else\dccp@titlefoot@bib\fi
418          }}\hfill
419          \makebox[0pt][c]{\normalsize\thepage}\hfill
420          \makebox[0pt][r]{\parbox{0.4\hsize}{%
421            \raggedleft\ifx\undefined\dccp@titlefoot@doi\else\dccp@titlefoot@doi\fi
422          }}%
423        \end{minipage}%
424      }%
425      \let\@evenfoot=\@oddfoot
426      \let\TitleFoot=\@oddfoot
427    }
```

We set the normal page style to `title` here so that `\TitleHead` and `\TitleFoot` are defined, but we will override it with the dccpaper page style later.

```
428    \pagestyle{title}
```

The first page should use the `title` page style, however.

```
429    \AtBeginDocument{\thispagestyle{title}}
```

Here are the normal headers and footers (i.e. the dccpaper page style). We save them to `\NormalHead` and `\NormalFoot`, again so we can measure them.

```
431  \def\ps@dccpaper{%
432    \def\@oddhead{%
433      \begin{minipage}{\textwidth}\frenchspacing
434        {%
435          \fontsize{9pt}{11pt}\selectfont
436          \ifx\undefined\dccp@normhead@doi\else\dccp@normhead@doi\fi
437        }\hfill
438        {\MainAuthor}\space\space\space
439        \textcolor{struct}{\textbar}\space\space\space
440        \thepage\par
441        \vskip6pt\color{struct}{\hrule height 1bp}\par
442      \end{minipage}
443    }%
444    \def\@evenhead{%
445      \begin{minipage}{\textwidth}
446        \thepage\space\space\space
447        \textcolor{struct}{\textbar}\space\space\space
448        {\HeadTitle}\hfill
449        {%
450          \fontsize{9pt}{11pt}\selectfont
451          \ifx\undefined\dccp@normhead@doi\else\dccp@normhead@doi\fi
452        }\par
453        \vskip6pt\color{struct}{\hrule height 1bp}\par
454      \end{minipage}
455    }%
456    \let\NormalHead=\@oddhead
457    \def\@oddfoot{\begin{minipage}[b]{\textwidth}
458      \centering\ifdefstring{\dccp@variant}{baskerville}{\sffamily}{\bfseries}%
459      \normalsize\color{struct}
460      \ifx\dccp@type\dccp@editorial
461        \dccp@publ@long
462      \else
463        \dccp@publ@short\space\space\textbar\space\space\emph{\dccp@type}%
464      \fi
465      \par
466    \end{minipage}}%
467    \let\@evenfoot=\@oddfoot
468    \let\NormalFoot=\@oddfoot
469  }
470  \pagestyle{dccpaper}
```

We need to wait until the author has supplied the necessary information before we can do our measuring and set the remainder of the geometry, so we do it at the end of the preamble. First we put our saved macros into boxes we can measure (i.e. `\dccp@firstpagehead`, `\dccp@firstpagefoot`, `\dccp@restpagehead`, `\dccp@restpagefoot`).

```
472  \AtEndPreamble{
473    \newsavebox{\dccp@firstpagehead}
474    \sbox\dccp@firstpagehead{\normalfont\TitleHead}
475    \newsavebox{\dccp@firstpagefoot}
476    \sbox\dccp@firstpagefoot{\normalfont
477      \def\email#1{#1}\def\url#1{#1}\def\href#1#2{#2}\TitleFoot}
478    \newsavebox{\dccp@restpagehead}
```

```
479    \sbox\dccp@restpagehead{\normalfont\NormalHead}
480    \newsavebox{\dccp@restpagefoot}
481    \sbox\dccp@restpagefoot{\normalfont\NormalFoot}
```

We can now set the geometry of the title page...

```
482    \setlength{\headheight}{\ht\dccp@firstpagehead + \dp\dccp@firstpagehead}
483    \setlength{\footskip}{%
484      2\baselineskip + \ht\dccp@firstpagefoot + \dp\dccp@firstpagefoot
485    }
486    \setlength{\textheight}{%
487      \paperheight
488      - 30mm % 15mm top and bottom
489      - \headheight
490      - \headsep
491      - \footskip
492    }
```

...and provide a macro that will reset the geometry for the remaining pages.

```
493    \def\dccp@resetgeometry{%
494      \setlength{\headheight}{\ht\dccp@restpagehead + \dp\dccp@restpagehead}
495      \global\headheight=\headheight
496      \setlength{\footskip}{%
497        2\baselineskip + \ht\dccp@restpagefoot
498      }
499      \global\footskip=\footskip
500      \setlength{\textheight}{%
501        \paperheight
502        - 30mm % 15mm top and bottom
503        - \headheight
504        - \headsep
505        - \footskip
506      }
507      \FixTextHeight
508      \global\textheight=\textheight
509    }
510  }
```

The \maketitle command is redefined to the correct formatting. At the end it sets a hook that will reset the geometry when the first page is shipped out, i.e. with effect from the second page. It is here rather than at the end of the abstract in case the abstract itself spills over to the second page.

```
512  \RequirePackage{atbegshi}
513  \renewcommand{\maketitle}{%
514    \null\nobreak\vspace*{-0.528\baselineskip}%
515    \begingroup
516      \centering
517      {\Large\ifdefstring{\dccp@variant}{baskerville}{\bfseries}{}\thetitle\par}
518      \vspace{0.7\baselineskip}
519      \AuthorBlock\par
520      \vspace{1.7\baselineskip}
```

```
521    \endgroup
522    \AtBeginShipoutNext{\dccp@resetgeometry}%
523  }
```

The `abstract` environment is redefined in terms of an environment `widequote`, which mimics the `quote` environment, but is a bit wider. We also provide a hook, `\afterabstract`, so that if some annotation needs to be appended to the title page after the abstract, we can do that.

```
525  \newenvironment{widequote}{%
526    \list{}{%
527      \setlength{\rightmargin}{2\parindent}%
528      \setlength{\leftmargin}{2\parindent}%
529    }%
530    \flushleftright\item[]%
531  }{%
532      \endlist
533  }
534  \def\afterabstract{}
535  \renewenvironment{abstract}{%
536    \vskip1em%
537    \begin{center}%
538      {\bfseries\abstractname\vspace{-.5em}\vspace{\z@}}%
539    \end{center}%
540    \widequote\footnotesize
541  }{%
542    \endwidequote\afterabstract\newpage
543  }
```

We use the `titlesec` package to give headings the correct formatting. The settings below try to space out headings so they occupy an integer number of normal lines (an attempt at grid typesetting). They are a little complicated because we want it to work even if the heading appears at the top of the page.

```
545  \RequirePackage{titlesec}
546  \titlespacing*{\section}{0pt}{0pt}{\baselineskip}
547  \titlespacing*{\subsection}{0pt}{0pt}{0.6\baselineskip}
548  \titlespacing{\subsubsection}{\parindent}{\baselineskip}{0pt}
549  \titlespacing{\paragraph}{\parindent}{\baselineskip}{0pt}
550  \titlespacing{\subparagraph}{\parindent}{\baselineskip}{0pt}
```

An unfortunate side effect of spacing headings like this is that if a `\subsection` immediately follows a `\section` it forms an unsightly gap. To remedy this, we count how many paragraphs there have been since the last `\section`. Note that as we do not normally number the sections, an automatic reset of the `sectionpars` counter within the `section` counter won't work.

```
551  \newcounter{sectionpars}
552  \let\dccp@old@ep\everypar
553  \newtoks\everypar
554  \dccp@old@ep{\the\everypar\stepcounter{sectionpars}}
```

We need to manually reset `sectionpars` when `\section` is called. Also, the normal font size is 12pt/14.5pt, while `\Large` is 17pt/22pt; so the `\Large` line height = 1.5172 × normal line height. Nevertheless it seems to work better if we let the heading eat 0.528`\baselineskip` into the 2`\baselineskip` of padding above it.

```
555   \titleformat{\section}
556     [block]
557     {%
558       \vspace{2\baselineskip}%
559       \nobreak
560       \vspace*{-0.528\baselineskip}%
561       \setcounter{sectionpars}{0}%
562       \filcenter\normalfont\Large\bfseries
563     }
564     {\thesection}
565     {1em}
566     {}
```

The others use a `\normalsize` font so that makes life easier. The format for `\subsection` command includes conditional spacing: if the `sectionpars` counter equals 2, this means the heading immediately follows a `\section`, so less white space is needed.

```
567   \titleformat{\subsection}
568     {%
569       \ifnum\thesectionpars>2%
570         \vspace{2\baselineskip}%
571       \else
572         \vspace{\baselineskip}%
573       \fi\nobreak
574       \vspace*{-0.6\baselineskip}%
575       \normalfont\normalsize\bfseries
576     }
577     {\thesubsection}
578     {1em}
579     {}
580   \titleformat{\subsubsection}
581     [block]
582     {\normalfont\normalsize\bfseries}
583     {\thesubsubsection}
584     {1em}
585     {}
586   \titleformat{\paragraph}
587     [block]
588     {\normalfont\normalsize\bfseries\itshape}
589     {\thesubsubsection}
590     {1em}
591     {}
592   \titleformat{\subparagraph}
593     [block]
594     {\normalfont\normalsize\itshape}
595     {\thesubsubsection}
596     {1em}
597     {}
```

DCC papers do not typically number their sections.

```
598   \setcounter{secnumdepth}{0}
```

To help with the display of tables we load the array and booktabs packages. As we don't like lines between rows in the table body, we stretch them out a bit so that white space does the job instead.

```
600   \RequirePackage{array,booktabs}
601   \renewcommand{\arraystretch}{1.25}
```

We use the caption package to give captions the right format.

```
603   \RequirePackage
604     [ format=hang
605     , labelsep=period
606     , font=small
607     , labelfont=bf
608     , figureposition=bottom
609     , tableposition=top
610     ]{caption}
```

Footnotes should be set right up against the left margin. They should be set hung and in the same half-ragged style as the main text. They should also, for neatness, be at the bottom of the page regardless of how short it is. The footmisc package helps here.

```
612   \RequirePackage[hang,bottom]{footmisc}
613   \settowidth{\footnotemargin}{\footnotesize\textsuperscript{99}\space}
614   \renewcommand{\footnotelayout}{\raggedyright}
```

Also, if multiple footnotes are set at once, the markers should be separated with superscript commas. The footmisc package should help here but its solution is clobbered by hyperref. So after a footnote is set, we check to see if the next token is also a footnote, and if so, slip a comma in before it.[3] This tweak needs to be done late, \AtBeginDocument. Note that the newtx superior figures are a bit lower than normal superscript text.

```
615   \AtBeginDocument{
616     \let\dccp@footnote\footnote
617     \def\dccp@next@token{\relax}%
618     \def\dccp@supercomma{\textsuperscript{,}}%
619     \IfFileExists{newtxtext.sty}%
620       {\def\dccp@supercomma{\raisebox{-0.2ex}{\textsuperscript{,}}}}%
621       {}
622
623     \newcommand\dccp@check@for@footnote{%
624       \ifx\footnote\dccp@next@token
625         \dccp@supercomma
626       \fi
627     }
628
629     \renewcommand\footnote[1]{%
```

---

[3] This solution was provided at http://tex.stackexchange.com/q/40072

```
630        \dccp@footnote{#1}%
631        \futurelet\dccp@next@token\dccp@check@for@footnote
632      }
633  }
```

By default lists are quite loose. These settings help to tighten them.

```
635  \topsep = \z@
636  \partopsep = \z@
637  \appto{\enumerate}{\itemsep = 0.5ex plus 0.25ex minus 0.25ex}
638  \appto{\itemize}{\itemsep = 0.5ex plus 0.25ex minus 0.25ex}
```

A DCC paper should either be using biblatex or apacite for references.

If biblatex is used, we need to ensure that the reference list heading is a normal section rather than a starred one so it appears in the PDF bookmarks.

```
640  \AtBeginDocument{
641    \@ifpackageloaded{biblatex}{%
642      \defbibheading{bibliography}[\refname]{\section{#1}}%
```

We also move the 'doi:' portion of a DOI inside the hyperlink.

```
643      \DeclareFieldFormat{doi}{%
644        \ifhyperref{%
645          \href{https://doi.org/#1}{\nolinkurl{doi:#1}}%
646        }{%
647          \nolinkurl{doi:#1}%
648        }%
649      }
650    }{%
```

If apacite is used, there are a few other adaptations we need to make.

```
651      \@ifpackageloaded{apacite}{%
```

With hyperref loaded, apacite makes the whole of a citation a link to the reference list item. We patch \@ifauthorsunequalc@de so only the year portion gets linked.

```
652        \def\@ifauthorsunequalc@de#1{%
653          \if@F@cite
654            \@F@citefalse
655          \else
656            \if@Y@cite
657              {\@BAY}%
658            \fi
659            {\@BBC}%
660          \fi
661          \edef\@cite@undefined{?}%
662          \def\BBA{\@BBA}%
663          \if@A@cite
664            %%\hyper@natlinkstart{#1}% We remove this line...
665            {\csname b@\@citeb\APAC@extra@b@citeb\endcsname}%
666            %%\hyper@natlinkend% ...and this one.
```

```
667        \if@Y@cite
668            {\@BBAY}%
669          \fi
670        \fi
671        \if@Y@cite
672          \hyper@natlinkstart{#1}%
673          {\csname Y@\@citeb\APAC@extra@b@citeb\endcsname}%
674          \hyper@natlinkend
675        \fi
676        \let\BBA\relax
677      }
```

The Spanish language support file defines a different version of `\@ifauthorsunequalc@de`, which might override the patch we have just introduced. So we employ the same test that apacite uses when deciding whether to load that file; if successful, we patch the Spanish version. Note that as apacite loads language support files `\AtBeginDocument`, we have to do our thing after that, `\AfterEndPreamble`.

(Note that as we set the language to British English earlier, this should never be needed, but we try to be resilient to tinkering!)

```
678        \AfterEndPreamble{%
679        \@ifundefined{iflanguage}{%
680          \relax
681        }{%
682          \edef\APAC@tmp{nohyphenation}%
683          \ifx\languagename\APAC@tmp
684          \else
685            \edef\APAC@tmp{spanish}%
686            \ifx\languagename\APAC@tmp
687              \def\@ifauthorsunequalc@de#1{%
688                \if@F@cite
689                  \@F@citefalse
690                \else
691                  \if@Y@cite
692                      {\@BAY}%
693                  \fi
694                  {\@BBC}%
695                \fi
696                \edef\@cite@undefined{?}%
697                \def\BBA{\@BBA}%
698                \@ifundefined{spanishe@\@citeb\APAC@extra@b@citeb}%
699                  {}% skip
700                  {{% Use `e' instead of `y' in Spanish
701                  \global\let\oldBBA\BBA
702                  \global\def\BBA{e\global\let\BBA\oldBBA}%
703                  }}%
704                \if@A@cite
705                  %%\hyper@natlinkstart{#1}% We remove this line...
706                  {\csname b@\@citeb\APAC@extra@b@citeb\endcsname}%
707                  %%\hyper@natlinkend% ...and this one.
708                  \if@Y@cite
709                      {\@BBAY}%
710                  \fi
711                \fi
712                \if@Y@cite
```

```
713              \hyper@natlinkstart{#1}%
714              {\csname Y@\@citeb\APAC@extra@b@citeb\endcsname}%
715              \hyper@natlinkend
716            \fi
717            \let\BBA\relax
718          }%
719        \fi
720      \fi
721    }%
```

Another thing `apacite` does `\AtBeginDocument` is set the URL style to monospaced. So we reset it back to normal roman type `\AfterEndPreamble`.

```
722        \urlstyle{APACrm}
723      }%
```

We pre-empt `apacite`'s `\providecommand` of `\doi` with our own definition that includes the 'doi' URI scheme label in the link, remembering to remove the one inserted by `\doiprefix`.

```
724        \newcommand{\doi}[1]{\href{https://doi.org/#1}{\nolinkurl{doi:#1}}}%
725        \renewcommand{\doiprefix}{\unskip}%
726      }{}%
727    }%
```

Both `biblatex` and `apacite` use `\bibitemsep` for the space between bibliography items. Just in case they haven't been loaded, though, we protect our setting of that length with an `\ifx` test.

```
728    \ifx\undefined\bibitemsep
729    \else
730      \setlength{\bibitemsep}{1em plus 1ex minus 1ex}%
731    \fi
732  }
```

As mentioned above, if `apacite` is used, we can use a package option to ensure that the reference list heading appears in the PDF bookmarks.

```
733  \PassOptionsToPackage{numberedbib}{apacite}
```

We, of course, use `hyperref` for enhancing the PDF with working links, bookmarks, metadata, etc.

```
735  \RequirePackage
736    [ colorlinks=true
737    , linkcolor=black
738    , anchorcolor=black
739    , citecolor=links
740    , filecolor=black
741    , menucolor=black
742    , runcolor=black
743    , urlcolor=links
744    ]{hyperref}
```

Links should be in roman type, not monospaced.

```
745  \urlstyle{rm}
```

We provide an \email command for displaying the email address of the corresponding author.

```
746  \newcommand*{\email}[1]{\href{mailto:#1}{#1}}
```

Once the user has had a chance to provide the metadata, we can add it to the PDF metadata.

```
747  \AtBeginDocument{%
748    \hypersetup
749      { pdftitle={\thetitle}
750      , pdfauthor={\dccp@author}
751      , pdfsubject={\dccp@subject}
752      }
```

The APA has its own style for line breaks in URLs. The apacite package provides the code for this, but in case biblatex is used instead, we repeat the settings (from 2013/07/21 v6.03) here.

```
753    \@ifundefined{Url@force@Tilde}{\def\Url@force@Tilde{\relax}}{}%
754    \def\url@apa@dot{\mathchar"2E }%
755    \def\url@apa@comma{\mathchar"2C }%
756    \def\url@apa@questionmark{\mathchar"3F }%
757    \def\url@apa@exclamation{\mathchar"21 }%
758    \def\url@apa@hyphen{\mathchar"2D }%
759    \def\url@apa@underscore{\_}%
760    \def\UrlBreaks{\do\@\do\\\do\|\do\;\do\>\do\]\do\)\do\'\do+\do\=\do\#}%
761    \def\UrlBigBreaks{\do\/\do\:\do@url@hyp}%
762    \def\UrlNoBreaks{\do\(\do\[\do\{\do\<}% \)}
763    \def\UrlOrds{\do\*\do\~\do\'\do\"}%
764    \def\UrlSpecials{%
765      \do\.{\mathbin{}\url@apa@dot }%
766      \do\,{\mathbin{}\url@apa@comma }%
767      \do\-{\mathbin{}\url@apa@hyphen }%
768      \do\?{\mathbin{}\url@apa@questionmark }%
769      \do\!{\mathbin{}\url@apa@exclamation }%
770      \do\_{\mathbin{}\url@apa@underscore }%
771      \do\ {\Url@space}\do\%{\Url@percent}\do\^^M{\Url@space}%
772      \Url@force@Tilde}%
773    \def\Url@OTnonTT{\do\<{\langle}\do\>{\mathbin{\rangle}}\do
774      \_{\mathbin{}\_}\do\|{\mid}\do\{{\lbrace}\do\}{\mathbin{\rbrace}}\do
775      \\{\mathbin{\backslash}}\UrlTildeSpecial}
776  }
```

We now embed the Creative Commons licence information in the PDF using an XMP packet. In order to avoid a bug whereby Adobe Acrobat confuses the XMP author information and the regular author information, though, we *only* embed the licence information. We can use hyperxmp for this, but we have to discard the information collected by that package and construct our own packet.

```
778  \RequirePackage{hyperxmp}
779  \hypersetup{keeppdfinfo}
780  \def\cc@xmp@packet{}
781  \def\hyxmp@construct@packet{%
782    \let\hyxmp@xml\cc@xmp@packet
783  }
```

We need to make sure that any characters to appear verbatim in the XMP packet are treated as ordinary characters and not active ones. The likely active characters are symbols and punctuation, so should be treated as 'other' (category 12).

```
784  \begingroup
785  \catcode`\"=12
786  \catcode`\&=12
787  \catcode`\#=12
788  \catcode`\<=12
789  \catcode`\>=12
790  \catcode`\_=12
```

We construct the XMP packet as the document begins.

```
791  \AtBeginDocument{%
```

For convenience we define \sp to be a level of indent, translating to three spaces.

```
792    \def\sp{\space\space\space}
```

The text of the XMP packet is recorded in \cc@xmp@packet. We use ^^J to break lines.

```
793    \long\gdef\cc@xmp@packet{%
794  <?xpacket begin="\hyxmp@bom" id="W5M0MpCehiHzreSzNTczkc9d"?>^^J%
795  <x:xmpmeta xmlns:x='adobe:ns:meta/'>^^J%
796  <rdf:RDF xmlns:rdf='http://www.w3.org/1999/02/22-rdf-syntax-ns#'>^^J%
797  \sp<rdf:Description rdf:about=''^^J%
798  \sp\sp xmlns:xapRights='http://ns.adobe.com/xap/1.0/rights/'>^^J%
799  \sp\sp<xapRights:Marked>True</xapRights:Marked>^^J%
800  \sp</rdf:Description>^^J%
801  \sp<rdf:Description rdf:about=''^^J%
802  \sp\sp xmlns:dc='http://purl.org/dc/elements/1.1/'>^^J%
803  \sp\sp<dc:rights>^^J%
804  \sp\sp\sp<rdf:Alt>^^J%
805  \sp\sp\sp\sp<rdf:li xml:lang='x-default'>This work is licensed under a Creative
        Commons Attribution 4.0 International Licence.</rdf:li>^^J%
806  \sp\sp\sp</rdf:Alt>^^J%
807  \sp\sp</dc:rights>^^J%
808  \sp</rdf:Description>^^J%
809  \sp<rdf:Description rdf:about=''^^J%
810  \sp\sp xmlns:cc='http://creativecommons.org/ns#'>^^J%
811  \sp\sp<cc:license rdf:resource='http://creativecommons.org/licenses/by/4.0/'/>^^J
        %
812  \sp</rdf:Description>^^J%
813  </rdf:RDF>^^J%
```

```
814  </x:xmpmeta>^^J%
815  \hyxmp@padding
816  <?xpacket end="w"?>^^J%
817    }%
818  }
819  \endgroup
```

Appendix C: Installation

Managed way

The latest stable release of the dccpaper bundle has been packaged for TeX Live and MiKTeX. If you are running TeX Live and have `tlmgr` installed, you can install the bundle simply by running `tlmgr install dccpaper`. If you are running MiKTeX, you can install the bundle by running `mpm --install=dccpaper`. Both `tlmgr` and `mpm` have GUI versions that you might find friendlier.

Automated way

A makefile is provided which you can use with the Make utility:

- Running `make source` generates the derived files

    - README.md
    - ijdc-v9.cls
    - idcc.cls
    - dccpaper-base.sty
    - dccpaper-apacite.bib
    - dccpaper-biblatex.bib

- Running `make` generates the above files and also dccpaper.pdf.

- Running `make inst` installs the files in the user's TeX tree.

- Running `make install` installs the files in the local TeX tree.

Manual way

1. Run `tex dccpaper.dtx` to generate the source files.

2. Compile dccpaper.dtx with (any version of) LaTeX and Biber to generate the documentation. Due to a dependency on the markdown package, you will need either to use LuaLaTeX or to enable shell escape.

3. Move the files to your TeX tree as follows:

    - `source/latex/dccpaper`: dccpaper.dtx, dccpaper.ins
    - `tex/latex/dccpaper`: ijdc-v9.cls, idcc.cls, dccpaper-base.sty, dccpaper-by.eps, dccpaper-by.pdf
    - `doc/latex/dccpaper`: dccpaper.pdf, dccpaper-apacite.bib, dccpaper-biblatex.bib, README.md

4. You may then have to update your installation's file name database before TeX and friends can see the files.

Appendix D: Sample Documents

The following code demonstrates one way to write an IDCC conference paper.

```
1  \documentclass[25,paper]{idcc}
2
3  \title{How to write a conference paper}
4  \author{First Author}
5  \affil{First Author's Affiliation}
6  \author{Second Author}
7  \affil{Second Author's Affiliation}
8  \correspondence{Your Name, Institution, Postal address. Email:
9    \email{ab@example.com}}
10
11 \submitted{1 September 2023}
12
13 \usepackage[style=apa]{biblatex}
14 \addbibresource{references.bib}
15
16 \begin{document}
17 \maketitle
18
19 \begin{abstract}
20 Text of the abstract\dots
21 \end{abstract}
22
23 \section{Introduction}
24
25 The text of the introduction starts here\dots
26
27 \section{Conclusions}
28
29 The text of the conclusions starts here\dots
30
31 \section{Acknowledgements}
32
33 Any acknowledgements should be placed here\dots
34
35 \printbibliography
36 \end{document}
```

This can be converted to an IJDC paper by making the following changes. (This was the submission format for IDCC24.)

```
1  \documentclass[conference]{ijdc-v14}
```

```
11 \conference*{the International Digital Curation Conference IDCC24,
12   19-21 February 2024}
13 \submitted{1 September 2023}
```

If submitting a workshop proposal to the IDCC, there is a specific set of information you need to include. The following code provides the bare bones of the 2024 template; please refer to the latest corresponding Word template for the information you need to provide and the headings to use.

```latex
\documentclass[workshop,24]{idcc}

\title{Getting your workshop accepted}
\author{First Author}
\affil{First Author's Affiliation}
\author{Second Author}
\affil{Second Author's Affiliation}
\correspondence{Your Name, Institution, Postal address. Email: \email{ab@example.
    com}}

\submitted{1 September 2023}

\usepackage[style=apa]{biblatex}
\addbibresource{references.bib}

\begin{document}
\begin{description}
\item[Workshop Organiser(s):]~\\
Name, position, organization.

\item[Workshop title:]~\\
Title.

\item[Brief description:]~\\
60 words or fewer.

\item[Long description:]~\\
About 500 words.

\item[Room layout/workshop style:]~\\
Cabaret, classroom, boardroom, other.

\item[Minimum/maximum number of delegates:]~\\
Minimum for viability, maximum for workability.

\item[Number of speakers:]~\\
Number.

\item[Equipment requirements:]~\\
Anything beyond projector/screen, mic/PA system, lectern, e.g. flipcharts,
whiteboards.

\item[Workshop length:]~\\
Half day or full day.

\item[Funding model:]~\\
Fully funded, part funded (subsidised) or delegate fee.
\end{description}
\end{document}
```

Appendix E: Licence

Copyright 2025 Digital Curation Centre, University of Edinburgh.

This work consists of the image files dccpaper-by.eps and dccpaper-by.pdf, the documented LaTeX file dccpaper.dtx and a Makefile.

The text files contained in this work may be distributed and/or modified under the conditions of the LaTeX Project Public License (LPPL),[4] either version 1.3c of this license or (at your option) any later version.

The image files distributed with this bundle derive from the file by.eps[5] distributed by Creative Commons. The image is a trademark of Creative Commons and is subject to the Creative Commons trademark policy.[6]

This work is "maintained" (as per LPPL maintenance status) by Alex Ball.[7]

The file dccpaper.pdf, generated by this work, is licensed as shown on page 1.

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