biblatex-bath: Harvard referencing style as recommended by the University of Bath Library

Maintainer: Alex Ball[*]

Package v3.1 – 29 August 2019

1   Introduction

This package provides a biblatex style to format reference lists in the Harvard style recommended by the University of Bath Library.

1.1   Installation

The files you need are included in the zip archive available from GitHub. If you use the zip archive from CTAN, you will need to run `luatex biblatex-bath.dtx` to generate them.

You can use this style simply by copying all the `.bbx`, `.cbx`, `.dbx` and `.lbx` files into your working directory, that is, the directory holding the main `.tex` file for your document. If you want the style to be available for all your documents without having to copy the files over each time, you can install them using the instructions below.

1.1.1   Managed way

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

1.1.2   Automated way

A makefile is provided which you can use with the Make utility on UNIX-like systems:

- Running `make source` generates the derived files

  - `README.md`
  - `bath.bbx`, `bath.cbx`, `bath.dbx`
  - `english-bath.lbx`, `british-bath.lbx`
  - `biblatex-bath.bib`
  - `biblatex-bath.ins`

- Running `make` generates the above files and also `biblatex-bath.pdf`. Ensure you have (at least) the luatexja, adobemapping and ipaex packages installed first.

- Running `make inst` installs the files in the user's TeX tree. You can undo this with `make uninst`.

- Running `make install` installs the files in the local TeX tree. You can undo this with `make uninstall`.

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[*]To contact the maintainer about this package, please visit the repository where the code is hosted: https://github.com/alex-ball/bathbib.

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1.1.3 Manual way

You do not need to follow the first step if you downloaded the zip archive from GitHub. You do not need to follow the second step if you already have the PDF documentation.

1. Run `luatex biblatex-bath.dtx` to generate the source files.

2. Compile `biblatex-bath.dtx` with LuaLaTeX and Biber to generate the documentation. You will need, among other things, the luatexja, adobemapping and ipaex packages installed; this is just for the documentation, not for the biblatex style itself.

3. If you are using TeX Live, find your home TeX tree using the following command at the command prompt/terminal:

   ```
   kpsewhich -var-value=TEXMFHOME
   ```

   If you are using MikTeX, consult the MikTeX manual entry for integrating local additions. You can use one of the roots (TeX trees) already defined – preferably one of the User roots – or set up a new one.

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

   - `source/latex/biblatex-bath`: `biblatex-bath.dtx`, (`biblatex-bath.ins`)
   - `tex/latex/biblatex-bath`: `bath.bbx`, `bath.cbx`, `bath.dbx`, `english-bath.lbx`, `british-bath.lbx`
   - `doc/latex/biblatex-bath`: `biblatex-bath.pdf`, `README.md`

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

2 Using the style

This style has been tested with biblatex versions 3.7 and 3.13.

To use the style, specify it when you load biblatex. To get the sorting order of your *citations* right, specify the `ynt` sorting scheme. To avoid possible inconsistencies (e.g. in how disambiguation letters are assigned), force all entries to use the global reference context:

```
\usepackage[style=bath,sorting=ynt]{biblatex}
\assignrefcontextentries[]{*}
```

Remember also to specify your `.bib` file in the preamble:

```
\addbibresource{file.bib}
```

To get the sorting order of your *references* right, create a new reference context just before you print your bibliography, using the `nyt` sorting scheme:

```
\newrefcontext[sorting=nyt]
\printbibliography
```

If you forget these extra steps, the `nyt` sorting scheme will be used throughout.

To make a citation in the text, use the key that corresponds to the entry in your `.bib` file:

```
While collections can be supplemented by other means \autocite{williams1997edd},
the absence of an invisible collection amongst historians is noted by
\textcite[556]{stieg1981inh}. It may be, as \textcite{burchard1965hhl} points
out, that they have no assistants or are reluctant to delegate, or it may be
down to economic factors \autocite{adams2009tc1, adams2014tc2, adams2017tc3,
gb.pa2014}\dots
```

While collections can be supplemented by other means (Williams, 1997), the absence of an invisible collection amongst historians is noted by Stieg, (1981b, p.556). It may be, as Burchard, (1965) points out, that they have no assistants or are reluctant to delegate, or it may be down to economic factors (Adams, 2009; 2014; *Pensions Act 2014*; Adams, 2017)...

Please refer to the documentation for biblatex for the full range of commands available for in-text citations.

It is strongly recommended to use Biber in place of BibTeX to process your references, as the style relies on Biber functionality to deal with some of the more exotic types of entry.

3 Change history

3.1 Version 1 to version 2

If you have previously used version 1 of this style, there are some changes you need to be aware of.

- The code for styling legal references has been completely overhauled, so you can represent them more semantically in your bibliography file. The examples below show the fields you should now use. As far as possible they have been made consistent with the biblatex-oscola style, a specialist style implementing the *Oxford Standard for the Citation of Legal Authorities*, to enable the same entries to be used with both styles.

  For the sake of backwards compatibility, the version 1 semantics still work, but should be considered deprecated; support may be withdrawn in future (major) versions of this style.

- In version 1, the `titleaddon` field was printed unadorned, so you had to supply your own brackets. This was to allow greater freedom to 'hack' entries.

  With version 2, you should not need to resort to such dirty tricks, so the style now applies the brackets for you, in common with styles such as biblatex-apa. Again, for the sake of backwards compatibility, before it does this it strips off any brackets you may have added by hand around your field value.

- Since version 1 was released, there have been improvements made both to the Harvard (Bath) style itself and to biblatex internals. You may therefore notice some changes in how certain entries are styled, and if you have made your own adaptations to the style, these may no longer work with version 2.

There is now a companion BibTeX style available (`bathx` in version 2+ of the `bath-bst` package) which is compatible with this style in the sense that it will render the same `.bib` file the same way, so long as some adjustments are made that won't affect the biblatex rendering (mainly concerning the handling of dates).

3.2 Version 2 to version 3

If you have previously used version 2 of this style, there are some changes you need to be aware of.

- Journal titles are now coerced to sentence case, so any capital letters you want to keep need to be protected with braces.

- Entries of type `unpublished` are now explicitly marked as unpublished.

- With entry types that usually expect an `institution` or `organization` instead of a `publisher`, if you gave a `publisher` in earlier versions the `institution`/`organization` would be ignored. Now they are printed before the publication block.

- Some changes to the Harvard (Bath) style cannot be applied automatically (e.g. the update to how standards are referenced), so you may need to update your .bib file accordingly.

4 Examples

The examples below are shown in three parts. The first, marked with ▤, shows an extract from the *Referencing guide: Harvard Bath* or *Referencing images*. The second, marked with ✿, shows the reference as formatted by biblatex. The last shows how the reference was entered in the .bib file. The bottom right corner shows the source of the example: 'RX' indicates the 'Reference examples (A-Z)' section of the Guide; 'RL' indicates the 'Organise a reference list' section of the Guide; 'RI' indicates *Referencing images*.

You may notice that the examples tend to use BibTeX aliases and conventions for fields (e.g. `address`, `journal`, `year`) rather than the native biblatex fields. This is simply to ease transitions to and from BibTeX, and not a symptom of recalcitrance on the part of the author.

4.1 Books and book chapters

Book with author(s)

> ▤ Rang, H.P., Dale, M.M., Ritter, J.M., Flower, R.J. and Henderson, G., 2012. *Rang and Dale's pharmacology.* 7th ed. Edinburgh: Elsevier Churchill Livingstone.
> ✿ Rang, H.P., Dale, M.M., Ritter, J.M., Flower, R.J. and Henderson, G., 2012. *Rang and Dale's pharmacology.* 7th ed. Edinburgh: Elsevier Churchill Livingstone.
>
> ```
> @book{rang.etal2012rdp,
>   author = {Rang, H. P. and Dale, M. M. and Ritter, J. M. and Flower, R. J. and Henderson, G.},
>   year = {2012},
>   title = {Rang and {Dale's} Pharmacology},
>   edition = {7},
>   address = {Edinburgh},
>   publisher = {Elsevier Churchill Livingstone}}
> ```
> RX

> ▤ Open University, 1972. *Electricity and magnetism.* Bletchley: Open University Press.
> ✿ Open University, 1972. *Electricity and magnetism.* Bletchley: Open University Press.
>
> ```
> @book{ou1972em,
>   author = {{Open University}},
>   year = {1972},
>   title = {Electricity and Magnetism},
>   address = {Bletchley},
>   publisher = {Open University Press}}
> ```
> RX

Book with editor(s) instead of author(s)

> ▤ Rothman, K.J., Greenland, S. and Lash, T.L., eds, 2008. *Modern epidemiology.* 3rd ed. Philadelphia, Pa.: Lippincott Williams & Wilkins.
> ✿ Rothman, K.J., Greenland, S. and Lash, T.L., eds, 2008. *Modern epidemiology.* 3rd ed. Philadelphia, Pa.: Lippincott Williams & Wilkins.
>
> ```
> @book{rothman.etal2008me,
>   editor = {Kenneth J. Rothman and Sander Greenland and Timothy L. Lash},
>   year = {2008},
>   title = {Modern Epidemiology},
>   edition = {3},
>   address = {Philadelphia, Pa.},
>   publisher = {Lippincott Williams \& Wilkins}}
> ```
> RX

Electronic book

- Haynes, W.M., ed., 2014. *CRC handbook of chemistry and physics* [Online]. 94th ed. Boca Raton, Fla.: CRC Press/Taylor and Francis. Available from: http://www.hbcpnetbase.com [Accessed 16 June 2016].
- Haynes, W.M., ed., 2014. *CRC handbook of chemistry and physics* [Online]. 94th ed. Boca Raton, Fla.: CRC Press/Taylor and Francis. Available from: http://www.hbcpnetbase.com [Accessed 16 June 2016].

```
@book{haynes2014crc,
  editor = {Haynes, W. M.},
  year = {2014},
  title = {{CRC} Handbook of Chemistry and Physics},
  edition = {94},
  address = {Boca Raton, Fla.},
  publisher = {CRC Press/{Taylor and Francis}},
  url = {http://www.hbcpnetbase.com},
  urldate = {2016-06-16}}
```
RX

- Hodds, J., 2016. *Referencing ebooks* [Kindle version 4.18]. Bath: University of Bath.
- Hodds, J., 2016. *Referencing ebooks* [Kindle version 4.18]. Bath: University of Bath.

```
@book{hodds2016re,
  author = {Hodds, J.},
  year = {2016},
  title = {Referencing ebooks},
  titleaddon = {Kindle version 4.18},
  address = {Bath},
  publisher = {University of Bath}}
```
RX

One chapter/paper from a collection (by different authors) in an edited book

- Burchard, J.E., 1965. How humanists use a library. In: C.F.J. Overhage and J.R. Harman, eds. *Intrex: report on a planning conference and information transfer experiments.* Cambridge, Mass.: MIT Press, pp.41–87.
- Burchard, J.E., 1965. How humanists use a library. In: C.F.J. Overhage and J.R. Harman, eds. *Intrex: report on a planning conference and information transfer experiments.* Cambridge, Mass.: MIT Press, pp.41–87.

```
@incollection{burchard1965hhl,
  author = {Burchard, J. E.},
  year = {1965},
  title = {How Humanists use a Library},
  editor = {C. F. J. Overhage and J. R. Harman},
  booktitle = {Intrex},
  booksubtitle = {Report on a Planning Conference and Information Transfer Experiments},
  address = {Cambridge, Mass.},
  publisher = {MIT Press},
  pages = {41-87}}
```
RL

Reid, D.R., 1967. Physical testing of polymer films. In: S.H. Pinner, ed. *Modern packaging films.* London: Butterworths, pp.143–183.

Reid, D.R., 1967. Physical testing of polymer films. In: S.H. Pinner, ed. *Modern packaging films.* London: Butterworths, pp.143–183.

```
@incollection{reid1967ptp,
  author = {D. R. Reid},
  year = {1967},
  title = {Physical Testing of Polymer Films},
  editor = {S. H. Pinner},
  booktitle = {Modern Packaging Films},
  address = {London},
  publisher = {Butterworths},
  pages = {143-183}}
```

RX

4.2 Articles and periodicals

Journal article

Stieg, M.F., 1981a. Continuing education and the reference librarian in the academic and research library. *Library journal*, 105(22), pp.2547–2551.

Stieg, M.F., 1981a. Continuing education and the reference librarian in the academic and research library. *Library journal*, 105(22), pp.2547–2551.

```
@article{stieg1981cer,
  author = {Stieg, M. F.},
  year = {1981},
  title = {Continuing Education and the Reference Librarian in the Academic and Research Library},
  journal = {Library Journal},
  volume = {105},
  number ={22},
  pages = {2547-2551}}
```

RL

Stieg, M.F., 1981b. The information needs of historians. *College and research libraries*, 42(6), pp.549–560.

Stieg, M.F., 1981b. The information needs of historians. *College and research libraries*, 42(6), pp.549–560.

```
@article{stieg1981inh,
  author = {Stieg, M. F.},
  year = {1981},
  title = {The Information Needs of Historians},
  journal = {College and Research Libraries},
  volume = {42},
  number ={6},
  pages = {549-560}}
```

RL

Newman, R., 2010. Malaria control beyond 2010. *Brit. Med. J.*, 341(7765), pp.157–208.

Newman, R., 2010. Malaria control beyond 2010. *Brit. Med. J.*, 341(7765), pp.157–208.

```
@article{newman2010mcb,
  author = {Newman, R.},
  year = {2010},
  title = {Malaria control beyond 2010},
  journal = {{Brit.\@ Med.\@ J.\isdot}},
  volume = {341},
  number = {7765},
  pages = {157-208}}
```

RX

Electronic journal article

📓 Williams, F., 1997. Electronic document delivery: a trial in an academic library. *Ariadne* [Online], 10. Available from: http://www.ariadne.ac.uk/issue10/edd/ [Accessed 5 December 1997].

⚙ Williams, F., 1997. Electronic document delivery: a trial in an academic library. *Ariadne* [Online], 10. Available from: http://www.ariadne.ac.uk/issue10/edd/ [Accessed 5 December 1997].

```
@article{williams1997edd,
  author = {Williams, F.},
  year = {1997},
  title = {Electronic Document Delivery},
  subtitle = {A Trial in an Academic Library},
  journal = {Ariadne},
  volume = {10},
  url = {http://www.ariadne.ac.uk/issue10/edd/},
  urldate = {1997-12-05}}
```
RX

💡 If citing an article yet to be officially published, use the `pubstate` field with the keyword `inpress` for 'in press' and `inpreparation` or `submitted` (whichever is more accurate) for 'preprint'.

📓 Liontou, C., Kontopodis, E., Oikonomidis, N., Maniotis, C., Tassopoulos, A., Tsiafoutis, I., Lazaris, E. and Koutouzis, M., 2019. Distal radial access: a review article. *Cardiovascular revascularization medicine* [Online], in press. Available from: https://www.sciencedirect.com/science/article/pii/S1553838919303367 [Accessed 19 June 2019].

⚙ Liontou, C., Kontopodis, E., Oikonomidis, N., Maniotis, C., Tassopoulos, A., Tsiafoutis, I., Lazaris, E. and Koutouzis, M., 2019. Distal radial access: a review article. *Cardiovascular revascularization medicine* [Online], in press. Available from: https://www.sciencedirect.com/science/article/pii/S1553838919303367 [Accessed 19 June 2019].

```
@article{liontou.etal2019dra,
  author = {Liontou, C. and Kontopodis, E. and Oikonomidis, N. and Maniotis, C. and
   Tassopoulos, A. and Tsiafoutis, I. and Lazaris, E. and Koutouzis, M.},
  year = {2019},
  title = {Distal Radial Access: a Review Article},
  journal = {Cardiovascular Revascularization Medicine},
  pubstate = {inpress},
  url = {https://www.sciencedirect.com/science/article/pii/S1553838919303367},
  urldate = {2019-06-19}}
```
RX

Preprint in a digital repository

> 📓 Shah, I. and Corrick, I., 2016. *How should central banks respond to non-neutral inflation expectations?* Bath: University of Bath. *OPUS* [Online]. Available from: http://opus.bath.ac.uk [Accessed 4 May 2016].
> ✿ Shah, I. and Corrick, I., 2016. *How should central banks respond to non-neutral inflation expectations?* Bath: University of Bath. *OPUS* [Online]. Available from: http://opus.bath.ac.uk [Accessed 4 May 2016].

```
@report{shah.corrick2016hsc,
  author = {Shah, I. and Corrick, I.},
  year = {2016},
  title = {How should central banks respond to non-neutral inflation expectations?},
  address = {Bath},
  institution = {University of Bath},
  library = {OPUS},
  url = {http://opus.bath.ac.uk},
  urldate = {2016-05-04}}
```
RX

> 💡 The Harvard (Bath) style treats preprints as grey literature, and so the `report` entry type is the best match semantically. Use `library` to specify the name of the preprint repository.
>
> In standard `biblatex`, you would typically use the natural entry type for the work and provide preprint details using the `eprinttype`, `eprintclass` and `eprint` fields.

Newspaper article

> 📓 Haurant, S., 2004. Britain's borrowing hits £1 trillion. *The Guardian*, 29 July, p.16c.
> ✿ Haurant, S., 2004. Britain's borrowing hits £1 trillion. *The Guardian*, 29 July, p.16c.

```
@article{haurant2004bbh,
  author = {Haurant, S.},
  date = {2004-07-29},
  title = {Britain's Borrowing Hits \pounds 1 Trillion},
  journal = {{The Guardian}},
  pages = {16c}}
```
RX

> 📓 The Independent, 1992. Picking up the bills. *The Independent*, 4 June, p.28a.
> ✿ The Independent, 1992. Picking up the bills. *The Independent*, 4 June, p.28a.

```
@article{independent1992pub,
  author = {{The Independent}},
  date = {1992-06-04},
  title = {Picking Up the Bills},
  journal = {{The Independent}},
  pages = {28a}}
```
RX

4.3 Conference papers

Conference paper (when proceedings have a named editor)

> 🗎 Crawford, G.I., 1965. Oxygen in metals. In: J.M.A. Lenihan and S.J. Thompson, eds. *Activation analysis: proceedings of a NATO Advanced Study Institute*, 2–4 August 1964, Glasgow. London: Academic Press, pp.113–118.
> ⚙ Crawford, G.I., 1965. Oxygen in metals. In: J.M.A. Lenihan and S.J. Thompson, eds. *Activation analysis: proceedings of a NATO Advanced Study Institute*, 2–4 August 1964, Glasgow. London: Academic Press, pp.113–118.

```
@inproceedings{crawford1965oim,
  author = {Crawford, G. I.},
  year = {1965},
  title = {Oxygen in Metals},
  editor = {J. M. A. Lenihan and S. J. Thompson},
  booktitle = {Activation Analysis},
  booksubtitle = {Proceedings of a {NATO} {Advanced} {Study} {Institute}},
  eventdate = {1964-08-02/1964-08-04},
  venue = {Glasgow},
  address = {London},
  publisher = {Academic Press},
  pages = {113-118}}
```

RX

Conference paper (when proceedings have no named editor or are part of a major series)

> 🗎 Soper, D., 1972. Review of bracken control experiments with asulam. *Proceedings of the 11th British Weed Control Conference*, 15–17 November 1972, Brighton. Brighton: University of Sussex, pp.24–31.
> ⚙ Soper, D., 1972. Review of bracken control experiments with asulam. *Proceedings of the 11th British Weed Control Conference*, 15–17 November 1972, Brighton. Brighton: University of Sussex, pp.24–31.

```
@inproceedings{soper1972rbc,
  author = {Soper, D.},
  year = {1972},
  title = {Review of Bracken Control Experiments with Asulam},
  booktitle = {Proceedings of the 11th {British} {Weed} {Control} {Conference}},
  eventdate = {1972-11-15/1972-11-17},
  venue = {Brighton},
  address = {Brighton},
  publisher = {University of Sussex},
  pages = {24-31}}
```

RX

4.4 Grey literature

Thesis/dissertation

> 🗎 Burrell, J.G., 1973. *The importance of school tours in education.* Thesis (M.A.). Queen's University, Belfast.
> ⚙ Burrell, J.G., 1973. *The importance of school tours in education.* Thesis (M.A.). Queen's University, Belfast.

```
@thesis{burrell1973ist,
  author = {Burrell, J. G.},
  year = {1973},
  title = {The Importance of School Tours in Education},
  type = {Thesis \parentext{M.A.}},
  school = {Queen's University, Belfast}}
```

RX

Report

UNESCO, 1993. *General information programme and UNISIST*. (PGI-93/WS/22). Paris: UNESCO.

UNESCO, 1993. *General information programme and UNISIST*. (PGI-93/WS/22). Paris: UNESCO.

```
@report{unesco1993gip,
  author = {{UNESCO}},
  year = {1993},
  title = {General Information Programme and {UNISIST}},
  address = {Paris},
  institution = {UNESCO},
  number = {PGI-93/WS/22}}
```
RX

BRE, 2007. *Designing quality buildings: a BRE guide.* (Report 497). Bracknell: BRE.

BRE, 2007. *Designing quality buildings: a BRE guide.* (Report 497). Bracknell: BRE.

```
@techreport{bre2007dqb,
  author = {{BRE}},
  year = {2007},
  title = {Designing Quality Buildings: a {BRE} Guide},
  address = {Bracknell},
  institution = {BRE},
  type = {Report},
  number = {497}}
```
RX

Standard

BSI, 1990. *BS 5605:1990 Recommendations for citing and referencing published material.* London: BSI.

BSI, 1990. *BS 5605:1990 Recommendations for citing and referencing published material.* London: BSI.

```
@standard{bs5605:1990,
  author = {{BSI}},
  year = {1990},
  title = {{BS}~5605:1990 {Recommendations} for Citing and Referencing Published Material},
  address = {London},
  organization = {BSI}}
```
RX

ASTM, 2019. *ASTM D1655 - 19 Standard specification for aviation turbine fuels.* West Conshohocken, Pa.: ASTM.

ASTM, 2019. *ASTM D1655 - 19 Standard specification for aviation turbine fuels.* West Conshohocken, Pa.: ASTM.

```
@standard{astm.d1655,
  author = {{ASTM}},
  year = {2019},
  title = {{ASTM~D1655} - 19 {Standard} Specification for Aviation Turbine Fuels},
  address = {West Conshohocken, Pa.},
  organization = {ASTM}}
```
RX

Patent

📕 Phillipp Morris Inc., 1981. *Optical perforating apparatus and system.* European patent application 0021165A1. 1981-01-07.

⚙ Phillipp Morris Inc., 1981. *Optical perforating apparatus and system.* European patent application 0021165A1. 1981-01-07.

```
@patent{pm1981opa,
  author = {{Phillipp Morris Inc.}},
  year = {1981},
  title = {Optical perforating apparatus and system},
  type = {European patent application},
  number = {0021165A1. 1981-01-07}}
```

RX

ℹ Note that biblatex has special localisation keys for full patents and patent requests/applications.

Unpublished written material and personal communications

📕 Harris, G., 2013. *Focus group recommendations: internal task group report.* Unpublished.

⚙ Harris, G., 2013. *Focus group recommendations: internal task group report.* Unpublished.

```
@unpublished{harris2013fgr,
  author = {Harris, G.},
  year = {2013},
  title = {Focus group recommendations: internal task group report}}
```

RX

📕 Hadley, S., 2015. *Biomechanics: introductory reading, BM289: sport biomechanics.* University of Bath. Unpublished.

⚙ Hadley, S., 2015. *Biomechanics: introductory reading, BM289: sport biomechanics.* University of Bath. Unpublished.

```
@unpublished{hadley2015bir,
  author = {Hadley, S.},
  year = {2015},
  title = {Biomechanics: introductory reading, {BM289}: sport biomechanics},
  howpublished = {University of Bath}}
```

RX

📕 Thomas, D., 2015. Word count and referencing style. *Frequently asked questions discussion board: PHYS 2011: housing studies.* University of Bath. Unpublished.

⚙ Thomas, D., 2015. Word count and referencing style. *Frequently asked questions discussion board: PHYS 2011: housing studies.* University of Bath. Unpublished.

```
@unpublished{thomas2015wcr,
  author = {Thomas, D.},
  year = {2015},
  title = {Word count and referencing style},
  booktitle = {Frequently asked questions discussion board: {PHYS} 2011: housing studies},
  howpublished = {University of Bath}}
```

RX

4.5 Audiovisual materials

Image

> ◪ NASA, 2015, *NASA astronaut Tim Kopra on Dec. 21 spacewalk* [Online]. Washington: NASA. Available from: http://www.nasa.gov/image-feature/nasa-astronaut-tim-kopra-on-dec-21-spacewalk [Accessed 7 January 2015].
> ✿ NASA, 2015. *NASA astronaut Tim Kopra on Dec. 21 spacewalk* [Online]. Washington: NASA. Available from: http://www.nasa.gov/image-feature/nasa-astronaut-tim-kopra-on-dec-21-spacewalk [Accessed 7 January 2015].
>
> ```
> @image{nasa2015nat,
>   author = {{NASA}},
>   year = {2015},
>   title = {{NASA} Astronaut {Tim} {Kopra} on {Dec.\@} 21 Spacewalk},
>   address = {Washington},
>   publisher = {NASA},
>   url = {http://www.nasa.gov/image-feature/nasa-astronaut-tim-kopra-on-dec-21-spacewalk},
>   urldate = {2015-01-07}}
> ```
> RI

♀ You can use either the `publisher` or the `organization` field to record the source of the image.

> ◪ Iliff, D., 2006. *Royal Crescent in Bath, England - July 2006* [Online]. San Francisco: Wikimedia Foundation. Available from: https://commons.wikimedia.org/wiki/File:Royal_Crescent_in_Bath,_England_-_July_2006.jpg [Accessed 7 January 2016].
> ✿ Iliff, D., 2006. *Royal Crescent in Bath, England - July 2006* [Online]. San Francisco: Wikimedia Foundation. Available from: https://commons.wikimedia.org/wiki/File:Royal_Crescent_in_Bath,_England_-_July_2006.jpg [Accessed 7 January 2015].
>
> ```
> @image{iliff2006rcb,
>   author = {D. Iliff},
>   year = {2006},
>   title = {{Royal} {Crescent} in {Bath,} {England} - {July} 2006},
>   address = {San Francisco},
>   organization = {Wikimedia Foundation},
>   url = {https://commons.wikimedia.org/wiki/File:Royal_Crescent_in_Bath,_England_-_July_2006.jpg},
>   urldate = {2015-01-07}}
> ```
> RI

> ◪ Anon., 1946. *Prototype electric bicycle displayed at the 'Britain Can Make It' exhibition organised by the Council of Industrial Design and held at the Victoria and Albert Museum, London, 1946. Designed by B. G. Bowden* [Photograph]. At: London. Design Council Slide Collection.
> ✿ Anon., 1946. *Prototype electric bicycle displayed at the 'Britain Can Make It' exhibition organised by the Council of Industrial Design and held at the Victoria and Albert Museum, London, 1946. Designed by B. G. Bowden* [Photograph]. At: London. Design Council Slide Collection.
>
> ```
> @image{anon1946peb,
>   author = {Anon\adddot},
>   year = {1946},
>   title = {Prototype electric bicycle displayed at the \enquote{Britain Can Make It} exhibition
>     organised by the {Council} of {Industrial} {Design} and held at the {Victoria} and {Albert}
>     {Museum}, {London}, 1946. {Designed} by {B.~G.} {Bowden}},
>   titleaddon = {Photograph},
>   address = {London},
>   library = {Design Council Slide Collection}}
> ```
> RI

♀ Use the `library` field to record the archive and register number. If the image is on display rather than archived, use `institution` instead for the museum, gallery or building. If you also wish to provide the name of the organisation that published the image, use the `publisher`

field if the location you provide relates to the publisher, but the `organization` field if the location relates to the archive.

Map

> ▤ Andrews, J. and Dury, A., 1773. *Map of Wiltshire*, 1 inch to 2 miles. Devizes: Wiltshire Record Society.
> ✿ Andrews, J. and Dury, A., 1773. *Map of Wiltshire*, 1 inch to 2 miles. Devizes: Wiltshire Record Society.
>
> ```
> @manual{andrews.dury1773wilts,
>   author = {Andrews, J. and Dury, A.},
>   year = {1773},
>   title = {Map of {Wiltshire}},
>   series = {1 inch to 2 miles},
>   address = {Devizes},
>   publisher = {Wiltshire Record Society}}
> ```
> RX

❶ The `book` entry type would also work for this reference.

Film, video or DVD

> ▤ *Macbeth*, 1948. Film. Directed by Orson Welles. USA: Republic Pictures.
> ✿ *Macbeth*, 1948. Film. Directed by Orson Welles. USA: Republic Pictures.
>
> ```
> @video{macbeth1948,
>   year = {1948},
>   title = {Macbeth},
>   type = {Film},
>   note = {Directed by Orson Welles},
>   address = {USA},
>   publisher = {Republic Pictures}}
> ```
> RX

❶ In the above entry, the following would also work instead of using `note`:

> ```
>       editor = {Orson Welles},
>       editortype = {director},
> ```

❶ You can also use `movie` as an alias for `video`.

Streamed video (YouTube, TED Talks, etc.)

> ▤ Moran, C., 2016. *Save our libraries* [Online]. Available from: https://www.youtube.com/watch?v=gKTfCz4JtVE&feature=youtu.be [Accessed 29 April 2016].
> ✿ Moran, C., 2016. *Save our libraries* [Online]. Available from: https://www.youtube.com/watch?v=gKTfCz4JtVE&feature=youtu.be [Accessed 29 April 2016].
>
> ```
> @video{moran2016sol,
>   author = {Moran, C.},
>   year = {2016},
>   title = {Save Our Libraries},
>   url = {https://www.youtube.com/watch?v=gKTfCz4JtVE&feature=youtu.be},
>   urldate = {2016-04-29}}
> ```
> RX

🗎 University of Bath, 2015. *What is engineering?* [Online]. Available from: https://www.youtube.com/watch?v=NoyZarq-Zbo [Accessed 12 January 2016].

⚙ University of Bath, 2015. *What is engineering?* [Online]. Available from: https://www.youtube.com/watch?v=NoyZarq-Zbo [Accessed 12 January 2016].

```
@video{uob2015wie,
  author = {{University of Bath}},
  year = {2015},
  title = {What is Engineering?},
  url = {https://www.youtube.com/watch?v=NoyZarq-Zbo},
  urldate = {2016-01-12}}
```

RI

🗎 Chakrabarti, V., 2016. *How architecture and city planning can combat social inequality* [Online]. Available from: https://www.curbed.com/2016/5/5/11593058/vishaan-chakrabarti-pau-curbed-appeal-podcast [Accessed 28 March 2019].

⚙ Chakrabarti, V., 2016. *How architecture and city planning can combat social inequality* [Online]. Available from: https://www.curbed.com/2016/5/5/11593058/vishaan-chakrabarti-pau-curbed-appeal-podcast [Accessed 28 March 2019].

```
@audio{chakrabarti2016hac,
  author = {Chakrabarti, V.},
  year = {2016},
  title = {How Architecture and City Planning Can Combat Social Inequality},
  url = {https://www.curbed.com/2016/5/5/11593058/vishaan-chakrabarti-pau-curbed-appeal-podcast},
  urldate = {2019-03-28}}
```

RI

Television or radio broadcast

🗎 *Rick Stein's French odyssey: Episode 5*, 2006. TV. BBC2, 23 August. 20.30 hrs.

⚙ *Rick Stein's French odyssey: Episode 5*, 2006. TV. BBC2, 23 August. 20.30 hrs.

```
@video{rsfo2006ep5,
  date = {2006-08-23T20:30:00},
  title = {Rick {Stein's} {French} Odyssey},
  subtitle = {{Episode} 5},
  type = {TV},
  publisher = {BBC2}}
```

RX

💡 Use `type` for the medium and `publisher` for the channel.

🗎 *The Archers*, 2006. Radio. BBC Radio 4, 23 August. 19.02 hrs.

⚙ *The Archers*, 2006. Radio. BBC Radio 4, 23 August. 19.02 hrs.

```
@audio{archers20060823,
  date = {2006-08-23T19:02:00},
  title = {The {Archers}},
  type = {Radio},
  publisher = {BBC Radio 4}}
```

RX

ℹ You can also use `music` as an alias for `audio`.

Music score

📓 Beethoven, L. van, 1950. *Symphony no.1 in C, Op.21*. Harmondsworth: Penguin.
⚙ Beethoven, L. van, 1950. *Symphony no.1 in C, Op.21*. Harmondsworth: Penguin.

```
@book{beethoven1950symph1,
  author = {Ludwig van Beethoven},
  year = {1950},
  title = {Symphony no.1 in {C,} {Op.21}},
  address = {Harmondsworth},
  publisher = {Penguin}}
```
RX

4.6 Digital media

Website/webpage

📓 Holland, M., 2002. *Guide to citing internet sources* [Online]. Poole: Bournemouth University. Available from: http://www.bournemouth.ac.uk/library/using/guide_to_citing_internet_sourc.html [Accessed 4 November 2002].
⚙ Holland, M., 2002. *Guide to citing internet sources* [Online]. Poole: Bournemouth University. Available from: http://www.bournemouth.ac.uk/library/using/guide_to_citing_internet_sourc.html [Accessed 4 November 2002].

```
@online{holland2002gci,
  author = {Holland, M.},
  year = {2002},
  title = {Guide to Citing Internet Sources},
  address = {Poole},
  organization = {Bournemouth University},
  url = {http://www.bournemouth.ac.uk/library/using/guide_to_citing_internet_sourc.html},
  urldate = {2002-11-04}}
```
RX

Email discussion lists (jiscmail/listserv etc.)

📓 Clark, T., 5 July 2004. A European UK Libraries Plus? *Lis-link* [Online]. Available from: lis-link@jiscmail.ac.uk [Accessed 30 July 2004].
⚙ Clark, T., 5 July 2004. A European UK Libraries Plus? *Lis-link* [Online]. Available from: lis-link@jiscmail.ac.uk [Accessed 30 July 2004].

```
@letter{clark2004euk,
  author = {Clark, T.},
  date = {2004-07-05},
  title = {A {European} {UK} {Libraries} {Plus}?},
  journal = {Lis-link},
  url = {lis-link@jiscmail.ac.uk},
  urldate = {2004-07-30}}
```
RX

💡 Use the `journal` field to specify the mailing list. If you omit the `journal` field, the entry will be formatted as an unpublished work.

Database

- Bureau van Dijk, 2008. *BT Group plc company report. FAME* [Online]. London: Bureau van Dijk. Available from: http://www.portal.euromonitor.com [Accessed 6 November 2014].
- Bureau van Dijk, 2008. *BT Group plc company report. FAME* [Online]. London: Bureau van Dijk. Available from: http://www.portal.euromonitor.com [Accessed 6 November 2014].

```
@online{bvd2008bt,
  author = {{Bureau van Dijk}},
  year = {2008},
  title = {{BT} {Group} PLC Company Report},
  library = {FAME},
  address = {London},
  organization = {Bureau van Dijk},
  url = {http://www.portal.euromonitor.com},
  urldate = {2014-11-06}}
```
RX

♀ Use the `title` field for the entry title, and the `library` field for the name of the database itself.

Dataset

- Wilson, D., 2013. *Real geometry and connectedness via triangular description: CAD example bank* [Online]. Bath: University of Bath. Available from: https://doi.org/10.15125/BATH-00069 [Accessed 20 April 2016].
- Wilson, D., 2013. *Real geometry and connectedness via triangular description: CAD example bank* [Online]. Bath: University of Bath. Available from: https://doi.org/10.15125/BATH-00069. Available from: https://doi.org/10.15125/BATH-00069 [Accessed 20 April 2016].

```
@online{wilson2013rgc,
  author = {Wilson, D.},
  year = {2013},
  title = {Real Geometry and Connectedness via Triangular Description},
  subtitle = {{CAD} Example Bank},
  address = {Bath},
  organization = {University of Bath},
  doi = {10.15125/BATH-00069},
  urldate = {2016-04-20}}
```
RX

♀ You can also use `dataset` as an alias for `online`.

Computer program

- @screencasto, n.d. *Screencast-O-Matic* (v.2) [computer program]. Available from: https://screencast-o-matic.com/ [Accessed 16 May 2016].
- @screencasto, n.d. *Screencast-O-Matic* (v.2) [computer program]. Available from: https://screencast-o-matic.com/ [Accessed 16 May 2016].

```
@software{screencasto,
  author = {@screencasto},
  title = {{Screencast-O-Matic}},
  version = {2},
  titleaddon = {computer program},
  url = {https://screencast-o-matic.com/},
  urldate = {2016-05-16}}
```
RX

4.7 Works in languages other than English

Work in translation

> 📖 Aristotle, 2007. *Nicomachean ethics* (W.D. Ross, Trans.). South Dakota: NuVisions.
> ⚙ Aristotle, 2007. *Nicomachean ethics* (W.D. Ross, Trans.). South Dakota: NuVisions.
>
> ```
> @book{aristotle2007ne,
>   author = {Aristotle},
>   year = {2007},
>   title = {Nicomachean Ethics},
>   translator = {W. D. Ross},
>   address = {South Dakota},
>   publisher = {NuVisions}}
> ```
> RX

Work in the Roman alphabet

> 📖 Esquivel, L., 2003. *Como agua para chocolate* [Like water for chocolate]. Barcelona: Debolsillo.
> ⚙ Esquivel, L., 2003. *Como agua para chocolate* [Like water for chocolate]. Barcelona: Debolsillo.
>
> ```
> @book{esquivel2003cap,
>   author = {Esquivel, L.},
>   year = {2003},
>   title = {Como Agua para Chocolate},
>   titleaddon = {Like water for chocolate},
>   address = {Barcelona},
>   publisher = {Debolsillo}}
> ```
> RX

> 💡 Use the `titleaddon` field to supply the English translation of the title.

> 📖 Thurfjell, W., 1975. Vart har våran doktor tagit vägen? [Where has our doctor gone?]. *Läkartidningen*, 72, p.789.
> ⚙ Thurfjell, W., 1975. Vart har våran doktor tagit vägen? [Where has our doctor gone?]. *Läkartidningen*, 72, p.789.
>
> ```
> @article{thurfjell1975vhv,
>   author = {Thurfjell, W.},
>   year = {1975},
>   title = {Vart har våran doktor tagit vägen?},
>   titleaddon = {Where has our doctor gone?},
>   journal = {Läkartidningen},
>   volume = {72},
>   pages = {789}}
> ```
> RX

Work in a non-Roman alphabet

> 📕 Hua, L. 華林甫, 1999. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu 清代以來三峽地區水旱災害的初步研 [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue* 中國社會科學, 1, pp.168–79.
> ⚙ Hua, L. 華林甫, 1999b. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu 清代以來三峽地區水旱災害的初步研 [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue* 中國社會科學, 1, pp.168–79.

```
@article{hua1999qys1,
  author = {given=Linfu, family=Hua, cjk=華林甫},
  year = {1999},
  title = {Qingdai yilai {Sanxia} diqu shuihan zaihai de chubu yanjiu
    {清代以來三峽地區水旱災害的初步研}},
  titleaddon = {A preliminary study of floods and droughts in the {Three} {Gorges} region since
    the {Qing} dynasty},
  journal = {Zhongguo shehui kexue \textup{中國社會科學}},
  volume = {1},
  pages = {168-79}}
```

RX

> 💡 To supply a transliterated version of an author name, specify the name using the name parts `family`, `given` and `cjk`. Please note that if you do supply a `cjk` component, any `prefix` or `suffix` component you may supply will be ignored.

> 📕 Hua, L., 1999. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue*, 1, pp.168–79.
> ⚙ Hua, L., 1999a. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue*, 1, pp.168–79.

```
@article{hua1999qys2,
  author = {Hua, Linfu},
  year = {1999},
  title = {Qingdai yilai {Sanxia} diqu shuihan zaihai de chubu yanjiu},
  titleaddon = {A preliminary study of floods and droughts in the {Three} {Gorges} region since
    the {Qing} dynasty},
  journal = {Zhongguo shehui kexue},
  volume = {1},
  pages = {168-79}}
```

RX

> 💡 Although not a feature of the Harvard (Bath) Style, if you want to suppress the punctuation between the family name and the initial (and thereby be more faithful to the original orthography), you can specify this using biblatex's data annotations feature, using the keyword `cjk`:

> 📕 Hua L. 華林甫, 2001. *Lorem ipsum.*
> ⚙ Hua L. 華林甫, 2001. *Lorem ipsum.*

```
@book{hua2001foo,
  author = {given=Linfu, family=Hua, cjk=華林甫},
  author+an = {1=cjk},
  year = {2001},
  title = {Lorem ipsum}}
```

> ▤ Pamporov, A., 2006. *Romskoto vsekidnevie v Balgariya* [Roma everyday life in Bulgaria].
>   Veliko Tarnovo: Faber.
> ✿ Pamporov, A., 2006. *Romskoto vsekidnevie v Balgariya* [Roma everyday life in Bulgaria].
>   Veliko Tarnovo: Faber.

```
@book{pamporov2006rvb,
  author = {Pamporov, A.},
  year = {2006},
  title = {Romskoto vsekidnevie v {Balgariya}},
  titleaddon = {Roma everyday life in Bulgaria},
  address = {Veliko Tarnovo},
  publisher = {Faber}}
```
RX

4.8 Legal references: UK legislation and parliamentary reports

Act of Parliament (UK Statutes) before 1963

> ▤ *Witchcraft Act 1735* (9 Geo.2, c.5).
> ✿ *Witchcraft Act 1735* (9 Geo.2, c.5).

```
@legislation{gb.wa1735,
  title = {Witchcraft {Act}},
  year = {1735},
  series = {9 Geo.2},
  chapter = {5}}
```
RX

❶ You could instead combine the series and chapter in the `number` field:

```
        number = {9 Geo.2, c.5}
```

Act of Parliament (UK Statutes) 1963 onwards

> ▤ *Pensions Act 2014*, c.19. London: TSO.
> ✿ *Pensions Act 2014*, c.19. London: TSO.

```
@legislation{gb.pa2014,
  title = {Pensions {Act}},
  year = {2014},
  chapter = {19},
  address = {London},
  publisher = {TSO}}
```
RX

House of Commons/House of Lords bill

> ▤ Great Britain. Parliament. House of Commons, 1988. *Local government finance bill.* (Bills | 1987/88, 66). London: HMSO.
> ⚙ Great Britain. Parliament. House of Commons, 1988. *Local government finance bill.* (Bills | 1987/88, 66). London: HMSO.
>
> ```
> @legislation{gb.bill1987/88-66,
>   author = {{Great Britain. Parliament. House of Commons}},
>   year = {1988},
>   title = {Local Government Finance Bill},
>   address = {London},
>   publisher = {HMSO},
>   series = {{Bills | 1987/88}},
>   number = {66}}
> ```
> RX

Statutory instrument

> ▤ *The Human Medicines Regulations 2012* [Online], No.1916, United Kingdom: HMSO. Available from: http://www.legislation.gov.uk/uksi/2012/1916/pdfs/uksi_20121916_en.pdf [Accessed 17 April 2016].
> ⚙ *The Human Medicines Regulations 2012* [Online], No.1916, United Kingdom: HMSO. Available from: http://www.legislation.gov.uk/uksi/2012/1916/pdfs/uksi_20121916_en.pdf [Accessed 17 April 2016].
>
> ```
> @legislation{gb.hmr2012,
>   entrysubtype = {secondary},
>   title = {The {Human} {Medicines} {Regulations}},
>   year = {2012},
>   number = {No.1916},
>   address = {United Kingdom},
>   publisher = {HMSO},
>   url = {http://www.legislation.gov.uk/uksi/2012/1916/pdfs/uksi_20121916_en.pdf},
>   urldate = {2016-04-17}}
> ```
> RX

♀ Use the `entrysubtype` 'secondary' to put the number in the right place.

House of Commons paper

♀ Use this form for reports of House of Commons select committees.

> ▤ Great Britain. Parliament. House of Commons, 2004. *National Savings investment deposits: account 2002–2003.* (HC 2003/04, 30). London: National Audit Office.
> ⚙ Great Britain. Parliament. House of Commons, 2004. *National Savings investment deposits: account 2002–2003.* (HC 2003/04, 30). London: National Audit Office.
>
> ```
> @report{gb.hc2003/04-30,
>   author = {{Great Britain. Parliament. House of Commons}},
>   year = {2004},
>   title = {National {Savings} Investment Deposits},
>   subtitle = {Account 2002--2003},
>   address = {London},
>   publisher = {National Audit Office},
>   series = {HC 2003/04},
>   number = {30}}
> ```
> RX

House of Lords paper

♀ Use this form for reports of House of Lords select committees.

- ▤ Great Britain. Parliament. House of Lords, 1987. *Social fund (maternity and funeral expenses) bill.* (HL 1986/87, (66)). London: HMSO.
- ⚙ Great Britain. Parliament. House of Lords, 1987. *Social fund (maternity and funeral expenses) bill.* (HL 1986/87, (66)). London: HMSO.

```
@report{gb.hl1986/87-66,
  author = {{Great Britain. Parliament. House of Lords}},
  year = {1987},
  title = {Social Fund (Maternity and Funeral Expenses) Bill},
  address = {London},
  publisher = {HMSO},
  series = {HL 1986/87},
  number = {66}}
```
RX

🔧 For joint committees, you will have to hack this slightly, putting the session years in `series` and the HL and HC numbers in `number`.

Command paper

- ▤ Great Britain. Ministry of Defence, 2004. *Delivering security in a changing world: defence white paper.* (Cm. 6041). London: TSO.
- ⚙ Great Britain. Ministry of Defence, 2004. *Delivering security in a changing world: defence white paper.* (Cm. 6041). London: TSO.

```
@report{gb.cm6041,
  author = {{Great Britain. Ministry of Defence}},
  year = {2004},
  title = {Delivering Security in a Changing World},
  subtitle = {Defence White Paper},
  address = {London},
  publisher = {TSO},
  series = {Cm},
  number = {6041}}
```
RX

4.9 Legal references: EU legislation and reports

EU regulation or directive, decision, recommendation or opinion

- ▤ Council Regulation (EC) 1984/2003 of 8 April 2003 introducing a system for the statistical monitoring of trade in bluefin tuna, swordfish and big eye tuna within the Community [2003] *OJ* L295.
- ⚙ Council Regulation (EC) 1984/2003 of 8 April 2003 introducing a system for the statistical monitoring of trade in bluefin tuna, swordfish and big eye tuna within the Community [2003] *OJ* L295.

```
@legislation{eu.dir1984/2003,
  title = {Council {Regulation} ({EC}) 1984/2003 of 8 {April} 2003 Introducing a System for
    the Statistical Monitoring of Trade in Bluefin Tuna, Swordfish and Big Eye Tuna within
    the {Community}},
  shorttitle = {Council {Regulation} \parentext{EC} 1984/2003},
  year = {2003},
  journal = {OJ},
  series = {L},
  volume = {295}}
```
RX

ℹ The `shorttitle` will be used in citations instead of the full title.

EU publication

> 📖 European Commission, 2015. *General report on the activities of the European Union 2014.* Luxembourg: Publications Office of the European Union.
> ⚙ European Commission, 2015. *General report on the activities of the European Union 2014.* Luxembourg: Publications Office of the European Union.

```
@report{ec2015gra,
  author = {{European Commission}},
  year = {2015},
  title = {General Report on the Activities of the {European} {Union} 2014},
  address = {Luxembourg},
  publisher = {Publications Office of the European Union}}
```
RX

4.10 Legal references: case reports

Legal case study

> 📖 *Seldon v. Clarkson Wright & Jakes.* [2012]. UKSC 16.
> ⚙ *Seldon v. Clarkson Wright & Jakes.* [2012]. UKSC 16.

```
@jurisdiction{seldon-v-c.w.j2012,
  title = {Seldon v.~{Clarkson} {Wright} \& {Jakes}},
  year = {2012},
  journal = {UKSC},
  pages = {16}}
```
RX

ℹ Generally speaking, the year should be in square brackets if it is essential to the citation (unless it is a Scottish case, in which case it is printed bare), and in parentheses if it is not.

💡 By default, the style assumes the year is essential if and only if a volume number is *not* provided; to override this, you can use the `year-essential` option:

```
    options = {year-essential=true},
```

To use Scottish style for a case, you can either use the `scottish-style` option or the keyword `sc`:

```
    options = {scottish-style},
    keywords = {sc},
```

🔧 This should cover most cases, but legal references tend to enforce their own conventions no matter what the rest of the reference list is doing, and it is out of scope for this style to cater for every variation. Therefore if you need a different format (e.g. for an American case), you may prefer to format the reference more-or-less by hand:

```
    title = {Seldon v.~{Clarkson} {Wright} \& {Jakes}},
    sortyear = {2012},
    note = {[2012]. UKSC 16}
```

Judgment of the European Court of Justice

> 📕 *Alessandrini Srl and others v. Commission* (C-295/03 P) [2005] ECR I–5700.
> ⚙ *Alessandrini Srl and others v. Commission* (C-295/03 P) [2005] ECR I–5700.

```
@jurisdiction{srl.etal-v-comm2005,
  title = {Alessandrini {Srl} and others v.\@ {Commission}},
  number = {C-295/03 P},
  year = {2005},
  journal = {ECR},
  volume = {I},
  pages = {5700}}
```
RX

♀ Use the `number` field (or the non-standard `casenmuber` field) for the case number. For Commission Decisions, use the (non-standard) `casenumber` or (biblatex-oscola) `userb` field for the Commission case number, `number` for the formal decision number, and give 'Commission' as the `institution`.

5 References

@screencasto, n.d. *Screencast-O-Matic* (v.2) [computer program]. Available from: https://screencast-o-matic.com/ [Accessed 16 May 2016].

Adams, G., 2009. *Test citation one.* London: Imperial College Bookstall.

Adams, G., 2014. *Test citation two.* Oxford: Oxford University Press.

Adams, G., 2017. *Test citation three.* Cambridge: Cambridge University Press.

Alessandrini Srl and others v. Commission (C-295/03 P) [2005] ECR I–5700.

Andrews, J. and Dury, A., 1773. *Map of Wiltshire*, 1 inch to 2 miles. Devizes: Wiltshire Record Society.

Anon., 1946. *Prototype electric bicycle displayed at the 'Britain Can Make It' exhibition organised by the Council of Industrial Design and held at the Victoria and Albert Museum, London, 1946. Designed by B. G. Bowden* [Photograph]. At: London. Design Council Slide Collection.

Aristotle, 2007. *Nicomachean ethics* (W.D. Ross, Trans.). South Dakota: NuVisions.

ASTM, 2019. *ASTM D1655 - 19 Standard specification for aviation turbine fuels.* West Conshohocken, Pa.: ASTM.

Beethoven, L. van, 1950. *Symphony no.1 in C, Op.21.* Harmondsworth: Penguin.

BRE, 2007. *Designing quality buildings: a BRE guide.* (Report 497). Bracknell: BRE.

BSI, 1990. *BS 5605:1990 Recommendations for citing and referencing published material.* London: BSI.

Burchard, J.E., 1965. How humanists use a library. In: C.F.J. Overhage and J.R. Harman, eds. *Intrex: report on a planning conference and information transfer experiments.* Cambridge, Mass.: MIT Press, pp.41–87.

Bureau van Dijk, 2008. *BT Group plc company report. FAME* [Online]. London: Bureau van Dijk. Available from: http://www.portal.euromonitor.com [Accessed 6 November 2014].

Burrell, J.G., 1973. *The importance of school tours in education.* Thesis (M.A.). Queen's University, Belfast.

Chakrabarti, V., 2016. *How architecture and city planning can combat social inequality* [Online]. Available from: https://www.curbed.com/2016/5/5/11593058/vishaan-chakrabarti-pau-curbed-appeal-podcast [Accessed 28 March 2019].

Clark, T., 5 July 2004. A European UK Libraries Plus? *Lis-link* [Online]. Available from: lis-link@jiscmail.ac.uk [Accessed 30 July 2004].

Council Regulation (EC) 1984/2003 of 8 April 2003 introducing a system for the statistical monitoring of trade in bluefin tuna, swordfish and big eye tuna within the Community [2003] *OJ* L295.

Crawford, G.I., 1965. Oxygen in metals. In: J.M.A. Lenihan and S.J. Thompson, eds. *Activation analysis: proceedings of a NATO Advanced Study Institute*, 2–4 August 1964, Glasgow. London: Academic Press, pp.113–118.

Esquivel, L., 2003. *Como agua para chocolate* [Like water for chocolate]. Barcelona: Debolsillo.

European Commission, 2015. *General report on the activities of the European Union 2014.* Luxembourg: Publications Office of the European Union.

Great Britain. Ministry of Defence, 2004. *Delivering security in a changing world: defence white paper.* (Cm. 6041). London: TSO.

Great Britain. Parliament. House of Commons, 1988. *Local government finance bill.* (Bills | 1987/88, 66). London: HMSO.

Great Britain. Parliament. House of Commons, 2004. *National Savings investment deposits: account 2002–2003.* (HC 2003/04, 30). London: National Audit Office.

Great Britain. Parliament. House of Lords, 1987. *Social fund (maternity and funeral expenses) bill.* (HL 1986/87, (66)). London: HMSO.

Hadley, S., 2015. *Biomechanics: introductory reading, BM289: sport biomechanics.* University of Bath. Unpublished.

Harris, G., 2013. *Focus group recommendations: internal task group report.* Unpublished.

Haurant, S., 2004. Britain's borrowing hits £1 trillion. *The Guardian*, 29 July, p.16c.

Haynes, W.M., ed., 2014. *CRC handbook of chemistry and physics* [Online]. 94th ed. Boca Raton, Fla.: CRC Press/Taylor and Francis. Available from: http://www.hbcpnetbase.com [Accessed 16 June 2016].

Hodds, J., 2016. *Referencing ebooks* [Kindle version 4.18]. Bath: University of Bath.

Holland, M., 2002. *Guide to citing internet sources* [Online]. Poole: Bournemouth University. Available from: http://www.bournemouth.ac.uk/library/using/guide_to_citing_internet_sourc.html [Accessed 4 November 2002].

Hua, L., 1999a. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue*, 1, pp.168–79.

Hua, L. 華林甫, 1999b. Qingdai yilai Sanxia diqu shuihan zaihai de chubu yanjiu 清代以來三峽地區水旱災害的初步研 [A preliminary study of floods and droughts in the Three Gorges region since the Qing dynasty]. *Zhongguo shehui kexue* 中國社會科學, 1, pp.168–79.

Hua L. 華林甫, 2001. *Lorem ipsum.*

Iliff, D., 2006. *Royal Crescent in Bath, England - July 2006* [Online]. San Francisco: Wikimedia Foundation. Available from: https://commons.wikimedia.org/wiki/File:Royal_Crescent_in_Bath,_England_-_July_2006.jpg [Accessed 7 January 2015].

Liontou, C., Kontopodis, E., Oikonomidis, N., Maniotis, C., Tassopoulos, A., Tsiafoutis, I., Lazaris, E. and Koutouzis, M., 2019. Distal radial access: a review article. *Cardiovascular revascularization medicine* [Online], in press. Available from: https://www.sciencedirect.com/science/article/pii/S1553838919303367 [Accessed 19 June 2019].

Macbeth, 1948. Film. Directed by Orson Welles. USA: Republic Pictures.

Moran, C., 2016. *Save our libraries* [Online]. Available from: https://www.youtube.com/watch?v=gKTfCz4JtVE&feature=youtu.be [Accessed 29 April 2016].

NASA, 2015. *NASA astronaut Tim Kopra on Dec. 21 spacewalk* [Online]. Washington: NASA. Available from: http://www.nasa.gov/image-feature/nasa-astronaut-tim-kopra-on-dec-21-spacewalk [Accessed 7 January 2015].

Newman, R., 2010. Malaria control beyond 2010. *Brit. Med. J.*, 341(7765), pp.157–208.

Open University, 1972. *Electricity and magnetism*. Bletchley: Open University Press.

Pamporov, A., 2006. *Romskoto vsekidnevie v Balgariya* [Roma everyday life in Bulgaria]. Veliko Tarnovo: Faber.

Pensions Act 2014, c.19. London: TSO.

Phillipp Morris Inc., 1981. *Optical perforating apparatus and system*. European patent application 0021165A1. 1981-01-07.

Rang, H.P., Dale, M.M., Ritter, J.M., Flower, R.J. and Henderson, G., 2012. *Rang and Dale's pharmacology*. 7th ed. Edinburgh: Elsevier Churchill Livingstone.

Reid, D.R., 1967. Physical testing of polymer films. In: S.H. Pinner, ed. *Modern packaging films*. London: Butterworths, pp.143–183.

Rick Stein's French odyssey: Episode 5, 2006. TV. BBC2, 23 August. 20.30 hrs.

Rothman, K.J., Greenland, S. and Lash, T.L., eds, 2008. *Modern epidemiology*. 3rd ed. Philadelphia, Pa.: Lippincott Williams & Wilkins.

Seldon v. Clarkson Wright & Jakes. [2012]. UKSC 16.

Shah, I. and Corrick, I., 2016. *How should central banks respond to non-neutral inflation expectations?* Bath: University of Bath. *OPUS* [Online]. Available from: http://opus.bath.ac.uk [Accessed 4 May 2016].

Soper, D., 1972. Review of bracken control experiments with asulam. *Proceedings of the 11th British Weed Control Conference*, 15–17 November 1972, Brighton. Brighton: University of Sussex, pp.24–31.

Stieg, M.F., 1981a. Continuing education and the reference librarian in the academic and research library. *Library journal*, 105(22), pp.2547–2551.

Stieg, M.F., 1981b. The information needs of historians. *College and research libraries*, 42(6), pp.549–560.

The Archers, 2006. Radio. BBC Radio 4, 23 August. 19.02 hrs.

The Human Medicines Regulations 2012 [Online], No.1916, United Kingdom: HMSO. Available from: http://www.legislation.gov.uk/uksi/2012/1916/pdfs/uksi_20121916_en.pdf [Accessed 17 April 2016].

The Independent, 1992. Picking up the bills. *The Independent*, 4 June, p.28a.

Thomas, D., 2015. Word count and referencing style. *Frequently asked questions discussion board: PHYS 2011: housing studies*. University of Bath. Unpublished.

Thurfjell, W., 1975. Vart har våran doktor tagit vägen? [Where has our doctor gone?]. *Läkartidningen*, 72, p.789.

UNESCO, 1993. *General information programme and UNISIST*. (PGI-93/WS/22). Paris: UNESCO.

University of Bath, 2015. *What is engineering?* [Online]. Available from: `https://www.youtube.com/watch?v=NoyZarq-Zbo` [Accessed 12 January 2016].

Williams, F., 1997. Electronic document delivery: a trial in an academic library. *Ariadne* [Online], 10. Available from: `http://www.ariadne.ac.uk/issue10/edd/` [Accessed 5 December 1997].

Wilson, D., 2013. *Real geometry and connectedness via triangular description: CAD example bank* [Online]. Bath: University of Bath. Available from: `https://doi.org/10.15125/BATH-00069`. Available from: `https://doi.org/10.15125/BATH-00069` [Accessed 20 April 2016].

Witchcraft Act 1735 (9 Geo.2, c.5).

6 Licence

This work consists of the documented LaTeX file biblatex-bath.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), either version 1.3c of this license or (at your option) any later version.

This work is 'maintained' (as per LPPL maintenance status) by Alex Ball.

7 Implementation: bibliography style

7.1 Preliminaries

For ease of maintenance, we will patch some definitions with xpatch instead of writing out our own in full.

```
16  \RequirePackage{xpatch}
```

Some string analysis is required.

```
17  \RequirePackage{xstring}
```

Language support may be widened in future, but for now we support British and American English. Adapted language files have the following suffix:

```
18  \RequirePackage{etoolbox}
19  \ifcsdef{DeclareLanguageMappingSuffix}{%
20    \DeclareLanguageMappingSuffix{-bath}
21  }{%
22    \DeclareLanguageMapping{english}{english-bath}
23    \DeclareLanguageMapping{british}{british-bath}
24  }
```

We begin by loading the default author–year style.

```
25  \RequireBibliographyStyle{authoryear}
26  \ExecuteBibliographyOptions{%
27    maxcitenames=3,maxbibnames=9999,isbn=false,giveninits=true,dashed=false,
28    alldates=comp,labeldate=year}
29  \ExecuteBibliographyOptions[audio,video,music,movie]{%
30    useeditor=false}
```

We provide some additional bibliography strings.

```
31  \NewBibliographyString{%
32    online, hours, at, unpublished, legalchapter,
33    director, performer, reader, conductor,
34    directors, performers, readers, conductors,
35    bydirector, byperformer, byreader, byconductor,
36  }
```

We allow the bibliography look more like the BibTeX default.

```
37  \setlength{\bibitemsep}{1em plus 0.2em minus 0.2em}
38  \renewcommand*{\bibfont}{\normalfont\normalsize}
```

To maintain compatibility with biblatex 3.7 (used on Overleaf at the time of writing) we backport some newer features.

```
39  \ifcsdef{letbibmacro}{}{%
40    \def\letbibmacro#1#2{%
41      \ifcsundef{abx@macro@#2}
42        {\blx@error
43          {Bibliography macro '#2' undefined}
44          {Use '\string\newbibmacro' to define this macro}}
45        {\csletcs{abx@macro@#1}{abx@macro@#2}}}
46  }
47  \ifcsdef{iflabeldateisdate}{}{%
48    \def\iflabeldateisdate{%
49      \ifboolexpr{%
50        togl {blx@labeldateparts}
51        and not test {\iffieldundef{labeldatesource}}
52        and
53        (test {\iffieldequalstr{labeldatesource}{}}
54        or test {\iffieldequalstr{labeldatesource}{year}})}}%
55  }
```

7.2 Name handling

Names are usually reversed. There are no spaces between initials.

```
57  \DeclareNameAlias{author}{family-given}
58  \DeclareNameAlias{editor}{family-given}
59  \DeclareNameAlias{bookeditor}{given-family}
60  \renewcommand*{\bibinitdelim}{}
```

The handling of CJK names is based on code supplied to TeX.sx by user Moewe in answer to question 320738.

The CJK part is printed after the anglicized name. If the name is also annotated as 'cjk' (see 'Data Annotations' in the biblatex manual), it is always printed in family-given order with no intermediate punctuation.

```
61  \newbibmacro*{name:cjk-given-family}[3]{%
62    \ifitemannotation{cjk}{%
63      \usebibmacro{name:delim}{#2#1#3}%
64      \usebibmacro{name:hook}{#2#1#3}%
65      \mkbibnamefamily{#1}\isdot
66      \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}}%
67      \ifdefvoid{#3}{}{\bibnamedelimd\mkbibnamecjk{#3}}%
68    }{%
69      \usebibmacro{name:delim}{#2#1#3}%
70      \usebibmacro{name:hook}{#2#1#3}%
71      \ifdefvoid{#2}{}{\mkbibnamegiven{#2}\isdot\bibnamedelimd}%
72      \mkbibnamefamily{#1}\isdot
73      \ifdefvoid{#3}{}{\bibnamedelimd\mkbibnamecjk{#3}}%
74    }%
75  }
76  \newbibmacro*{name:cjk-family-given}[3]{%
77    \ifitemannotation{cjk}{%
78      \usebibmacro{name:delim}{#2#1#3}%
79      \usebibmacro{name:hook}{#2#1#3}%
80      \mkbibnamefamily{#1}\isdot
81      \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}}%
82      \ifdefvoid{#3}{}{\bibnamedelimd\mkbibnamecjk{#3}}%
83    }{%
84      \usebibmacro{name:delim}{#1}%
85      \usebibmacro{name:hook}{#1}%
86      \mkbibnamefamily{#1}\isdot
87      \ifboolexpe{%
88        test {\ifdefvoid{#2}}
89        and
90        test {\ifdefvoid{#3}}}
91        {}
92        {\revsdnamepunct}%
93      \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
94      \ifdefvoid{#3}{}{\bibnamedelimd\mkbibnamecjk{#3}}%
95    }%
96  }
97
98  \DeclareNameFormat{given-family}{%
99    \ifdefvoid{\namepartcjk}{%
100     \ifgiveninits{%
101       \usebibmacro{name:given-family}
102         {\namepartfamily}
103         {\namepartgiveni}
104         {\namepartprefix}
105         {\namepartsuffix}%
106     }{%
107       \usebibmacro{name:given-family}
108         {\namepartfamily}
109         {\namepartgiven}
```

```
110        {\namepartprefix}
111        {\namepartsuffix}%
112      }%
113    }{%
114      \ifgiveninits{%
115        \usebibmacro{name:cjk-given-family}
116          {\namepartfamily}
117          {\namepartgiveni}
118          {\namepartcjk}%
119      }{%
120        \usebibmacro{name:cjk-given-family}
121          {\namepartfamily}
122          {\namepartgiven}
123          {\namepartcjk}%
124      }%
125    }%
126    \usebibmacro{name:andothers}%
127  }
128
129  \DeclareNameFormat{family-given}{%
130    \ifdefvoid{\namepartcjk}{%
131      \ifgiveninits{%
132        \usebibmacro{name:family-given}
133          {\namepartfamily}
134          {\namepartgiveni}
135          {\namepartprefix}
136          {\namepartsuffix}%
137      }{%
138        \usebibmacro{name:family-given}
139          {\namepartfamily}
140          {\namepartgiven}
141          {\namepartprefix}
142          {\namepartsuffix}%
143      }%
144    }{%
145      \ifgiveninits{%
146        \usebibmacro{name:cjk-family-given}
147          {\namepartfamily}
148          {\namepartgiveni}
149          {\namepartcjk}%
150      }{%
151        \usebibmacro{name:cjk-family-given}
152          {\namepartfamily}
153          {\namepartgiven}
154          {\namepartcjk}%
155      }%
156    }
157    \usebibmacro{name:andothers}%
158  }
```

With videos, names in credits are printed in full.

```
160  \DeclareNameFormat{given-family:full}{%
161    \usebibmacro{name:given-family}
162      {\namepartfamily}
163      {\namepartgiven}
164      {\namepartprefix}
165      {\namepartsuffix}%
166    \usebibmacro{name:andothers}}
167
168  \renewbibmacro*{byauthor}[1][byauthor]{%
169    \ifboolexpr{
170      test \ifuseauthor
```

```
171       or
172       test {\ifnameundef{author}}
173     }{}
174     {\usebibmacro{bytypestrg}{author}{author}%
175       \setunit{\addspace}%
176       \printnames[#1]{author}}}
177
178  \renewbibmacro*{byeditor}[1][byeditor]{%
179     \ifnameundef{editor}
180     {}
181     {\usebibmacro{bytypestrg}{editor}{editor}%
182       \setunit{\addspace}%
183       \printnames[#1]{editor}%
184       \newunit}%
185     \ifstrequal{#1}{byeditor}{%
186       \usebibmacro{byeditora}%
187       \usebibmacro{byeditorb}%
188       \usebibmacro{byeditorc}
189     }{%
190       \usebibmacro{byeditora}[#1]%
191       \usebibmacro{byeditorb}[#1]%
192       \usebibmacro{byeditorc}[#1]}}
193
194  \newbibmacro*{byeditora}[1][byeditora]{%
195     \ifnameundef{editora}
196     {}
197     {\usebibmacro{bytypestrg}{editora}{editor}%
198       \setunit{\addspace}%
199       \printnames[#1]{editora}%
200       \newunit}}
201  \newbibmacro*{byeditorb}[1][byeditorb]{%
202     \ifnameundef{editorb}
203     {}
204     {\usebibmacro{bytypestrg}{editorb}{editor}%
205       \setunit{\addspace}%
206       \printnames[#1]{editorb}%
207       \newunit}}
208  \newbibmacro*{byeditorc}[1][byeditorc]{%
209     \ifnameundef{editorc}
210     {}
211     {\usebibmacro{bytypestrg}{editorc}{editor}%
212       \setunit{\addspace}%
213       \printnames[#1]{editorc}%
214       \newunit}}
215
216  \renewbibmacro*{bytranslator}[1][bytranslator]{%
217     \ifnameundef{translator}
218     {}
219     {\setunit{\addspace}%
220       \printtext[parens]{%
221       \printnames[#1]{translator}%
222       \setunit{\addcomma\space}%
223       \bibcpstring{translator}%
224       \clearname{translator}}}}
225
226  \renewbibmacro*{byeditor+others}[1][byeditor]{%
227     \ifnameundef{editor}
228     {}
229     {\usebibmacro{byeditor+othersstrg}%
230       \setunit{\addspace}%
231       \printnames[#1]{editor}%
232       \clearname{editor}%
233       \newunit}%
```

```
234    \ifstrequal{#1}{byeditor}{%
235      \usebibmacro{byeditorx}%
236      \usebibmacro{bytranslator+others}%
237    }{%
238      \usebibmacro{byeditora}[#1]%
239      \usebibmacro{byeditorb}[#1]%
240      \usebibmacro{byeditorc}[#1]%
241      \usebibmacro{bytranslator+others}[#1]}}
242
243  \renewbibmacro*{bytranslator+others}[1][bytranslator]{%
244    \ifnameundef{translator}
245    {\usebibmacro{withothers}}
246    {\setunit{\addspace}%
247      \printtext[parens]{%
248      \printnames[bytranslator]{translator}%
249      \setunit{\addcomma\space}%
250      \bibcpstring{translator}%
251      \clearname{translator}%
252      \newunit
253      \usebibmacro{withothers}}}}
```

With collections, editors appear in natural order between 'In' and the title, followed by 'ed.'

```
255  \newbibmacro*{bookeditor}{%
256    \ifnameundef{editor}{}{%
257      \printnames[bookeditor]{editor}%
258      \setunit*{\addcomma\space}%
259      \usebibmacro{editor+othersstrg}%
260      \clearname{editor}%
261    }}
```

7.3 Titles

Most titles are set in italics, but some are set roman and unquoted.

```
263  \DeclareFieldFormat{sentencecase}{\MakeSentenceCase*{#1}}
264  \DeclareFieldFormat{midsentencecase}{\MakeSentenceCase*{{}#1}}
265  \DeclareFieldFormat{title}{\mkbibemph{#1}}
266  \DeclareFieldFormat
267    [article,inbook,incollection,inproceedings]%
268    {title}{#1}
269  \DeclareFieldFormat
270    [patent,thesis]%
271    {title}{\mkbibemph{#1}}
272  \DeclareFieldFormat
273    [unpublished]%
274    {title}{\iffieldundef{booktitle}{\mkbibemph{#1}}{#1}}
```

Online resources are clearly tarred and feathered with an '[Online]' label. The `isonline` macro prints this label if the resource has a URL and does nothing otherwise. We add a safeguard to stop it being used repeatedly.

```
276  \newtoggle{bbx:onlineshown}
277  \newbibmacro*{isonline}{%
278    \ifboolexpr{(
279        test {\iffieldundef{url}}
280        and
281        not test {\ifentrytype{online}}
282      ) or
283      togl {bbx:onlineshown}
284    }{}{%
285      \bibstring[\mkbibbrackets]{online}%
286      \toggletrue{bbx:onlineshown}}}
```

31

The `titleaddon` field follows the title after a space and wrapped in brackets. Version 1 of this style encouraged people to supply the brackets manually, so we strip them off if they have been supplied.

```
288  \DeclareFieldFormat{titleaddon}{\mkbibbrackets{%
289    \IfBeginWith{#1}{[}{%
290      \IfEndWith{#1}{]}{%
291        \StrBetween{#1}{[}{]}%
292      }{#1}%
293    }{#1}%
294  }}
```

We need to supply a new `title` macro. The standard version hard-codes the case used (we use sentence case, not title case) and puts default unit punctuation between the `title` and `titleaddon` fields. We also need to add conditional code for printing the automatic '[Online]' label.

```
296  \renewbibmacro*{title}{%
297    \printtext{%
298      \ifboolexpr{
299        test {\iffieldundef{title}}
300        and
301        test {\iffieldundef{subtitle}}
302      }{}{%
303        \printtext[title]{%
304          \printfield[sentencecase]{title}%
305          \setunit{\subtitlepunct}%
306          \printfield[midsentencecase]{subtitle}%
307          \setunit{\addspace}%
308        }%
309        \printfield{version}%
310        \clearfield{version}%
311        \setunit*{\addspace}%
312        \printfield{titleaddon}%
313        \ifboolexpr{
314          test {\iffieldundef{journaltitle}}
315          and
316          test {\iffieldundef{booktitle}}
317          and
318          test {\iffieldundef{library}}
319          and
320          not test {\ifentrytype{software}}
321        }{%
322          \setunit*{\addspace}%
323          \usebibmacro{isonline}%
324        }{}%
325      }%
326    }%
327  }
```

Similar changes are needed for the `booktitle` and `maintitle` macros.

```
329  \renewbibmacro*{booktitle}{%
330    \ifboolexpr{
331      test {\iffieldundef{booktitle}}
332      and
333      test {\iffieldundef{booksubtitle}}
334    }{}{%
335      \printtext[booktitle]{%
336        \printfield[sentencecase]{booktitle}%
337        \setunit{\subtitlepunct}%
338        \printfield[midsentencecase]{booksubtitle}%
339        \setunit{\addspace}%
340      }%
341      \printfield{booktitleaddon}
```

```
342     \setunit*{\addspace}%
343     \usebibmacro{isonline}%
344   }%
345 }
346
347 \renewbibmacro*{maintitle}{%
348   \ifboolexpr{
349     test {\iffieldundef{maintitle}}
350     and
351     test {\iffieldundef{mainsubtitle}}
352   }{}{
353     \printtext[maintitle]{%
354       \printfield[sentencecase]{maintitle}%
355       \setunit{\subtitlepunct}%
356       \printfield[midsentencecase]{mainsubtitle}%
357       \setunit{\addspace}%
358     }%
359     \printfield{maintitleaddon}%
360   }%
361 }
```

Subtitles are set off with a colon

```
363 \renewcommand*{\subtitlepunct}{\addcolon\space}
```

In the standard author–year styles, if a title is promoted to the head of a reference (due to missing authors/editors), the subtitle and titleaddon fields are discarded. We want to show the subtitle directly after the title, and show titleaddon after the `date+extradate` macro.

```
365 \providetoggle{bbx:labelistitle}
366 \renewbibmacro*{labeltitle}{%
367   \iffieldundef{label}{%
368     \ifboolexpr{
369       test {\iffieldundef{title}}
370       and
371       test {\iffieldundef{subtitle}}
372     }{}{%
373       \printtext[title]{%
374         \printfield[sentencecase]{title}%
375         \setunit{\subtitlepunct}%
376         \printfield[midsentencecase]{subtitle}}%
377       \clearfield{title}\clearfield{subtitle}%
378       \toggletrue{bbx:labelistitle}}%
379   }{%
380     \printfield{label}%
381   }%
382 }
383 \DeclareDelimFormat{yearlabeltitleaddondelim}{\addspace}
384 \newbibmacro*{labeltitleaddon}{%
385   \iftoggle{bbx:labelistitle}{%
386     \setunit{\printdelim{yearlabeltitleaddondelim}}%
387     \printfield{version}%
388     \clearfield{version}%
389     \setunit*{\addspace}%
390     \printfield{titleaddon}%
391     \clearfield{titleaddon}%
392     \ifboolexpr{
393       test {\iffieldundef{journaltitle}}
394       and
395       test {\iffieldundef{booktitle}}
396       and (
397         test {\iffieldundef{library}}
398         or
399         test {\ifentrytype{image}}
```

```
400         ) and
401         not test {\ifentrytype{software}}
402     }{%
403        \setunit*{\addspace}%
404        \usebibmacro{isonline}%
405     }{}%
406    }{}%
407 }
408 \xapptobibmacro{author}{\usebibmacro{labeltitleaddon}}{}{}
409 \xapptobibmacro{bbx:editor}{\usebibmacro{labeltitleaddon}}{}{}
410 \xapptobibmacro{bbx:translator}{\usebibmacro{labeltitleaddon}}{}{}
```

7.4 Dates

If the main publication date is missing, we fall back immediately to 'n.d.' rather than use URL date or anything like that. However, for some resources (ISO standards, Acts of Parliament), the date is part of the label and should not be repeated, so we declare an option for removing the 'n.d.' Unless already set, the option is inserted if `sortyear` is used.

```
412 \DeclareLabeldate{%
413    \field{date}
414    \field{year}
415    \literal{nodate}
416 }
417 \newtoggle{bbx:nonodate}
418 \DeclareBibliographyOption[boolean]{nonodate}[true]{%
419    \settoggle{bbx:nonodate}{#1}}
420 \DeclareTypeOption[boolean]{nonodate}[true]{%
421    \settoggle{bbx:nonodate}{#1}}
422 \DeclareEntryOption[boolean]{nonodate}[true]{%
423    \settoggle{bbx:nonodate}{#1}}
```

Unless already set, the `nonodate` option is inserted if `sortyear` is used. We accomplish this with source maps; the first one works where options (not including `nonodate`) have been set, the second where no options have been set.

```
424 \DeclareStyleSourcemap{
425    \maps[datatype=bibtex]{
426       \map[overwrite=true]{
427          \step[notmatch=\regexp{nonodate}, fieldsource=options, final]
428          \step[fieldsource=sortyear, final]
429          \step[fieldset=options, append, fieldvalue={,nonodate}]
430       }
431       \map[overwrite=true]{
432          \step[notfield=options, final]
433          \step[fieldsource=sortyear, final]
434          \step[fieldset=options, fieldvalue={nonodate}]
435       }
436    }
437 }
```

The punctuation before the label year is controlled by the following commands, and should be a comma. The exceptions to this are `legislation` entries, where there should just be a space, and English/Welsh legal case reports, where there should be a period.

```
439 \DeclareDelimFormat{nameyeardelim}{\addcomma\space}
440 \DeclareDelimFormat*[parencite,bib,biblist]{nameyeardelim}{\addcomma\space}
441 \newcommand{\dononameyeardelim}{%
442    \ifentrytype{legislation}{%
443       \addspace
444    }{%
445       \ifentrytype{jurisdiction}{%
446          \ifboolexpr{
```

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```
447        togl {bbx:eu-oj}
448        or
449        test {\iffieldequalstr{journaltitle}{ECR}}
450        or
451        test {\iffieldequalstr{type}{ECR}}
452      }{%
453        \addspace
454      }{%
455        \ifboolexpr{
456          test {\ifkeyword{sc}}
457          or
458          togl {bbx:scotstyle}
459        }{%
460          \addcomma\space
461        }{%
462          \addperiod\space}}%
463    }{%
464      \addcomma\space}}}
465 \DeclareDelimFormat{nonameyeardelim}{\dononameyeardelim}
466 \DeclareDelimFormat*[bib,biblist]{nonameyeardelim}{\dononameyeardelim}
467 \DeclareDelimFormat[parencite]{nonameyeardelim}{%
468   \ifboolexpr{
469     test {\ifentrytype{jurisdiction}}
470     or
471     test {\ifentrytype{legislation}}
472   }{\addspace}{\addcomma\space}}
```

The punctuation after the label year is controlled by the following commands, and should be a comma. The exceptions to this are `legislation` and `jurisdiction` entries, where there should just be a space if the label is the title.

```
474 \DeclareDelimFormat{nametitledelim}{%
475   \ifboolexpr{
476     (
477       test {\ifentrytype{jurisdiction}}
478       or
479       test {\ifentrytype{legislation}}
480     ) and
481     togl {bbx:labelistitle}
482   }{\addspace}{\addcomma\space}}
483 \DeclareDelimFormat*[bib,biblist]{nametitledelim}{%
484   \ifboolexpr{
485     (
486       test {\ifentrytype{jurisdiction}}
487       or
488       test {\ifentrytype{legislation}}
489     ) and
490     togl {bbx:labelistitle}
491   }{\addspace}{\labelnamepunct}}
```

We allow the date macro to print the time as well.

```
494 \renewbibmacro*{date}{%
495   \printdate
496   \setunit*{\bibdatetimesep}
497   \printtime
498 }
499 \DeclareFieldFormat{time}{#1~\bibstring{hours}}
```

We provide a new date merging option that moves the year but leaves the month and day in place, and set this as the default. Note that dates are preceded by a comma, and are given bare rather than in parentheses.

We start by patching the error message of the existing option code, then add a per-type version of the option.

```
501  \xpatchcmd{\KV@blx@opt@pre@mergedate}{%
502    'true' (=compact)%
503  }{%
504    'year', 'true' (=year)%
505  }{}{\wlog{WARNING: biblatex-bath failed to patch KV@blx@opt@pre@datemerge}}
506  \ifdefined\KV@blx@opt@typ@mergedate
507    \xpatchcmd{\KV@blx@opt@typ@mergedate}{%
508      'true' (=compact)%
509    }{%
510      'year', 'true' (=year)%
511    }{}{\wlog{WARNING: biblatex-bath failed to patch KV@blx@opt@typ@datemerge}}
512  \else
513    \DeclareTypeOption[boolean]{mergedate}[true]{%
514      \ifcsdef{bbx@opt@mergedate@#1}{%
515        \csuse{bbx@opt@mergedate@#1}%
516      }{%
517        \PackageError{biblatex}
518          {Invalid option 'mergedate=#1'}
519          {Valid values are 'maximum', 'compact', 'basic', 'minimum',\MessageBreak
520            'year', 'true' (=year), and 'false'.}}}
521  \fi
522  \xpatchcmd{\KV@blx@opt@ent@mergedate}{%
523    'true' (=compact)%
524  }{%
525    'year', 'true' (=year)%
526  }{}{\wlog{WARNING: biblatex-bath failed to patch KV@blx@opt@ent@datemerge}}
```

We define a configurable field format for date labels to replace the hard-coded parentheses in the options from the standard author–year style. We also amend the logic for printing the label date so the `nonodate` option is respected.

```
528  \DeclareFieldFormat{datelabel}{#1}
529  \xpatchcmd{\bbx@opt@mergedate@maximum}{%
530    \iffieldundef{labelyear}%
531  }{%
532    \ifboolexpr{
533      togl {bbx:nonodate}
534      and
535      not test {\iflabeldateisdate}}%
536  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@maximum}}
537  \xpatchcmd{\bbx@opt@mergedate@maximum}{%
538    \printtext[parens]%
539  }{%
540    \printtext[datelabel]%
541  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@maximum}}
542  \xpatchcmd{\bbx@opt@mergedate@compact}{%
543    \iffieldundef{labelyear}%
544  }{%
545    \ifboolexpr{
546      togl {bbx:nonodate}
547      and
548      not test {\iflabeldateisdate}}%
549  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@compact}}
550  \xpatchcmd{\bbx@opt@mergedate@compact}{%
551    \printtext[parens]%
552  }{%
553    \printtext[datelabel]%
554  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@compact}}
555  \xpatchcmd{\bbx@opt@mergedate@basic}{%
556    \iffieldundef{labelyear}%
557  }{%
558    \ifboolexpr{
559      togl {bbx:nonodate}
```

```
560      and
561      not test {\iflabeldateisdate}}%
562  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@basic}}
563  \xpatchcmd{\bbx@opt@mergedate@basic}{%
564      \printtext[parens]%
565  }{%
566      \printtext[datelabel]%
567  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@basic}}
568  \xpatchcmd{\bbx@opt@mergedate@minimum}{%
569      \iffieldundef{labelyear}%
570  }{%
571      \ifboolexpr{
572        togl {bbx:nonodate}
573        and
574        not test {\iflabeldateisdate}}%
575  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@minimum}}
576  \xpatchcmd{\bbx@opt@mergedate@minimum}{%
577      \printtext[parens]%
578  }{%
579      \printtext[datelabel]%
580  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@minimum}}
581  \xpatchcmd{\bbx@opt@mergedate@false}{%
582      \iffieldundef{labelyear}%
583  }{%
584      \ifboolexpr{
585        togl {bbx:nonodate}
586        and
587        not test {\iflabeldateisdate}}%
588  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@false}}
589  \xpatchcmd{\bbx@opt@mergedate@false}{%
590      \printtext[parens]%
591  }{%
592      \printtext[datelabel]%
593  }{}{\wlog{WARNING: biblatex-bath failed to patch bbx@opt@mergedate@false}}
```

If biblatex 3.7 is used, we update the logic for \bbx@opt@mergedate@maximum, which is used by the letter driver.

```
594  \xpatchcmd{\bbx@opt@mergedate@maximum}{%
595      \iffieldsequal{year}{labelyear}
596        {\printlabeldateextra}%
597        {\printfield{labelyear}%
598        \printfield{extrayear}}%
599  }{%
600      \iflabeldateisdate
601        {\printfield{issue}%
602        \setunit*{\addspace}%
603        \printdateextra}
604        {\printlabeldateextra}%
605  }{}{}
```

Lastly, here is our new (default) option, which always merges the year, and only the year, with the label date. Other date and time components are displayed later in the reference. Therefore we clear the year from the date used for the label, but leave the month and day alone.

```
607  \def\bbx@opt@mergedate@year{%
608    \renewbibmacro*{date+extradate}{%
609      \iffieldundef{labelyear}{}{%
610        \ifboolexpr{
611          togl {bbx:nonodate}
612          and
613          not test {\iflabeldateisdate}
614        }{}{%
615          \printtext[datelabel]{\printlabeldateextra}%
```

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```
616        }%
617        \iflabeldateisdate{%
618          \clearfield{year}%
619        }{}}}
620    \ifcsundef{abx@macro@date+extrayear}{}{%
621      \renewbibmacro*{date+extrayear}{\usebibmacro{date+extradate}}}%
622    }
623    \renewbibmacro*{issue+date}{%
624      \ifboolexpr{
625        test {\iffieldundef{issue}}
626        and
627        test {\iffieldundef{month}}
628      }{}{%
629        \ifboolexpr{(
630          test {\iffieldundef{volume}}
631          and
632          test {\iffieldundef{number}}
633          ) and
634          test {\iffieldundef{eid}}
635        }{%
636          \newunit
637          \printfield{issue}%
638        }{%
639          \printtext[parens]{%
640            \printfield{issue}%
641          }%
642        }
643        \setunit{\addcomma\space}%
644        \printdate
645      }%
646      \newunit
647    }%
648  }%
649
650  \def\bbx@opt@mergedate@true{\bbx@opt@mergedate@year}
651  \ExecuteBibliographyOptions{mergedate}
```

The problem with moving years but leaving months and days behind is that the regular date range macros in `biblatex.sty` do nothing at all if no year is printed. We therefore need to patch the macros with extra routines for printing year-free date ranges: the rather extravagently named `\mknoyeardaterangefull` and `\mknoyeardaterangetrunc`.

```
653  \newrobustcmd*{\mknoyeardaterangefull}[2]{%
654    \iffieldundef{#2month}{}{%
655      \datecircaprint
656      \printtext[#2date]{%
657      \iffieldundef{#2season}{%
658        \csuse{mkbibdate#1}{}{#2month}{#2day}%
659        \blx@printtime{#2}{}%
660      }{%
661        \csuse{mkbibseasondate#1}{}{#2season}}%
662      \dateuncertainprint
663      \iffieldundef{#2endmonth}{}{%
664        \iffieldequalstr{#2endmonth}{}{%
665          \mbox{\bibdaterangesep}%
666        }{%
667          \bibdaterangesep
668          \enddatecircaprint
669          \iffieldundef{#2season}{%
670            \csuse{mkbibdate#1}{}{#2endmonth}{#2endday}%
671            \blx@printtime{#2}{end}%
672          }{%
673            \csuse{mkbibseasondate#1}{}{#2endseason}}%
```

```
674        \enddateuncertainprint}}}}}
```

There is a potential problem for `\mknoyeardaterangetrunc`, in that if the year and endyear are missing, it cannot tell if they are the same, so if the months are the same but the years are different, the range would be erroneously compressed. However, the only reason the year should be missing is that it is in the label, so we test `labelyear` instead.

```
675  \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
676    \iffieldundef{#2month}{}{%
677      \datecircaprint
678      \printtext[#2date]{%
679        \iffieldundef{#2season}{%
680          \ifboolexpr{
681            test {\iffieldsequal{labelyear}{labelendyear}}
682            and
683            test {\iffieldsequal{#2month}{#2endmonth}}
684          }{%
685            \csuse{mkbibdate#1}{}{}{#2day}%
686          }{%
687            \csuse{mkbibdate#1}{}{#2month}{#2day}}%
688        }{%
689          \csuse{mkbibseasondate#1}{}{#2season}}%
690        \dateuncertainprint
691        \iffieldundef{#2endmonth}{}{%
692          \iffieldequalstr{#2endmonth}{}{%
693            \mbox{\bibdaterangesep}%
694          }{%
695            \bibdaterangesep
696            \enddatecircaprint
697            \iffieldundef{#2season}{%
698              \csuse{mkbibdate#1}{}{#2endmonth}{#2endday}%
699            }{%
700              \csuse{mkbibseasondate#1}{}{#2endseason}}%
701            \enddateuncertainprint}}}}}
```

Now we patch the four date range commands. The `extra` commands, which print disambiguating labels as well, should only print those labels if the year is present, so they can use the same non-year date range functions as the non-`extra` commands.

```
702  \xpatchcmd{\mkdaterangefull}{%
703    \iffieldundef{#2year} {\blx@nounit}%
704  }{%
705    \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
706  }{\@tempswafalse}{\@tempswatrue}%
707  \if@tempswa
708    \xpatchcmd{\mkdaterangefull}{%
709      \iffieldundef{#2year} {}%
710    }{%
711      \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
712    }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangefull}}%
713  \fi
714  \xpatchcmd{\mkdaterangetrunc@i}{%
715    \iffieldundef{#2year} {\blx@nounit}%
716  }{%
717    \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
718  }{\@tempswafalse}{\@tempswatrue}%
719  \if@tempswa
720    \xpatchcmd{\mkdaterangetrunc}{%
721      \iffieldundef{#2year} {}%
722    }{%
723      \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
724    }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangetrunc@i}}%
725  \fi
```

```
726  \xpatchcmd{\mkdaterangefullextra}{%
727    \iffieldundef{#2year} {\blx@nounit}%
728  }{%
729    \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
730  }{\@tempswafalse}{\@tempswatrue}%
731  \if@tempswa
732    \xpatchcmd{\mkdaterangefullextra}{%
733      \iffieldundef{#2year} {}%
734    }{%
735      \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
736    }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangefullextra}}%
737  \fi
738  \xpatchcmd{\mkdaterangetruncextra@i}{%
739    \iffieldundef{#2year} {\blx@nounit}%
740  }{%
741    \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
742  }{\@tempswafalse}{\@tempswatrue}%
743  \if@tempswa
744    \xpatchcmd{\mkdaterangetruncextra}{%
745      \iffieldundef{#2year} {}%
746    }{%
747      \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
748    }{}{\wlog{WARNING: biblatex-bath failed to patch mkdaterangetruncextra@i}}%
749  \fi
```

7.5 Versions

Versions are printed with 'v.' in parentheses.

```
751  \DeclareFieldFormat{version}{\mkbibparens{\bibstring{version}#1}}
```

7.6 Types

Types are always printed longhand.

```
752  \DeclareFieldFormat{type}{\ifbibstring{#1}{\biblstring{#1}}{#1}}
```

7.7 Events

Events are printed as date then venue with no intermediate punctuation.

```
753  \renewbibmacro*{event+venue+date}{%
754    \printfield{eventtitle}%
755    \setunit*{\addspace}%
756    \printfield{eventtitleaddon}%
757    \ifboolexpr{
758      test {\iffieldundef{venue}}
759      and
760      test {\iffieldundef{eventyear}}
761    }
762      {}
763      {\setunit{\addcomma\space}%
764       \printeventdate
765       \setunit*{\addcomma\space}%
766       \printfield{venue}%
767       \newunit}}
```

7.8 Publishers

We patch the secondary publication macros so they will use the publisher list instead, if provided.

```
769   \letbibmacro{plain:institution+location+date}{institution+location+date}
770   \renewbibmacro*{institution+location+date}{%
771     \iflistundef{publisher}{%
772       \usebibmacro{plain:institution+location+date}%
773     }{%
774       \printlist{institution}%
775       \newunit
776       \usebibmacro{publisher+location+date}}}
777   \letbibmacro{plain:organization+location+date}{organization+location+date}
778   \renewbibmacro*{organization+location+date}{%
779     \iflistundef{publisher}{%
780       \usebibmacro{plain:organization+location+date}%
781     }{%
782       \printlist{organization}%
783       \newunit
784       \usebibmacro{publisher+location+date}}}
```

We use the `library` field for databases and preprint repositories.

```
786   \DeclareFieldFormat{library}{\mkbibemph{#1}}
787   \newbibmacro*{library}{%
788     \iffieldundef{library}{}{%
789       \printfield{library}%
790       \setunit*{\addspace}%
791       \usebibmacro{isonline}%
792     }%
793   }
```

7.9   Page numbers

```
795   \renewcommand*{\ppspace}{}
796   \DeclareNumChars{ab}
```

7.10   URLs

URLs are prefaced by a 'from' statement, and the URL date is enclosed in brackets rather than parentheses.

```
797   \DeclareFieldFormat{url}{\bibsentence\bibstring{urlfrom}\addcolon\space\url{#1}}
798   \DeclareFieldFormat{doi}{\bibsentence\bibstring{urlfrom}\addcolon\space\url{https://doi.org/#1}}
799   \DeclareFieldFormat{urldate}{\mkbibbrackets{\bibstring{urlseen}\space#1}}
800   \renewbibmacro*{doi+eprint+url}{%
801     \iftoggle{bbx:eprint}
802       {\usebibmacro{eprint}}
803       {}%
804     \newunit\newblock
805     \iftoggle{bbx:url}
806       {\usebibmacro{url+urldate}}
807       {}}
808   \renewbibmacro*{url}{%
809     \iffieldundef{doi}%
810       {\printfield{url}}%
811       {\printfield{doi}}%
812   }
```

7.11   Articles

Compared with the standard styles, the main differences in the driver are the omission of 'in' and the position of the publication state.

```
814  \xpatchbibdriver{article}{%
815      \usebibmacro{in:}\usebibmacro{journal+issuetitle}%
816  }{%
817      \usebibmacro{journal+issuetitle}%
818  }{}{\wlog{WARNING: biblatex-bath failed to patch article driver}}
819  \xpatchbibdriver{article}{%
820      \usebibmacro{addendum+pubstate}%
821  }{%
822      \printfield{addendum}%
823  }{}{\wlog{WARNING: biblatex-bath failed to patch article driver}}
```

The journal title is in sentence case rather than title case.

```
824  \xpatchbibmacro{journal}{%
825      \printfield[titlecase]{journaltitle}%
826  }{%
827      \printfield[sentencecase]{journaltitle}%
828  }{}{\wlog{WARNING: biblatex-bath failed to patch journal macro}}
829  \xpatchbibmacro{journal}{%
830      \printfield[titlecase]{journalsubtitle}%
831  }{%
832      \printfield[sentencecase]{journalsubtitle}%
833  }{}{\wlog{WARNING: biblatex-bath failed to patch journal macro}}
```

The journal title is followed by a comma. The issue number is separated from the volume by parentheses rather than a dot. The pubstate is in the volume position.

```
834  \renewbibmacro*{journal+issuetitle}{%
835      \usebibmacro{journal}%
836      \setunit*{\addspace}%
837      \usebibmacro{isonline}%
838      \setunit*{\addcomma\space}%
839      \iffieldundef{series}
840        {}
841        {\newunit
842         \printfield{series}%
843         \setunit{\addcomma\space}}%
844      \usebibmacro{volume+number+eid}%
845      \setunit{\addspace}%
846      \usebibmacro{issue+date}%
847      \setunit{\addcolon\space}%
848      \usebibmacro{issue}%
849      \setunit{\addcomma\space}%
850      \printfield{pubstate}%
851      \newunit}
852  \renewbibmacro*{volume+number+eid}{%
853      \printfield{volume}%
854      \printfield[parens]{number}%
855      \setunit{\addcomma\space}%
856      \printfield{eid}}
```

7.12   Books

Compared with the standard styles, the main difference is that the series is separated by a comma rather than a period. This also affects proceedings and certain forms of grey literature.

```
858  \xpatchbibdriver{book}{%
859      \newunit\newblock
860      \usebibmacro{series+number}%
861  }{%
862      \setunit{\addcomma\space}%
863      \usebibmacro{series+number}%
864  }{}{\wlog{WARNING: biblatex-bath failed to patch book driver}}
```

```
865
866  \xpatchbibdriver{collection}{%
867    \newunit\newblock
868    \usebibmacro{series+number}%
869  }{%
870    \setunit{\addcomma\space}%
871    \usebibmacro{series+number}%
872  }{}{\wlog{WARNING: biblatex-bath failed to patch collection driver}}
873
874  \xpatchbibdriver{inbook}{%
875    \newunit\newblock
876    \usebibmacro{series+number}%
877  }{%
878    \setunit{\addcomma\space}%
879    \usebibmacro{series+number}%
880  }{}{\wlog{WARNING: biblatex-bath failed to patch inbook driver}}
881
882  \xpatchbibdriver{incollection}{%
883    \newunit\newblock
884    \usebibmacro{series+number}%
885  }{%
886    \setunit{\addcomma\space}%
887    \usebibmacro{series+number}%
888  }{}{\wlog{WARNING: biblatex-bath failed to patch incollection driver}}
889
890  \xpatchbibdriver{inproceedings}{%
891    \newunit\newblock
892    \usebibmacro{series+number}%
893  }{%
894    \setunit{\addcomma\space}%
895    \usebibmacro{series+number}%
896  }{}{\wlog{WARNING: biblatex-bath failed to patch inproceedings driver}}
897
898  \xpatchbibdriver{proceedings}{%
899    \newunit\newblock
900    \usebibmacro{series+number}%
901  }{%
902    \setunit{\addcomma\space}%
903    \usebibmacro{series+number}%
904  }{}{\wlog{WARNING: biblatex-bath failed to patch proceedings driver}}
```

7.13 Works in collections

Compared with the standard styles, the main difference is that the editors precede the booktitle.

```
906  \xpatchbibdriver{incollection}{%
907    \usebibmacro{in:}%
908    \usebibmacro{maintitle+booktitle}%
909    \newunit\newblock
910    \usebibmacro{byeditor+others}%
911  }{%
912    \ifnameundef{editor}{}{\usebibmacro{in:}}%
913    \usebibmacro{bookeditor}%
914    \newunit\newblock
915    \usebibmacro{maintitle+booktitle}%
916    \usebibmacro{byeditor+others}%
917  }{}{\wlog{WARNING: biblatex-bath failed to patch incollection driver}}
918
919  \xpatchbibdriver{inproceedings}{%
920    \usebibmacro{in:}%
921    \usebibmacro{maintitle+booktitle}%
922    \newunit\newblock
```

```
923    \usebibmacro{event+venue+date}%
924    \newunit\newblock
925    \usebibmacro{byeditor+others}%
926  }{%
927    \ifnameundef{editor}{}{\usebibmacro{in:}}%
928    \usebibmacro{bookeditor}%
929    \newunit\newblock
930    \usebibmacro{maintitle+booktitle}%
931    \usebibmacro{byeditor+others}%
932    \newunit
933    \usebibmacro{event+venue+date}%
934  }{}{\wlog{WARNING: biblatex-bath failed to patch inproceedings driver}}
```

7.14   Online works

Compared with the standard styles, the main difference is that the organization's address is printed.

```
936  \xpatchbibdriver{online}{%
937    \printlist{organization}%
938  }{%
939    \usebibmacro{library}%
940    \newunit\newblock
941    \usebibmacro{organization+location+date}%
942  }{}{\wlog{WARNING: biblatex-bath failed to patch online driver}}
```

7.15   Reports

Compared with the standard styles, the main differences are that we use a special macro for printing the `type`, `series` and `number` in parentheses, and we support the `library` field.

```
944  \DeclareFieldFormat{forceparens}{(#1)}
945  \newbibmacro{series+type+number}{%
946    \ifboolexpr{
947      test {\iffieldundef{series}}
948      and
949      test {\iffieldundef{type}}
950      and
951      test {\iffieldundef{number}}
952    }{}{%
953      \printtext[parens]{%
954        \printfield{series}%
955        \IfStrEqCase\thefield{series}}{%
956          {C}{\printunit*{\adddot\space}}%
957          {Cd}{\printunit*{\adddot\space}}%
958          {Cmd}{\printunit*{\adddot\space}}%
959          {Cmnd}{\printunit*{\adddot\space}}%
960          {Cm}{\printunit*{\adddot\space}}%
961        }{%
962          \setunit*{\addcomma\space}}%
963        \printfield{type}%
964        \setunit*{\addspace}%
965        \IfBeginWith\thefield{series}}{HL}{%
966          \printfield[forceparens]{number}%
967        }{%
968          \printfield{number}%
969        }}}}
970
971  \DeclareBibliographyDriver{report}{%
972    \usebibmacro{bibindex}%
973    \usebibmacro{begentry}%
974    \usebibmacro{author}%
975    \setunit{\printdelim{nametitledelim}}\newblock
```

```
976    \usebibmacro{title}%
977    \newunit
978    \printlist{language}%
979    \newunit\newblock
980    \usebibmacro{byauthor}%
981    \newunit\newblock
982    \usebibmacro{series+type+number}%
983    \newunit\newblock
984    \printfield{note}%
985    \newunit\newblock
986    \usebibmacro{institution+location+date}%
987    \newunit\newblock
988    \usebibmacro{chapter+pages}%
989    \newunit
990    \printfield{pagetotal}%
991    \newunit\newblock
992    \iftoggle{bbx:isbn}
993      {\printfield{isrn}}
994      {}%
995    \newunit\newblock
996    \usebibmacro{library}%
997    \newunit\newblock
998    \usebibmacro{doi+eprint+url}%
999    \newunit\newblock
1000   \usebibmacro{addendum+pubstate}%
1001   \setunit{\bibpagerefpunct}\newblock
1002   \usebibmacro{pageref}%
1003   \newunit\newblock
1004   \iftoggle{bbx:related}
1005     {\usebibmacro{related:init}%
1006      \usebibmacro{related}}
1007     {}%
1008   \usebibmacro{finentry}}
```

7.16 Manuals

The `manual` driver is useful for a variety of technical publications, such as standards, patents and maps. (Patents have their own driver, in fact, but we set things up so the `manual` driver can be used instead if needed for compatibility.)

```
1010   \newbibmacro{manual:series+type+number}{%
1011     \iffieldundef{series}{%
1012       \newunit\newblock
1013       \printfield{type}%
1014       \setunit{\addspace}%
1015       \printfield{number}%
1016     }{%
1017       \setunit{\addcomma\space}%
1018       \usebibmacro{series+number}%
1019       \newunit\newblock
1020       \printfield{type}%
1021     }%
1022   }
1023   \xpatchbibdriver{manual}{%
1024     \newunit\newblock
1025     \usebibmacro{series+number}%
1026     \newunit\newblock
1027     \printfield{type}%
1028   }{%
1029     \usebibmacro{manual:series+type+number}%
1030   }{}{\wlog{WARNING: biblatex-bath failed to patch manual driver}}
1031   \xpatchbibdriver{manual}{%
```

```
1032    \printlist{organization}%
1033    \newunit
1034    \usebibmacro{publisher+location+date}%
1035  }{%
1036    \usebibmacro{organization+location+date}%
1037  }{}{\wlog{WARNING: biblatex-bath failed to patch manual driver}}
```

7.17 Standards

A special quirk with standards is that they are often best known by their number, so it comes at the head of the reference if no authors are specified.

To achieve this cleanly with correct sorting, we copy the number into `sortkey` as a simple fix (providing neither `author` nor `sortkey` are already specified). We then move the number to `label` so that citations come out correctly and the date (if given) is put in the right place.

```
1039  \DeclareStyleSourcemap{%
1040    \maps[datatype=bibtex]{%
1041      \map[overwrite=false]{
1042        \pertype{standard}
1043        \step[notfield=author,
1044          fieldsource=number,
1045          final]
1046        \step[fieldset=sortkey,
1047          origfieldval]
1048      }
1049      \map[overwrite=false]{
1050        \pertype{standard}
1051        \step[notfield=author,
1052          fieldsource=number,
1053          fieldtarget=label]
1054      }
1055    }}
1056  \ExecuteBibliographyOptions[standard]{useeditor=false}
```

7.18 Audiovisual materials

The `audio` and `video` drivers are based on `misc`.

```
1058  \DeclareBibliographyDriver{audio}{%
1059    \usebibmacro{bibindex}%
1060    \usebibmacro{begentry}%
1061    \usebibmacro{author/editor+others/translator+others}%
1062    \setunit{\printdelim{nametitledelim}}\newblock
1063    \usebibmacro{title}%
1064    \newunit
1065    \printlist{language}%
1066    \newunit\newblock
1067    \printfield{type}%
1068    \newunit\newblock
1069    \usebibmacro{byauthor}[given-family:full]%
1070    \newunit\newblock
1071    \usebibmacro{byeditor+others}[given-family:full]%
1072    \newunit\newblock
1073    \printfield{howpublished}%
1074    \newunit\newblock
1075    \printfield{note}%
1076    \newunit\newblock
1077    \usebibmacro{publisher+location+date}%
1078    \newunit\newblock
1079    \usebibmacro{doi+eprint+url}%
1080    \newunit\newblock
1081    \usebibmacro{addendum+pubstate}%
```

```
1082    \setunit{\bibpagerefpunct}\newblock
1083    \usebibmacro{pageref}%
1084    \newunit\newblock
1085    \iftoggle{bbx:related}
1086      {\usebibmacro{related:init}%
1087       \usebibmacro{related}}
1088      {}%
1089    \usebibmacro{finentry}}
1090  \DeclareBibliographyAlias{movie}{audio}
1091  \DeclareBibliographyAlias{music}{audio}
1092  \DeclareBibliographyAlias{video}{audio}
```

7.19   Case reports

We provide a test to see if a work was published in the Official Journal of the EU; if so, the title is not italic (unless reporting a decision of the European Commission).

```
1093  \newtoggle{bbx:eu-oj}
1094  \newbibmacro*{eucheck}{%
1095    \IfBeginWith{\thefield{journaltitle}}{OJ}{%
1096      \toggletrue{bbx:eu-oj}%
1097    }{}}
1098  \DeclareFieldFormat[jurisdiction,legislation]{title}{%
1099    \ifboolexpr{
1100      togl{bbx:eu-oj}
1101      and
1102      not test {\iffieldequalstr{type}{Commission Decision}}
1103    }{#1}{\mkbibemph{#1}}}
```

The year is printed in square brackets, unless the case is Scottish, in which case the year is printed bare, or a volume number is present, in which case the year is printed in parentheses. With ECR and OJ cases, however, the year is always printed in square brackets despite the presence of a volume number. We provide a `year-essential` option for forcing the brackets/parentheses choice, and `scottish-style` for activating Scottish style.

```
1105  \newtoggle{bbx:scotstyle}
1106  \DeclareEntryOption[boolean]{scottish-style}[true]{%
1107    \settoggle{bbx:scotstyle}{#1}}
1108  \newtoggle{bbx:year-essential}
1109  \DeclareEntryOption[boolean]{year-essential}[true]{%
1110    \settoggle{bbx:year-essential}{#1}}
1111  \DeclareFieldFormat[jurisdiction]{datelabel}{%
1112    \ifboolexpr{
1113      test {\iffieldundef{volume}}
1114      or
1115      togl {bbx:year-essential}
1116      or
1117      togl {bbx:eu-oj}
1118      or
1119      test {\iffieldequalstr{journaltitle}{ECR}}
1120    }{%
1121      \ifboolexpr{
1122        test {\ifkeyword{sc}}
1123        or
1124        togl {bbx:scotstyle}
1125      }{%
1126        #1%
1127      }{%
1128        \mkbibbrackets{#1}}%
1129    }{%
1130      \mkbibparens{#1}}}
```

A case number should normally go after the title and before the year, but Version 1 of this style used `number` with `type` at the end of the reference. (It relied on the case number being given in the `issue` field.) To maintain backwards compatibility, we rely on a 'trick' that case numbers are usually only present in EU cases where a page number is always provided. (And we support the `oscola` semantics for numbering European Commission cases.) We have to be a bit careful to ensure the last print command prints something otherwise `(no)nameyeardelim` will not be triggered.

```
1132  \DeclareFieldFormat[jurisdiction]{issue}{\mkbibparens{#1}}
1133  \newbibmacro*{casenumber}{%
1134    \iffieldundef{issue}{%
1135      \ifboolexpr{
1136        test {\iffieldundef{pages}}
1137        or
1138        test {\iffieldundef{number}}
1139      }{}{%
1140        \iffieldundef{userb}{%
1141          \printfield[parens]{number}%
1142          \clearfield{number}%
1143        }{%
1144          \printfield[parens]{userb}%
1145          \setunit{\addspace}%
1146          \printfield{type}%
1147          \setunit*{\addspace}%
1148          \printfield{number}%
1149          \clearfield{type}\clearfield{number}}}%
1150    }{%
1151      \printfield{issue}}}
```

For ease, if 'Commission' is given as the `institution`, this is deleted but the `type` is set to 'Commission Decision'.

```
1152  \DeclareStyleSourcemap{
1153    \maps[datatype=bibtex]{
1154      \map[overwrite=false]{
1155        \step[match=\regexp{Commission}, fieldsource=institution, final]
1156        \step[fieldset=type, fieldvalue={Commission Decision}]
1157        \step[fieldset=institution, null]
1158      }
1159      \map[overwrite=false]{
1160        \step[fieldsource=casenumber, final]
1161        \step[notfield=number, fieldsource=casenumber, fieldtarget=number]
1162        \step[fieldsource=casenumber, fieldtarget=userb]
1163      }
1164    }
1165  }
```

Law reports have a special way of printing journals, volume and page numbers. Here are several macros implementing this: a deprecated one using `type`/`number` and three proper ones using `journaltitle`, for UK journals, ECR and OJ respectively. The `reporter` macro chooses between them (again, this is a little messy for backwards compatibility).

```
1167  \newbibmacro{jurisdiction:type+number}{%
1168    \usebibmacro{journal}%
1169    \setunit*{\addspace}%
1170    \ifboolexpr{
1171      test {\iffieldundef{type}}
1172      and
1173      test {\iffieldundef{number}}
1174    }{}{%
1175      \printfield{volume}%
1176      \setunit*{\addperiod\space}%
1177      \printfield{type}%
1178      \setunit*{\addspace}%
1179      \printfield{number}}}
```

```
1180  \DeclareFieldFormat[jurisdiction]{journaltitle}{%
1181    \iftoggle{bbx:eu-oj}{\mkbibemph{#1}}{#1}}
1182  \DeclareFieldFormat[jurisdiction,legislation]{volume}{#1}
1183  \DeclareFieldFormat[jurisdiction,legislation]{pages}{#1}
1184  \newbibmacro{journal+volume+pages}{%
1185    \printfield{volume}%
1186    \setunit{\addperiod\space}%
1187    \printfield{journaltitle}%
1188    \setunit*{\addspace}%
1189    \printfield{pages}%
1190  }
1191  \newbibmacro{eu:journal+volume+pages}{%
1192    \printfield{journaltitle}%
1193    \setunit{\addspace}%
1194    \printfield{volume}%
1195    \setunit*{\printtext{--\allowbreak}}%
1196    \printfield{pages}%
1197  }
1198  \newbibmacro{eu:journal+series+volume+pages}{%
1199    \printfield{journaltitle}%
1200    \setunit{\addspace}%
1201    \printfield{series}%
1202    \clearfield{series}%
1203    \printfield{volume}%
1204    \setunit*{\printtext{/}}%
1205    \printfield{pages}%
1206  }
1207  \newbibmacro{reporter}{%
1208    \iffieldundef{journaltitle}{%
1209      \usebibmacro{jurisdiction:type+number}%
1210    }{%
1211      \iffieldequalstr{journaltitle}{ECR}{%
1212        \usebibmacro{eu:journal+volume+pages}%
1213      }{%
1214        \iffieldequalstr{journaltitle}{OJ}{%
1215          \iffieldundef{series}{%
1216            \usebibmacro{jurisdiction:type+number}%
1217          }{%
1218            \usebibmacro{eu:journal+series+volume+pages}%
1219          }%
1220        }{%
1221          \usebibmacro{journal+volume+pages}%
1222        }}}}
```

It's not a feature of Harvard (Bath), but OSCOLA puts the institution in parentheses at the end.

```
1224  \DeclareFieldFormat[jurisdiction]{institution}{\mkbibparens{#1}}
1225
1226  \DeclareBibliographyDriver{jurisdiction}{%
1227    \savebibmacro{title}%
1228    \xapptobibmacro{labeltitle}{%
1229      \setunit*{\addspace}%
1230      \usebibmacro{casenumber}%
1231    }{}{}%
1232    \usebibmacro{bibindex}%
1233    \usebibmacro{begentry}%
1234    \usebibmacro{eucheck}%
1235    \usebibmacro{author}%
1236    \setunit{\printdelim{nametitledelim}}\newblock
1237    \usebibmacro{title}%
1238    \newunit
1239    \printlist{language}%
```

```
1240    \newunit\newblock
1241    \usebibmacro{byauthor}%
1242    \newunit\newblock
1243    \printfield{note}%
1244    \setunit{\addspace}%
1245    \usebibmacro{reporter}%
1246    \newunit
1247    \printfield{pagetotal}%
1248    \newunit\newblock
1249    \printfield{institution}%
1250    \newunit\newblock
1251    \iftoggle{bbx:isbn}
1252      {\printfield{isrn}}
1253      {}%
1254    \newunit\newblock
1255    \usebibmacro{doi+eprint+url}%
1256    \newunit\newblock
1257    \usebibmacro{addendum+pubstate}%
1258    \setunit{\bibpagerefpunct}\newblock
1259    \usebibmacro{pageref}%
1260    \newunit\newblock
1261    \iftoggle{bbx:related}
1262      {\usebibmacro{related:init}%
1263       \usebibmacro{related}}
1264      {}%
1265    \usebibmacro{finentry}%
1266    \restorebibmacro{title}}
```

7.20 Legislation

Legislation is mostly formatted like a report, except there is no `nametitledelim` there is no
`date+extradate`. There is also some variation in how the series/number/chapter information is
punctuated.

```
1268    \DeclareFieldFormat[legislation]{datelabel}{%
1269      \iftoggle{bbx:eu-oj}{%
1270        \mkbibbrackets{#1}%
1271      }{#1}}
1272    \DeclareFieldFormat[legislation]{labeldate}{%
1273      \iftoggle{bbx:labelistitle}{\printtext[title]{#1}}{#1}}
1274    \DeclareFieldFormat[legislation]{chapter}{\biblcsstring{legalchapter}#1}
1275    \newbibmacro*{journal+series+volume+number+chapter+pages}{%
1276      \iftoggle{bbx:eu-oj}{%
1277        \setunit{\addspace}%
1278        \usebibmacro{eu:journal+series+volume+pages}%
1279      }{%
1280        \iffieldequalstr{entrysubtype}{secondary}{%
1281          \setunit{\addcomma\space}%
1282          \printfield{number}%
1283          \clearfield{number}%
1284          \printunit{\addcomma\space}%
1285        }{%
1286          \ifboolexpr{
1287            test {\iffieldundef{series}}
1288            and
1289            test {\iffieldundef{type}}
1290          }{%
1291            \iffieldundef{number}{%
1292              \setunit{\addcomma\space}%
1293              \printfield{chapter}%
1294            }{%
1295              \setunit{\addspace}%
```

```
1296            \printtext[parens]{%
1297                \printfield{number}%
1298                \setunit*{\addcomma\space}%
1299                \printfield{chapter}}}%
1300        }{%
1301          \iffieldundef{chapter}{}{\setunit{\addspace}}%
1302          \printtext[parens]{%
1303              \printfield{series}%
1304              \setunit{\addcomma\space}%
1305              \printfield{type}%
1306              \setunit*{\addspace}%
1307              \printfield{number}%
1308              \setunit*{\addcomma\space}%
1309              \printfield{chapter}}}}}}

1311 \DeclareBibliographyDriver{legislation}{%
1312    \usebibmacro{bibindex}%
1313    \usebibmacro{begentry}%
1314    \usebibmacro{eucheck}%
1315    \usebibmacro{author}%
1316    \setunit{\printdelim{nametitledelim}}\newblock
1317    \usebibmacro{title}%
1318    \newunit
1319    \printlist{language}%
1320    \newunit\newblock
1321    \usebibmacro{byauthor}%
1322    \newunit\newblock
1323    \usebibmacro{journal+series+volume+number+chapter+pages}%
1324    \newunit\newblock
1325    \printfield{note}%
1326    \newunit\newblock
1327    \usebibmacro{institution+location+date}%
1328    \newunit\newblock
1329    \printfield{pagetotal}%
1330    \newunit\newblock
1331    \iftoggle{bbx:isbn}
1332      {\printfield{isrn}}
1333      {}%
1334    \newunit\newblock
1335    \usebibmacro{doi+eprint+url}%
1336    \newunit\newblock
1337    \usebibmacro{addendum+pubstate}%
1338    \setunit{\bibpagerefpunct}\newblock
1339    \usebibmacro{pageref}%
1340    \newunit\newblock
1341    \iftoggle{bbx:related}
1342      {\usebibmacro{related:init}%
1343       \usebibmacro{related}}
1344      {}%
1345    \usebibmacro{finentry}}
```

7.21 Letters

This driver is used for emails. It is based loosely on the one for articles. The particular foible with this type is that the date must be printed complete at the start.

```
1347 \DeclareFieldFormat[letter]{title}{\iffieldundef{journaltitle}{\emph{#1}}{#1}}
1348 \ExecuteBibliographyOptions[letter]{mergedate=maximum}
1349 \DeclareBibliographyDriver{letter}{%
1350    \usebibmacro{bibindex}%
1351    \usebibmacro{begentry}%
1352    \usebibmacro{author/translator+others}%
```

51

```
1353    \setunit{\printdelim{nametitledelim}}\newblock
1354    \usebibmacro{title}%
1355    \newunit
1356    \printlist{language}%
1357    \newunit\newblock
1358    \usebibmacro{byauthor}%
1359    \newunit\newblock
1360    \usebibmacro{bytranslator+others}%
1361    \newunit\newblock
1362    \usebibmacro{journal+issuetitle}%
1363    \newunit\newblock
1364    \printfield{howpublished}%
1365    \newunit
1366    \printfield{note}%
1367    \newunit\newblock
1368    \usebibmacro{doi+eprint+url}%
1369    \newunit\newblock
1370    \usebibmacro{addendum+pubstate}%
1371    \setunit{\bibpagerefpunct}\newblock
1372    \usebibmacro{pageref}%
1373    \newunit\newblock
1374    \iftoggle{bbx:related}
1375      {\usebibmacro{related:init}%
1376       \usebibmacro{related}}
1377      {}%
1378    \usebibmacro{finentry}%
1379 }
```

7.22   Software

The driver for software entries is based on misc. The main difference is in how the type is printed.

```
1381 \DeclareFieldFormat[software]{type}{\mkbibbrackets{#1}}
1382 \DeclareBibliographyDriver{software}{%
1383    \usebibmacro{bibindex}%
1384    \usebibmacro{begentry}%
1385    \usebibmacro{author/editor+others/translator+others}%
1386    \setunit{\printdelim{nametitledelim}}\newblock
1387    \usebibmacro{title}%
1388    \setunit{\addspace}
1389    \printfield{type}%
1390    \newunit
1391    \printlist{language}%
1392    \newunit\newblock
1393    \usebibmacro{byauthor}%
1394    \newunit\newblock
1395    \usebibmacro{byeditor+others}%
1396    \newunit\newblock
1397    \printfield{howpublished}%
1398    \newunit\newblock
1399    \printfield{note}%
1400    \newunit\newblock
1401    \usebibmacro{organization+location+date}%
1402    \newunit\newblock
1403    \usebibmacro{doi+eprint+url}%
1404    \newunit\newblock
1405    \usebibmacro{addendum+pubstate}%
1406    \setunit{\bibpagerefpunct}\newblock
1407    \usebibmacro{pageref}%
1408    \newunit\newblock
1409    \iftoggle{bbx:related}
1410      {\usebibmacro{related:init}%
```

```
1411        \usebibmacro{related}}
1412      {}%
1413    \usebibmacro{finentry}}
```

7.23 Images

The driver for image is based on misc. The main difference is the support for the `library` field.

```
1415  \DeclareFieldFormat[image]{library}{#1}
1416  \DeclareBibliographyDriver{image}{%
1417    \usebibmacro{bibindex}%
1418    \usebibmacro{begentry}%
1419    \usebibmacro{author/editor+others/translator+others}%
1420    \setunit{\printdelim{nametitledelim}}\newblock
1421    \usebibmacro{title}%
1422    \newunit
1423    \printlist{language}%
1424    \newunit\newblock
1425    \usebibmacro{byauthor}%
1426    \newunit\newblock
1427    \usebibmacro{byeditor+others}%
1428    \newunit\newblock
1429    \printfield{howpublished}%
1430    \newunit\newblock
1431    \printfield{type}%
1432    \newunit
1433    \printfield{note}%
1434    \newunit\newblock
1435    \usebibmacro{organization+location+date+library}%
1436    \newunit\newblock
1437    \usebibmacro{doi+eprint+url}%
1438    \newunit\newblock
1439    \usebibmacro{addendum+pubstate}%
1440    \setunit{\bibpagerefpunct}\newblock
1441    \usebibmacro{pageref}%
1442    \newunit\newblock
1443    \iftoggle{bbx:related}
1444      {\usebibmacro{related:init}%
1445       \usebibmacro{related}}
1446      {}%
1447    \usebibmacro{finentry}}
```

The following code works slightly differently

```
1448  \newbibmacro*{organization+location+date+library}{%
1449    \ifboolexpr{
1450      test {\iffieldundef{library}}
1451      or
1452      not test {\iflistundef{publisher}}
1453    }{%
1454      \printlist{location}%
1455      \setunit*{\addcolon\space}%
1456      \clearfield{location}%
1457    }{}%
1458    \iflistundef{publisher}{%
1459      \printlist{organization}%
1460    }{%
1461      \printlist{publisher}%
1462    }%
1463    \setunit{\addcomma\space}%
1464    \usebibmacro{date}%
1465    \newunit
1466    \iffieldundef{library}{%
```

```
1467      \iffieldundef{institution}{}{%
1468        \bibsentence
1469        \bibstring{at}%
1470        \setunit{\addcolon\space}%
1471        \printlist{location}%
1472        \setunit*{\addperiod\space}%
1473        \printfield{institution}%
1474      }%
1475    }{%
1476      \bibsentence
1477      \bibstring{at}%
1478      \setunit{\addcolon\space}%
1479      \printlist{location}%
1480      \setunit*{\addperiod\space}%
1481      \printfield{library}%
1482    }%
1483  }
```

7.24 Unpublished

This driver is used for miscellaneous unpublished written material. It differs from the standard version by supporting `maintitle` and `booktitle`, and including a label at the end. The unpublished label is delegated to a macro in case future versions of the style place conditions on whether it is displayed.

```
1485  \newbibmacro*{isunpublished}{%
1486    \bibstring{unpublished}%
1487  }
1488  \DeclareBibliographyDriver{unpublished}{%
1489    \usebibmacro{bibindex}%
1490    \usebibmacro{begentry}%
1491    \usebibmacro{author}%
1492    \setunit{\printdelim{nametitledelim}}\newblock
1493    \usebibmacro{title}%
1494    \newunit
1495    \printlist{language}%
1496    \newunit\newblock
1497    \usebibmacro{byauthor}%
1498    \newunit\newblock
1499    \ifnameundef{editor}{}{\usebibmacro{in:}}%
1500    \usebibmacro{bookeditor}%
1501    \newunit\newblock
1502    \usebibmacro{maintitle+booktitle}%
1503    \usebibmacro{byeditor+others}%
1504    \newunit\newblock
1505    \printfield{howpublished}%
1506    \newunit\newblock
1507    \printfield{type}%
1508    \newunit\newblock
1509    \usebibmacro{event+venue+date}%
1510    \newunit\newblock
1511    \printfield{note}%
1512    \newunit\newblock
1513    \usebibmacro{location+date}%
1514    \newunit\newblock
1515    \usebibmacro{isunpublished}%
1516    \newunit\newblock
1517    \iftoggle{bbx:url}
1518      {\usebibmacro{url+urldate}}
1519      {}%
1520    \newunit\newblock
1521    \usebibmacro{addendum+pubstate}%
```

```
1522    \setunit{\bibpagerefpunct}\newblock
1523    \usebibmacro{pageref}%
1524    \newunit\newblock
1525    \iftoggle{bbx:related}
1526      {\usebibmacro{related:init}%
1527       \usebibmacro{related}}
1528      {}%
1529    \usebibmacro{finentry}}
```

7.25 Aliases

We define some handy semantic aliases.

```
1531    \DeclareBibliographyAlias{standard}{manual}
1532    \DeclareBibliographyAlias{dataset}{online}
```

8 Implementation: data model

```
16    \DeclareDatamodelConstant[type=list]{nameparts}{prefix,family,suffix,given,cjk}
```

9 Implementation: General English language localization

The strings are mostly the same except for the following changes. Note that month names are never abbreviated.

```
16    \InheritBibliographyExtras{english}
17    \DeclareBibliographyStrings
18    {inherit           = {english}
19    ,editors           = {{editors}{eds}}
20    ,version           = {{version~}{v\adddot}}
21    ,inpreparation     = {{preprint}{preprint}}
22    ,submitted         = {{preprint}{preprint}}
23    ,urlseen           = {{Accessed}{Accessed}}
24    ,january           = {{January}{January}}
25    ,february          = {{February}{February}}
26    ,march             = {{March}{March}}
27    ,april             = {{April}{April}}
28    ,may               = {{May}{May}}
29    ,june              = {{June}{June}}
30    ,july              = {{July}{July}}
31    ,august            = {{August}{August}}
32    ,september         = {{September}{September}}
33    ,october           = {{October}{October}}
34    ,november          = {{November}{November}}
35    ,december          = {{December}{December}}
36    ,patreq            = {{patent application}{pat\adddot\ appl\adddot}}
37    ,patreqde          = {{German patent application}{German pat\adddot\ appl\adddot}}
38    ,patreqeu          = {{European patent application}{European pat\adddot\ appl\adddot}}
39    ,patreqfr          = {{French patent application}{French pat\adddot\ appl\adddot}}
40    ,patrequk          = {{British patent application}{British pat\adddot\ appl\adddot}}
41    ,patrequs          = {{U.S\adddotspace patent application}{U.S\adddotspace pat\adddot\
          appl\adddot}}
```

These are the new strings we define in this style.

```
42    ,online            = {{Online}{Online}}
43    ,hours             = {{hours}{hrs\adddot}}
44    ,at                = {{at}{at}}
45    ,unpublished       = {{unpublished}{unpublished}}
46    ,legalchapter      = {{chapter}{c\adddot}}
```

```
47   ,director          = {{director}{dir\adddot}}
48   ,directors         = {{directors}{dir\adddot}}
49   ,bydirector        = {{directed by}{directed by}}
50   ,performer         = {{}{}}
51   ,performers        = {{}{}}
52   ,byperformer       = {{}{}}
53   ,reader            = {{reader}{reader}}
54   ,readers           = {{readers}{readers}}
55   ,byreader          = {{read by}{read by}}
56   ,conductor         = {{conductor}{cond\adddot}}
57   ,conductors        = {{conductors}{cond\adddot}}
58   ,byconductor       = {{conducted by}{conducted by}}
59   }
```

10 Implementation: British English language localization

We use the standard version with a few changes. We display the day as a cardinal number instead of an ordinal. The date is separated from the time by a period, not just a space, and the time separator is a period instead of a colon.

```
16   \InheritBibliographyExtras{british}
17   \DeclareBibliographyExtras{%
18     \protected\def\mkbibdatelong#1#2#3{%
19       \iffieldundef{#3}
20         {}
21         {\thefield{#3}%
22          \iffieldundef{#2}{}{\nobreakspace}}%
23       \iffieldundef{#2}
24         {}
25         {\mkbibmonth{\thefield{#2}}%
26          \iffieldundef{#1}{}{\space}}%
27       \iffieldbibstring{#1}
28         {\bibstring{\thefield{#1}}}
29         {\dateeraprintpre{#1}\stripzeros{\thefield{#1}}}}%
30     \renewrobustcmd*{\bibdatetimesep}{\addperiod\space}%
31     \renewrobustcmd*{\bibtimesep}{\addperiod}%
32     }
33
34   \DeclareBibliographyStrings
35   {inherit          = {english}
36   }
```

11 Implementation: citation style

The standard `authoryear-comp` style is a close match for what we need.

```
16   \RequireCitationStyle{authoryear-comp}
```

This sets uniquename to full, but that conflicts with givininits set by the bibliography style, so we set it to init instead. If left alone, biblatex would do this anyway, but if we do it explicitly, we avoid the warning message.

```
17   \ExecuteBibliographyOptions{uniquename=init}
```

Compressed citations are delimited with a semicolon, just like non-compressed citations.

```
18   \renewcommand*{\compcitedelim}{\addsemicolon\space}
```

We need to suppress the display of 'n.d.' in citations if the nonodate toggle is true.

```
19  \xpatchbibmacro{cite:labeldate+extradate}{%
20    \iffieldundef{labelyear}%
21  }{%
22    \ifboolexpr{
23      togl {bbx:nonodate}
24      and
25      not test {\iflabeldateisdate}}%
26  }{}{\wlog{WARNING: biblatex-bath failed to patch cite:labeldate+extradate}}
```

We activate the label-is-title toggle if the `labeltitle` is printed.

```
27  \providetoggle{bbx:labelistitle}
28  \xpatchbibmacro{cite:label}{%
29    \printtext[bibhyperref]{\printfield[citetitle]{labeltitle}}%
30  }{%
31    \printtext[bibhyperref]{\printfield[citetitle]{labeltitle}}%
32    \toggletrue{bbx:labelistitle}%
33  }{}{\wlog{WARNING: biblatex-bath failed to patch cite:label}}
```