

OXREF BUNDLE

OXREF – Biblatex styles inspired by the *Oxford Guide to Style*

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v0.12

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# Introduction

This document provides the documented sources for the oxref bibliography styles:

- `oxnotes`: a style similar to the standard `verbose`, intended for use with footnotes;
- `oxnum`: a style similar to the standard `numeric`, intended for use with numeric in-text citation labels;
- `oxalph`: a style similar to the standard `alphabetic`, intended for use with alphabetic in-text citation labels;
- `oxyear`: a style similar to the standard `authoryear`, intended for use with parenthetical in-text citations.

## 1.1 Quick start

The styles are self-contained, so you can load them with `biblatex`:

```
1 \usepackage[style=oxnotes]{biblatex}
```

```
1 \usepackage[style=oxalph]{biblatex}
```

```
1 \usepackage[style=oxnum]{biblatex}
```

```
1 \usepackage[style=oxyear]{biblatex}
```

For further information, including some additional options you can set, please refer to the separate documentation files `oxnotes-doc.pdf`, `oxnum-doc.pdf`, `oxalph-doc.pdf`, and `oxyear-doc.pdf` respectively.

## 1.2 Installation

### 1.2.1 DEPENDENCIES

To compile the documentation you will need to have the `minted` package working, which in turn relies on Python 2.6+ and `Pygments`. See the documentation of that package for details.

### 1.2.2 MANAGED WAY

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

### 1.2.3 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
  - oxref.bbx, oxnotes.bbx, oxyyear.bbx, oxnum.bbx, oxalph.bbx
  - oxnotes.cbx, oxyyear.cbx, oxnum.cbx, oxalph.cbx
  - american-oxref.lbx, british-oxref.lbx, english-oxref.lbx
  - oxnotes.dbx, oxyyear.dbx, oxnum.dbx, oxalph.dbx
  - oxref.bib
  - oxref.ins
  - oxnotes-doc.tex, oxyyear-doc.tex, oxnum-doc.tex, oxalph-doc.tex
- Running `make` generates the above files and also `oxref.pdf`, `oxnotes-doc.pdf`, `oxyyear-doc.pdf`, `oxnum-doc.pdf` and `oxalph-doc.pdf`.
- 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`.
- Running `make clean` removes auxiliary files from the working directory.
- Running `make distclean` removes the generated files from the working directory as well.

### 1.2.4 MANUAL WAY

To install the bundle from scratch, follow these instructions. If you have downloaded the zip file from the Releases page on GitHub, you can skip the first two steps.

1. Run `luatex oxref.dtx` to generate the source files. (You can safely skip this step if you are confident about step 2.)
2. Compile `oxref.dtx`, `oxnotes-doc.tex`, `oxyyear-doc.tex`, and `oxnum-doc.tex` with LuaLaTeX and Biber to generate the documentation. You will need to enable shell escape so that `minted` can typeset the listings.
3. Move the files to your TeX tree as follows:
  - `source/latex/biblatex-oxref`: `oxref.dtx`, (`oxref.ins`)
  - `tex/latex/biblatex-oxref`: `american-oxref.lbx`, `british-oxref.lbx`, `english-oxref.lbx`, `oxalph.bbx`, `oxalph.cbx`, `oxalph.dbx`, `oxnotes.bbx`, `oxnotes.cbx`, `oxnotes.dbx`, `oxnum.bbx`, `oxnum.cbx`, `oxnum.dbx`, `oxref.bbx`, `oxyyear.bbx`, `oxyyear.cbx`, `oxyyear.dbx`
  - `doc/latex/biblatex-oxref`: `README.md`, `oxalph-doc.pdf`, `oxalph-doc.tex`, `oxnotes-doc.pdf`, `oxnotes-doc.tex`, `oxnum-doc.pdf`, `oxnum-doc.tex`, `oxref.bib`, `oxref.pdf`, `oxyyear-doc.pdf`, `oxyyear-doc.tex`
4. You may then have to update your installation's file name database before TeX and friends can see the files.

## 1.3 Licence

Copyright 2016–2018 Alex Ball.

This work consists of the documented LaTeX file `oxref.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.

## Bibliography styles

### 2.1 Base style: oxref.bbx

#### 2.1.1 LOADING DEPENDENCIES, SETTING UP LANGUAGES, APPLYING OPTIONS

Dependencies:

- For ease of maintenance, we will patch some definitions with `xpatch` instead of writing out our own in full.
- We will manipulate strings with `xstring`.
- We will use `graphicx` for stretching `\bibnamedashes`

```
20 \RequirePackage{xpatch}
21 \RequirePackage{xstring}
22 \RequirePackage{graphicx}
```

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

```
23 \DeclareLanguageMappingSuffix{-oxref}
```

We provide some additional bibliography strings:

- roles expressed as functions;

```
24 \NewBibliographyString{%
25   director, performer, reader, conductor, serieseditor, holder, editorcm,
26   directors, performers, readers, conductors, serieseditors, holders, editorcms,
```

- roles expressed as actions;

```
27   bydirector, byperformer, byreader, byconductor, byserieseditor, byholder, byeditorcm,
```

- publication details;

```
28   facsimile, revised, revisedenlarged, revisedreprint, suppto, equals, original,
```

- publication state;

29 inpressin,

- pagination;

30 book, books, canto, cantos, stanza, stanzas, act, acts, scene, scenes, folio, folios,  
 31 article, articles, clause, clauses, regulation, regulations, rule, rules,  
 32 booktotal, booktotals, cantototal, cantototals, stanzatotal, stanzatotals,  
 33 acttotal, acttotals, scenetotal, scenetotals, foliototal, foliototals,  
 34 articletotal, articletotals, clausetotal, clausetotals, regulationtotal,  
 35 regulationtotals, ruletotal, ruletotals,

- types;

36 facebook, tweet, podcast, clip, webcast, poster,

- miscellaneous;

37 nolocation, modified, recorded, uploaded, filed, issued,

- labels;

38 anon, pseudo, urldown,

- country names, patents, and patent requests;

39 countryjp, patentjp, patreqjp,

- borrowed from other styles.

40 1column, 2column, inflayer, suplayer, paper, papyrus, pergament,  
 41 eucase, eujoinedcases, commissiondecision, application,  
 42 order, bill, draft, opened, signed, adopted, inforce,  
 43 }

We base our styles on the standard on the principle of least surprise (and to aid with maintenance in the face of new biblatex versions). We set some defaults different to the standard ones, but the author can still override them.

```
44 \RequireBibliographyStyle{standard}
45 \ExecuteBibliographyOptions{urldate=comp, pagetracker, timezeros=false, time=12h, isbn=false}
```

Here are the new default punctuation conventions. The new `\relatedtypepunct` is for before the `relatedtype` localization string, while `\recordseriespunct` is used for audiovisual resources.

```
46 \renewcommand*{\labelnamepunct}{\addcomma\space}
47 \renewcommand*{\newunitpunct}{\addcomma\space}
48 \renewcommand*{\subtitlepunct}{\addcolon\space}
49 \renewcommand*{\intitlepunct}{\nopunct\space}
50 \renewcommand*{\bibnamedash}{\resizebox{2em}{\height}{\textendash}\addthinspace}
51 \newcommand*{\recordseriespunct}{\addcomma\space}
52 \newcommand*{\relatedtypepunct}{\addsemicolon\space}
53 \renewcommand*{\relateddelim}{\addsemicolon\space}
```

```

54 \DeclareDelimFormat{revsdnamedelim}{\addcomma}
55 \DeclareDelimFormat{authortypedelim}{\addspace}
56 \DeclareDelimFormat{editortypedelim}{\addspace}
57 \DeclareDelimFormat{translatortypedelim}{\addspace}

```

### 2.1.2 NAMES

We declare some new name formats so that authors/editors/others who appear mid-reference can be handled differently from those that appear at the head of the reference.

```

58 \DeclareNameAlias{bookauthor}{default}
59 \DeclareNameAlias{bookeditor}{default}

```

Traditionally, Oxford style (for the humanities) prints author names in small capitals in the bibliography, but in normal case in citations. This is falling out of fashion, so we introduce it as an option.

```

60 \newtoggle{blx@ox@scnames}
61 \DeclareBibliographyOption[boolean]{scnames}[true]{%
62   \settoggle{blx@ox@scnames}{#1}
63 }

```

The style manuals prefer to omit titles but accept they may need to be included in some circumstances. There are some titles that are only used with full names and some that may be used with initials, so we provide an option for manually switching them off.

```

64 \newtoggle{blx@ox@nametitle}\toggletrue{blx@ox@nametitle}%
65 \DeclareBibliographyOption[boolean]{usenametitles}[true]{%
66   \settoggle{blx@ox@nametitle}{#1}}
67 \DeclareTypeOption[boolean]{usenametitles}[true]{%
68   \settoggle{blx@ox@nametitle}{#1}}
69 \DeclareEntryOption[boolean]{usenametitles}[true]{%
70   \settoggle{blx@ox@nametitle}{#1}}

```

We provide some additional macros for formatting names with titles. Here is the one for natural name order.

```

71 \newbibmacro*{name:title-given-family}[5]{%
72   \usebibmacro{name:delim}{#2#3#1}%
73   \usebibmacro{name:hook}{#2#3#1}%
74   \ifdefvoid{#5}{}{\iftoggle{blx@ox@nametitle}{\mkbibnametitle{#5}\isdot\bibnamedelimd}{}}%
75   \ifdefvoid{#2}{}{\mkbibnamegiven{#2}\isdot\bibnamedelimd}%
76   \ifdefvoid{#3}{}{%
77     \mkbibnameprefix{#3}\isdot
78     \ifprefchar
79     {}
80     {\ifuseprefix{\bibnamedelimc}{\bibnamedelimd}}}%
81   \mkbibnamefamily{#1}\isdot
82   \ifdefvoid{#4}{}{\ifnumeral{#4}{}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}\isdot}}

```

Here is the one for inverted name order.

```

83 \newbibmacro*{name:family-title-given}[5]{%
84   \ifuseprefix{%
85     \usebibmacro{name:delim}{#3#1}%
86     \usebibmacro{name:hook}{#3#1}%
87     \ifdefvoid{#3}{}{%

```

```

88     \ifcapital{%
89         \mkbibnameprefix{\MakeCapital{#3}}\isdot
90     }{%
91         \mkbibnameprefix{#3}\isdot}%
92     \ifprefchar{}{\bibnamedelimc}%
93     \mkbibnamefamily{#1}\isdot
94     \ifdefvoid{#4}{}{\ifnumeral{#4}{}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}\isdot}%
95     \ifboolexpe{%
96         (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
97         and
98         test {\ifdefvoid{#2}}%
99     }{}{%
100         \revsnamepunct}%
101     \ifdefvoid{#5}{}{\iftoggle{blx@ox@nametitle}{\bibnamedelimd\mkbibnametitle{#5}\isdot}{}}%
102     \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
103 }{%
104     \usebibmacro{name:delim}{#1}%
105     \usebibmacro{name:hook}{#1}%
106     \mkbibnamefamily{#1}\isdot
107     \ifdefvoid{#4}{}{\bibnamedelimd\mkbibnamesuffix{#4}\isdot}%
108     \ifboolexpe{%
109         (test {\ifdefvoid{#5}} or not togl {blx@ox@nametitle})
110         and
111         test {\ifdefvoid{#2}}
112         and
113         test {\ifdefvoid{#3}}%
114     }{}{%
115         \revsnamepunct}%
116     \ifdefvoid{#5}{}{\iftoggle{blx@ox@nametitle}{\bibnamedelimd\mkbibnametitle{#5}\isdot}{}}%
117     \ifdefvoid{#2}{}{\bibnamedelimd\mkbibnamegiven{#2}\isdot}%
118     \ifdefvoid{#3}{}{\bibnamedelimd\mkbibnameprefix{#3}\isdot}}

```

Oxford style (for the humanities) is to write author names surname first in the bibliography, but in natural order in citations. We implement this, along with the case changing option, in the following name format. We also add a second hash for checking if names (e.g. author and authoraddon) are the same.

```

119 \def\blx@ox@lasthash{}
120 \DeclareNameFormat{bib-family-given/cite-given-family}{%
121     \iffielddannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}{}%
122     \ifitemannotation{inferred}{\bibopenbracket}{}%
123     \ifbibliography{%
124         \iftoggle{blx@ox@scnames}{%
125             \renewcommand*{\mkbibnamefamily}[1]{\textsc{##1}}%
126             \renewcommand*{\mkbibnamegiven}[1]{\textsc{##1}}%
127             \renewcommand*{\mkbibnameprefix}[1]{\textsc{##1}}%
128             \renewcommand*{\mkbibnamesuffix}[1]{\textsc{##1}}%
129             \renewcommand*{\mkbibnametitle}[1]{##1}%
130         }{}%
131         \ifgiveninits{%
132             \usebibmacro{name:family-title-given}%
133             {\namepartfamily}%
134             {\namepartgiveni}%
135             {\namepartprefix}%
136             {\namepartsuffix}%
137             {\nameparttitle}%
138         }{%
139             \usebibmacro{name:family-title-given}%
140             {\namepartfamily}%
141             {\namepartgiven}%
142             {\namepartprefix}%

```

```

143     {\namepartsuffix}%
144     {\nameparttitle}%
145   }%
146   \savefield[hash]{\blx@ox@lasthash}%
147   \ifitemannotation{pseudo}{%
148     \addspace\printtext[parens]{%
149       \iftoggle{blx@ox@scnames}{%
150         \textsc{\bibsstring{pseudo}}%
151       }{%
152         \bibsstring{pseudo}%
153       }%
154     }%
155     \iftoggle{blx@ox@scnames}{%
156       \renewcommand*\mkbibnamefamily[1]{##1}%
157       \renewcommand*\mkbibnamegiven[1]{##1}%
158       \renewcommand*\mkbibnameprefix[1]{##1}%
159       \renewcommand*\mkbibnamesuffix[1]{##1}%
160       \renewcommand*\mkbibnametitle[1]{##1}%
161     }%
162   }%
163   \ifgiveninits{%
164     \usebibmacro{name:title-given-family}%
165     {\ifitemannotation{pseudo}{\biblstring{pseudo}}{\namepartfamily}%
166     {\namepartgiveni}%
167     {\namepartprefix}%
168     {\namepartsuffix}%
169     {\nameparttitle}%
170   }%
171     \usebibmacro{name:title-given-family}%
172     {\ifitemannotation{pseudo}{\biblstring{pseudo}}{\namepartfamily}%
173     {\namepartgiven}%
174     {\namepartprefix}%
175     {\namepartsuffix}%
176     {\nameparttitle}%
177   }%
178   \savefield[hash]{\blx@ox@lasthash}%
179 }%
180 \ifitemannotation{inferred}{\bibclosebracket}{}%
181 \usebibmacro{name:andothers}%
182 \iffieldannotation{inferred}{%
183   \ifboolexpr{
184     test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
185     or
186     test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
187     or (
188       test {\ifnumequal{\value{listcount}}{\value{minnames}}}
189       and
190       test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}}
191     )
192   }{\bibclosebracket}{}%
193 }%
194 }

```

We change the regular given-family format to include the alternative-name hash and use the title-enhanced name format. We also add a toggle for triggering special formatting if `authoraddon` or `editoraddon` are annotated with `variant`.

```

195 \newtoggle{blx@ox@variantname}
196 \DeclareNameFormat{given-family}{%
197   \ifgiveninits
198     {\usebibmacro{name:title-given-family}

```

```

199     {\namepartfamily}
200     {\namepartgiveni}
201     {\namepartprefix}
202     {\namepartsuffix}
203     {\nameparttitle}}
204     {\usebibmacro{name:title-given-family}
205     {\namepartfamily}
206     {\namepartgiven}
207     {\namepartprefix}
208     {\namepartsuffix}
209     {\nameparttitle}}%
210     \savefield{hash}{\blx@ox@lasthash}%
211     \ifitemannotation{variant}{%
212     \global\settoggle{blx@ox@variantname}{true}}%
213     }{%
214     \global\settoggle{blx@ox@variantname}{false}}%
215     \usebibmacro{name:andothers}}

```

We do likewise for the regular family-given format.

```

216     \DeclareNameFormat{family-given}{%
217     \ifgiveninits
218     {\usebibmacro{name:family-title-given}
219     {\namepartfamily}
220     {\namepartgiveni}
221     {\namepartprefix}
222     {\namepartsuffix}
223     {\nameparttitle}}
224     {\usebibmacro{name:family-title-given}
225     {\namepartfamily}
226     {\namepartgiven}
227     {\namepartprefix}
228     {\namepartsuffix}
229     {\nameparttitle}}%
230     \savefield{hash}{\blx@ox@lasthash}%
231     \ifitemannotation{variant}{%
232     \global\settoggle{blx@ox@variantname}{true}}%
233     }{%
234     \global\settoggle{blx@ox@variantname}{false}}%
235     \usebibmacro{name:andothers}}

```

There is no comma before numeric suffixes, but there is before textual ones (e.g. ‘junior’).

```

236     \xpatchbibmacro{name:given-family}%
237     {\bibnamedelimd\mkbibnamesuffix{#4}}%
238     {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}{}
239     \xpatchbibmacro{name:family-given}%
240     {\bibnamedelimd\mkbibnamesuffix{#4}}%
241     {\ifnumeral{#4}{\addcomma}\bibnamedelimd\mkbibnamesuffix{#4}}{}

```

Pseudonyms are printed after the main name, enclosed in parentheses (OGS) or brackets (NHR). Biblatex provides the nameaddon field for this use case, but it is a literal field (it doesn’t format the name provided).

```

242     \DeclareFieldFormat{nameaddon}{\mkbibbrackets{#1}}
243     \DeclareFieldFormat{namevariant}{\mkbibparens{\bibstring{equals}\space #1}}

```

We provide an alternative method that uses new name fields authoraddon and editoraddon. To do this, we define a bibmacro that reimplements the loopcode logic of `\printnames`, but operates on two name lists simultaneously; we use saveboxes to extract the hashes, and only print the

alternative name if it has a different hash. The same technique is used by `oxyear` below to pair up names with the short form used in references, so this bibmacro is written to handle both cases.

The `namepairs` bibmacro takes two arguments: the data fields holding the main name and alternative name respectively.

```

244 \newcounter{namepairs}
245 \newsavebox{\blx@ox@namebox}
246 \newsavebox{\blx@ox@altnamebox}
247 \newbibmacro*{namepairs}[2]{%
248   \setcounter{namepairs}{0}%
249   \savebibmacro{name:andothers}%
250   \renewbibmacro*{name:andothers}{}%
251   \whileboolexpr{%
252     test {\ifnumless{\value{namepairs}}{\value{#1}}}
253     and (
254       test {\ifdefvoid{\c@maxnames}}
255       or
256       test {\ifnumequal{\c@maxnames}{0}}
257       or
258       test {\ifnumless{\value{#1}}{\c@maxnames}}
259       or
260       test {\ifnumequal{\value{#1}}{\c@maxnames}}
261       or
262       test {\ifdefvoid{\c@minnames}}
263       or
264       test {\ifnumequal{\c@minnames}{0}}
265       or
266       test {\ifnumless{\value{namepairs}}{\c@minnames}}
267     )
268   }{%
269     \stepcounter{namepairs}%
270     \ifnumgreater{\value{namepairs}}{1}{%
271       \ifnumequal{\value{#1}}{2}{%
272         \setunit*{\addspace\bibstring{and}\addspace}%
273       }{%
274         \ifnumequal{\value{namepairs}}{\value{#1}}{%
275           \setunit*{\addcomma\space\bibstring{and}\addspace}%
276         }{%
277           \setunit*{\addcomma\space}%
278         }%
279       }%
280     }{}%
281     \savebox{\blx@ox@namebox}{%
282       \printnames[#1][\value{namepairs}-\value{namepairs}]{#1}%
283     }%
284     \let\blx@ox@firsthash=\blx@ox@lasthash

```

This is the part intended for `authoraddon` and `editoraddon`. Note that it contains an additional test for the variant name toggle.

```

285 \IfEndWith{#2}{addon}{%
286   \savebox{\blx@ox@altnamebox}{%
287     \printnames[by#1][\value{namepairs}-\value{namepairs}]{#2}%
288   }%
289   \let\blx@ox@secondhash=\blx@ox@lasthash
290   \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
291     \unhbox\blx@ox@namebox
292   }{%
293     \unhbox\blx@ox@namebox\addspace
294     \iftoggle{blx@ox@variantname}{%

```

```

295     \ifbibliography{%
296         ↪ \printtext[namevariant]{\printnames[#1][\value{namepairs}-\value{namepairs}]{#2}}%
297     }{}%
298 }{}%
299     \printtext[nameaddon]{\unhbox\blx@ox@altnamebox}%
300 }{}%
301 }{}%

```

This is the part intended for shortauthor and shorteditor. There are differences in the formatting, and the alternative name is actually printed before the main name.

```

302 }{}%
303     \savebox{\blx@ox@altnamebox}{%
304         \printnames[#1][\value{namepairs}-\value{namepairs}]{#2}%
305     }{}%
306     \let\blx@ox@secondhash=\blx@ox@lasthash
307     \ifdefstrequal{\blx@ox@firsthash}{\blx@ox@secondhash}{%
308         \unhbox\blx@ox@namebox
309     }{}%
310     \unhbox\blx@ox@altnamebox
311     \addspace\mkbibparens{\unhbox\blx@ox@namebox}%
312 }{}%
313 }{}%
314 }{}%

```

Now we return to common code.

```

315     \ifboolexpr{
316         test {\ifnumequal{\value{namepairs}}{\c@minnames}}
317         and
318         test {\ifnumgreater{\value{#1}}{\c@maxnames}}
319     }{}%
320     \ifnumgreater{\c@minnames}{1}{%
321         \finalandcomma
322     }{}%
323     \printdelim{andothersdelim}\bibstring{andothers}%
324 }{}%
325     \restorebibmacro{name:andothers}%
326 }

```

We use this now for authors. We provide additional handling to support printing editors or translators promoted to joint authorship status.

```

327     \newbibmacro*{author+altauthor}{%
328         \ifboolexpr{
329             test {\ifnameundef{authoraddon}}
330             and
331             test {\ifnameundef{jointauthor}}
332         }{}%
333         \printnames{author}%
334     }{}%
335     \ifnumequal{\value{authoraddon}}{\value{author}}{%
336         \usebibmacro{namepairs}{author}{authoraddon}%
337     }{}%
338     \printnames{author}%
339     \ifnameundef{authoraddon}{%
340         \setunit*{\addspace}%
341         \printtext[nameaddon]{\printnames[byauthor]{authoraddon}}%
342     }{}%

```

```

343     \ifnameundef{jointauthor}{}{%
344       \setunit{\addcomma\space}%
345       \iffieldundef{jointauthortype}{%
346         \bibstring{byeditor}%
347       }{%
348         \printfield{jointauthortype}%
349       \setunit{\addspace}%
350       \printnames[author]{jointauthor}%
351     }%
352   }%
353 }
354 \DeclareFieldFormat{jointauthortype}{%
355   \ifbibstring{by#1}{\bibstring{by#1}}{#1}}

```

This is the (simpler) implementation for editors.

```

356 \newbibmacro*{editor+altdeditor}{%
357   \ifnameundef{editoraddon}{%
358     \printnames{editor}%
359   }{
360     \ifnameequal{\value{editoraddon}}{\value{editor}}{%
361       \usebibmacro{namepairs}{editor}{editoraddon}%
362     }{%
363       \printnames{editor}%
364       \setunit*{\addspace}%
365       \printtext[nameaddon]{\printnames[byeditor]{editoraddon}}%
366     }%
367   }%
368 }

```

Traditional Oxford style is to use dashes instead of repeating author names, but NHR recommends abandoning the practice as it interferes with text mining. We therefore turn this feature off by default, but allow authors to switch it on with `dashed=true`.

```

369 \newbibmacro*{bbx:savehash}{}
370 \DeclareBibliographyOption{dashed}[true]{%
371   \ifstrequal{#1}{true}{%
372     \ExecuteBibliographyOptions{pagetracker}%
373     \renewbibmacro*{bbx:savehash}{\savefield{fullhash}{\bbx@lasthash}}%
374   }{%
375     \renewbibmacro*{bbx:savehash}{}%
376   }%
377 }
378 \InitializeBibliographyStyle{%
379   \global\undef\bbx@lasthash}
380 \newbibmacro*{bbx:dashcheck}[2]{%
381   \ifboolexpr{
382     test {\iffieldequals{fullhash}{\bbx@lasthash}}
383     and
384     not test \iffirstonpage
385     and
386     (
387       not bool {bbx@inset}
388       or
389       test {\iffieldequalstr{entrysetcount}{1}}
390     )
391   }{#1}{#2}%
392 }

```

The following is used in the `authortitle` and `authoryear` styles to switch off the dash check macro for reference sets.

```

393 \newbool{bbx@inset}
394 \DeclareBibliographyDriver{set}{%
395   \booltrue{bbx@inset}%
396   \entryset{}}}%
397   \newunit\newblock
398   \usebibmacro{setpageref}%
399   \finentry}

```

We provide options for how to handle the author name ‘Anonymous’.

```

400 \newtoggle{blx@ox@autoanon}
401 \newtoggle{blx@ox@abbranon}
402 \DeclareBibliographyOption[string]{anon}[short]{%
403   \ifcsdef{blx@ox@opt@anon@#1}{%
404     \csuse{blx@ox@opt@anon@#1}%
405   }{%
406     \PackageError{oxref}
407     {Invalid option 'anon=#1'}
408     {Valid values are 'long', 'short', and 'literal'.}}
409 \csdef{blx@ox@opt@anon@literal}{\togglefalse{blx@ox@autoanon}}
410 \csdef{blx@ox@opt@anon@long}{\toggletrue{blx@ox@autoanon}\togglefalse{blx@ox@abbranon}}
411 \csdef{blx@ox@opt@anon@short}{\toggletrue{blx@ox@autoanon}\toggletrue{blx@ox@abbranon}}

```

We copy the author to rawauthor for easier testing.

```

412 \DeclareStyleSourceMap{
413   \maps[datatype=bibtex]{%
414     \map{%
415       \step[fieldsource=author]%
416       \step[fieldset=rawauthor, origfieldval]%
417     }
418   }%
419 }

```

The author macro is enhanced from the standard version by

- checking if the author name is ‘Anonymous’;
- including a dash check, to see if the name(s) should be replaced with a dash (as in `authortitle` and `authoryear`);
- inserting the `nameaddon` field if provided;
- inserting the author type if provided (as in `authoryear`).

```

420 \newcommand*{\oxrefanon}{Anonymous}
421 \newtoggle{blx@ox@isanon}
422 \renewbibmacro*{author}{%
423   \iffieldequals{rawauthor}{\oxrefanon}{%
424     \toggletrue{blx@ox@isanon}%
425   }{%
426     \togglefalse{blx@ox@isanon}}%
427   \ifboolexpr{
428     test \ifuseauthor
429     and
430     ( not test {\ifnameundef{author}} )
431     and (
432       ( not togl {blx@ox@isanon} )
433       or
434       ( not togl {blx@ox@autoanon} )
435       or

```

```

436     test {\ifbibliography}
437   )
438 }
439 {\usebibmacro{bbx:dashcheck}
440  {\bibnamedash}
441  {\usebibmacro{bbx:savehash}%
442   \ifboolexpr{
443     togl {blx@ox@autoanon}
444     and
445     togl {blx@ox@isanon}
446   }{%
447     \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
448   }{%
449     \usebibmacro{author+altauthor}%
450   }%
451   \iffieldundef{nameaddon}
452   {}
453   {\setunit{\addspace}%
454    \printfield{nameaddon}}%
455   \setunit{\printdelim{authortypedelim}}}%
456   \iffieldundef{authortype}
457   {}
458   {\usebibmacro{authorstrg}%
459    \setunit{\addspace}}}%
460   {\global\undef\bbx@lasthash}}
461   \DeclareFieldFormat{authortype}{\mkbibparens{#1}}

```

We make the punctuation between a title and ‘by [author]’ configurable.

```

462   \newcommand{\titlebyauthor delim}{\addspace}

```

Following `authortitle` and `authoryear`, we redefine the `editor` and `editor+others` macros to use a common `bbx:editor` macro. The macro we use is the similar to the normal one except we delegate printing editor names to `editor+altdeditor`, and we don’t yet add the year label.

```

463   \renewbibmacro*{editor}{%
464     \usebibmacro{bbx:editor}{editorstrg}}
465   \renewbibmacro*{editor+others}{%
466     \usebibmacro{bbx:editor}{editor+othersstrg}}
467   \newbibmacro*{bbx:editor}[1]{%
468     \ifboolexpr{
469       test \ifuseeditor
470       and
471       not test {\ifnameundef{editor}}
472     }
473     {\usebibmacro{bbx:dashcheck}
474      {\bibnamedash}
475      {\usebibmacro{editor+altdeditor}%
476       \setunit{\printdelim{editortypedelim}}%
477       \usebibmacro{bbx:savehash}}%
478     \usebibmacro{#1}%
479     \cleurname{editor}}
480     {\global\undef\bbx@lasthash}}
481   \DeclareFieldFormat{editortype}{\mkbibparens{#1}}

```

We do the same for `translator` as well.

```

482   \renewbibmacro*{translator}{%
483     \usebibmacro{bbx:translator}{translatorstrg}}
484   \renewbibmacro*{translator+others}{%

```

```

485 \usebibmacro{bbx:translator}{translator+othersstrg}
486 \newbibmacro*{bbx:translator}[1]{%
487 \ifboolexpr{
488   test \ifusetranslator
489   and
490   not test {\ifnameundef{translator}}
491 }
492 {\usebibmacro{bbx:dashcheck}
493  {\bibnamedash}
494  {\printnames{translator}%
495   \setunit{\printdelim{translatortypedelim}}%
496   \usebibmacro{bbx:savehash}}%
497  \usebibmacro{#1}%
498  \clearname{translator}%
499  \setunit{\addspace}}%
500  {\global\undef\bbx@lasthash}
501 \xpatchbibmacro{translatorstrg}%
502  {\bibstring}%
503  {\bibstring[\mkbibparens]}{}{}%
504 \xpatchbibmacro{translator+othersstrg}%
505  {\bibstring}%
506  {\bibstring[\mkbibparens]}{}{}%

```

When referencing one work from a collection by the same author, Oxford style traditionally puts ‘id.’ in the bookauthor position (instead of omitting it as in standard biblatex).

```

507 \renewbibmacro*{bybookauthor}{%
508 \ifnameequal{author}{bookauthor}%
509  {\bibstring{idem\thefield{gender}}}%
510  {\printnames{bookauthor}}}

```

Similarly, with mixed collections, if referencing a work by the editor of the collection, the editor name is replaced with ‘id.’ We insert this logic into a copy of the editor+others macro, which will *not* get a year inserted into it by oyear.

```

511 \newbibmacro*{bookeditor}{%
512 \global\undef\bbx@lasthash
513 \ifboolexpr{
514   test \ifuseeditor
515   and
516   not test {\ifnameundef{editor}}
517 }{%
518 \ifnameequal{author}{editor}{%
519  \bibstring{idem\thefield{gender}}%
520  \setunit{\addspace}%
521  \usebibmacro{editor+othersstrg}%
522  \clearname{editor}%
523 }{%
524  \printnames[bookeditor]{editor}%
525  \setunit*{\addspace}%
526  \usebibmacro{editor+othersstrg}%
527  \clearname{editor}%
528 }%
529 }}

```

We provide a macro for printing series editors.

```

530 \newbibmacro*{byserieseditor}{%
531 \ifnameundef{serieseditor}
532 {}

```

```

533     \usebibmacro{bytypestrg}{serieseditor}{serieseditor}%
534     \setunit{\addspace}%
535     \printnames[byeditor]{serieseditor}%
536     \newunit}}

```

### 2.1.3 TITLES

Title handling is mostly as it is in the standard styles, except that the `titleaddon` is printed in square brackets; it is not preceded by punctuation.

```

537 \renewbibmacro*{title}{%
538   \ifboolexpr{
539     test {\iffieldundef{title}}
540     and
541     test {\iffieldundef{subtitle}}
542   }
543   {}
544   {\printtext[title]{%
545     \printfield[titlecase]{title}%
546     \setunit{\subtitlepunct}%
547     \printfield[titlecase]{subtitle}%
548     \setunit{\addspace}}%
549   \usebibmacro{origtitle}%
550   \setunit*\addspace}%
551   \printfield{titleaddon}%
552   \iffieldequalstr{relatedtype}{equals}{%
553     \iftoggle{bbx:related}{%
554       \usebibmacro{related:init}%
555       \usebibmacro{related}%
556       \clearfield{related}%
557     }{}%
558   }{}%
559 }
560 \DeclareFieldFormat{titleaddon}{\mkbibbrackets{#1}}

```

The `origtitle` field is used for translated works. If the cited work is a native language translation of a foreign work, the original title is given in parentheses. If the cited work is foreign translation of a native language work, the original title is printed in square brackets, preceded by the name of the foreign language and ‘translation of’.

```

561 \DeclareFieldFormat{origtitle}{\mkbibemph{#1}}
562 \newbibmacro*{origtitle}{%
563   \iffieldundef{origtitle}{}%
564   \iflistundef{language}{%
565     \printtext[parens]{\printfield{origtitle}}%
566   }{%
567     \printtext[brackets]{%
568       \printlist{language}\space
569       \bibstring{translationof}\space
570       \printfield{origtitle}}}}

```

### 2.1.4 DATES AND TIMES

Year ranges are truncated (e.g. 2012–3). Therefore, we provide a command that compares two years, and outputs a full or truncated version of the second year, depending on how similar it is to the first. It is extracted and adapted from code by Marco Daniel.<sup>1</sup>

<sup>1</sup><http://tex.stackexchange.com/questions/23483/>

```

571 \newcommand{\blx@ox@compyear}[2]{%
572   \def\num@one{#1}%
573   \def\num@two{#2}%
574   \StrLen{\num@one}[\num@one@len]%
575   \StrLen{\num@two}[\num@two@len]%
576   \IfEq{\num@one@len}{\num@two@len}%
577   {\StrCompare{\num@one}{\num@two}[\Result]}%
578   \ifnum\num@two@len>3%
579   \IfStrEq{\Result}{2}{\def\Result{1}}}%
580   \fi
581   \StrGobbleLeft{0\num@two}{\Result}}%
582   {\num@two}%
583 }

```

We patch the date range formats from biblatex.sty to use the above function.

```

584 \patchcmd{\mkdaterangefull}{%
585   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
586 }{%
587   \iffieldundef{#2endmonth}%
588   {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
589   {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
590 }{}
591 \patchcmd{\mkdaterangefullextra}{%
592   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
593 }{%
594   \iffieldundef{#2endmonth}%
595   {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
596   {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
597 }{}
598 \patchcmd{\mkdaterangetrunc}{%
599   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
600 }{%
601   \iffieldundef{#2endmonth}%
602   {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
603   {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
604 }{}
605 \patchcmd{\mkdaterangetruncextra}{%
606   \csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}%
607 }{%
608   \iffieldundef{#2endmonth}%
609   {\blx@ox@compyear{\thefield{#2year}}{\thefield{#2endyear}}}%
610   {\csuse{mkbibdate#1}{#2endyear}{#2endmonth}{#2endday}}%
611 }{}

```

We provide a way of prefacing dates (and times) with a type. This is mainly intended for online resources.

```

612 \DeclareFieldFormat{datatype}{%
613   \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
614 }
615 \newtoggle{blx@ox@timefirst}
616 \DeclareBibliographyOption{timefirst}[true]{%
617   \settoggle{blx@ox@timefirst}{#1}}
618 \DeclareTypeOption{timefirst}[true]{%
619   \settoggle{blx@ox@timefirst}{#1}}
620 \DeclareEntryOption{timefirst}[true]{%
621   \settoggle{blx@ox@timefirst}{#1}}
622 \newbibmacro*{date+time}{%
623   \ifboolexpr{
624     test {\iffieldundef{year}}

```

```

625     and
626     test {\iffieldundef{season}}
627     and
628     test {\iffieldundef{month}}
629     and
630     test {\iffieldundef{hour}}
631   }{}{%
632     \printfield{datetype}}%
633   \setunit*{\addspace}%
634   \iftoggle{blx@ox@timefirst}{%
635     \printtime
636     \setunit*{\addcomma\space}}{}%
637   \printdate
638   \iftoggle{blx@ox@timefirst}{%
639     \setunit*{\addcomma\space}%
640     \printtime}%
641 }
642 \renewbibmacro*{date}{\usebibmacro{date+time}}

```

We provide an equivalent for origdate. This is mainly intended for audiovisual resources (for the date of recording).

```

643 \DeclareFieldFormat{origdatetype}{%
644   \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}}%
645 }
646 \newbibmacro*{origdate+time}{%
647   \ifboolexpr{
648     test {\iffieldundef{origyear}}
649     and
650     test {\iffieldundef{origseason}}
651     and
652     test {\iffieldundef{origmonth}}
653     and
654     test {\iffieldundef{orighour}}
655   }{}{%
656     \printfield{origdatetype}}%
657   \setunit*{\addspace}%
658   \iftoggle{blx@ox@timefirst}{%
659     \printorigtime
660     \setunit*{\addcomma\space}}{}%
661   \printorigdate
662   \iftoggle{blx@ox@timefirst}{%
663     \setunit*{\addcomma\space}%
664     \printorigtime}%
665 }

```

If a date is inferred, it goes in square brackets.

```

666 \DeclareFieldFormat{date}{%
667   \def\currentfield{date}%
668   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
669   \undef\currentfield}
670 \DeclareFieldFormat{origdate}{%
671   \def\currentfield{origdate}%
672   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
673   \undef\currentfield}
674 \DeclareFieldFormat{eventdate}{%
675   \def\currentfield{eventdate}%
676   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
677   \undef\currentfield}

```

### 2.1.5 EDITIONS, PAGES, AND OTHER NUMBER-LIKE FIELDS

We let edition take a localization key as well as a number.

```

678 \xpatchfieldformat{edition}{%
679   #1\isdot
680 }{%
681   \ifbibstring{#1}{\bibstring{#1}}{#1\isdot}%
682 }{}

```

Page ranges are compressed, but are not usually marked with ‘pp.’. The exception is if the page numbers are not obviously numbers.

```

683 \DeclareFieldFormat{pages}{%
684   \iffieldundef{bookpagination}%
685   {\mkcomprange{#1}}%
686   {\mkcomprange[{\mkpageprefix[bookpagination]}]{#1}}%
687 }

```

The same is true in citations.

```

688 \DeclareFieldFormat{postnote}{%
689   \iffieldundef{pagination}%
690   {\mkcomprange{#1}}%
691   {\mkcomprange[{\mkpageprefix}]{#1}}%
692 }

```

### 2.1.6 PUBLISHERS

The *Oxford Guide to Style* says it is fine to omit publisher names uniformly from bibliographic information. This is odd, but we can support it with a simple option.

```

693 \DeclareBibliographyOption{nopublisher}[true]{%
694   \DeclareFieldInputHandler{publisher}{\def\NewVal{}}%
695 }

```

The style guides are less forgiving about omitting the place of publication. We provide a bibliography option that fills in such gaps with the `nolocation` localization string for selected entry types. It works using a source map, which is a clean solution but cannot easily be switched off again or used on a per-type basis.

```

696 \DeclareBibliographyOption{nolocation}[true]{%
697   \DeclareStyleSourceMap{
698     \maps[datatype=bibtex]{
699       \map{
700         \pertype{book}
701         \pertype{mvbook}
702         \pertype{bookinbook}
703         \pertype{inbook}
704         \pertype{suppbook}
705         \pertype{collection}
706         \pertype{mvcollection}
707         \pertype{incollection}
708         \pertype{suppcollection}
709         \pertype{reference}
710         \pertype{mvreference}
711         \pertype{inreference}
712         \pertype{proceedings}

```

```

713     \perypoint{mvproceedings}
714     \perypoint{inproceedings}
715     \step[notfield=location, fieldset=location,
↪     fieldvalue={\noexpand\bibstring{noLocation}}]
716   }
717 }
718 }%
719 }

```

We also provide an entry option that has the same effect; this works using the `\restorelist` mechanism instead.

```

720 \newtoggle{blx@ox@noLoc}
721 \def\blx@ox@noLoc{{\bibstring{noLocation}}}
722 \DeclareEntryOption{noLocation}[true]{%
723   \settoggle{blx@ox@noLoc}{#1}%
724   \iflistundef{location}{%
725     \iftoggle{blx@ox@noLoc}{\restorelist{location}{\blx@ox@noLoc}}{}%
726   }}

```

### 2.1.7 URLs

The OGS recommends the ISO convention of enclosing URLs in angle brackets, but NHR recommends leaving URLs bare so as not to interfere with text-mining. The latter is the default.

```

727 \DeclareBibliographyOption{isourls}[true]{%
728   \ifstrequal{#1}{true}
729     {\DeclareFieldFormat{url}{\langlet\url{##1}\rangle}}
730     {\DeclareFieldFormat{url}{\url{##1}}}%
731 }
732 \ExecuteBibliographyOptions{isourls=false}

```

NHR specifies that URLs should be broken across lines after slashes and percents, and before other punctuation. They should never break after hyphens.

```

733 \renewcommand*{\biburlsetup}{%
734   \Urlmuskip=0mu plus 2mu\relax
735   \mathchardef\UrbigBreakPenalty=100\relax
736   \mathchardef\UrbreakPenalty=200\relax
737   \def\UrbigBreaks{\do\/\do\}%
738   \def\UrbNoBreaks{\do\(\do\[\do\[\do\<}%
739   \def\UrbBreaks{%
740     \do\>\do\}\do\]\do\)\do\|\do\|}%
741   \do\' \do\$ \do\* \do\^ \do\"}%
742   \appto\UrbSpecials{%
743     \do\!\{\mathbin{}}\mskip-\Urbmuskip\mathchar`\!\mskip\Urbmuskip}%
744     \do\&\{\mathbin{}}\mskip-\Urbmuskip\mathchar`\&\mskip\Urbmuskip}%
745     \do\+\{\mathbin{}}\mskip-\Urbmuskip\mathchar`\+\mskip\Urbmuskip}%
746     \do\,\{\mathbin{}}\mskip-\Urbmuskip\mathchar`\,\mskip\Urbmuskip}%
747     \do\-\{\mathbin{}}\mskip-\Urbmuskip\mathchar`\-\mskip\Urbmuskip}%
748     \do\.\{\mathbin{}}\mskip-\Urbmuskip\mathchar`\.\mskip\Urbmuskip}%
749     \do\;\{\mathbin{}}\mskip-\Urbmuskip\mathchar`\;\mskip\Urbmuskip}%
750     \do\=\{\mathbin{}}\mskip-\Urbmuskip\mathchar`\=\mskip\Urbmuskip}%
751     \do\?\{\mathbin{}}\mskip-\Urbmuskip\mathchar`\?\mskip\Urbmuskip}%
752     \do\_ \{\mathbin{}}\mskip-\Urbmuskip\_ \mskip\Urbmuskip}%
753     \do\# \{\mathbin{}}\mskip-\Urbmuskip\# \mskip\Urbmuskip}%
754   }%
755   \ifnumgreater{\value{biburlnumpenalty}}{0}
756     {\def\do##1{\appto\UrbSpecials{\do##1{\mathchar`##1 \penalty\value{biburlnumpenalty}}}}%

```

```

757     \do\1\do\2\do\3\do\4\do\5\do\6\do\7\do\8\do\9\do\0}
758     {}%
759     \ifnumgreater{\value{biburlucpenalty}}{0}
760     {\def\do##1{\appto\URLSpecials{\do##1{\mathchar`##1 \penalty\value{biburlucpenalty}}}}%
761     \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
762     \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
763     \do\U\do\V\do\W\do\X\do\Y\do\Z}
764     {}%
765     \ifnumgreater{\value{biburllcpenalty}}{0}
766     {\def\do##1{\appto\URLSpecials{\do##1{\mathchar`##1 \penalty\value{biburllcpenalty}}}}%
767     \do\A\do\B\do\C\do\D\do\E\do\F\do\G\do\H\do\I\do\J
768     \do\K\do\L\do\M\do\N\do\O\do\P\do\Q\do\R\do\S\do\T
769     \do\U\do\V\do\W\do\X\do\Y\do\Z}
770     {}%
771     \let\do=\noexpand}

```

URL dates are set off with a comma rather than parentheses.

```

772     \DeclareFieldFormat{urldate}{\bibstring{urlseens}\space#1}
773     \xpatchbibmacro{url+urldate}%
774     {\setunit*{\addspace}}%
775     {\setunit*{\addcomma\addspace}}{}{}

```

The DOI is introduced by ‘doi’ in lowercase.

```

776     \xpatchfieldformat{doi}%
777     {\mkbibacro{DOI}}%
778     {\printtext{doi}}{}{}

```

Unlike URLs, DOIs are preceded by a full stop.

```

779     \xpatchbibmacro{doi+eprint+url}%
780     {\printfield{doi}}%
781     {\setunit{\addperiod\space}\printfield{doi}}{}{}

```

### 2.1.8 ADDENDA

The publication state is given in parentheses. Other addenda are added plain.

```

782     \renewbibmacro*{addendum+pubstate}{%
783     \ifboolexpr{
784     test {\iffieldundef{pubstate}}
785     or
786     test {\iffieldequalstr{labeldatesource}{pubstate}}
787     }{}%
788     \nopunct
789     \ifbibstring{\thefield{pubstate}}{%
790     \printtext[pubstate]{\bibstring{\thefield{pubstate}}}%
791     }{%
792     \printfield{pubstate}}%
793     \setunit{\addsemicolon\addspace}\newblock
794     \printfield{addendum}
795     \DeclareFieldFormat{pubstate}{\mkbibparens{#1}}

```

Publication descriptions are printed plain for unpublished works, and in brackets for other entry types.

```
796 \DeclareFieldFormat{howpublished}{\mkbibbrackets{#1}}
797 \DeclareFieldFormat[misc,unpublished]{howpublished}{#1}}
```

### 2.1.9 ARTICLES AND PERIODICALS

Subtypes for articles and similar are in square brackets.

```
798 \DeclareFieldFormat[article,periodical,supperiodical,review]{entrysubtype}{\mkbibbrackets{#1}}
```

We provide a command for testing if a title is abbreviated. We use the traditional  $\LaTeX$  accent commands in case a non-Unicode input encoding is being used. Testing for Ç and Ş causes errors when using OT1 encoding.

```
799 \newcommand*\blx@ox@abbrevstring{%
800   A\^{A}BCDEFG\u{G}HI\.\{I\}\^{I}JKLMNO\^{O}\^{O}PQRSTU\^{U}\^{U}VWXYZ.}%
801 \AtBeginDocument{
802   \ifdefstring{\encodingdefault}{OT1}{}%
803   \renewcommand*\blx@ox@abbrevstring{%
804     A\^{A}BC\c{C}DEFG\u{G}HI\.\{I\}\^{I}JKLMNO\^{O}\^{O}PQRS\c{S}TU\^{U}\^{U}VWXYZ.}%
805   }%
806 }
807 \newcommand*\ifabbrev}[3]{%
808   \StrRight{#1}{1}[\blx@ox@lastchar]%
809   \IfSubStr{\blx@ox@abbrevstring}{\blx@ox@lastchar}{#2}{#3}
810 }
```

We renew the `journal+issuetitle` macro so that if a work takes up a whole issue (signified by using `issuetitle` *instead* of `title`), the title and journal title are separated by ‘=’ instead of the usual punctuation. It also inserts an appropriate localization string if the publication status demands it. We insert a comma after the journal title, regardless of what follows. There is also a comma after numeric (but not textual) series.

```
811 \renewbibmacro*{journal+issuetitle}{%
812   \ifboolexpr{
813     test {\iffieldundef{title}}
814     and
815     not test {\iffieldundef{issuetitle}}
816   }{%
817     \usebibmacro{issue}%
818     \setunit{\addspace =\addspace}%
819   }{%
820     \ifboolexpr{
821       ( not test {\iffieldundef{pubstate}} )
822       and
823       test {\ifbibtstring{\thefield{pubstate}in}}
824     }{%
825       \printtext{\bibstring{\thefield{pubstate}in}\space}%
826       \clearfield{pubstate}%
827     }{}%
828     \usebibmacro{journal}%
829     \iffieldundef{journalsubtitle}{%
830       \ifabbrev{\thefield{journaltitle}}{\setunit{\addspace}}{\newunit}%
831     }{%
832       \ifabbrev{\thefield{journalsubtitle}}{\setunit{\addspace}}{\newunit}}%
833     \iffieldundef{series}{}%
834     \newunit\newblock
835     \printfield{series}%
836     \ifbibtstring{\thefield{series}}{,}%
```

```

837     \setunit{\addspace}%
838   }{%
839     \newunit}}%
840 \usebibmacro{volume+number+eid}%
841 \setunit{\addspace}%
842 \usebibmacro{issue+date}%
843 \newunit}

```

We renew the title+issuetitle macro (for whole periodical issues) to apply the same punctuation changes after the periodical name and series. At the same time, we delegate handling of volume and issue numbers to the appropriate macro so we can customize it.

```

844 \renewbibmacro*{title+issuetitle}{%
845   \usebibmacro{periodical}%
846   \iffieldundef{subtitle}{%
847     \ifabbrev{\thefield{title}}{\setunit{\addspace}}{\newunit}%
848   }{%
849     \ifabbrev{\thefield{subtitle}}{\setunit{\addspace}}{\newunit}}%
850   \iffieldundef{series}{%
851     \newunit\newblock
852     \printfield{series}%
853     \ifbibxstring{\thefield{series}}{%
854       \setunit{\addspace}%
855     }{%
856       \newunit}}%
857   \usebibmacro{volume+number+eid}%
858   \setunit{\addspace}%
859   \usebibmacro{issue+date}%
860   \newunit}

```

OGS and NHR provide plentiful options for formatting volume and issue numbers. We implement four of them here as options. The default is to use a slash between volume and issue number. Note that we prevent the volume+number+eid macro from actually printing the EID; this is printed by issue+date instead (see below).

```

861 \DeclareBibliographyOption{issuestyle}[slash]{%
862   \ifcsdef{blx@ox@issuestyle@#1}{%
863     \cuse{blx@ox@issuestyle@#1}%
864   }{%
865     \PackageError{biblatex}
866       {Invalid option 'issuestyle=#1'}
867       {Valid values are 'slash', 'colon', 'comma', 'parens'}%
868   }%
869 }
870 \csdef{blx@ox@issuestyle@slash}{%
871   \renewbibmacro*{volume+number+eid}{%
872     \printfield{volume}%
873     \setunit*{\addslash}%
874     \printfield{number}%
875   }%
876 }
877 \csdef{blx@ox@issuestyle@colon}{%
878   \renewbibmacro*{volume+number+eid}{%
879     \printfield{volume}%
880     \setunit*{\addcolon\space}%
881     \printfield{number}%
882   }%
883 }
884 \csdef{blx@ox@issuestyle@comma}{%
885   \renewbibmacro*{volume+number+eid}{%

```

```

886     \printfield{volume}%
887     \setunit*{\addcomma\space}%
888     \printfield{number}%
889   }%
890 }
891 \csdef{blx@ox@issuestyle@parens}{%
892   \renewbibmacro*{volume+number+eid}{%
893     \printfield{volume}%
894     \setunit*{\addspace}%
895     \printfield[parens]{number}%
896   }%
897 }
898 \ExecuteBibliographyOptions{issuestyle=slash}

```

OGS consistently prints dates of newspapers and magazines bare, but those of academic journals in parentheses. NHR seems to favour printing dates in parentheses regardless, but notes that some publishing houses take the OGS approach.

We provide an option for switching between the two approaches. If active and an issue has no volume or issue numbers (first block), the season and date are printed bare. Otherwise (second block) they are printed in parentheses just as in the standard version of the macro.

```

899 \newtoggle{blx@ox@varissuedate}
900 \DeclareBibliographyOption[boolean]{varissuedate}[true]{%
901   \settoggle{blx@ox@varissuedate}{#1}}
902 \DeclareTypeOption[boolean]{varissuedate}[true]{%
903   \settoggle{blx@ox@varissuedate}{#1}}
904 \DeclareEntryOption[boolean]{varissuedate}[true]{%
905   \settoggle{blx@ox@varissuedate}{#1}}
906 \DeclareBibliographyOption[boolean]{issuedate-plain}[true]{%
907   \settoggle{blx@ox@varissuedate}{#1}}
908 \DeclareTypeOption[boolean]{issuedate-plain}[true]{%
909   \settoggle{blx@ox@varissuedate}{#1}}
910 \DeclareEntryOption[boolean]{issuedate-plain}[true]{%
911   \settoggle{blx@ox@varissuedate}{#1}}
912 \renewbibmacro*{issue+date}{%
913   \ifboolexpr{
914     test {\iffieldundef{issue}}
915     and
916     test {\iffieldundef{year}}
917     and
918     test {\iffieldundef{season}}
919     and
920     test {\iffieldundef{month}}
921   }{ }{
922     \ifboolexpr{
923       togl {blx@ox@varissuedate}
924       and
925       test {\iffieldundef{volume}}
926       and
927       test {\iffieldundef{number}}
928     }{
929       \newunit
930       \printtext{%
931         \iffieldundef{issue}{%
932           \usebibmacro{date}
933         }%
934         \printfield{issue}%
935         \setunit*{\addspace}%
936         \usebibmacro{date}}}%
937     }{

```

```

938     \printtext[parens]{%
939       \iffieldef{issue}{%
940         \usebibmacro{date}%
941       }{%
942         \printfield{issue}%
943         \setunit*{\addspace}%
944         \usebibmacro{date}}}}}%
945   \newunit
946   \printfield{eid}%
947 }

```

Our article driver is like the standard one except

- it has no ‘in’ macro;
- there is a handler for the suppto relation;
- there is no language macro;
- the punctuation before related items is configurable.

```

948 \DeclareBibliographyDriver{article}{%
949   \usebibmacro{bibindex}%
950   \usebibmacro{begentry}%
951   \usebibmacro{author/translator+others}%
952   \setunit{\printdelim{nametitle}}\newblock
953   \usebibmacro{title}%
954   \setunit{\titlebyauthor}\newblock
955   \usebibmacro{byauthor}%
956   \newunit\newblock
957   \usebibmacro{bytranslator+others}%
958   \newunit\newblock
959   \printfield{version}%
960   \newunit\newblock
961   \usebibmacro{journal+issuetitle}%
962   \newunit
963   \usebibmacro{byeditor+others}%
964   \iffieldequalstr{relatedtype}{suppto}{%
965     \setunit{\addsemicolon\space}%
966     \iftoggle{bbx:related}{%
967       \usebibmacro{related:init}%
968       \usebibmacro{related}%
969       \clearfield{related}%
970     }{}%
971   }{}%
972   \newunit
973   \usebibmacro{note+pages}%
974   \newunit\newblock
975   \iftoggle{bbx:isbn}
976     {\printfield{issn}}
977     {}%
978   \newunit\newblock
979   \usebibmacro{doi+eprint+url}%
980   \newunit\newblock
981   \usebibmacro{addendum+pubstate}%
982   \setunit{\bibpagerefpunct}\newblock
983   \usebibmacro{pageref}%
984   \setunit{\relatedtypepunct}\newblock
985   \iftoggle{bbx:related}
986     {\usebibmacro{related:init}%
987       \usebibmacro{related}}
988     {}%
989   \usebibmacro{finentry}}

```

Similar changes are made to the periodical driver.

```

990 \DeclareBibliographyDriver{periodical}{%
991 \usebibmacro{bibindex}%
992 \usebibmacro{begentry}%
993 \usebibmacro{editor}%
994 \setunit{\printdelim{nametitledelim}}\newblock
995 \usebibmacro{title+issuetitle}%
996 \newunit\newblock
997 \usebibmacro{byeditor}%
998 \newunit\newblock
999 \printfield{note}%
1000 \newunit\newblock
1001 \iftoggle{bbx:isbn}
1002   {\printfield{issn}}
1003   {}%
1004 \newunit\newblock
1005 \usebibmacro{doi+eprint+url}%
1006 \newunit\newblock
1007 \usebibmacro{addendum+pubstate}%
1008 \setunit{\bibpagerefpunct}\newblock
1009 \usebibmacro{pageref}%
1010 \setunit{\relatedtypepunct}\newblock
1011 \iftoggle{bbx:related}
1012   {\usebibmacro{related:init}%
1013   \usebibmacro{related}}
1014   {}%
1015 \usebibmacro{finentry}}

```

The suppperiodical driver is just like the article one, except the note comes sooner after the title. This is to allow it to be used as a descriptor. Since we're breaking the alias, we need to explicitly replicate the article formatting for the rest of the entry.

```

1016 \DeclareFieldFormat[suppperiodical]{title}{%
1017 \def\currentfield{title}%
1018 \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
1019 \undef\currentfield}
1020 \DeclareFieldFormat[suppperiodical]{volume}{#1}% volume of a journal
1021 \DeclareFieldFormat[suppperiodical]{number}{#1}% number of a journal
1022 \DeclareFieldFormat[suppperiodical]{series}{% series of a journal
1023 \ifinteger{#1}
1024   {\mkbibordseries{#1}~\bibstring{jourser}}
1025   {\ifbibstring{#1}{\bibstring{#1}}{#1}}}
1026 \DeclareBibliographyDriver{suppperiodical}{%
1027 \usebibmacro{bibindex}%
1028 \usebibmacro{begentry}%
1029 \usebibmacro{author/translator+others}%
1030 \setunit{\printdelim{nametitledelim}}\newblock
1031 \usebibmacro{title}%
1032 \setunit{\titlebyauthordelim}\newblock
1033 \usebibmacro{byauthor}%
1034 \newunit\newblock
1035 \usebibmacro{bytranslator+others}%
1036 \newunit\newblock
1037 \printfield{note}\clearfield{note}%
1038 \newunit\newblock
1039 \printfield{version}%
1040 \newunit\newblock
1041 \usebibmacro{journal+issuetitle}%
1042 \newunit
1043 \usebibmacro{byeditor+others}%

```

```

1044 \iffieldequalstr{relatedtype}{suppto}{%
1045 \setunit{\addsemicolon\space}%
1046 \iftoggle{bbx:related}{%
1047 \usebibmacro{related:init}%
1048 \usebibmacro{related}%
1049 \clearfield{related}%
1050 }{}%
1051 }{}%
1052 \newunit
1053 \usebibmacro{note+pages}%
1054 \newunit\newblock
1055 \iftoggle{bbx:isbn}
1056 {\printfield{issn}}
1057 {}%
1058 \newunit\newblock
1059 \usebibmacro{doi+eprint+url}%
1060 \newunit\newblock
1061 \usebibmacro{addendum+pubstate}%
1062 \setunit{\bibpagerefunct}\newblock
1063 \usebibmacro{pageref}%
1064 \setunit{\relatedtypepunct}\newblock
1065 \iftoggle{bbx:related}
1066 {\usebibmacro{related:init}%
1067 \usebibmacro{related}}
1068 {}%
1069 \usebibmacro{finentry}}

```

### 2.1.10 BOOKS AND WORKS IN BOOKS

By default, editors do not appear before the title in book or reference entries.

```

1070 \ExecuteBibliographyOptions[book,mvbook,reference,mvreference]{useeditor=false,usetranslator=false}

```

The titles of books that have been collected into an anthology are treated like regular chapters and set in quotes. Poems and plays, however, are set in italics.

```

1071 \DeclareFieldFormat[bookinbook]{title}{%
1072 \ifboolexpr{
1073 test {\iffieldequalstr{entrysubtype}{poem}}
1074 or
1075 test {\iffieldequalstr{entrysubtype}{play}}
1076 }{%
1077 \mkbibemph{#1}%
1078 }{%
1079 \mkbibquote{#1\isdot}}}

```

Unlike the standard styles, we have a separate driver for inference, so we need to change the title style accordingly.

```

1080 \DeclareFieldFormat[inference]{title}{\mkbibquote{#1\isdot}}

```

Volume numbers in monograph-style entries are formatted as roman numerals.

```

1081 \DeclareFieldFormat[book,mvbook,bookinbook,inbook,suppbook,%
1082 collection,mvcollection,incollection,suppcollection,%
1083 proceedings,mvproceedings,inproceedings,%
1084 reference,mvreference,inreference]{volume}{%
1085 \IfSubStr{#1}{-}{-}}%

```

```

1086 \StrCount{#1}{-}[\blx@ox@dashnum]%
1087 \StrBefore{#1}{-}[\blx@ox@volnum]%
1088 \Rn{\blx@ox@volnum}\bibrangedash
1089 \StrBehind[\blx@ox@dashnum]{#1}{-}[\blx@ox@volnum]%
1090 \Rn{\blx@ox@volnum}%
1091 }{%
1092 \Rn{#1}}}
```

Where a multi-volume work is more like a series, the volume number and main title are put in a bracketted block between the volume title and the usual publication block.

```

1093 \newbibmacro*{maintitle+volume}{%
1094 \ifboolexpr{
1095 test {\iffieldundef{maintitle}}
1096 or
1097 test {\iffieldundef{volume}}
1098 }{%
1099 {\printtext[maintitle+volume]{%
1100 \bibstring{volume}\addspace
1101 \printfield{volume}\printfield{part}\addspace
1102 \bibstring{ofseries}\addspace
1103 \usebibmacro{maintitle}}}
1104 }
1105 \DeclareFieldFormat{maintitle+volume}{\mkbibbrackets{#1}}}
```

The in before the booktitle is suppressed for works in yearbooks.

```

1106 \renewbibmacro*{in:}{%
1107 \iffieldequalstr{entrysubtype}{yearbook}}{%
1108 \printtext{\bibstring{in}\intitlepunct}}}
```

Oxford style signifies formal publication by putting the relevant details in parentheses.

```

1109 \DeclareFieldFormat{publication}{\mkbibparens{#1}}
```

Standard biblatex puts a space between series name and number. OGS separates them with a comma. It also has an example with a series editor.

```

1110 \renewbibmacro*{series+number}{%
1111 \printfield{series}%
1112 \setunit*{\addcomma\space}%
1113 \usebibmacro{byserieseditor}%
1114 \setunit*{\addcomma\space}%
1115 \printfield{number}}
```

We provide an option for displaying the series information before, instead of within, the publication block.

```

1116 \newtoggle{blx@ox@altbookseries}
1117 \DeclareBibliographyOption[string]{bookseries}[in]{%
1118 \ifstrequal{#1}{out}{%
1119 \toggletrue{blx@ox@altbookseries}%
1120 }{%
1121 \togglefalse{blx@ox@altbookseries}%
1122 \ifstrequal{#1}{in}{%
1123 \PackageError{oxref}
1124 {Invalid option 'bookseries=#1'}
1125 {Valid values are 'in' and 'out'.}}}
```

When citing both the first and a later edition, the first one comes first, and the later one comes after a semicolon. As per standard biblatex, the elements of a single edition are separated by commas except that the publisher is preceded by a colon. The origdate is only printed here if at least one of the edition, the origlocation or the origpublisher is also specified.

```

1126 \newcounter{locpubpairs}
1127 \newbibmacro*{edition+publisher+location+date}{%
1128 \printlist{origlocation}%
1129 \iflistundef{origpublisher}%
1130 {\setunit*{\addcomma\space}}%
1131 {\setunit*{\addcolon\space}}%
1132 \printlist{origpublisher}%
1133 \setunit*{\addcomma\space}%
1134 \ifboolexpr{
1135 test {\iflistundef{origlocation}}
1136 and
1137 test {\iflistundef{origpublisher}}
1138 and
1139 test {\iffieldundef{edition}}}
1140 }{%
1141 \printorigdate}%
1142 \setunit{\addsemicolon\space}%
1143 \printfield{edition}%
1144 \setunit*{\addcomma\space}%

```

If there are the same number of locations and publishers, and there are more than one pair, we print them pairwise rather than in two separate lists. This uses the same principle as the `namepairs` bibmacro, but does not have the list truncation apparatus.

```

1145 \ifboolexpr{%
1146 test {\ifnumcomp{\value{publisher}}{>}{1}}
1147 and
1148 test {\ifnumequal{\value{location}}{\value{publisher}}}
1149 }{%
1150 \setcounter{locpubpairs}{0}%
1151 \savebibmacro{list:andothers}%
1152 \renewbibmacro*{list:andothers}{}%
1153 \whileboolexpr{%
1154 test {\ifnumcomp{\value{locpubpairs}}{<}{\value{publisher}}}
1155 }{%
1156 \stepcounter{locpubpairs}%
1157 \ifnumcomp{\value{locpubpairs}}{>}{1}{%
1158 \ifnumequal{\value{publisher}}{2}{%
1159 \setunit*{\addspace\bibstring{and}\addspace}%
1160 }%
1161 \ifnumequal{\value{locpubpairs}}{\value{publisher}}{%
1162 \setunit*{\addcomma\space\bibstring{and}\addspace}%
1163 }%
1164 \setunit*{\addcomma\space}%
1165 }%
1166 }%
1167 }%
1168 \printlist[][{\value{locpubpairs}-\value{locpubpairs}}]{location}%
1169 \setunit*{\addcolon\space}%
1170 \printlist[][{\value{locpubpairs}-\value{locpubpairs}}]{publisher}%
1171 }%
1172 \restorebibmacro{list:andothers}%
1173 }%
1174 \printlist{location}%
1175 \iflistundef{publisher}%

```

```

1176     {\setunit*{\addcomma\space}}%
1177     {\setunit*{\addcolon\space}}%
1178     \printlist{publisher}%
1179   }%
1180   \setunit*{\addcomma\space}%
1181   \usebibmacro{date}%
1182 }

```

Oxford style is to provide publication details – series name and number, edition, publisher, location, date – in a parenthetical block after the title information.

```

1183 \newbibmacro*{series+number+edition+publisher+location+date}{%
1184   \iftoggle{blx@ox@altbookseries}{%
1185     \usebibmacro{series+number}%
1186     \setunit{\addspace}\newblock}{}%
1187   \ifboolexpr{
1188     test {\iffieldundef{series}}
1189     and
1190     test {\iffieldundef{number}}
1191     and
1192     test {\iffieldundef{edition}}
1193     and
1194     test {\iflistundef{publisher}}
1195     and
1196     test {\iflistundef{location}}
1197     and
1198     test {\iffieldundef{year}}
1199     and
1200     test {\iffieldundef{season}}
1201     and
1202     test {\iffieldundef{month}}
1203   }{ }{%
1204     \nopunct
1205     \printtext[publication]{%
1206       \iftoggle{blx@ox@altbookseries}{ }{%
1207         \usebibmacro{series+number}%
1208         \setunit{\addsemicolon\addspace}}%
1209       \usebibmacro{edition+publisher+location+date}%
1210       \usebibmacro{copub}}}%
1211     \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1212     \setunit{\addspace}\newblock
1213     \usebibmacro{origpub}%
1214   }

```

The edition information for reference works is recorded earlier in the reference, so we provide a variant that excludes it from the publication block.

```

1215 \newbibmacro*{series+number+publisher+location+date}{%
1216   \iftoggle{blx@ox@altbookseries}{%
1217     \usebibmacro{series+number}%
1218     \setunit{\addspace}\newblock}{}%
1219   \ifboolexpr{
1220     test {\iffieldundef{series}}
1221     and
1222     test {\iffieldundef{number}}
1223     and
1224     test {\iflistundef{publisher}}
1225     and
1226     test {\iflistundef{location}}
1227     and

```

```

1228     test {\iffieldundef{year}}
1229     and
1230     test {\iffieldundef{season}}
1231     and
1232     test {\iffieldundef{month}}
1233   }{\%
1234     \nopunct
1235     \printtext[publication]{%
1236     \iftoggle{blx@ox@altbookseries}{\%
1237       \usebibmacro{series+number}%
1238       \setunit{\addsemicolon\addspace}}%
1239     \usebibmacro{publisher+location+date}%
1240     \usebibmacro{copub}}}%
1241   \iffieldequalstr{relatedtype}{copub}{\clearfield{related}}%
1242   \setunit{\addspace}\newblock
1243   \usebibmacro{origpub}%
1244 }

```

The copub macro prints co-publication details.

```

1245 \newbibmacro*{copub}{%
1246   \ifboolexpr{
1247     togl {bbx:related}
1248     and
1249     test {\iffieldequalstr{relatedtype}{copub}}
1250   }{%
1251     \setunit{\addsemicolon\space}%
1252     \usebibmacro{related:init}%
1253     \usebibmacro{related}%
1254   }{\%
1255 }

```

The origpub macro prints the origdate field if it has not yet been cleared.

```

1256 \newbibmacro*{origpub}{%
1257   \ifboolexpr{
1258     test {\iflistundef{origlocation}}
1259     and
1260     test {\iflistundef{origpublisher}}
1261     and
1262     test {\iffieldundef{edition}}
1263     and
1264     ( not test {\iffieldundef{origyear}} )
1265   }{%
1266     \printtext[parens]{\bibstring{origpubin}\space\printorigdate}%
1267   }{\%
1268 }

```

The changes to the book driver compared to the standard style are as follows:

- maintitle is processed with volume just before series, instead of with title;
- edition is processed where the standard style processes note, and vice versa;
- volumes is omitted;
- series to date information is delegated to a separate macro;
- support is added for howpublished field;

```

1269 \DeclareBibliographyDriver{book}{%
1270   \usebibmacro{bibindex}%
1271   \usebibmacro{begentry}%
1272   \usebibmacro{author/editor+others/translator+others}%
1273   \setunit{\printdelim{nametitledelim}}\newblock
1274   \usebibmacro{title}%
1275   \setunit{\titlebyauthordelim}\newblock
1276   \usebibmacro{byauthor}%
1277   \newunit\newblock
1278   \usebibmacro{byeditor+others}%
1279   \newunit\newblock
1280   \printfield{note}%
1281   \newunit\newblock
1282   \usebibmacro{maintitle+volume}%
1283   \newunit
1284   \usebibmacro{series+number+edition+publisher+location+date}%
1285   \setunit{\addspace}%
1286   \printfield{howpublished}%
1287   \newunit\newblock
1288   \usebibmacro{chapter+pages}%
1289   \newunit
1290   \printfield{pagetotal}%
1291   \newunit\newblock
1292   \iftoggle{bbx:isbn}
1293     {\printfield{isbn}}
1294     {}%
1295   \newunit\newblock
1296   \usebibmacro{doi+eprint+url}%
1297   \newunit\newblock
1298   \usebibmacro{addendum+pubstate}%
1299   \setunit{\bibpagerefpunct}\newblock
1300   \usebibmacro{pageref}%
1301   \setunit{\relatedtypepunct}\newblock
1302   \iftoggle{bbx:related}
1303     {\usebibmacro{related:init}%
1304      \usebibmacro{related}}
1305     {}%
1306   \usebibmacro{finentry}}

```

Unlike the standard styles, we have a separate driver for `mvbook` which behaves slightly differently. It is in fact closer to the standard book driver. The changes are as follows:

- volume/part is processed just after `maintitle+title`;
- edition is processed where the standard style processes `note`;
- `note` is processed after volumes;
- series to date information is delegated to a separate macro;

```

1307 \DeclareBibliographyDriver{mvbook}{%
1308   \usebibmacro{bibindex}%
1309   \usebibmacro{begentry}%
1310   \usebibmacro{author/editor+others/translator+others}%
1311   \setunit{\printdelim{nametitledelim}}\newblock
1312   \usebibmacro{maintitle+title}%
1313   \newunit
1314   \ifboolexpr{
1315     test {\iffieldequalstr{relatedtype}{multivolume}}
1316     or
1317     ( not test {\iffieldundef{maintitle}} )
1318   }{%
1319     \printfield{volume}%

```

```

1320     \printfield{part}}%
1321     \setunit{\titlebyauthor\delim}\newblock
1322     \usebibmacro{byauthor}%
1323     \newunit\newblock
1324     \usebibmacro{byeditor+others}%
1325     \newunit\newblock
1326     \printfield{volumes}%
1327     \newunit\newblock
1328     \printfield{note}%
1329     \newunit\newblock
1330     \ifboolexpr{
1331       test {\iffieldequalstr{relatedtype}{multivolume}}
1332       and
1333       test {\iffieldundef{maintitle}}
1334     }{%
1335       \printfield{volume}%
1336       \printfield{part}%
1337     }{%
1338     \newunit\newblock
1339     \usebibmacro{series+number+edition+publisher+location+date}%
1340     \newunit\newblock
1341     \usebibmacro{chapter+pages}%
1342     \newunit
1343     \printfield{pagetotal}%
1344     \newunit\newblock
1345     \iftoggle{bbx:isbn}
1346     {\printfield{isbn}}
1347     {}%
1348     \newunit\newblock
1349     \usebibmacro{doi+eprint+url}%
1350     \newunit\newblock
1351     \usebibmacro{addendum+pubstate}%
1352     \setunit{\bibpagerefpunct}\newblock
1353     \usebibmacro{pageref}%
1354     \setunit{\relatedtypepunct}\newblock
1355     \iftoggle{bbx:related}
1356     {\usebibmacro{related:init}%
1357      \usebibmacro{related}}
1358     {}%
1359     \usebibmacro{finentry}}

```

Our inbook driver modifies the standard one in just the same way as our mvbook driver modifies the standard book.

```

1360 \DeclareBibliographyDriver{inbook}{%
1361   \usebibmacro{bibindex}%
1362   \usebibmacro{begentry}%
1363   \usebibmacro{author/translator+others}%
1364   \setunit{\printdelim{nametitle\delim}}\newblock
1365   \usebibmacro{title}%
1366   \setunit{\titlebyauthor\delim}\newblock
1367   \usebibmacro{byauthor}%
1368   \newunit\newblock
1369   \usebibmacro{in:}%
1370   \usebibmacro{bybookauthor}%
1371   \newunit\newblock
1372   \usebibmacro{maintitle+booktitle}%
1373   \newunit
1374   \iffieldundef{maintitle}
1375   {\printfield{volume}%
1376     \printfield{part}}

```

```

1377 {}%
1378 \newunit\newblock
1379 \usebibmacro{byeditor+others}%
1380 \newunit\newblock
1381 \printfield{volumes}%
1382 \newunit\newblock
1383 \printfield{note}%
1384 \newunit\newblock
1385 \usebibmacro{series+number+edition+publisher+location+date}%
1386 \newunit\newblock
1387 \usebibmacro{chapter+pages}%
1388 \newunit\newblock
1389 \iftoggle{bbx:isbn}
1390 {\printfield{isbn}}
1391 {}%
1392 \newunit\newblock
1393 \usebibmacro{doi+eprint+url}%
1394 \newunit\newblock
1395 \usebibmacro{addendum+pubstate}%
1396 \setunit{\bibpagerefpunct}\newblock
1397 \usebibmacro{pageref}%
1398 \setunit{\relatedtypepunct}\newblock
1399 \iftoggle{bbx:related}
1400 {\usebibmacro{related:init}%
1401 \usebibmacro{related}}
1402 {}%
1403 \usebibmacro{finentry}}

```

Our supbook driver is just like inbook except that the note is moved nearer the title so it can be used as a descriptor.

```

1404 \DeclareFieldFormat[supbook]{title}{%
1405 \def\currentfield{title}%
1406 \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1407 \undef\currentfield}
1408 \DeclareBibliographyDriver{supbook}{%
1409 \usebibmacro{bibindex}%
1410 \usebibmacro{begentry}%
1411 \usebibmacro{author/translator+others}%
1412 \setunit{\printdelim{nametitledelim}}\newblock
1413 \usebibmacro{title}%
1414 \setunit{\titlebyauthordelim}\newblock
1415 \usebibmacro{byauthor}%
1416 \newunit\newblock
1417 \printfield{note}%
1418 \setunit{\addspace}\newblock
1419 \usebibmacro{in:}%
1420 \usebibmacro{bybookauthor}%
1421 \newunit\newblock
1422 \usebibmacro{maintitle+booktitle}%
1423 \newunit
1424 \iffieldundef{maintitle}
1425 {\printfield{volume}%
1426 \printfield{part}}
1427 {}%
1428 \newunit\newblock
1429 \usebibmacro{byeditor+others}%
1430 \newunit\newblock
1431 \printfield{volumes}%
1432 \newunit\newblock
1433 \usebibmacro{series+number+edition+publisher+location+date}%

```

```

1434 \newunit\newblock
1435 \usebibmacro{chapter+pages}%
1436 \newunit\newblock
1437 \iftoggle{bbx:isbn}
1438 {\printfield{isbn}}
1439 {}%
1440 \newunit\newblock
1441 \usebibmacro{doi+eprint+url}%
1442 \newunit\newblock
1443 \usebibmacro{addendum+pubstate}%
1444 \setunit{\bibpagerefpunct}\newblock
1445 \usebibmacro{pageref}%
1446 \setunit{\relatedtypepunct}\newblock
1447 \iftoggle{bbx:related}
1448 {\usebibmacro{related:init}%
1449 \usebibmacro{related}}
1450 {}%
1451 \usebibmacro{finentry}}

```

We also provide a bookinbook driver that handles origdate differently.

```

1452 \DeclareBibliographyDriver{bookinbook}{%
1453 \usebibmacro{bibindex}%
1454 \usebibmacro{begentry}%
1455 \usebibmacro{author/translator+others}%
1456 \setunit{\printdelim{nametitle}}\newblock
1457 \usebibmacro{title}%
1458 \setunit{\titlebyauthor}\newblock
1459 \usebibmacro{byauthor}%
1460 \newunit\newblock
1461 \usebibmacro{in:}%
1462 \usebibmacro{bybookauthor}%
1463 \newunit\newblock
1464 \usebibmacro{maintitle+booktitle}%
1465 \newunit
1466 \iffieldundef{maintitle}
1467 {\printfield{volume}%
1468 \printfield{part}}
1469 {}%
1470 \newunit\newblock
1471 \usebibmacro{byeditor+others}%
1472 \newunit\newblock
1473 \printfield{volumes}%
1474 \newunit\newblock
1475 \printfield{note}%
1476 \newunit\newblock
1477 \usebibmacro{series+number+edition+publisher+location+date}%
1478 \newunit\newblock
1479 \usebibmacro{chapter+pages}%
1480 \newunit\newblock
1481 \iftoggle{bbx:isbn}
1482 {\printfield{isbn}}
1483 {}%
1484 \newunit\newblock
1485 \usebibmacro{doi+eprint+url}%
1486 \newunit\newblock
1487 \usebibmacro{addendum+pubstate}%
1488 \setunit{\bibpagerefpunct}\newblock
1489 \usebibmacro{pageref}%
1490 \setunit{\relatedtypepunct}\newblock
1491 \iftoggle{bbx:related}

```

```

1492     {\usebibmacro{related:init}%
1493      \usebibmacro{related}}
1494     {}%
1495     \usebibmacro{finentry}}

```

Our collection driver modifies the standard one in just the same way as our book driver.

```

1496 \DeclareBibliographyDriver{collection}{%
1497   \usebibmacro{bibindex}%
1498   \usebibmacro{begentry}%
1499   \usebibmacro{editor+others}%
1500   \setunit{\printdelim{nametitleledelim}}\newblock
1501   \usebibmacro{title}%
1502   \newunit\newblock
1503   \usebibmacro{byeditor+others}%
1504   \newunit\newblock
1505   \printfield{note}%
1506   \newunit\newblock
1507   \usebibmacro{maintitle+volume}%
1508   \newunit
1509   \usebibmacro{series+number+edition+publisher+location+date}%
1510   \newunit\newblock
1511   \usebibmacro{chapter+pages}%
1512   \newunit
1513   \printfield{pagetotal}%
1514   \newunit\newblock
1515   \iftoggle{bbx:isbn}
1516   {\printfield{isbn}}
1517   {}%
1518   \newunit\newblock
1519   \usebibmacro{doi+eprint+url}%
1520   \newunit\newblock
1521   \usebibmacro{addendum+pubstate}%
1522   \setunit{\bibpagerefpunct}\newblock
1523   \usebibmacro{pageref}%
1524   \setunit{\relatedtypepunct}\newblock
1525   \iftoggle{bbx:related}
1526   {\usebibmacro{related:init}%
1527    \usebibmacro{related}}
1528   {}%
1529   \usebibmacro{finentry}}

```

Our mvcollection driver modifies the standard collection driver in just the same way as our mvbook driver modifies the standard book.

```

1530 \DeclareBibliographyDriver{mvcollection}{%
1531   \usebibmacro{bibindex}%
1532   \usebibmacro{begentry}%
1533   \usebibmacro{editor+others}%
1534   \setunit{\printdelim{nametitleledelim}}\newblock
1535   \usebibmacro{maintitle+title}%
1536   \newunit
1537   \ifboolexpr{
1538     test {\iffieldequalstr{relatedtype}{multivolume}}
1539     or
1540     ( not test {\iffieldundef{maintitle}} )
1541   }{}%
1542   \printfield{volume}%
1543   \printfield{part}}%
1544   \newunit\newblock
1545   \usebibmacro{byeditor+others}%

```

```

1546 \newunit\newblock
1547 \printfield{volumes}%
1548 \newunit\newblock
1549 \printfield{note}%
1550 \newunit\newblock
1551 \ifboolexpr{
1552   test {\iffieldequalstr{relatedtype}{multivolume}}
1553   and
1554   test {\iffieldundef{maintitle}}
1555 }{%
1556   \printfield{volume}%
1557   \printfield{part}%
1558 }{%
1559 \newunit\newblock
1560 \usebibmacro{series+number+edition+publisher+location+date}%
1561 \newunit\newblock
1562 \usebibmacro{chapter+pages}%
1563 \newunit
1564 \printfield{pagetotal}%
1565 \newunit\newblock
1566 \iftoggle{bbx:isbn}
1567 {\printfield{isbn}}
1568 {}%
1569 \newunit\newblock
1570 \usebibmacro{doi+eprint+url}%
1571 \newunit\newblock
1572 \usebibmacro{addendum+pubstate}%
1573 \setunit{\bibpagerefpunct}\newblock
1574 \usebibmacro{pageref}%
1575 \setunit{\relatedtypepunct}\newblock
1576 \iftoggle{bbx:related}
1577 {\usebibmacro{related:init}%
1578   \usebibmacro{related}}
1579 {}%
1580 \usebibmacro{finentry}}

```

Our incollection driver modifies the standard one in the same way as our mvbook driver modifies the standard book. In addition, the bookeditor macro precedes maintitle instead of byeditor+others following it.

```

1581 \DeclareBibliographyDriver{incollection}{%
1582   \usebibmacro{bibindex}%
1583   \usebibmacro{begentry}%
1584   \usebibmacro{author/translator+others}%
1585   \setunit{\printdelim{nametitledelim}}\newblock
1586   \usebibmacro{title}%
1587   \setunit{\titlebyauthordelim}\newblock
1588   \usebibmacro{byauthor}%
1589   \newunit\newblock
1590   \usebibmacro{in:}%
1591   \usebibmacro{bookeditor}%
1592   \newunit\newblock
1593   \usebibmacro{maintitle+booktitle}%
1594   \newunit
1595   \iffieldundef{maintitle}
1596   {\printfield{volume}%
1597     \printfield{part}}
1598   {}%
1599   \newunit\newblock
1600   \printfield{volumes}%
1601   \newunit\newblock

```

```

1602 \printfield{note}%
1603 \newunit\newblock%
1604 \usebibmacro{series+number+edition+publisher+location+date}%
1605 \newunit\newblock
1606 \usebibmacro{chapter+pages}%
1607 \newunit\newblock
1608 \iftoggle{bbx:isbn}
1609 {\printfield{isbn}}
1610 {}%
1611 \newunit\newblock
1612 \usebibmacro{doi+eprint+url}%
1613 \newunit\newblock
1614 \usebibmacro{addendum+pubstate}%
1615 \setunit{\bibpagerefunct}\newblock
1616 \usebibmacro{pageref}%
1617 \setunit{\relatedtypepunct}\newblock
1618 \iftoggle{bbx:related}
1619 {\usebibmacro{related:init}%
1620 \usebibmacro{related}}
1621 {}%
1622 \usebibmacro{finentry}}

```

Our suppcollection driver is just like incollection except that the note is moved nearer the title so it can be used as a descriptor.

```

1623 \DeclareFieldFormat[suppcollection]{title}{%
1624 \def\currentfield{title}%
1625 \iffieldannotation{descriptor}{#1}{\mkbibemph{#1}}%
1626 \undef\currentfield}
1627 \DeclareBibliographyDriver{suppcollection}{%
1628 \usebibmacro{bibindex}%
1629 \usebibmacro{begentry}%
1630 \usebibmacro{author/translator+others}%
1631 \setunit{\printdelim{nametitleledelim}}\newblock
1632 \usebibmacro{title}%
1633 \setunit{\titlebyauthordelim}\newblock
1634 \usebibmacro{byauthor}%
1635 \newunit\newblock
1636 \printfield{note}%
1637 \setunit{\addspace}\newblock
1638 \usebibmacro{in:}%
1639 \usebibmacro{bookeditor}%
1640 \newunit\newblock
1641 \usebibmacro{maintitle+booktitle}%
1642 \newunit
1643 \iffieldundef{maintitle}
1644 {\printfield{volume}%
1645 \printfield{part}}
1646 {}%
1647 \newunit\newblock
1648 \printfield{volumes}%
1649 \newunit\newblock%
1650 \usebibmacro{series+number+edition+publisher+location+date}%
1651 \newunit\newblock
1652 \usebibmacro{chapter+pages}%
1653 \newunit\newblock
1654 \iftoggle{bbx:isbn}
1655 {\printfield{isbn}}
1656 {}%
1657 \newunit\newblock
1658 \usebibmacro{doi+eprint+url}%

```

```

1659 \newunit\newblock
1660 \usebibmacro{addendum+pubstate}%
1661 \setunit{\bibpagerefpunct}\newblock
1662 \usebibmacro{pageref}%
1663 \setunit{\relatedtypepunct}\newblock
1664 \iftoggle{bbx:related}
1665 {\usebibmacro{related:init}%
1666 \usebibmacro{related}}
1667 {}%
1668 \usebibmacro{finentry}}

```

Unlike the standard styles, we provide a separate driver for reference. It is just like book except that edition is given directly after the title.

```

1669 \DeclareBibliographyDriver{reference}{%
1670 \usebibmacro{bibindex}%
1671 \usebibmacro{begentry}%
1672 \usebibmacro{author/editor+others/translator+others}%
1673 \setunit{\printdelim{nametitledelim}}\newblock
1674 \usebibmacro{title}%
1675 \newunit\newblock
1676 \printfield{edition}%
1677 \setunit{\titlebyauthor\delim}\newblock
1678 \usebibmacro{byauthor}%
1679 \newunit\newblock
1680 \usebibmacro{byeditor+others}%
1681 \newunit\newblock
1682 \printfield{note}%
1683 \newunit\newblock
1684 \usebibmacro{maintitle+volume}%
1685 \newunit
1686 \usebibmacro{series+number+publisher+location+date}%
1687 \newunit\newblock
1688 \usebibmacro{chapter+pages}%
1689 \newunit
1690 \printfield{pagetotal}%
1691 \newunit\newblock
1692 \iftoggle{bbx:isbn}
1693 {\printfield{isbn}}
1694 {}%
1695 \newunit\newblock
1696 \usebibmacro{doi+eprint+url}%
1697 \newunit\newblock
1698 \usebibmacro{addendum+pubstate}%
1699 \setunit{\bibpagerefpunct}\newblock
1700 \usebibmacro{pageref}%
1701 \setunit{\relatedtypepunct}\newblock
1702 \iftoggle{bbx:related}
1703 {\usebibmacro{related:init}%
1704 \usebibmacro{related}}
1705 {}%
1706 \usebibmacro{finentry}}

```

Similarly, mvreference is just like mvbook except that edition is given directly after the title.

```

1707 \DeclareBibliographyDriver{mvreference}{%
1708 \usebibmacro{bibindex}%
1709 \usebibmacro{begentry}%
1710 \usebibmacro{author/editor+others/translator+others}%
1711 \setunit{\printdelim{nametitledelim}}\newblock
1712 \usebibmacro{maintitle+title}%

```

```

1713 \newunit
1714 \ifboolexpr{
1715   test {\iffieldequalstr{relatedtype}{multivolume}}
1716   or
1717   ( not test {\iffieldundef{maintitle}} )
1718 }{%
1719   \printfield{volume}%
1720   \printfield{part}%
1721 \newunit\newblock
1722 \printfield{edition}%
1723 \setunit{\titlebyauthor\delim}\newblock
1724 \usebibmacro{byauthor}%
1725 \newunit\newblock
1726 \usebibmacro{byeditor+others}%
1727 \newunit\newblock
1728 \printfield{volumes}%
1729 \newunit\newblock
1730 \printfield{note}%
1731 \newunit\newblock
1732 \ifboolexpr{
1733   test {\iffieldequalstr{relatedtype}{multivolume}}
1734   and
1735   test {\iffieldundef{maintitle}}
1736 }{%
1737   \printfield{volume}%
1738   \printfield{part}%
1739 }{%
1740 \newunit\newblock
1741 \usebibmacro{series+number+publisher+location+date}%
1742 \newunit\newblock
1743 \usebibmacro{chapter+pages}%
1744 \newunit
1745 \printfield{pagetotal}%
1746 \newunit\newblock
1747 \iftoggle{bbx:isbn}
1748 {\printfield{isbn}}
1749 {}%
1750 \newunit\newblock
1751 \usebibmacro{doi+eprint+url}%
1752 \newunit\newblock
1753 \usebibmacro{addendum+pubstate}%
1754 \setunit{\bibpagerefpunct}\newblock
1755 \usebibmacro{pageref}%
1756 \setunit{\relatedtypepunct}\newblock
1757 \iftoggle{bbx:related}
1758 {\usebibmacro{related:init}%
1759   \usebibmacro{related}}
1760 {}%
1761 \usebibmacro{finentry}}

```

Our inference driver is just like inbook except bookeditor replaces bybookauthor and edition is given just before byeditor+others.

```

1762 \DeclareBibliographyDriver{inference}{%
1763   \usebibmacro{bibindex}%
1764   \usebibmacro{begentry}%
1765   \usebibmacro{author/translator+others}%
1766   \setunit{\printdelim{nametitledelim}}\newblock
1767   \usebibmacro{title}%
1768   \setunit{\titlebyauthor\delim}\newblock
1769   \usebibmacro{byauthor}%

```

```

1770 \newunit\newblock
1771 \iffielddundef{editor}{}{%
1772   \usebibmacro{in:}%
1773   \usebibmacro{bookeditor}%
1774   \newunit\newblock}%
1775 \usebibmacro{maintitle+booktitle}%
1776 \newunit
1777 \iffielddundef{maintitle}
1778 {\printfield{volume}%
1779   \printfield{part}}
1780 {}%
1781 \newunit\newblock
1782 \printfield{edition}%
1783 \newunit
1784 \usebibmacro{byeditor+others}%
1785 \newunit\newblock
1786 \printfield{volumes}%
1787 \newunit\newblock
1788 \printfield{note}%
1789 \newunit\newblock%
1790 \usebibmacro{series+number+publisher+location+date}%
1791 \newunit\newblock
1792 \usebibmacro{chapter+pages}%
1793 \newunit
1794 \printfield{pagetotal}%
1795 \newunit\newblock
1796 \iftoggle{bbx:isbn}
1797 {\printfield{isbn}}
1798 {}%
1799 \newunit\newblock
1800 \usebibmacro{doi+eprint+url}%
1801 \newunit\newblock
1802 \usebibmacro{addendum+pubstate}%
1803 \setunit{\bibpagerefpunct}\newblock
1804 \usebibmacro{pageref}%
1805 \setunit{\relatedtypepunct}\newblock
1806 \iftoggle{bbx:related}
1807 {\usebibmacro{related:init}%
1808   \usebibmacro{related}}
1809 {}%
1810 \usebibmacro{finentry}}

```

### 2.1.11 WORKS PRESENTED AT MEETINGS

By default, editors do not appear before the title in proceedings entries.

```

1811 \ExecuteBibliographyOptions[proceedings,mvproceedings]{useeditor=false,usetranslator=false}

```

In our version of the event+venue+date macro, the venue and date are set off with commas respectively instead of parentheses.

```

1812 \renewbibmacro*{event+venue+date}{%
1813   \printfield{eventtitle}%
1814   \newunit
1815   \printfield{eventtitleaddon}%
1816   \newunit
1817   \printfield{venue}%
1818   \newunit%
1819   \printeventdate%
1820   \newunit}

```

The changes to the proceedings driver compared to the standard style are as follows:

- We support the concept of an author before the title, which is usually the organization;
- editor comes after the title, not before;
- volume/part is processed just after maintitle+title;
- note is moved to before series;
- series to date information is delegated to a separate macro;

As in the (inherited) standard style, mvproceedings is an alias for this driver, since it is unlikely that the proceedings of a single meeting will be split into long series of independently published volumes!

```

1821 \DeclareBibliographyDriver{proceedings}{%
1822   \usebibmacro{bibindex}%
1823   \usebibmacro{begentry}%
1824   \usebibmacro{author}%
1825   \newunit
1826   \usebibmacro{maintitle+title}%
1827   \newunit
1828   \iffieldundef{maintitle}
1829   {\printfield{volume}%
1830    \printfield{part}}
1831   {}%
1832   \newunit\newblock
1833   \usebibmacro{event+venue+date}%
1834   \newunit\newblock
1835   \usebibmacro{byeditor+others}%
1836   \newunit\newblock
1837   \printfield{volumes}%
1838   \newunit\newblock
1839   \printfield{note}%
1840   \newunit\newblock
1841   \printlist{organization}%
1842   \newunit
1843   \usebibmacro{series+number+edition+publisher+location+date}%
1844   \newunit\newblock
1845   \usebibmacro{chapter+pages}%
1846   \newunit
1847   \printfield{pagetotal}%
1848   \newunit\newblock
1849   \iftoggle{bbx:isbn}
1850   {\printfield{isbn}}
1851   {}%
1852   \newunit\newblock
1853   \usebibmacro{doi+eprint+url}%
1854   \newunit\newblock
1855   \usebibmacro{addendum+pubstate}%
1856   \setunit{\bibpagerefpunct}\newblock
1857   \usebibmacro{pageref}%
1858   \setunit{\relatedtypepunct}\newblock
1859   \iftoggle{bbx:related}
1860   {\usebibmacro{related:init}%
1861    \usebibmacro{related}}
1862   {}%
1863   \usebibmacro{finentry}}

```

Our inproceedings driver modifies the standard one in the same way as our proceedings driver modifies the standard one.

```

1864 \DeclareBibliographyDriver{inproceedings}{%
1865   \usebibmacro{bibindex}%
1866   \usebibmacro{begentry}%
1867   \usebibmacro{author/translator+others}%
1868   \setunit{\printdelim{nametitle}}\newblock
1869   \usebibmacro{title}%
1870   \setunit{\titlebyauthor}\newblock
1871   \usebibmacro{byauthor}%
1872   \newunit\newblock
1873   \usebibmacro{in:}%
1874   \usebibmacro{maintitle+booktitle}%
1875   \newunit
1876   \iffieldundef{maintitle}
1877   {\printfield{volume}%
1878    \printfield{part}}
1879   {}%
1880   \newunit\newblock
1881   \usebibmacro{event+venue+date}%
1882   \newunit\newblock
1883   \usebibmacro{byeditor+others}%
1884   \newunit\newblock
1885   \printfield{volumes}%
1886   \newunit\newblock
1887   \printfield{note}%
1888   \newunit\newblock
1889   \printlist{organization}%
1890   \newunit
1891   \usebibmacro{series+number+publisher+location+date}%
1892   \newunit\newblock
1893   \usebibmacro{chapter+pages}%
1894   \newunit\newblock
1895   \iftoggle{bbx:isbn}
1896   {\printfield{isbn}}
1897   {}%
1898   \newunit\newblock
1899   \usebibmacro{doi+eprint+url}%
1900   \newunit\newblock
1901   \usebibmacro{addendum+pubstate}%
1902   \setunit{\bibpagerefpunct}\newblock
1903   \usebibmacro{pageref}%
1904   \setunit{\relatedtypepunct}\newblock
1905   \iftoggle{bbx:related}
1906   {\usebibmacro{related:init}%
1907    \usebibmacro{related}}
1908   {}%
1909   \usebibmacro{finentry}}

```

### 2.1.12 GREY LITERATURE

We provide a macro for handling type+number. We provide some extra logic to insert ‘No.’ before the number if there is no type.

```

1910 \newbibmacro*{series+type+number}{%
1911   \ifboolexpr{
1912     test {\iffieldundef{series}}
1913     and
1914     test {\iffieldundef{type}}
1915   }{}{%
1916     \printfield{series}%
1917     \newunit

```

```

1918 \ifboolexpr{%
1919     test {\iffieldundef{type}}
1920     and
1921     not test {\iffieldundef{number}}
1922 }{%
1923     \bibcpstring{number}
1924 }{%
1925     \printfield{type}%
1926 }%
1927 \setunit*{\addspace}%
1928 \printfield{number}}}
```

Our version of the institution+location+date macro is just like the standard one except it is wrapped in parentheses, and the preceding punctuation is therefore suppressed. This is used by the report driver.

```

1929 \renewbibmacro*{institution+location+date}{%
1930     \ifboolexpr{
1931         test {\iffieldundef{type}}
1932         and
1933         test {\iffieldundef{series}}
1934         and
1935         test {\iffieldundef{number}}
1936         and
1937         test {\iflistundef{institution}}
1938         and
1939         test {\iflistundef{location}}
1940         and
1941         test {\iffieldundef{year}}
1942         and
1943         test {\iffieldundef{season}}
1944         and
1945         test {\iffieldundef{month}}
1946     }{%
1947         \nopunct
1948         \printtext[publication]{%
1949             \ifboolexpr{
1950                 test {\iffieldundef{series}}
1951                 and
1952                 test {\iffieldundef{type}}
1953             }{%
1954                 \printfield{number}%
1955                 \setunit*{\addcomma\space}%
1956             }{%
1957                 \printlist{location}%
1958                 \iflistundef{institution}%
1959                 {\setunit*{\addcomma\space}}%
1960                 {\setunit*{\addcolon\space}}%
1961                 \printlist{institution}%
1962                 \setunit*{\addcomma\space}%
1963                 \usebibmacro{date}}}}}
```

We provide a slightly more complicated version with the type included at the beginning. It is used by the thesis driver. We provide two versions: one with the type outside and one with it inside the parentheses.

```

1964 \newtoggle{blx@ox@altthesis}
1965 \newtoggle{blx@ox@plainthesis}
1966 \DeclareFieldAlias{thesis:publication}{publication}
1967 \DeclareFieldFormat{plain}{#1}
```

```

1968 \DeclareBibliographyOption[boolean]{altthesis}[true]{%
1969 \settoggle{blx@ox@altthesis}{#1}
1970 }
1971 \DeclareBibliographyOption[string]{thesis}[out]{%
1972 \ifstrequal{#1}{plain}{%
1973 \toggletrue{blx@ox@altthesis}%
1974 \toggletrue{blx@ox@plainthesis}%
1975 \DeclareFieldAlias{thesis:publication}{plain}%
1976 }{%
1977 \togglefalse{blx@ox@plainthesis}%
1978 \DeclareFieldAlias{thesis:publication}{publication}%
1979 \ifstrequal{#1}{in}{%
1980 \toggletrue{blx@ox@altthesis}%
1981 }{%
1982 \togglefalse{blx@ox@altthesis}%
1983 \ifstrequal{#1}{out}{}{%
1984 \PackageError{oxref}
1985 {Invalid option 'bookseries=#1'}
1986 {Valid values are 'in', 'out', and 'plain'.}}}}
1987 \newbibmacro*{type+institution+location+date}{%
1988 \iftoggle{blx@ox@altthesis}{%
1989 \ifboolexpr{
1990 test {\iffieldundef{type}}
1991 and
1992 test {\iflistundef{institution}}
1993 and
1994 test {\iflistundef{location}}
1995 and
1996 test {\iffieldundef{year}}
1997 and
1998 test {\iffieldundef{season}}
1999 and
2000 test {\iffieldundef{month}}
2001 }{}{%
2002 \iftoggle{blx@ox@plainthesis}{}{\nopunct}%
2003 \printtext[thesis:publication]{%
2004 \printfield{type}%
2005 \setunit*{\addcomma\space}%
2006 \printlist{location}%
2007 \iflistundef{institution}{%
2008 \setunit*{\addcomma\space}%
2009 }{%
2010 \setunit*{\addcolon\space}}%
2011 \printlist{institution}%
2012 \setunit*{\addcomma\space}%
2013 \usebibmacro{date}}}}
2014 }{%
2015 \printfield{type}%
2016 \newunit
2017 \usebibmacro{institution+location+date}}

```

We provide an even more convoluted version that also includes series, title and number, and uses the more common publisher in place of institution. We also include some logic that means organization is used instead of publisher if no publisher is provided; otherwise it is printed before location. This is used by the manual driver.

```

2018 \newbibmacro*{type+series+number+edition+organization+publisher+location+date}{%
2019 \ifboolexpr{
2020 test {\iffieldundef{type}}
2021 and
2022 test {\iffieldundef{series}}

```

```

2023     and
2024     test {\iffieldundef{number}}
2025     and
2026     test {\iffieldundef{edition}}
2027     and
2028     test {\iflistundef{organization}}
2029     and
2030     test {\iflistundef{publisher}}
2031     and
2032     test {\iflistundef{location}}
2033     and
2034     test {\iffieldundef{year}}
2035     and
2036     test {\iffieldundef{season}}
2037     and
2038     test {\iffieldundef{month}}
2039   }){%
2040     \nopunct
2041     \printtext[publication]{%
2042       \usebibmacro{series+type+number}%
2043       \setunit{\addsemicolon\space}%
2044       \printfield{edition}%
2045       \setunit*{\addcomma\space}%
2046       \iflistundef{publisher}{%
2047         \printlist{organization}%
2048         \setunit*{\addcomma\space}}%
2049       \printlist{location}%
2050       \iflistundef{publisher}{%
2051         \iflistundef{organization}{%
2052           \setunit*{\addcomma\space}%
2053         }%
2054         \setunit*{\addcolon\space}%
2055         \printlist{organization}}%
2056       }){%
2057         \setunit*{\addcolon\space}%
2058         \printlist{publisher}}%
2059       \setunit*{\addcomma\space}%
2060     \usebibmacro{date}}}}

```

The changes to the report driver compared to the standard style are as follows:

- support is added for volume, maintitle and series;
- type and number are moved to just before the publication information block;
- the punctuation is slightly different for the legal entry subtype.

```

2061 \newcommand*{\legreport}{legal}
2062 \DeclareBibliographyDriver{report}{%
2063   \usebibmacro{bibindex}%
2064   \usebibmacro{begentry}%
2065   \usebibmacro{author}%
2066   \setunit{\printdelim{nametitledelim}}\newblock
2067   \usebibmacro{maintitle+title}%
2068   \newunit
2069   \iffieldundef{maintitle}
2070   {\printfield{volume}%
2071     \printfield{part}}
2072   }%
2073   \setunit{\titlebyauthor\delim}\newblock
2074   \usebibmacro{byauthor}%
2075   \newunit\newblock

```

```

2076 \printfield{version}%
2077 \newunit\newblock
2078 \printfield{note}%
2079 \newunit\newblock
2080 \usebibmacro{series+type+number}%
2081 \setunit{\addspace}%
2082 \usebibmacro{institution+location+date}%
2083 \iffieldequals{entrysubtype}{\legreport}{%
2084 \setunit{\addspace}\nopunct
2085 }{%
2086 \newunit\newblock}%
2087 \usebibmacro{chapter+pages}%
2088 \newunit
2089 \printfield{pagetotal}%
2090 \newunit\newblock
2091 \iftoggle{bbx:isbn}
2092 {\printfield{isrn}}
2093 {}%
2094 \newunit\newblock
2095 \usebibmacro{doi+eprint+url}%
2096 \newunit\newblock
2097 \usebibmacro{addendum+pubstate}%
2098 \setunit{\bibpagerefpunct}\newblock
2099 \usebibmacro{pageref}%
2100 \setunit{\relatedtypepunct}\newblock
2101 \iftoggle{bbx:related}
2102 {\usebibmacro{related:init}%
2103 \usebibmacro{related}}
2104 {}%
2105 \usebibmacro{finentry}}

```

We patch the thesis driver to use our slightly more complex version.

```

2106 \xpatchbibdriver{thesis}{%
2107 \printfield{type}%
2108 \newunit
2109 \usebibmacro{institution+location+date}%
2110 }{%
2111 \usebibmacro{type+institution+location+date}%
2112 }{}

```

We give booklet entries descriptor support.

```

2113 \DeclareFieldFormat[booklet]{title}{%
2114 \def\currentfield{title}%
2115 \iffieldannotation{descriptor}{#1}{%
2116 \mkbibquote{#1\isdot}}%
2117 \undef\currentfield}

```

With patents, the titles are italic and the patent type is not abbreviated.

```

2118 \DeclareFieldFormat[patent]{title}{\mkbibemph{#1}}
2119 \DeclareFieldFormat[patent]{type}{\ifbibstring{#1}{\biblstring{#1}}{#1}}

```

The holder, origdate and date fields have explicit signposting; the latter two use origdatetype and datetype, with some sensible defaults.

```

2120 \DeclareNameAlias{byholder}{default}
2121 \renewbibmacro*{byholder}{%

```

```

2122     \ifnameundef{holder}{}{%
2123       \bibstring{byholder}%
2124       \setunit{\addspace}%
2125       \printnames[byholder]{holder}}
2126   \newbibmacro*{location+dates}{%
2127     \ifboolexpr{
2128       test {\iffieldundef{location}}
2129       and
2130       test {\iffieldundef{origyear}}
2131       and
2132       test {\iffieldundef{origmonth}}
2133       and
2134       test {\iffieldundef{year}}
2135       and
2136       test {\iffieldundef{month}}
2137     }{}{%
2138       \nopunct
2139       \printtext[publication]{%
2140         \printlist[][[-\value{listtotal}]{location}%
2141         \setunit*{\addcomma\space}%
2142         \ifboolexpr{
2143           test {\iffieldundef{origyear}}
2144           and
2145           test {\iffieldundef{origmonth}}
2146         }{}{%
2147           \iffieldundef{origdatetype}{%
2148             \bibstring{filed}
2149           }{
2150             \printfield{origdatetype}}%
2151           \setunit*{\addspace}}%
2152         \usebibmacro{origdate+time}%
2153         \setunit*{\addcomma\space}%
2154         \ifboolexpr{
2155           test {\iffieldundef{year}}
2156           and
2157           test {\iffieldundef{month}}
2158         }{}{%
2159           \iffieldundef{datetype}{%
2160             \bibstring{issued}%
2161           }{
2162             \printfield{datetype}}%
2163           \setunit*{\addspace}}%
2164         \usebibmacro{date}}}}

```

The patent driver differs from the regular one by having note moved further forward, and having a publication block consisting of location, origdate and date.

```

2165   \DeclareBibliographyDriver{patent}{%
2166     \usebibmacro{bibindex}%
2167     \usebibmacro{begentry}%
2168     \usebibmacro{author}%
2169     \setunit{\printdelim{nametitledelim}}\newblock
2170     \usebibmacro{title}%
2171     \newunit
2172     \printlist{language}%
2173     \setunit{\titlebyauthordelim}\newblock
2174     \usebibmacro{byauthor}%
2175     \newunit\newblock
2176     \printfield{note}%
2177     \newunit\newblock
2178     \printfield{type}%

```

```

2179 \setunit*{\addspace}%
2180 \printfield{number}%
2181 \newunit\newblock
2182 \usebibmacro{byholder}%
2183 \newunit\newblock
2184 \usebibmacro{location+dates}%
2185 \newunit\newblock
2186 \usebibmacro{doi+eprint+url}%
2187 \newunit\newblock
2188 \usebibmacro{addendum+pubstate}%
2189 \setunit{\bibpagerefpunct}\newblock
2190 \usebibmacro{pageref}%
2191 \setunit{\relatedtypepunct}\newblock
2192 \iftoggle{bbx:related}
2193   {\usebibmacro{related:init}%
2194    \usebibmacro{related}}
2195   {}%
2196 \usebibmacro{finentry}}

```

Direct use of the manual entry type is not encouraged, but it serves as a basis for other entry types, notably standards, datasets, and software. The main change to the manual driver compared to the standard style is that type, series, number, edition and organization are moved into the publication information block with publisher, location and date. Note that standards will put the number field at the head of the reference if there is no author.

```

2197 \DeclareBibliographyDriver{manual}{%
2198   \usebibmacro{bibindex}%
2199   \usebibmacro{begentry}%
2200   \ifboolexpr{
2201     test {\ifentrytype{standard}}
2202     and
2203     ( test {\ifnameundef{author}}
2204       or
2205       not test \ifuseauthor )
2206     and
2207     not test {\iffieldundef{number}}
2208   }{%
2209     \printfield{number}\clearfield{number}%
2210     \newunit\newblock
2211   }{%
2212     \usebibmacro{author/editor}%
2213     \setunit{\printdelim{nametitleldelim}}\newblock
2214     \ifentrytype{software}{%
2215       \usebibmacro{title+version}%
2216     }{%
2217       \usebibmacro{title}}%
2218     \setunit{\titlebyauthordelim}\newblock
2219     \usebibmacro{byauthor}%
2220     \newunit\newblock
2221     \usebibmacro{byeditor}%
2222     \newunit
2223     \ifentrytype{software}{%
2224       \newunit\printfield{version}}%
2225     \newunit
2226     \printfield{note}%
2227     \newunit\newblock
2228     \usebibmacro{type+series+number+edition+organization+publisher+location+date}%
2229     \newunit\newblock
2230     \usebibmacro{chapter+pages}%
2231     \newunit
2232     \printfield{pagetotal}}%

```

```

2233 \newunit\newblock
2234 \iftoggle{bbx:isbn}
2235 {\printfield{isbn}}
2236 {}%
2237 \newunit\newblock
2238 \usebibmacro{doi+eprint+url}%
2239 \newunit\newblock
2240 \usebibmacro{addendum+pubstate}%
2241 \setunit{\bibpagerefpunct}\newblock
2242 \usebibmacro{pageref}%
2243 \setunit{\relatedtypepunct}\newblock
2244 \iftoggle{bbx:related}
2245 {\usebibmacro{related:init}%
2246 \usebibmacro{related}}
2247 {}%
2248 \usebibmacro{finentry}}
2249 \DeclareBibliographyAlias{standard}{manual}
2250 \ExecuteBibliographyOptions[standard]{useeditor=false}

```

### 2.1.13 AUDIOVISUAL MATERIALS

The publication block for audiovisual resources is quite different from the normal, as the type, series and number come between the publisher and date. The punctuation or otherwise between elements depends on the combination present. The date and time of recording is given before the block if a number is provided (indicating a published recording) but within it otherwise.

```

2251 \newbibmacro*{publisher+type+series+number+date}{%
2252 \iffieldundef{number}}{%
2253 \setunit{\addcomma\space}%
2254 \usebibmacro{origdate+time}%
2255 }%
2256 \ifboolexpr{%
2257 test {\iflistundef{origpublisher}}
2258 and
2259 test {\iflistundef{location}}
2260 and
2261 test {\iflistundef{publisher}}
2262 and
2263 test {\iffieldundef{type}}
2264 and
2265 test {\iffieldundef{series}}
2266 and
2267 test {\iffieldundef{number}}
2268 and
2269 test {\iffieldundef{year}}
2270 and
2271 test {\iffieldundef{season}}
2272 and
2273 test {\iffieldundef{month}}
2274 and
2275 test {\iffieldundef{origyear}}
2276 and
2277 test {\iffieldundef{origseason}}
2278 and
2279 test {\iffieldundef{origmonth}}
2280 and
2281 test {\iffieldundef{hour}}
2282 }{%
2283 \nopunct
2284 \printtext[publication]{%

```

```

2285 \printlist{origpublisher}%
2286 \setunit*{\addsemicolon\space}%
2287 \printlist{location}%
2288 \iflistundef{publisher}%
2289   {\setunit*{\addcomma\space}}%
2290   {\setunit*{\addcolon\space}}%
2291 \printlist{publisher}%
2292 \iffieldundef{series}%
2293   {\setunit*{\addspace}}%
2294   {\setunit*{\recordseriespunct}}%
2295 \printfield{series}%
2296 \setunit*{\addcomma\space}%
2297 \printfield{type}%
2298 \iflistundef{publisher}%
2299   {\setunit*{\addcomma\space}}%
2300   {\setunit*{\addspace}}%
2301 \printfield{number}%
2302 \iffieldundef{number}{%
2303   \setunit{\addcomma\space}%
2304   \usebibmacro{origdate+time}%
2305 }{}%
2306 \setunit{\addcomma\space}%
2307 \usebibmacro{date+time}}

```

We provide the `endeditor` option to determine if credits should be placed before or after the publication block.

```

2308 \newtoggle{blx@ox@endeditor}
2309 \DeclareEntryOption[boolean]{endeditor}[true]{%
2310   \settoggle{blx@ox@endeditor}{#1}}
2311 \newbibmacro*{pre-byeditor+others}{%
2312   \iftoggle{blx@ox@endeditor}{}{%
2313     \usebibmacro{byeditor+others}%
2314   }}
2315 \newbibmacro*{post-byeditor+others}{%
2316   \iftoggle{blx@ox@endeditor}{%
2317     \usebibmacro{byeditor+others}%
2318   }}

```

We provide a specialist audio driver. It borrows elements from the book and online drivers, and incorporates the above variations.

```

2319 \DeclareBibliographyDriver{audio}{%
2320   \usebibmacro{bibindex}%
2321   \usebibmacro{begentry}%
2322   \usebibmacro{author}%
2323   \setunit{\printdelim{nametitledelim}}\newblock
2324   \usebibmacro{title}%
2325   \newunit
2326   \usebibmacro{maintitle}%
2327   \iffieldequalstr{relatedtype}{includes}{%
2328     \iftoggle{bbx:related}{%
2329       \newunit\newblock
2330       \usebibmacro{related:init}%
2331       \usebibmacro{related}%
2332       \clearfield{related}%
2333     }{}%
2334   }{}%
2335   \setunit{\addspace}
2336   \usebibmacro{onlinetype}%

```

```

2337 \setunit{\titlebyauthor\delim}\newblock
2338 \usebibmacro{byauthor}%
2339 \newunit\newblock
2340 \usebibmacro{pre-byeditor+others}%
2341 \newunit\newblock
2342 \printfield{volumes}%
2343 \newunit\newblock
2344 \printfield{note}%
2345 \newunit\newblock%
2346 \printlist{organization}%
2347 \newunit\newblock%
2348 \usebibmacro{publisher+type+series+number+date}%
2349 \setunit{\addspace}%
2350 \printfield{howpublished}%
2351 \newunit\newblock
2352 \usebibmacro{post-byeditor+others}%
2353 \newunit\newblock
2354 \iftoggle{bbx:isbn}
2355 {\printfield{isbn}}
2356 {}%
2357 \newunit\newblock
2358 \usebibmacro{doi+eprint+url}%
2359 \newunit\newblock
2360 \usebibmacro{addendum+pubstate}%
2361 \setunit{\bibpagerefpunct}\newblock
2362 \usebibmacro{pageref}%
2363 \setunit{\relatedtypepunct}\newblock
2364 \iftoggle{bbx:related}
2365 {\usebibmacro{related:init}%
2366 \usebibmacro{related}}
2367 {}%
2368 \usebibmacro{finentry}}

```

The same driver will do very well for music, video and movie.

```

2369 \DeclareBibliographyAlias{music}{audio}
2370 \DeclareBibliographyAlias{movie}{audio}
2371 \DeclareBibliographyAlias{video}{audio}

```

In parallel with book-like entries, we provide an inaudio driver for citing tracks from an album.

```

2372 \DeclareBibliographyDriver{inaudio}{%
2373 \usebibmacro{bibindex}%
2374 \usebibmacro{begentry}%
2375 \usebibmacro{author}%
2376 \setunit{\printdelim{nametitledelim}}\newblock
2377 \usebibmacro{title}%
2378 \setunit{\titlebyauthor\delim}\newblock
2379 \usebibmacro{byauthor}%
2380 \newunit\newblock
2381 \usebibmacro{in:}%
2382 \usebibmacro{bybookauthor}%
2383 \newunit\newblock
2384 \usebibmacro{maintitle+booktitle}%
2385 \iffieldequalstr{relatedtype}{includes}{%
2386 \iftoggle{bbx:related}{%
2387 \newunit\newblock
2388 \usebibmacro{related:init}%
2389 \usebibmacro{related}%
2390 \clearfield{related}%
2391 }{}%

```

```

2392     }{}%
2393     \setunit{\addspace}
2394     \usebibmacro{onlinetype}%
2395     \newunit\newblock
2396     \usebibmacro{pre-byeditor+others}%
2397     \newunit\newblock
2398     \printfield{volumes}%
2399     \newunit\newblock
2400     \printfield{note}%
2401     \newunit\newblock%
2402     \printlist{organization}%
2403     \newunit\newblock%
2404     \usebibmacro{publisher+type+series+number+date}%
2405     \setunit{\addspace}%
2406     \printfield{howpublished}%
2407     \newunit\newblock
2408     \usebibmacro{post-byeditor+others}%
2409     \newunit\newblock
2410     \iftoggle{bbx:isbn}
2411     { \printfield{isbn}
2412     }%
2413     \newunit\newblock
2414     \usebibmacro{doi+eprint+url}%
2415     \newunit\newblock
2416     \usebibmacro{addendum+pubstate}%
2417     \setunit{\bibpagerefpunct}\newblock
2418     \usebibmacro{pageref}%
2419     \setunit{\relatedtypepunct}\newblock
2420     \iftoggle{bbx:related}
2421     { \usebibmacro{related:init}%
2422       \usebibmacro{related}}
2423     {}%
2424     \usebibmacro{finentry}}

```

The same driver will do very well for `inmusic`, `invideo` and `inmovie`. The latter two are for completeness but probably not useful.

```

2425     \DeclareBibliographyAlias{inmusic}{inaudio}
2426     \DeclareBibliographyAlias{inmovie}{inaudio}
2427     \DeclareBibliographyAlias{invideo}{inaudio}

```

We set up appropriate inheritance rules.

```

2428     \DeclareDataInheritance{audio,music,movie,video}{inaudio,inmusic,inmovie,invideo}{%
2429       \inherit{title}{booktitle}
2430       \inherit{subtitle}{booksubtitle}
2431       \inherit{titleaddon}{booktitleaddon}
2432       \noinherit{shorttitle}
2433       \noinherit{sorttitle}
2434       \noinherit{indextitle}
2435       \noinherit{indexsorttitle}
2436     }

```

Titles for videos do not have a consistent format, so we define some `entrysubtype`-based variation. We also allow the use of descriptors; note that the title is transformed into a descriptor by means of an annotation, rather than using a dedicated field. This greatly simplifies the code used elsewhere.

```

2437 \DeclareFieldFormat[audio,music]{title}{%
2438 \def\currentfield{title}%
2439 \iffieldannotation{descriptor}{#1}{%
2440 \iffieldequalstr{entrysubtype}{podcast}{%
2441 \mkbibquote{#1\isdot}%
2442 }{%
2443 \mkbibemph{#1}}}%
2444 \undef\currentfield}
2445 \DeclareFieldFormat[movie,video]{title}{%
2446 \def\currentfield{title}%
2447 \iffieldannotation{descriptor}{#1}{%
2448 \ifboolexpr{
2449 test {\iffieldequalstr{entrysubtype}{episode}}
2450 or
2451 test {\iffieldequalstr{entrysubtype}{clip}}
2452 or
2453 test {\iffieldequalstr{entrysubtype}{webcast}}
2454 }{%
2455 \mkbibquote{#1\isdot}%
2456 }{%
2457 \mkbibemph{#1}}}%
2458 \undef\currentfield}
2459 \DeclareFieldFormat[inaudio,inmusic,inmovie,invideo]{title}{%
2460 \def\currentfield{title}%
2461 \iffieldannotation{descriptor}{#1}{%
2462 \mkbibquote{#1\isdot}%
2463 }%
2464 \undef\currentfield}
2465 \DeclareFieldFormat[inaudio,inmusic]{booktitle}{%
2466 \def\currentfield{booktitle}%
2467 \iffieldannotation{descriptor}{#1}{%
2468 \iffieldequalstr{entrysubtype}{podcast}{%
2469 \mkbibquote{#1\isdot}%
2470 }{%
2471 \mkbibemph{#1}}}%
2472 \undef\currentfield}
2473 \DeclareFieldFormat[inmovie,invideo]{booktitle}{%
2474 \def\currentfield{booktitle}%
2475 \iffieldannotation{descriptor}{#1}{%
2476 \ifboolexpr{
2477 test {\iffieldequalstr{entrysubtype}{episode}}
2478 or
2479 test {\iffieldequalstr{entrysubtype}{clip}}
2480 or
2481 test {\iffieldequalstr{entrysubtype}{webcast}}
2482 }{%
2483 \mkbibquote{#1\isdot}%
2484 }{%
2485 \mkbibemph{#1}}}%
2486 \undef\currentfield}

```

The performance driver is similar to the audio driver, but instead of a publication block, it displays a set of event-related fields. With a bit of generosity, it can also work for artworks and images.

```

2487 \DeclareBibliographyDriver{performance}{%
2488 \usebibmacro{bibindex}%
2489 \usebibmacro{begentry}%
2490 \usebibmacro{author}%
2491 \setunit{\printdelim{nametitledelim}}\newblock
2492 \usebibmacro{title}%
2493 \newunit

```

```

2494 \usebibmacro{maintitle}%
2495 \iffieldequalstr{relatedtype}{includes}{%
2496 \iftoggle{bbx:related}{%
2497 \newunit\newblock
2498 \usebibmacro{related:init}%
2499 \usebibmacro{related}%
2500 \clearfield{related}%
2501 }{}%
2502 }{}%
2503 \setunit{\addspace}
2504 \usebibmacro{onlinetype}%
2505 \setunit{\titlebyauthor\delim}\newblock
2506 \usebibmacro{byauthor}%
2507 \newunit\newblock
2508 \usebibmacro{pre-byeditor+others}%
2509 \setunit{\addspace}%
2510 \printfield{howpublished}%
2511 \newunit\newblock
2512 \printfield{type}%
2513 \newunit\newblock
2514 \printfield{note}%
2515 \ifboolexpr{
2516 test {\iffieldundef{origyear}}
2517 and
2518 test {\iffieldundef{origmonth}}
2519 }{}{%
2520 \setunit{\addspace}\newblock
2521 \printtext[publication]{\usebibmacro{origdate+time}}
2522 \newunit\newblock
2523 \usebibmacro{event+venue+location+date}%
2524 \newunit\newblock
2525 \usebibmacro{post-byeditor+others}%
2526 \newunit\newblock
2527 \printlist{organization}%
2528 \newunit\newblock
2529 \iftoggle{bbx:isbn}
2530 {\printfield{isbn}}
2531 {}%
2532 \newunit\newblock
2533 \usebibmacro{doi+eprint+url}%
2534 \newunit\newblock
2535 \usebibmacro{addendum+pubstate}%
2536 \setunit{\bibpagerefpunct}\newblock
2537 \usebibmacro{pageref}%
2538 \setunit{\relatedtypepunct}\newblock
2539 \iftoggle{bbx:related}
2540 {\usebibmacro{related:init}%
2541 \usebibmacro{related}}
2542 {}%
2543 \usebibmacro{finentry}}
2544 \DeclareBibliographyAlias{image}{performance}
2545 \DeclareBibliographyAlias{artwork}{performance}

```

Here is the macro used for printing the event location and date for performances and exhibitions.

```

2546 \renewbibmacro*{event+venue+location+date}{%
2547 \printfield{eventtitle}%
2548 \newunit
2549 \printfield{eventtitleaddon}%
2550 \newunit
2551 \printlist{institution}%

```

```

2552 \newunit
2553 \printfield{venue}%
2554 \newunit
2555 \printlist{location}%
2556 \newunit%
2557 \ifboolexpr{
2558   test {\iffieldundef{year}}
2559   and
2560   test {\iffieldundef{month}}
2561 }{\printeventdate}{\usebibmacro{date+time}}

```

## 2.1.14 DIGITAL MEDIA

### Website articles and social media

The titles of web pages and similar intrinsically online resources are written in roman text within quotes.

```

2562 \DeclareFieldFormat[online,image]{title}{%
2563   \def\currentfield{title}%
2564   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
2565   \undef\currentfield}

```

We provide an onlinetype macro for clarifying the type of online material. It is triggered by appropriate values of entrysubtype.

```

2566 \newbibmacro*{onlinetype}{%
2567   \ifboolexpr{
2568     test {\iffieldundef{url}}
2569     or
2570     test {\iffieldundef{entrysubtype}}
2571   }{}{%
2572     \ifbibxstring{\thefield{entrysubtype}}{%
2573       \printtext[brackets]{\bibstring{\thefield{entrysubtype}}}%
2574     }{}}

```

The changes to the online driver compared to the standard style are as follows:

- We support the use of maintitle for, say, the title of the website in which the web page is located. This comes after title.
- We insert the aforementioned onlinetype macro after maintitle.
- The date is wrapped in parentheses if present.
- We support displaying a publisher after the date; this is a legacy feature based on examples that are now deprecated.

```

2575 \DeclareBibliographyDriver{online}{%
2576   \usebibmacro{bibindex}%
2577   \usebibmacro{begentry}%
2578   \usebibmacro{author/editor+others/translator+others}%
2579   \setunit{\printdelim{nametitledelim}}\newblock
2580   \usebibmacro{title}%
2581   \newunit
2582   \usebibmacro{maintitle}
2583   \setunit{\addspace}%
2584   \usebibmacro{onlinetype}%
2585   \setunit{\titlebyauthordelim}\newblock
2586   \usebibmacro{byauthor}%

```

```

2587 \newunit\newblock
2588 \usebibmacro{byeditor+others}%
2589 \newunit\newblock
2590 \printfield{version}%
2591 \newunit
2592 \printfield{note}%
2593 \newunit\newblock
2594 \printlist{organization}%
2595 \iffieldundef{year}{}{%
2596   \setunit{\addspace}\newblock
2597   \printtext[parens]{\usebibmacro{date+time}}%
2598 }%
2599 \newunit\newblock
2600 \printlist{publisher}%
2601 \newunit\newblock
2602 \iftoggle{bbx:eprint}
2603 {\usebibmacro{eprint}}
2604 {}%
2605 \newunit\newblock
2606 \usebibmacro{url+urldate}%
2607 \newunit\newblock
2608 \usebibmacro{addendum+pubstate}%
2609 \setunit{\bibpagerefunct}\newblock
2610 \usebibmacro{pageref}%
2611 \setunit{\relatedtypepunct}\newblock
2612 \iftoggle{bbx:related}
2613 {\usebibmacro{related:init}}%
2614   \usebibmacro{related}}
2615 {}%
2616 \usebibmacro{finentry}}

```

## Software

The version for software goes between the title and titleaddon.

```

2617 \newbibmacro*{title+version}{%
2618   \ifboolexpr{
2619     test {\iffieldundef{title}}
2620     and
2621     test {\iffieldundef{subtitle}}
2622   }
2623   {}
2624   {\printtext[title]{%
2625     \printfield[titlecase]{title}%
2626     \setunit{\subtitlepunct}%
2627     \printfield[titlecase]{subtitle}}%
2628     \setunit{\addspace}}%
2629   \printfield{version}%
2630   \setunit{\addspace}%
2631   \printfield{titleaddon}%
2632 }
2633 \DeclareFieldFormat[software]{version}{\mkbibparens{\bibstring{version}~#1}}

```

The url date string is different for software: ‘downloaded’ rather than ‘accessed’.

```

2634 \DeclareFieldFormat[software]{urldate}{\bibstring{urldown}\space#1}

```

The software driver is a variant of the manual driver.

```

2635 \DeclareBibliographyAlias{software}{manual}

```

## Datasets

Datasets are currently treated like manuals

```
2636 \DeclareBibliographyAlias{dataset}{manual}
```

### 2.1.15 LEGAL REFERENCES

Legal references are a law unto themselves, and thus require extensive fiddly coding. This entire section is adapted from oscola by Paul Stanley.

#### Entry options

```
2637 \newtoggle{bbx:scotstyle}
2638 \DeclareEntryOption{scottish-style}[true]{%
2639   \settoggle{bbx:scotstyle}{#1}}
2640 \newboolean{bbx@year-essential}\setboolean{bbx@year-essential}{false}
2641 \DeclareEntryOption{year-essential}[true]{%
2642   \setboolean{bbx@year-essential}{#1}}
2643 \newboolean{bbx@paryear-essential}\setboolean{bbx@paryear-essential}{false}
2644 \DeclareEntryOption{paryear-essential}[true]{%
2645   \setboolean{bbx@paryear-essential}{#1}}
2646 \newtoggle{blx@ox@nopostnotedelim}
2647 \newtoggle{bbx:altcourt}
2648 \DeclareBibliographyOption{court-plain}[true]{%
2649   \settoggle{bbx:altcourt}{#1}}
2650 \DeclareEntryOption{court-plain}[true]{%
2651   \settoggle{bbx:altcourt}{#1}}
2652 \newtoggle{bbx@ecliuse}
2653 \newtoggle{bbx@eclionly}
2654 \DeclareBibliographyOption{ecli}[yes]{%
2655   \ifstrequal{#1}{no}{%
2656     \global\togglefalse{bbx@ecliuse}%
2657     \global\togglefalse{bbx@eclionly}%
2658   }{%
2659     \global\toggletrue{bbx@ecliuse}%
2660     \ifstrequal{#1}{only}{%
2661       \global\toggletrue{bbx@eclionly}%
2662     }{}}}
```

#### Field formats

```
2663 \DeclareFieldFormat{casenotetitle}{\mkbibquote{\mkbibemph{#1}}}
2664 \DeclareFieldFormat[jurisdiction,legislation,legal]{journaltitle}{#1}
2665 \DeclareFieldFormat[jurisdiction]{volume}{#1}
2666 \DeclareFieldFormat[jurisdiction]{titleaddon}{\mkbibparens{#1}}
2667 \DeclareFieldFormat{romanvol}{\RN{#1}}
2668 \DeclareListFormat[jurisdiction]{listb}{}
2669 \DeclareFieldFormat{usseries}{\ifinteger{#1}{\mkusbibordinal{#1}}{#1}}
2670 \DeclareFieldFormat{verba}{#1}
2671
2672 \DeclareListFormat{echrinst}{%
2673   \ifboolexpr{%
2674     test {\ifnumequal{\value{listtotal}}{1}}
2675     or
2676     test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
2677   }{%
2678     \ifboolexpr{
```

```

2679     test {\ifdefstring{\Commission}{#1}}
2680     or
2681     test {\ifdefstring{\commission}{#1}}%
2682   }{%
2683     \bibstring{commissiondecision}%
2684   }{#1}%
2685 }{%
2686   \setcounter{blx@tmpcnt}{\value{listcount}}%
2687   \addtocounter{blx@tmpcnt}{1}%
2688   \ifnumequal{\value{blx@tmpcnt}}{\value{listtotal}}{%
2689     #1\space\bibstring{and}\addspace
2690   }{%
2691     #1\addcomma\space}}}%
2692
2693 \newcommand*\commission{commission}
2694 \newcommand*\Commission{Commission}
2695 \DeclareListFormat{ecthr}{%
2696   \ifboolexpr{
2697     test {\ifdefstring{\Commission}{#1}}
2698     or
2699     test {\ifdefstring{\commission}{#1}}
2700   }{\bibstring[\mkbibparens]{commissiondecision}\toggletrue{blx@ox@nopostnotedelim}}{}}
2701
2702 \newcommand*\pcijrep{PCIJ Rep}
2703 \DeclareFieldFormat{international}{%
2704   \iffieldequals{journaltitle}{\pcijrep}{%
2705     \bibcplstring{jourser}\space #1%
2706   }{#1}}
2707
2708 \DeclareListFormat{checkcontains}{%
2709   \bbx@check{#1}}
2710 \newtoggle{bbx@institutiontoggle}
2711 \newcommand\iflistcontains[2]{%
2712   \global\togglefalse{bbx@institutiontoggle}%
2713   \def\bbx@check##1{%
2714     \ifdefstring{#2}{##1}{\global\toggletrue{bbx@institutiontoggle}}{}}%
2715   \printlist[checkcontains]{#1}%
2716   \iftoggle{bbx@institutiontoggle}}
2717
2718 \DeclareFieldFormat{draftleg}{%
2719   \StrBefore{#1}{ Bill}}
2720
2721 \DeclareListFormat{billprinting}{%
2722   \ifstrequal{#1}{HC}{%
2723     \mkbibbrackets{\strfield{number}}%
2724     \toggletrue{blx@ox@nopostnotedelim}%
2725   }{%
2726     \strfield{number}%
2727     \togglefalse{blx@ox@nopostnotedelim}}
2728
2729 \newcommand*\treatypartysep{\allowbreak ---\allowbreak}
2730 \DeclareListFormat{treaty}{%
2731   \ifmoreitems{}{%
2732     \ifnumequal{\value{listcount}}{1}{%
2733       \bibopenparen
2734     }{}%
2735     \ifnumgreater{\value{liststop}}{\value{listcount}}{%
2736       #1\treatypartysep
2737     }{%
2738       #1\bibcloseparen}}
2739
2740 \def\siganddate#1{%

```

```

2741 \def\bbx@tempa{#1}%
2742 \expandafter\bbx@signeddatei#1/relax}
2743 \def\bbx@signeddatei#1=#2/relax{%
2744 \def\bbx@tempa{#2-}%
2745 \bibstring{#1}\space\expandafter\makebbx@datei\bbx@tempa}
2746 \def\makebbx@datei#1-#2-#3-{%
2747 \makebbx@datei{#1}{#2}{#3}}
2748 \def\makebbx@datei#1#2#3{%
2749 \blx@imc@stripzeros{#3}~\mkbibmonth{#2}%
2750 \space
2751 #1}
2752 \DeclareListFormat{treatydates}{%
2753 \ifnumequal{\value{listcount}}{1}{%
2754 \siganddate{#1}%
2755 }{%
2756 \addcomma\space\siganddate{#1}}}

```

### Pagination formats

We define an alternative to `\mkpageprefix` that takes a pagination key directly.

```

2757 \newrobustcmd*{\mkrawpageprefix}[1][none]{%
2758 \begingroup
2759 \def\blx@tempa{\blx@mkpageprefix@i}%
2760 \ifstrequal{#1}{none}{}{}%
2761 \ifbibstring{#1}{%
2762 \def\blx@tempa{\blx@mkpageprefix{#1}}%
2763 }{%
2764 \blx@warning@entry{Unknown pagination type '#1'}}%
2765 \@ifnextchar[%]
2766 {\blx@tempa}
2767 {\blx@tempa[\@firstofone]}
2768
2769 \newcommand*\paragraphmarkings{[]}
2770 \DeclareFieldFormat[jurisdiction,legislation,legal]{postnote}{%
2771 \iffielddundef{pagination}{%
2772 \ifboolexpr{
2773 test {\ifkeyword{eu}}
2774 or
2775 test {\ifkeyword{echr}}
2776 }{%
2777 \mkcomprange[\mkrawpageprefix[paragraph]][#1]%
2778 }{%
2779 \mkcomprange{#1}}%
2780 }{%
2781 \iffieldequals{pagination}{\paragraphmarkings}{%
2782 \mkcomprange[\mkbibbrackets]{#1}%
2783 }{%
2784 \mkcomprange[\mkpageprefix[pagination]][#1]}%

```

### Shorthands

With legal references, the introduction of shorthands is less verbose.

```

2785 \renewbibmacro*{shorthandintro}{%
2786 \iffielddundef{shorthandintro}
2787 {\iffielddundef{shorthand}
2788 {}
2789 {\setunit{\addspace}%

```

```

2790     \printtext[parens]{%
2791       \ifboolexpr{
2792         test {\ifentrytype{jurisdiction}}
2793         or
2794         test {\ifentrytype{legal}}
2795         or
2796         test {\ifentrytype{legislation}}
2797       }{%
2798         \bibstring{citedas}\space}%
2799     \printfield{shorthand}}}}
2800 {\setunit{\addspace}%
2801 \printtext[parens]{\printfield{shorthandintro}}}}

```

### Common macros

```

2802 \newbibmacro*{issue/volume}{%
2803   \iffieldundef{volume}%
2804   {\iffieldundef{issue}%
2805     {}%
2806     {\printfield{issue}}}%
2807   {\printfield[default]{volume}}}
2808 \newcommand*{\subtypenewsp}{newspaper}
2809 \newbibmacro*{year+vol+report}[1][default]{%
2810   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2811     \setunit{\addcomma\space}%
2812   }{%
2813     \usebibmacro{journaldate}%
2814     \setunit{\addspace}%
2815     \printfield[parens]{origyear}%
2816     \setunit{\addspace}%
2817     \printfield{volume}%
2818     \setunit{\addspace}}%
2819   \printfield{journaltitle}%
2820   \setunit*{\addspace}%
2821   \iffieldundef{series}{%
2822     \setunit{\addspace}%
2823     \printfield[#1]{series}%
2824     \setunit{\addspace}}%
2825   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2826     \setunit{\addcomma\space}%
2827     \printdate%
2828   }{}}
2829 \newbibmacro*{journaldate}[1][%
2830   \ifboolexpr{
2831     test {\iffieldundef{#1volume}}
2832     or
2833     bool {bbx@#1year-essential}
2834   }{%
2835     \ifboolexpr{
2836       test {\ifkeyword{sc}}
2837       or
2838       test {\iftoggle{bbx:scotstyle}}
2839     }{%
2840       \setunit{\addcomma\space}%
2841       \printfield{#1year}%
2842     }{%
2843       \printfield[brackets]{#1year}}%
2844   }{%
2845     \printfield[parens]{#1year}}}}
2846 \newcommand*{\casenote}{casenote}

```

```

2847 \newcommand{\casenotetext}{\bibstring{casenote}}
2848 \newbibmacro{journaltitle}{%
2849   \iffieldequals{entrysubtype}{\casenote}{%
2850     \iffieldundef{crossref}{%
2851       \usebibmacro{title}%
2852     }{%
2853       \iffieldundef{note}{%
2854         \restorefield{note}{\casenotetext}%
2855       }{%
2856         \ifboolexpr{
2857           test {\iffootnote}
2858           and test {\iftoggle{bbx@samefootnote}}
2859           and test {\iffieldequals{crossref}{\blx@lastkey@foot}}%
2860         }{\printfield[casenotetitle]{title}}%
2861       }{%
2862         \usebibmacro{title}}
2863 \newbibmacro*{unreported}[1][default]{%
2864   \iffieldundef{verba}{%
2865     \ifboolexpr{
2866       test {\iflistundef{institution}}
2867       and
2868       test {\iffieldundef{date}}
2869       and
2870       test {\iffieldundef{year}}
2871     }{%
2872       \ifboolexpr{
2873         test {\iffieldundef{date}}
2874         and
2875         test {\iffieldundef{year}}
2876       }{%
2877         \mkbibparens{\printlist[jurisdiction]{institution}}%
2878       }{%
2879         \toggletrue{blx@ox@nopostnotedelim}%
2880         \iflistundef{institution}{%
2881           \mkbibparens{\usebibmacro{date}}%
2882         }{%
2883           \printtext[parens]{%
2884             \printlist[#1]{institution}%
2885             \setunit{\addcomma\space}
2886             \usebibmacro{date}}}}%
2887       }{%
2888         \iftoggle{bbx@ecliuse}{%
2889           \printfield{verba}}}}
2890 \newbibmacro{court-note}{%
2891   \iffieldundef{note}%
2892   }{%
2893     \printfield{note}%
2894     \toggletrue{blx@ox@nopostnotedelim}}
2895 \newbibmacro*{jurisdictionpages}{%
2896   \iffieldequals{entrysubtype}{\subtypenewsp}{%
2897     \setunit{\addspace}%
2898     \printfield{pages}}
2899 \newbibmacro{pcitenote}{%
2900   \iffieldundef{userc}{% parreporter
2901     \setunit{\addcomma\space}%
2902     \iffieldundef{postnote}{%
2903       \printfield{postnote}%
2904       \clearfield{postnote}%
2905       \setunit{\addsemicolon\space}}}}
2906 \newbibmacro*{courtid}{%
2907   \iffieldundef{number}{%
2908     \ifboolexpr{

```

```

2909     test {\iflistundef{institution}}
2910     and
2911     test {\iffieldundef{location}}%
2912   }{%
2913     \togglefalse{blx@ox@nopostnotedelim}%
2914   }{%
2915     \ifboolexpr{%
2916       test {\iffieldundef{journaltitle}}
2917       or
2918       not togl {bbx:altcourt}
2919     }{%
2920       \printtext[parens]{%
2921         \printfield{location}%
2922         \setunit{\addspace}%
2923         \printlist{institution}%
2924         \usebibmacro{unrep:date}}%
2925       \toggletrue{blx@ox@nopostnotedelim}
2926     }{%
2927       \setunit{\addcomma\space}%
2928       \printfield{location}%
2929       \setunit*\addspace}%
2930     \printlist{institution}}}%
2931   }{%
2932     \togglefalse{blx@ox@nopostnotedelim}}
2933 \newbibmacro*{unrep:date}{%
2934   \ifboolexpr{
2935     test {\iffieldundef{journaltitle}}%
2936     and
2937     test {\iffieldundef{number}}%
2938   }{%
2939     \setunit{\addcomma\space}%
2940     \usebibmacro{date}%
2941   }}

```

## Legal cases

There are different formats depending on the jurisdiction.

```

2942 \DeclareBibliographyDriver{jurisdiction}{%
2943   \usebibmacro{bibindex}%
2944   \usebibmacro{begentry}%
2945   \usebibmacro{juriscitation}%
2946   \usebibmacro{doi+eprint+url}%
2947   \setunit{\addspace}%\newblock
2948   \usebibmacro{addendum+pubstate}%
2949   \setunit{\bibpagerefunct}\newblock
2950   \usebibmacro{pageref}%
2951   \setunit{\addspace}%\newblock
2952   \iftoggle{bbx:related}
2953     {\usebibmacro{related:init}%
2954     \usebibmacro{related}}
2955   {}%
2956   \usebibmacro{finentry}}
2957 \newtoggle{bbx@juriscitedone}
2958 \newbibmacro{juriscitation}{%
2959   \togglefalse{bbx@juriscitedone}%
2960   \renewcommand{\do}[1]{%
2961     \ifkeyword{##1}{%
2962       \toggletrue{bbx@juriscitedone}\usebibmacro{##1juriscitation}%
2963     }

```

```

2964     }{}%
2965     \docsvlist{eu,chr,int,ca,us}%
2966     \iftoggle{bbx@juriscitedone}{}{\usebibmacro{enjuriscitation}}%
2967 }

```

Here is the format for EU cases.

```

2968 \newbibmacro*{eujuriscitation}{%
2969   \iflistcontains{institution}{\commission}}{}{%
2970     \usebibmacro{eucasenumber}}%
2971   \usebibmacro{title}%
2972   \setunit{\addspace}%
2973   \iflistcontains{institution}{\commission}}{}{%
2974     \usebibmacro{eucommissiondecision}}{}{%
2975     \setunit{\addspace}%
2976     \usebibmacro{eu:reportinfo}%
2977     \iflistcontains{institution}{\commission}}{}{%
2978       \setunit{\addcomma\space}%
2979     }{}%
2980     \setunit{\addspace}}%
2981   \usebibmacro{court-note}%
2982 }
2983 \newbibmacro{eucasenumber}{%
2984   \iffieldundef{type}{%
2985     \ifboolexpr{
2986       test {\IfSubStr{\thefield{number}}{,}}
2987       or
2988       test {\IfSubStr{\thefield{number}}{--}}
2989       or
2990       test {\IfSubStr{\thefield{number}}{ and }}
2991     }{}%
2992     \bibstring{eujoinedcases}%
2993   }{}%
2994   \bibstring{eucase}}%
2995 }{}%
2996   \printfield{type}}%
2997   \setunit{\addnbspace}%
2998   \printfield{number}%
2999   \setunit{\addspace}}
3000 \newbibmacro{eucommissiondecision}{%
3001   \iffieldundef{userb}}{}{%
3002     \printfield[parens]{userb}}%
3003   \setunit{\addspace}%
3004   \iffieldundef{number}}{}{%
3005     \iffieldundef{type}}{}%
3006     \setunit{\addspace\bibstring{commissiondecision}\addspace}%
3007   }{}%
3008   \setunit{\addspace\printfield{type}\addspace}}%
3009   \printfield{number}}
3010 \newbibmacro*{eu:reportinfo}{%
3011   \iftoggle{bbx@eclionly}}{}%
3012   \iffieldundef{verba}}{}%
3013   \usebibmacro{eu:osreport}
3014 }{}%
3015   \printfield{verba}}%
3016 }{}%
3017   \usebibmacro{eu:osreport}}
3018 \newbibmacro*{eu:osreport}{%
3019   \iftoggle{bbx@ecliuse}}{}%
3020   \iffieldundef{verba}}{}%
3021   \printfield{verba}%
3022   \setunit{\addcomma\space}}%

```

```

3023     }{%
3024     \iffieldundef{journaltitle}{%
3025     \usebibmacro{unreported}%
3026     }{%
3027     \usebibmacro{eu:year+vol+report}}}
3028 \newcommand*\officialjournaltitle{OJ}
3029 \newcommand*\ecrreporttitle{ECR}
3030 \newbibmacro*{eu:year+vol+report}{%
3031 \iffieldequals{journaltitle}{\ecrreporttitle}{%
3032 \printfield[brackets]{year}%
3033 \setunit{\addspace}%
3034 \printfield{journaltitle}%
3035 \setunit{\addspace}%
3036 \printfield{volume}%
3037 \setunit*{\printtext{--\allowbreak}}}%
3038 \printfield{pages}%
3039 }{%
3040 \iffieldequals{journaltitle}{\officialjournaltitle}{%
3041 \printfield[brackets]{year}%
3042 \setunit{\addspace}%
3043 \printfield{journaltitle}%
3044 \setunit{\addspace}%
3045 \printfield[default]{series}%
3046 \usebibmacro{issue/volume}%
3047 \setunit{\printtext{/}}}%
3048 \printfield{pages}%
3049 }{%
3050 \usebibmacro{year+vol+report}}}}

```

Here is the format for European Human Rights cases.

```

3051 \newbibmacro*{echrjuriscitation}{%
3052 \usebibmacro{title}%
3053 \setunit{\addspace}\newblock
3054 \iffieldundef{number}{}{%
3055 \printtext[parens]{%
3056 \def\adddot{}%
3057 \bibstring{application}\space
3058 \bibstring{number}\space
3059 \printfield{number}}}%
3060 \setunit{\addspace}\newblock}%
3061 \iffieldundef{journaltitle}{%
3062 \usebibmacro{unreported}[echrinst]%
3063 }{%
3064 \usebibmacro{echr:year+vol+report}
3065 \setunit{\addspace}\newblock
3066 \usebibmacro{echr:courtid}}%
3067 \setunit{\addspace}%
3068 \usebibmacro{court-note}%
3069 \newblock
3070 \setunit{\addspace}}
3071 \newcommand*{\seriesa}{Series A}
3072 \newcommand*{\echrreports}{ECHR}
3073 \newbibmacro*{echr:year+vol+report}{%
3074 \iffieldequals{journaltitle}{\seriesa}{%
3075 \usebibmacro{seriesareport}}%
3076 }{%
3077 \iffieldequals{journaltitle}{\echrreports}{%
3078 \usebibmacro{echrreports}}%
3079 }{%
3080 \usebibmacro{year+vol+report}

```

```

3081     \setunit{\addspace}%
3082     \printfield{pages}}}}
3083 \newbibmacro*{seriesareport}{%
3084     \printfield[parens]{year}%
3085     \setunit{\addspace}%
3086     \printfield{journaltitle}%
3087     \setunit{\addspace}%
3088     \printtext{\def\addot{ }\bibstring{number}\addspace}%
3089     \printfield{pages}}
3090 \newbibmacro*{echrreports}{%
3091     \printfield{journaltitle}%
3092     \setunit{\addspace}%
3093     \printfield{year}%
3094     \iffieldundef{volume}{}{%
3095         \printtext{--}\printfield[romanvol]{volume}}
3096     \setunit{\addspace}%
3097     \printfield{pages}}
3098 \newcommand*{\decisionsandreports}{DR}
3099 \newcommand*{\collectionofdecisions}{CD}
3100 \newbibmacro*{echr:courtid}{%
3101     \ifboolexpr{
3102         test {\iffieldequals{journaltitle}{\decisionsandreports}}
3103         or
3104         test {\iffieldequals{journaltitle}{\collectionofdecisions}}}%
3105     }{}{%
3106     \printlist[ecthr]{institution}}}

```

Here is the format for international cases.

```

3107 \newbibmacro*{intjuriscitation}{%
3108     \iflistundef{institution}{%
3109         \setunit{ }\printtext{ }%
3110     }{%
3111         \printlist{institution}%
3112         \setunit{\addcomma\space}}%
3113 \usebibmacro{int:title}%
3114 \setunit{\addspace}\newblock
3115 \iffieldundef{journaltitle}{%
3116     \printfield{number}%
3117     \setunit{\addspace}\newblock
3118     \printtext[parens]{\printdate}%
3119 }{%
3120     \usebibmacro{year+vol+report}[international]%
3121 }%
3122 \setunit{\addspace}%
3123 \usebibmacro{int:jurisdictionpages}%
3124 \setunit{\addspace}\newblock
3125 \usebibmacro{court-note}%
3126 }
3127 \newbibmacro*{int:title}{%
3128     \ifboolexpr{
3129         test {\iffieldundef{title}}
3130         and
3131         test {\iffieldundef{subtitle}}
3132     }{}{%
3133         \printtext[title]{%
3134             \printfield[titlecase]{title}%
3135             \setunit{\addspace}%
3136             \printfield[parens]{subtitle}}}%
3137     \setunit{\addspace}%
3138     \printfield{titleaddon}%
3139 }

```

```

3140 \newbibmacro*{int:jurisdictionpages}{%
3141 \iffieldequals{journaltitle}{\pciirep}{%
3142 \printtext{\bibcpstring{number}\addspace}%
3143 \iffieldundef{pages}{%
3144 \printfield{number}%
3145 }{%
3146 \printfield{pages}}%
3147 }{%
3148 \printfield{pages}}}

```

Here is the format for Canadian cases.

```

3149 \newbibmacro{canjuriscitation}{%
3150 \usebibmacro{title}%
3151 \setunit{\addspace}\newblock
3152 \printfield{number}%
3153 \setunit{\addcomma\space}%
3154 \iffieldundef{journaltitle}{}{%
3155 \usebibmacro{can:year+vol+report}}%
3156 \usebibmacro{jurisdictionpages}%
3157 \usebibmacro{pcitenote}%
3158 \usebibmacro{altreportdetails}%
3159 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3160 \newunit\newblock
3161 \usebibmacro{courtid}%
3162 \newunit%
3163 \usebibmacro{court-note}%
3164 \newblock%
3165 \newunit}
3166 \newbibmacro*{can:year+vol+report}{%
3167 \iffieldundef{number}{%
3168 \setunit{\addspace}%
3169 }{%
3170 \ifboolexpr{
3171 test {\iffieldundef{volume}}
3172 or
3173 bool {bbx@year-essential}}%
3174 }{}{%
3175 \clearfield{year}}}%
3176 \iffieldequals{entrysubtype}{\subtypenewsp}{}{%
3177 \iffieldundef{year}{}{%
3178 \usebibmacro{journaldate}%
3179 \setunit{\addspace}}}
3180 \printfield{volume}%
3181 \setunit{\addspace}%
3182 \printfield{journaltitle}%
3183 \setunit*\addspace%
3184 \iffieldundef{series}{}{%
3185 \setunit{\addspace}%
3186 \printtext[parens]{\printfield[usseries]{series}}%
3187 \setunit{\addspace}}%
3188 \iffieldequals{entrysubtype}{\subtypenewsp}{%
3189 \setunit{\addcomma\space}%
3190 \usebibmacro{newspaperdate}}%
3191 }{}

```

Here is the format for American cases.

```

3192 \newbibmacro{usjuriscitation}{%
3193 \usebibmacro{title}%
3194 \setunit{\addcomma\space}\newblock%

```

```

3195 \iffielddundef{journaltitle}{%
3196 \printfield{number}%
3197 \setunit{\addcomma\space}%
3198 \printfield[default]{eprint}%
3199 \clearfield{eprint}%
3200 }{
3201 \usebibmacro{us:vol+report}}%
3202 \setunit{\addspace}%
3203 \usebibmacro{jurisdictionpages}%
3204 \usebibmacro{us:postnote}%
3205 \usebibmacro{altreportdetails}%
3206 \setunit{\addspace}\newblock
3207 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}%
3208 \setunit{\addspace}%
3209 \usebibmacro{us:courtid+date}%
3210 \setunit{\addspace}%
3211 \usebibmacro{court-note}%
3212 \newblock
3213 \setunit{\addspace}}
3214 \newbibmacro{us:vol+report}{%
3215 \printfield{volume}%
3216 \setunit{\addspace}%
3217 \printfield{journaltitle}%
3218 \iffielddundef{series}{}{%
3219 \setunit{\addspace}%
3220 \printfield[usseries]{series}}}
3221 \newbibmacro{us:postnote}{%
3222 \iffielddundef{postnote}{}{%
3223 \setunit{\addcomma\space}%
3224 \printfield{postnote}%
3225 \clearfield{postnote}%
3226 }}
3227 \newbibmacro{us:courtid+date}{%
3228 \ifboolexpr{
3229 test {\iflistundef{institution}}
3230 and
3231 test {\iflistundef{location}}
3232 and
3233 test {\iffielddundef{year}}
3234 }{}{%
3235 \printtext[parens]{%
3236 \printlist{location}%
3237 \setunit*\addspace}%
3238 \printlist{institution}%
3239 \setunit{\addspace}%
3240 \printfield{year}%
3241 \nopunct}}}

```

Here is the format for English cases.

```

3242 \newbibmacro{enjuriscitation}{%
3243 \usebibmacro{title}%
3244 \setunit{\addspace}\newblock
3245 \printfield{number}%
3246 \setunit*\addcomma\space}%
3247 \iffielddundef{journaltitle}{}{%
3248 \usebibmacro{year+vol+report}}%
3249 \usebibmacro{jurisdictionpages}%
3250 \usebibmacro{pcitenote}%
3251 \usebibmacro{altreportdetails}%
3252 \unspace\printlist[jurisdiction][1-\value{listtotal}]{listb}% additional reports

```

```

3253     \setunit{\addspace}\newblock
3254     \usebibmacro{courtid}%
3255     \setunit{\addspace}%
3256     \usebibmacro{court-note}}
3257 \newbibmacro{altreportdetails}{%
3258   \restorefield{prenote}{\postnotesecond}%
3259   \iffieldundef{userc}{\% parreporter
3260     \usebibmacro{journaldate}[par]%
3261     \setunit{\addspace}\newblock
3262     \usebibmacro{altreportvolume}%
3263     \setunit{\addspace}\newblock
3264     \usebibmacro{altjournaltitle}%
3265     \setunit{\addspace}\newblock
3266     \usebibmacro{altseries}%
3267     \setunit{\addspace}\newblock
3268     \usebibmacro{altjurisdictionpages}%
3269     \iffieldundef{prenote}{\%
3270       \setunit{\addcomma\space}%
3271       \printfield[postnote]{prenote}}}}
3272 \newbibmacro*{altreportvolume}{%
3273   \iffieldundef{userb}{\% parvolume
3274     \printfield{volume}%
3275   }{\%
3276     \printfield{userb}}}
3277 \newbibmacro*{altjournaltitle}{%
3278   \iffieldundef{userc}{\% parreporter
3279     \printfield{journaltitle}%
3280     \setunit{\addspace}%
3281   }{\%
3282     \printfield{userc}}}
3283 \newbibmacro*{altseries}{%
3284   \iffieldundef{userd}{\% parseries
3285     \printfield{series}%
3286   }{\%
3287     \printfield{userd}}}
3288 \newbibmacro*{altjurisdictionpages}{%
3289   \iffieldundef{usere}{\% parpages
3290     \usebibmacro{jurisdictionpages}%
3291   }{\%
3292     \printfield{usere}}}%

```

## Legislation

Legislation tends to have a more consistent format, though European entries need special handling.

```

3293 \newcommand*{\subtypecourtrules}{procedure-rule}
3294 \DeclareBibliographyDriver{legislation}{%
3295   \usebibmacro{bibindex}%
3296   \usebibmacro{begentry}%
3297   \iffieldequals{entrysubtype}{\subtypecourtrules}{%
3298     \usebibmacro{courtrules}%
3299   }{\%
3300     \ifkeyword{draft}{%
3301       \usebibmacro{legislation:bill}%
3302     }{\%
3303       \ifkeyword{eu}{%
3304         \usebibmacro{eulegislation}%
3305       }{\%
3306         \printfield[default]{title}%

```

```

3307     \setunit{\addspace}%
3308     \printfield[default]{year}%
3309     \setunit*{\addspace}%
3310     \usebibmacro{Legnumber}%
3311     \setunit{\addspace}\newblock
3312     \usebibmacro{Legsupp}}}%
3313 \setunit{\addcomma\space}%
3314 \printfield{note}%
3315 \setunit{\addspace}%
3316 \usebibmacro{finentry}}
3317 \newbibmacro*{courtrules}{%
3318 \restorefield{prenote}{\postnotesecond}%
3319 \iffieldequalstr{shorttitle}{PD}{%
3320 \printfield{postnote}%
3321 \clearfield{postnote}%
3322 \setunit{\addspace}%
3323 }{%
3324 \iffieldundef{shorttitle}{%
3325 \printfield[default]{title}%
3326 }{%
3327 \printfield[default]{shorttitle}}%
3328 \setunit{\addspace}\newblock
3329 \iffieldundef{postnote}{%
3330 \toggletrue{blx@ox@nopostnotedelim}%
3331 }{%
3332 \iffieldequalstr{shorttitle}{CPR}{%
3333 \printfield{postnote}%
3334 \setunit{\addspace}%
3335 }{%
3336 \printtext{%
3337 \bibstring{order}\space
3338 \printfield{postnote}%
3339 \setunit{\addcomma\space}}}%
3340 \restorefield{postnote}{\postnotesecond}%
3341 \usebibmacro{postnote}%
3342 \clearfield{postnote}%
3343 \setunit{\addspace}\newblock}
3344 \newcommand*{\subtypeprimarylegislation}{primary}
3345 \newbibmacro*{legislation:bill}{%
3346 \printfield[draftleg]{title}%
3347 \setunit{\addspace}%
3348 \printlist{institution}%
3349 \setunit*{\addspace}%
3350 \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3351 \bibcpstring{bill}%
3352 \setunit{\addspace}%
3353 \printtext[parens]{\usebibmacro{sessionyear}}%
3354 \setunit{\addspace}%
3355 \iffieldundef{number}{}%
3356 \printlist[billprinting]{institution}}%
3357 }{%
3358 \printtext[parens]{%
3359 \bibstring{draft}\space
3360 \printdate}}
3361 \setunit{\addspace}}
3362 \newbibmacro*{sessionyear}{%
3363 \iffieldundef{year}{}%
3364 \printfield{year}%
3365 \iffieldundef{endyear}{}%
3366 \bibdaterangesep
3367 \blx@ox@compyear{\thefield{year}}{\thefield{endyear}}}}
3368 \newbibmacro{eulegislation}{%

```

```

3369     \printfield[default]{title}%
3370     \setunit{\addspace}\newblock%
3371     \usebibmacro{eulegref}}
3372 \newcommand*{\ojspecedtitle}{OJ Spec Ed}
3373 \newbibmacro*{eulegref}{%
3374     \iffieldequals{journaltitle}{\officialjournaltitle}{%
3375         \printfield[brackets]{year}%
3376         \setunit{\addspace}%
3377         \printfield{journaltitle}%
3378         \setunit{\addspace}%
3379         \iffieldundef{series}{%
3380             \printtext{L}%
3381         }{%
3382             \printfield[default]{series}}}%
3383 \usebibmacro{issue/volume}%
3384 \setunit*{\addslash}%
3385 \printfield{pages}%
3386 \togglefalse{blx@ox@nopostnotedelim}%
3387 }{%
3388     \usebibmacro{year+vol+report}%
3389     \setunit*{\addspace}%
3390     \printfield{pages}}
3391 \newbibmacro*{legnumber}{%
3392     \iffieldequals{entrysubtype}{\subtypeprimarylegislation}{%
3393         \ifboolexpr{(
3394             test {\iffieldundef{number}}
3395             or
3396             not test {\iffieldundef{title}} )
3397         and not (
3398             test {\ifkeyword{cy}}
3399             or
3400             test {\ifkeyword{sc}}
3401             or
3402             test {\ifkeyword{ni}} )
3403         )}{%
3404             \printtext[parens]{\printfield{number}}%
3405             \toggletrue{blx@ox@nopostnotedelim}}%
3406     }{%
3407         \iffieldundef{number}{}{%
3408             \setunit{\addcomma\addspace}%
3409             \printfield{number}%
3410             \togglefalse{blx@ox@nopostnotedelim}}}}

```

This adds additional material for Welsh statutory instruments.

```

3411 \newbibmacro*{legsupp}{%
3412     \ifkeyword{cy}
3413     {\iffieldundef{userb}
3414         {}
3415         {\printtext{\mkbibparens{\printfield{userb}}}\toggletrue{blx@ox@nopostnotedelim}}}
3416     {}

```

### Treaties, explanatory notes and Hansard

```

3417 \newcommand*{\explanatorynote}{explanatory note}
3418 \newcommand*{\parliamentarytype}{parliamentary}
3419 \newcommand*{\treatysubtype}{piltreaty}
3420 \DeclareBibliographyDriver{legal}{%
3421     \usebibmacro{bibindex}%
3422     \usebibmacro{begentry}%

```

```

3423 \iffieldequals{entrysubtype}{\explanatorynote}{%
3424 \printfield[default]{title}%
3425 \setunit{\addspace}\newblock
3426 }{%
3427 \iffieldequals{entrysubtype}{\parliamentarytype}{%
3428 \usebibmacro{legal:parliamentary}%
3429 }{%
3430 \usebibmacro{treatycitation}}}%
3431 \setunit{\addcomma\space}\newblock
3432 \printfield[default]{note}
3433 \setunit{\addspace}\newblock
3434 \setunit{\bibpageref punct}%
3435 \usebibmacro{pageref}%
3436 \usebibmacro{finentry}}
3437 \newbibmacro{legal:parliamentary}{%
3438 \printfield[default]{title}%
3439 \newunit\newblock
3440 \printfield{type}%
3441 \setunit{\addspace}%
3442 \iffieldundef{series}{}{%
3443 \printtext[parens]{%
3444 \biblstring{jourser}\space
3445 \printfield{series}}}%
3446 \setunit{\addspace}%
3447 \printfield{volume}%
3448 \setunit{\addcomma\space}%
3449 \usebibmacro{hansard-ref}%
3450 \setunit{\addspace}%
3451 \iffieldundef{year}{}{%
3452 \printtext[parens]{\usebibmacro{date}}}%
3453 \togglefalse{blx@ox@nopostnotedelim}}
3454 \newbibmacro*{hansard-ref}{%
3455 \iffieldundef{postnote}{%
3456 \iffieldundef{pages}{}{%
3457 \printfield{pages}}%
3458 }{}%
3459 \newbibmacro{treatycitation}{%
3460 \printfield[default]{title}%
3461 \setunit{\addspace}\newblock%
3462 \printlist[treaty]{institution}
3463 \setunit{\addspace}\newblock
3464 \usebibmacro{treatyinfo}%
3465 \setunit{\addspace}\newblock
3466 \usebibmacro{treaty:year+vol+report}}
3467 \newbibmacro{treatyinfo}{%
3468 \iflistundef{lista}{% execution
3469 \iffieldundef{year}{}{%
3470 \iffieldundef{volume}{}{%
3471 \printtext[parens]{\printdate}}}%
3472 }{%
3473 \printtext[parens]{\printlist[treatydates]{lista}}}}
3474 \newbibmacro{treaty:year+vol+report}{%
3475 \iffieldequals{journaltitle}{\officialjournaltitle}{%
3476 \usebibmacro{eulegref}%
3477 }{%
3478 \usebibmacro{treaty:date}%
3479 \setunit{\addspace}%
3480 \printfield[default]{volume}%
3481 \setunit{\addspace}%
3482 \printfield{journaltitle}%
3483 \setunit*{\addspace}%
3484 \iffieldundef{series}{}{%

```

```

3485     \setunit{\addspace}%
3486     \printfield{series}%
3487     \setunit{\addspace}}%
3488     \printfield{pages}}}%
3489 \newbibmacro*{treaty:date}{%
3490   \ifboolexpr{
3491     test {\iffieldundef{volume}}
3492     or
3493     bool {bbx@year-essential}
3494   }{%
3495     \ifboolexpr{
3496       test {\ifkeyword{sc}}
3497       or
3498       test {\iftoggle{bbx:scotstyle}}
3499     }{%
3500       \printfield{year}%
3501     }%
3502     \printfield[brackets]{year}%
3503   }}}

```

We don't really deal with commentaries as distinct from books.

```

3504 \DeclareBibliographyAlias{commentary}{book}

```

## 2.1.16 MANUSCRIPTS

In the spirit of compatibility, this code is adapted from biblatex-manuscripts-philology by Maïeul Rouquette.

Here are the additional punctuation commands.

```

3505 \newcommand{\locationlibrarypunct}{\addcomma\addspace}
3506 \newcommand{\collectionshelfmarkpunct}{\addspace}
3507 \newcommand{\datingpagespunct}{\addcomma\addspace}
3508 \newcommand{\librarycollectionpunct}{\addcomma\addspace}
3509 \newcommand{\pagetotalpagespunct}{\addcomma\addspace}
3510 \newcommand{\columnslayerpunct}{\addsemicolon\addspace}%

```

Here are the configurable macros for the two sides of a folio.

```

3511 \def\recto{r}
3512 \def\verso{v}
3513 \NumCheckSetup{\def\recto{}\def\verso{}}

```

Here are some special field formats for the manuscript driver. Note that the title is transformed into a descriptor by means of an annotation, rather than using a dedicated field. This greatly simplifies the code used elsewhere.

```

3514 \DeclareFieldFormat[manuscript,unpublished]{title}{%
3515   \def\currentfield{title}%
3516   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3517   \undefcurrentfield}
3518 \DeclareFieldFormat{columns+layer}{\mkbibparens{#1}}
3519 \DeclareFieldFormat{columns}{\mkbibparens{#1}}
3520 \DeclareFieldFormat{layer}{\mkbibparens{#1}}
3521 \DeclareFieldFormat{dating}{#1\isdot}%
3522 \DeclareFieldFormat{support}{\ifbibstring{#1}{\bibstring{#1}}{#1}}

```

Here are the unique bibmacros used by the manuscripts driver. We hide the date if there is no author or title to prevent it appearing as the first element in the reference. Similarly, we hide the (vague) dating field if the (exact) date is displayed.

```

3523 \newbibmacro{manuscript:date}{%
3524 \ifbool{expr{
3525   test {\ifnameundef{author}}
3526   and
3527   test {\iffieldundef{title}}
3528   and
3529   test {\iffieldundef{label}}
3530 }}{\usebibmacro{date}}}}
3531 \newbibmacro{dating}{%
3532 \ifbool{expr{(
3533   test {\ifnameundef{author}}
3534   and
3535   test {\iffieldundef{title}}
3536   and
3537   test {\iffieldundef{label}}
3538 ) or
3539 test {\iffieldundef{year}}
3540 }}{%
3541 \printfield{dating}%
3542 }}

```

We follow the structure of the biblatex-manuscripts-philology approach to allow special formatting to be applied to the collection and shelfmark, but we do not actually apply any.

```

3543 \newbibmacro{location+library+collection+shelfmark}{%
3544 \printfield{library}%
3545 \setunit{\locationlibrarypunct}%
3546 \printlist{location}%
3547 \setunit{\librarycollectionpunct}%
3548 \usebibmacro{collection+shelfmark}}
3549 \newbibmacro{collection+shelfmark}{%
3550 \ifbool{expr{
3551   test {\iffieldundef{collection}}
3552   and
3553   test {\iffieldundef{shelfmark}}
3554 }}{%
3555 \printtext[collection+shelfmark]{%
3556 \printfield{collection}%
3557 \setunit*{\collectionshelfmarkpunct}%
3558 \printfield{shelfmark}}}}

```

Again, following biblatex-manuscripts-philology, we allow different formatting to be applied to columns and layers according to whether they occur adjacently or not, as they might be separated by a page specification.

```

3559 \newbibmacro{manuscript:pages}{%
3560 \printfield{pagetotal}%
3561 \setunit{\addspace}%
3562 \iffieldundef{pages}{%
3563 \usebibmacro{manuscript:columns+layer}%
3564 }}{%
3565 \usebibmacro{manuscript:columns}%
3566 \setunit{\pagetotalpagespunct}%
3567 \printfield{pages}%
3568 \setunit{\addspace}%
3569 \usebibmacro{manuscript:layer}}}}

```

```

3570 \newbibmacro{manuscript:columns}{%
3571   \iffieldundef{columns}}{%
3572   \printtext[columns]{\bibstring{\strfield{columns}column}}%
3573 }%
3574 \newbibmacro{manuscript:layer}{%
3575   \iffieldundef{layer}}{%
3576   \printtext[layer]{\bibstring{\strfield{layer}layer}}%
3577 }%
3578 \newbibmacro{manuscript:columns+layer}{%
3579   \ifboolexpr{
3580     test {\iffieldundef{columns}}
3581     or
3582     test{\iffieldundef{layer}}
3583   }{%
3584     \usebibmacro{manuscript:columns}%
3585     \usebibmacro{manuscript:layer}%
3586   }{%
3587     \printtext[columns+layer]{%
3588       \bibstring{\strfield{columns}column}%
3589       \setunit*{\columnslayerpunct}%
3590       \bibstring{\strfield{layer}layer}}}%

```

Putting it all together, here is the manuscript driver.

```

3591 \DeclareBibliographyDriver{manuscript}{%
3592   \usebibmacro{bibindex}%
3593   \usebibmacro{begentry}%
3594   \usebibmacro{author}%
3595   \setunit{\printdelim{nametitledelim}}\newblock
3596   \usebibmacro{title}%
3597   \setunit{\titlebyauthordelim}\newblock
3598   \usebibmacro{byauthor}%
3599   \newunit\newblock
3600   \printfield{howpublished}%
3601   \newunit\newblock
3602   \printfield{note}%
3603   \newunit\newblock
3604   \usebibmacro{manuscript:date}%
3605   \newunit\newblock
3606   \usebibmacro{location+library+collection+shelfmark}%
3607   \newunit
3608   \printfield{support}%
3609   \newunit
3610   \usebibmacro{dating}%
3611   \setunit{\datingpagespunct}
3612   \usebibmacro{manuscript:pages}
3613   \newunit\newblock%
3614   \iftoggle{bbx:url}{%
3615     \usebibmacro{url+urldate}%
3616   }{}%
3617   \setunit{\relatedtypepunct}\newblock
3618   \iftoggle{bbx:related}{%
3619     \usebibmacro{related:init}%
3620     \usebibmacro{related}%
3621   }{}%
3622   \usebibmacro{finentry}}

```

We provide an alternative bibmacro for doing much the same but with the regular biblatex fields.

```

3623 \newbibmacro*{library+location+series+number}{%
3624   \printfield{library}%
3625   \setunit{\locationlibrarypunct}%
3626   \printlist{location}%
3627   \setunit{\librarycollectionpunct}%
3628   \ifboolexpr{
3629     test {\iffieldundef{series}}
3630     and
3631     test {\iffieldundef{number}}
3632   }{}{%
3633     \printtext[collection+shelfmark]{%
3634       \printfield{series}%
3635       \setunit*{\collectionshelfmarkpunct}%
3636       \printfield{number}}}}

```

Lastly, we adapt the unpublished driver to allow it to do a similar thing but with the regular biblatex fields. The presence of the library field is what triggers ‘manuscript mode’.

```

3637 \newtoggle{blx@ox@ms}
3638 \DeclareBibliographyDriver{unpublished}{%
3639   \usebibmacro{bibindex}%
3640   \usebibmacro{begentry}%
3641   \iffieldundef{library}{\togglefalse{blx@ox@ms}}{\toggletrue{blx@ox@ms}}%
3642   \usebibmacro{author}%
3643   \setunit{\printdelim{nametitledelim}}\newblock
3644   \usebibmacro{title}%
3645   \setunit{\titlebyauthordelim}\newblock
3646   \usebibmacro{byauthor}%
3647   \newunit\newblock
3648   \printfield{note}%
3649   \newunit\newblock
3650   \printfield{howpublished}%
3651   \newunit\newblock
3652   \iftoggle{blx@ox@ms}{%
3653     \usebibmacro{manuscript:date}%
3654     \newunit\newblock
3655     \usebibmacro{library+location+series+number}%
3656     \newunit
3657     \printfield{support}%
3658     \newunit
3659     \usebibmacro{dating}%
3660     \setunit{\datingpagespunct}
3661     \usebibmacro{manuscript:pages}
3662   }{%
3663     \usebibmacro{location+date}%
3664   }%
3665   \newunit\newblock
3666   \iftoggle{bbx:url}
3667     {\usebibmacro{url+urldate}}
3668     {}%
3669   \newunit\newblock
3670   \usebibmacro{addendum+pubstate}%
3671   \setunit{\bibpagerefpunct}\newblock
3672   \usebibmacro{pageref}%
3673   \setunit{\relatedtypepunct}\newblock
3674   \iftoggle{bbx:related}
3675     {\usebibmacro{related:init}%
3676     \usebibmacro{related}}
3677     {}%
3678   \usebibmacro{finentry}}

```

### 2.1.17 LETTERS

The driver for letters is similar to the one for other unpublished materials.

```

3679 \DeclareBibliographyAlias{letter}{unpublished}
3680 \DeclareFieldFormat[letter]{title}{%
3681   \def\currentfield{title}%
3682   \iffieldannotation{descriptor}{#1}{\mkbibquote{#1\isdot}}%
3683   \undef\currentfield}
3684 \DeclareFieldFormat[letter]{date}{%
3685   \iffieldundef{url}{#1}{\mkbibparens{#1}}}
```

### 2.1.18 RELATED ENTRIES

We make the punctuation before related items configurable in remaining drivers inherited from the standard style.

```

3686 \xpatchbibdriver{booklet}{%
3687   \newunit\newblock
3688   \iftoggle{bbx:related}
3689 }{%
3690   \setunit{\relatedtypepunct}\newblock
3691   \iftoggle{bbx:related}
3692 }{}
3693 \xpatchbibdriver{misc}{%
3694   \newunit\newblock
3695   \iftoggle{bbx:related}
3696 }{%
3697   \setunit{\relatedtypepunct}\newblock
3698   \iftoggle{bbx:related}
3699 }{}}
```

We provide an option for setting the relatedtype punctuation.

```

3700 \DeclareBibliographyOption{relationpunct}[semicolon]{%
3701   \ifcsdef{add#1}{%
3702     \ifstrequal{#1}{space}{%
3703       \renewcommand*{\relatedtypepunct}{\addspace}%
3704     }{%
3705       \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3706 }{%
3707   \PackageError{biblatex-oxref}{%
3708     Invalid option 'relationpunct=#1'%
3709 }{%
3710   Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3711   'period', 'exclam', 'question', and 'space'.}}
3712 \DeclareTypeOption{relationpunct}[semicolon]{%
3713   \ifcsdef{add#1}{%
3714     \ifstrequal{#1}{space}{%
3715       \renewcommand*{\relatedtypepunct}{\addspace}%
3716     }{%
3717       \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3718 }{%
3719   \PackageError{biblatex-oxref}{%
3720     Invalid option 'relationpunct=#1'%
3721 }{%
3722   Valid values are 'dot', 'comma', 'semicolon', 'colon',\MessageBreak
3723   'period', 'exclam', 'question', and 'space'.}}
3724 \newtoggle{blx@ox@relpunctset}
3725 \DeclareEntryOption{relationpunct}[semicolon]{%
```

```

3726 \ifcsdef{add#1}{%
3727   \ifstrequal{#1}{space}{%
3728     \renewcommand*{\relatedtypepunct}{\addspace}%
3729   }{%
3730     \renewcommand*{\relatedtypepunct}{\csuse{add#1}\space}}%
3731   \toggletrue{blx@ox@relpunctset}
3732 }{%
3733   \PackageError{biblatex-oxref}{%
3734     Invalid option 'relationpunct=#1'%
3735   }{%
3736     Valid values are 'dot', 'comma', 'semicolon', 'colon', \MessageBreak
3737     'period', 'exclam', 'question', and 'space'.}}%
3738 \newcounter{blx@ox@relitem}
3739 \xapptobibmacro{begrelated}{%
3740   \setcounter{blx@ox@relitem}{0}%
3741   \iftoggle{blx@ox@relpunctset}{%
3742     \iffieldequalstr{relatedtype}{in}{%
3743       \setunit{\addcomma\space}}{%
3744     \iffieldequalstr{relatedtype}{reprintfrom}{%
3745       \setunit{\addperiod\space}}{%
3746     \iffieldequalstr{relatedtype}{translationof}{%
3747       \setunit{\addspace}}{%
3748     \iffieldequalstr{relatedtype}{multivolume}{%
3749       \setunit{\addcomma\space}}{%
3750   }}{}%

```

## Translations

Where related item is the translation, the related string is prefaced with the language.

```

3751 \newbibmacro*{rellanguage}{%
3752   \def\do##1{%
3753     \entrydata{##1}{%
3754       \printlist{language}}}%
3755   \docsvfield{related}%
3756 }
3757 \DeclareFieldFormat{relatedstring:translationof}{%
3758   \usebibmacro{rellanguage}\space
3759   \bibstring{original}\addcomma\space}
3760
3761 \DeclareFieldFormat{related:translationof}{%
3762   \mkbibbrackets{#1}}

```

## Co-publications

This relation simply prints what would go in the publication block.

```

3763 \newbibmacro*{related:copub}[1]{%
3764   \entrydata*{#1}{%
3765     \usebibmacro{publisher+location+date}%
3766     \setunit{\relateddelim}}%

```

## Reprints

The standard styles define a special driver for the reprintfrom relation. For oxref, the standard generic driver is sufficient, so this code reverts the specialization.

```

3767 \renewbibmacro*{related:reprintfrom}[1]{%
3768 \entrydata*{#1}{%
3769 \nopunct
3770 \usedriver{%
3771 \ifnameundef{savedauthor}{%
3772 \ifnameundef{savededitor}{}%
3773 \ifnameequal{editor}{savededitor}{%
3774 \clearname{editor}%
3775 }{}%
3776 }{%
3777 \ifnameequal{author}{savedauthor}{%
3778 \clearname{author}%
3779 }{}%
3780 \iffieldundef{savedtitle}{}%
3781 \iffieldsequal{savedtitle}{title}{%
3782 \clearfield{title}%
3783 }{}%
3784 \renewbibmacro*{related:init}{}%
3785 \DeclareNameAlias{sortname}{default}%
3786 \ifbibmacroundef{date+extradate}{}%
3787 \renewbibmacro*{date+extradate}{}%
3788 \renewbibmacro*{date}{\printdate}%
3789 \renewbibmacro*{pageref}{}%
3790 }{%
3791 \thefield{entrytype}}}}

```

### Articles that span issues

If an article spans several issues of a journal, we print the second reference after the first, omitting any information in common.

```

3792 \newbibmacro*{related:serialarticle}[1]{%
3793 \entrydata*{#1}{%
3794 \iffieldundef{savedjournaltitle}{}%
3795 \iffieldsequal{journaltitle}{savedjournaltitle}{%
3796 \clearfield{journaltitle}%
3797 }{}%
3798 \iffieldundef{savedjournalsubtitle}{}%
3799 \iffieldsequal{journalsubtitle}{savedjournalsubtitle}{%
3800 \clearfield{journalsubtitle}%
3801 }{}%
3802 \iffieldundef{savedseries}{}%
3803 \iffieldsequal{series}{savedseries}{%
3804 \clearfield{series}%
3805 }{}%
3806 \iffieldundef{savedyear}{\clearfield{year}}{
3807 \iffieldsequal{year}{savedyear}{%
3808 \clearfield{year}%
3809 }{}%
3810 \usebibmacro{journal+issuetitle}%
3811 \newunit
3812 \usebibmacro{note+pages}%
3813 \newunit\newblock
3814 \usebibmacro{doi+eprint+url}%
3815 \newunit\newblock
3816 \usebibmacro{addendum+pubstate}}}}

```

### Reviews

We ensure that the field formatting for review entries matches that for article entries.

```

3817 \DeclareFieldFormat[review]{title}{\mkbibquote{#1\isdot}}
3818 \DeclareFieldFormat[review]{volume}{#1}% volume of a journal
3819 \DeclareFieldFormat[review]{number}{#1}% number of a journal
3820 \DeclareFieldFormat[review]{series}{% series of a journal
3821   \ifinteger{#1}
3822     {\mkbibordseries{#1}~\bibstring{jourser}}
3823     {\ifbibstring{#1}{\bibstring{#1}}{#1}}}

```

We take advantage of the Biber-specific mechanism of relating items in order to handle reviews. Compared to the default code, this is simpler in that we don't check for repeated authors/editors (it would be a rather biased review!), we directly set the author format, and we don't nullify the date+extradate macro.

```

3824 \newbibmacro*{related:reviewof}[1]{%
3825   \entrydata*{#1}{%
3826     \usedriver{%
3827       \renewbibmacro*{related:init}{}%
3828       \DeclareNameAlias{author}{given-family}%
3829       \renewbibmacro*{pageref}{}%
3830     }{\thefield{entrytype}}%
3831   }%
3832 }

```

Since a review is a special kind of journal article, the review driver is based on the article one, the difference being that the related macro comes just before journal+issuetitle. Oxford style links the two with 'in'.

```

3833 \DeclareBibliographyDriver{review}{%
3834   \usebibmacro{bibindex}%
3835   \usebibmacro{begentry}%
3836   \usebibmacro{author/translator+others}%
3837   \setunit{\printdelim{nametitledelim}}\newblock
3838   \usebibmacro{title}%
3839   \setunit{\titlebyauthordelim}\newblock
3840   \usebibmacro{byauthor}%
3841   \newunit\newblock
3842   \usebibmacro{bytranslator+others}%
3843   \newunit\newblock
3844   \printfield{version}%
3845   \newunit\newblock
3846   \iftoggle{bbx:related}{%
3847     \usebibmacro{related:init}%
3848     \usebibmacro{related}%
3849   }{}%
3850   \newunit\newblock
3851   \usebibmacro{in:}%
3852   \setunit{\addspace}%
3853   \usebibmacro{journal+issuetitle}%
3854   \newunit
3855   \usebibmacro{byeditor+others}%
3856   \iffieldundef{note}%
3857     {\newunit}%
3858     {\setunit{\addsemicolon\addspace}}%
3859   \usebibmacro{note+pages}%
3860   \newunit\newblock
3861   \iftoggle{bbx:isbn}
3862     {\printfield{issn}}
3863     {}%
3864   \newunit\newblock
3865   \usebibmacro{doi+eprint+url}%

```

```

3866 \newunit\newblock
3867 \usebibmacro{addendum+pubstate}%
3868 \setunit{\bibpagerefunct}\newblock
3869 \usebibmacro{pageref}%
3870 \usebibmacro{finentry}}

```

### Multiple volumes

Standard biblatex provides the `multivolume` relation for different volumes of the same work that have slightly different publication details, but it doesn't quite work for Oxford style. This works better.

```

3871 \DeclareFieldFormat{related:multivolume}{#1}
3872 \renewbibmacro*{related:multivolume}[1]{%
3873 \entrydata*{#1}{%
3874 \printtext{%
3875 \printfield{volume}%
3876 \printfield{part}}%
3877 \setunit*{\addspace}%
3878 \usebibmacro{series+number+edition+publisher+location+date}}}

```

### Related editions

This macro is based on the 'bytranslator' one, but more general.

```

3879 \newbibmacro*{related:editedas}[1]{%
3880 \entrydata{#1}{%
3881 \renewbibmacro*{name:hook}[1]{%
3882 \ifnumequal{\value{listcount}}{1}{%
3883 \begingroup
3884 \mkrelatedstring%
3885 \ltx@initnamehook{#1}%
3886 \endgroup
3887 }{}}%
3888 \printfield{edition}%
3889 \setunit{\addspace}%
3890 \usebibmacro{byeditor+others}%
3891 \setunit*{\addcomma\space\bibstring[\mkrelatedstring]{astitle}\space}%
3892 \usebibmacro{maintitle+title}%
3893 \setunit{\addspace}%
3894 \printfield{note}%
3895 \newunit\newblock
3896 \printfield{volumes}%
3897 \newunit
3898 \usebibmacro{series+number+publisher+location+date}}}
3899 \renewbibmacro*{related:bytranslator}[1]{%
3900 \entrydata{#1}{%
3901 \renewbibmacro*{name:hook}[1]{%
3902 \ifnumequal{\value{listcount}}{1}
3903 {\begingroup
3904 \mkrelatedstring%
3905 \ltx@initnamehook{#1}%
3906 \endgroup}
3907 {}}%
3908 \printnames{bytranslator}{translator}%
3909 \setunit*{\addspace\bibstring[\mkrelatedstring]{astitle}\space}%
3910 \usebibmacro{maintitle+title}%
3911 \setunit{\addspace}%
3912 \printfield{note}%

```

```

3913 \newunit\newblock
3914 \printfield{volumes}%
3915 \newunit
3916 \usebibmacro{series+number+publisher+location+date}}

```

## Joint releases

We provide support for CDs (for example) which contain more than one work.

```

3917 \newbibmacro*{related:includes}[1]{%
3918 \stepcounter{blx@ox@relitem}%
3919 \ifnumequal{\value{blx@ox@relitem}}{\value{bbx:relatedtotal}}%
3920 {\bibstring{and}\addspace}{}%
3921 \entrydata{#1}{%
3922 \ifbibmacrodef{date+extradate}}{%
3923 \renewbibmacro*{date+extradate}}{%
3924 \usebibmacro{author}%
3925 \setunit{\printdelim{nametitledelim}}\newblock
3926 \usebibmacro{title}}

```

## Subitems

We provide support for items in items in items. The outer two layers should be taken care of with an incollection entry or equivalent. The innermost item should be a misc entry. While we're at it, we provide descriptor support for misc entries.

```

3927 \DeclareFieldFormat[misc]{title}{%
3928 \def\currentfield{title}%
3929 \iffielddannotation{descriptor}{#1}{%
3930 \iffieldequalstr{relatedtype}{in}{%
3931 \mkbibquote{#1\isdot}%
3932 }{%
3933 \mkbibemph{#1}%
3934 }}%
3935 \undef\currentfield}
3936 \newbibmacro*{related:in}[1]{%
3937 \entrydata*{#1}{%
3938 \usedriver
3939 {\ifnameundef{savedauthor}
3940 {\ifnameundef{savededitor}
3941 {}
3942 {\ifnameequal{editor}{savededitor}
3943 {\clearname{editor}}
3944 {}}}}
3945 {\ifnameequal{author}{savedauthor}
3946 {\clearname{author}}
3947 {}}}%
3948 \renewbibmacro*{related:init}{}%
3949 \DeclareNameAlias{sortname}{default}%
3950 \ifbibmacrodef{date+extradate}
3951 {}
3952 {\renewbibmacro*{date+extradate}}{%
3953 \renewbibmacro*{date}{\printdate}}%
3954 \renewbibmacro*{pageref}{}%
3955 {\thefield{entrytype}}%
3956 \ifboolexpr{
3957 test {\iffielddundef{pages}}
3958 or
3959 test {\iffielddundef{savedpages}}

```

```

3960     }{%
3961     \newunit\newblock
3962   }{%
3963     \setunit{\addspace}%
3964     \bibstring{thiscite}%
3965     \printunit{\addspace}%
3966   }%
3967 }%
3968 \usebibmacro{chapter+pages}%
3969 }

```

### 2.1.19 SOURCE MAPS

We use the source mapping capabilities of Biber to fix the following issues.

```

3970 \DeclareStyleSourceMap{%
3971   \maps[datatype=bibtex]{%

```

#### Sort order

proceedings and mvproceedings entries allow an organization to be printed in the author position.

```

3972   \map{
3973     \pertype{proceedings}
3974     \pertype{mvproceedings}
3975     \step[notfield=author,
3976           fieldsource=organization,
3977           fieldtarget=author]
3978   }

```

#### Descriptors

This map provides a helpful descriptor field that can simplify the provision of descriptors, being notes that can act as titles.

```

3979   \map[overwrite=false]{
3980     \step[fieldsource=descriptor, final]
3981     \step[notfield=title,
3982           fieldset=title+an,
3983           fieldvalue={=descriptor}]
3984     \step[notfield=title,
3985           fieldsource=descriptor,
3986           fieldtarget=title]
3987     \step[fieldsource=descriptor,
3988           fieldtarget=note]
3989   }

```

#### Pseudonyms and inferred authorship

These help ensure compatibility with biblatex-realauthor.

```

3990   \map[overwrite=false]{
3991     \step[fieldsource=realauthor, final]
3992     \step[notfield=author,
3993           fieldset=author+an,
3994           fieldvalue={=inferred}]

```

```

3995     \step[notfield=author,
3996           fieldsource=realauthor,
3997           fieldtarget=author]
3998     \step[fieldsource=realauthor,
3999           fieldtarget=authoraddon]
4000   }
4001   \map[overwrite=false]{
4002     \step[fieldsource=reaeditor, final]
4003     \step[notfield=editor,
4004           fieldset=editor+an,
4005           fieldvalue={=inferred}]
4006     \step[notfield=editor,
4007           fieldsource=reaeditor,
4008           fieldtarget=editor]
4009     \step[fieldsource=reaeditor,
4010           fieldtarget=editoraddon]
4011   }

```

### Editors as joint authors

This map provides a more portable interface for declaring a translator or revisor to be a joint author.

```

4012   \map[overwrite=false]{
4013     \step[fieldsource=editor+an,
4014           match=\regexp{=jointauthor},
4015           final]
4016     \step[fieldsource=editor,
4017           fieldtarget=jointauthor]
4018     \step[fieldsource=editortype,
4019           fieldtarget=jointauthortype]
4020   }
4021   \map[overwrite=false]{
4022     \step[fieldsource=translator+an,
4023           match=\regexp{=jointauthor},
4024           final]
4025     \step[fieldsource=translator,
4026           fieldtarget=jointauthor]
4027     \step[fieldset=jointauthortype,
4028           fieldvalue={=translator}]
4029   }

```

### Standards

The purpose of this map is to move the number to the head of the reference in the absence of an author, and try to fix the sorting accordingly.

```

4030   \map[overwrite=false]{
4031     \pertype{standard}
4032     \step[notfield=author,
4033           fieldsource=number,
4034           final]
4035     \step[fieldset=sortkey,
4036           origfieldval]
4037   }

```

### Audiovisual materials

For audiovisual materials, origdatetype defaults to ‘recorded’.

```

4038 \map[overwrite=false]{
4039   \pertype{audio}
4040   \pertype{music}
4041   \pertype{movie}
4042   \pertype{video}
4043   \pertype{inaudio}
4044   \pertype{inmusic}
4045   \pertype{inmovie}
4046   \pertype{invideo}
4047   \step[fieldset=origdatetype,fieldvalue={recorded}]
4048 }

```

## Legal references

These help ensure compatibility with oscola.

```

4049 \map[overwrite=false]{
4050   \pertype{jurisdiction}
4051   \step[fieldsource=reporter,
4052         fieldtarget=journaltitle]
4053   \step[fieldsource=parvolume,
4054         fieldtarget=userb]
4055   \step[fieldsource=parreporter,
4056         fieldtarget=userc]
4057   \step[fieldsource=parseries,
4058         fieldtarget=userd]
4059   \step[fieldsource=parpages,
4060         fieldtarget=usere]
4061   \step[fieldsource=court,
4062         fieldtarget=institution]
4063   \step[fieldsource=additionalreports,
4064         fieldtarget=listb]
4065   \step[fieldsource=ecli,
4066         fieldtarget=verba]
4067 }%
4068 \map[overwrite=false]{
4069   \pertype{legal}
4070   \step[fieldsource=reporter,
4071         fieldtarget=journaltitle]
4072 }
4073 \map[overwrite=true]{
4074   \pertype{legal}
4075   \step[fieldsource=parties,
4076         fieldtarget=institution]
4077   \step[fieldsource=execution,
4078         fieldtarget=lista]
4079 }

```

This is how oscola removes dots from entries.

```

4080 \map[overwrite=true]{
4081   \pertype{jurisdiction}
4082   \pertype{legislation}
4083   \pertype{legal}
4084   \step[fieldsource=title,
4085         match=\regexp{(\\d)\\. (\\d)},
4086         replace=\regexp{$1.$2}]
4087   \step[fieldsource=title,
4088         match=\regexp{(\\D)\\. (\\d)},
4089         replace=\regexp{$1 $2}]

```

```

4090 \step[fieldsource=title,
4091   match=\regexp{(\D)\.},
4092   replace=\regexp{$1}]
4093 \step [fieldsource=title,
4094   match=\regexp{(\D)\.},
4095   replace=\regexp{$1}]
4096 \step[fieldsource=shorttitle,
4097   match=\regexp{(\d)\.(\d)},
4098   replace=\regexp{$1.$2}]
4099 \step[fieldsource=shorttitle,
4100   match=\regexp{(\D)\.(\d)},
4101   replace=\regexp{$1 $2}]
4102 \step[fieldsource=shorttitle,
4103   match=\regexp{(\.(\D))},
4104   replace=\regexp{$1}]
4105 \step [fieldsource=shorttitle,
4106   match=\regexp{(\D)\.},
4107   replace=\regexp{$1}]
4108 \step[fieldsource=userc,
4109   match=\regexp{(\d)\.(\d)},
4110   replace=\regexp{$1.$2}]
4111 \step[fieldsource=userc,
4112   match=\regexp{(\D)\.(\d)},
4113   replace=\regexp{$1 $2}]
4114 \step[fieldsource=userc,
4115   match=\regexp{(\.(\D))},
4116   replace=\regexp{$1}]
4117 \step [fieldsource=userc,
4118   match=\regexp{(\D)\.},
4119   replace=\regexp{$1}]
4120 \step[fieldsource=journaltitle,
4121   match=\regexp{(\d)\.(\d)},
4122   replace=\regexp{$1.$2}]
4123 \step[fieldsource=journaltitle,
4124   match=\regexp{(\D)\.(\d)},
4125   replace=\regexp{$1 $2}]
4126 \step[fieldsource=journaltitle,
4127   match=\regexp{(\.(\D))},
4128   replace=\regexp{$1}]
4129 \step [fieldsource=journaltitle,
4130   match=\regexp{(\D)\.},
4131   replace=\regexp{$1}]
4132 \step[fieldsource=institution,
4133   match=\regexp{(\d)\.(\d)},
4134   replace=\regexp{$1.$2}]
4135 \step[fieldsource=institution,
4136   match=\regexp{(\D)\.(\d)},
4137   replace=\regexp{$1 $2}]
4138 \step[fieldsource=institution,
4139   match=\regexp{(\.(\D))},
4140   replace=\regexp{$1}]
4141 \step[fieldsource=institution,
4142   match=\regexp{(\D)\.},
4143   replace=\regexp{$1}]
4144 \step[fieldsource=publisher,
4145   match=\regexp{(\d)\.(\d)},
4146   replace=\regexp{$1.$2}]
4147 \step[fieldsource=publisher,
4148   match=\regexp{(\D)\.(\d)},
4149   replace=\regexp{$1 $2}]
4150 \step[fieldsource=publisher,
4151   match=\regexp{(\.(\D))},

```

```

4152         replace=\regexp{$1}]
4153     \step [fieldsource=publisher,
4154           match=\regexp{(\D)\.},
4155           replace=\regexp{$1}]
4156     \step[fieldsource=location,
4157           match=\regexp{(\d)\.(\d)},
4158           replace=\regexp{$1.$2}]
4159     \step[fieldsource=location,
4160           match=\regexp{(\D)\.(\d)},
4161           replace=\regexp{$1 $2}]
4162     \step[fieldsource=location,
4163           match=\regexp{\.(\D)},
4164           replace=\regexp{$1}]
4165     \step [fieldsource=location,
4166           match=\regexp{(\D)\.},
4167           replace=\regexp{$1}]
4168     \step[fieldsource=series,
4169           match=\regexp{(\d)\.(\d)},
4170           replace=\regexp{$1.$2}]
4171     \step[fieldsource=series,
4172           match=\regexp{(\D)\.(\d)},
4173           replace=\regexp{$1 $2}]
4174     \step[fieldsource=series,
4175           match=\regexp{\.(\D)},
4176           replace=\regexp{$1}]
4177     \step [fieldsource=series,
4178           match=\regexp{(\D)\.},
4179           replace=\regexp{$1}]
4180     \step[fieldsource=indextitle,
4181           match=\regexp{(\d)\.(\d)},
4182           replace=\regexp{$1.$2}]
4183     \step[fieldsource=indextitle,
4184           match=\regexp{(\D)\.(\d)},
4185           replace=\regexp{$1 $2}]
4186     \step[fieldsource=indextitle,
4187           match=\regexp{\.(\D)},
4188           replace=\regexp{$1}]
4189     \step [fieldsource=indextitle,
4190           match=\regexp{(\D)\.},
4191           replace=\regexp{$1}]
4192     }
4193   }%
4194 }

```

### 2.1.20 SORTING SCHEMES

We adjust the sort order to take into account some other fields that might end up at the front (library, collection, series).

```

4195 \DeclareSortingTemplate{nty}{
4196   \sort{
4197     \field{presort}
4198   }
4199   \sort[final]{
4200     \field{sortkey}
4201   }
4202   \sort{
4203     \field{sortname}
4204     \field{author}
4205     \field{editor}

```

```
4206     \field{translator}
4207     \field{sorttitle}
4208     \field{title}
4209     \field{library}
4210   }
4211   \sort{
4212     \field{sorttitle}
4213     \field{title}
4214   }
4215   \sort{
4216     \field{sortyear}
4217     \field{year}
4218   }
4219   \sort{
4220     \field{volume}
4221     \literal{0}
4222   }
4223   \sort{
4224     \field{location}
4225   }
4226   \sort{
4227     \field{collection}
4228     \field{series}
4229   }
4230 }
4231
4232 \DeclareSortingTemplate{nyt}{
4233   \sort{
4234     \field{presort}
4235   }
4236   \sort[final]{
4237     \field{sortkey}
4238   }
4239   \sort{
4240     \field{sortname}
4241     \field{author}
4242     \field{editor}
4243     \field{translator}
4244     \field{sorttitle}
4245     \field{title}
4246     \field{library}
4247   }
4248   \sort{
4249     \field{sortyear}
4250     \field{year}
4251   }
4252   \sort{
4253     \field{sorttitle}
4254     \field{title}
4255   }
4256   \sort{
4257     \field{volume}
4258     \literal{0}
4259   }
4260   \sort{
4261     \field{location}
4262   }
4263   \sort{
4264     \field{collection}
4265     \field{series}
4266   }
4267 }
```

```

4268
4269 \DeclareSortingTemplate{anyt}{
4270   \sort{
4271     \field{presort}
4272   }
4273   \sort{
4274     \field{labelalpha}
4275   }
4276   \sort[final]{
4277     \field{sortkey}
4278   }
4279   \sort{
4280     \field{sortname}
4281     \field{author}
4282     \field{editor}
4283     \field{translator}
4284     \field{sorttitle}
4285     \field{title}
4286     \field{library}
4287   }
4288   \sort{
4289     \field{sortyear}
4290     \field{year}
4291   }
4292   \sort{
4293     \field{sorttitle}
4294     \field{title}
4295   }
4296   \sort{
4297     \field{volume}
4298     \literal{0}
4299   }
4300   \sort{
4301     \field{location}
4302   }
4303   \sort{
4304     \field{collection}
4305     \field{series}
4306   }
4307 }

```

The following entry types never put editors first.

```

4308 \ExecuteBibliographyOptions
4309 [proceedings,report,artwork,audio,image,music,movie,performance,video,%
4310 manuscript,unpublished,review]{useeditor=false}

```

## 2.2 Notes style: oxnotes.bbx

### 2.2.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```

We apply our special name format to names likely to appear at the start of an entry.

```

21 \DeclareNameAlias{author}{bib-family-given/cite-given-family}
22 \DeclareNameAlias[related:reviewof]{author}{given-family}

```

```

23 \DeclareNameAlias{editor}{bib-family-given/cite-given-family}
24 \DeclareNameAlias[related:reviewof]{editor}{given-family}

```

We ensure the printing of the anon localization string matches.

```

25 \xpatchbibmacro{author}{%
26   \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
27 }{%
28   \iftoggle{blx@ox@abbranon}{%
29     \iftoggle{blx@ox@scnames}{\bibcpsstring[\textsc]{anon}}{\bibcpsstring{anon}}%
30   }{%
31     \iftoggle{blx@ox@scnames}{\bibcplstring[\textsc]{anon}}{\bibcplstring{anon}}%
32   }%
33 }{}

```

### 2.2.2 PAGE RANGES IN CITATIONS

If specifying a page within a range in the course of a citation note, Oxford style is to format that as ‘*range at page*’; if no page range is specified, the page is printed as normal.

```

34 \renewbibmacro*{postnote}{%
35   \iffieldundef{postnote}{}{%
36     \iffieldundef{pages}{%
37       \setunit{\postnotedelim}%
38       \printfield{postnote}%
39     }{%
40       \printtext{\addspace\bibstring{thiscite}\space}%
41       \printfield{postnote}}}}

```

### 2.2.3 SOURCE MAPS

```

42 \DeclareStyleSourcemap{%
43   \maps[datatype=bibtex]{%

```

#### Sort order

For entry types that print the maintitle and volume before the title, we need to make sure this is reflected in the sort order.

```

44   \map{
45     \pertype{mvbook}
46     \pertype{mvcollection}
47     \pertype{mvreference}
48     \pertype{proceedings}
49     \pertype{mvproceedings}
50     \pertype{report}
51     \step[fieldsource=maintitle]%
52     \step[fieldset=sorttitle, origfieldval]%
53     \step[fieldsource=volume]%
54     \step[fieldset=sorttitle, append, origfieldval]%
55     \step[fieldsource=title]%
56     \step[fieldset=sorttitle, append, origfieldval]%
57   }%
58 }%
59 }

```

## 2.3 Numeric style: oxnum.bbx

### 2.3.1 PRELIMINARIES

First we load the common oxref features.

```
20 \RequireBibliographyStyle{oxref}
```

We apply our special name format to names likely to appear at the start of an entry.

```
21 \DeclareNameAlias{author}{bib-family-given/cite-given-family}
22 \DeclareNameAlias[related:reviewof]{author}{given-family}
23 \DeclareNameAlias{editor}{bib-family-given/cite-given-family}
24 \DeclareNameAlias[related:reviewof]{editor}{given-family}
```

We ensure the printing of the anon localization string matches.

```
25 \xpatchbibmacro{author}{%
26   \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
27 }{%
28   \iftoggle{blx@ox@abbranon}{%
29     \iftoggle{blx@ox@scnames}{\bibcpsstring[\textsc]{anon}}{\bibcpsstring{anon}}%
30   }{%
31     \iftoggle{blx@ox@scnames}{\bibcplstring[\textsc]{anon}}{\bibcplstring{anon}}%
32   }%
33 }{}}
```

### 2.3.2 LABEL NUMBERS

This next code is extracted from the standard numeric style.

```
34 \ExecuteBibliographyOptions{LabelNumber}
35
36 \providebool{bbx:subentry}
37
38 \DeclareBibliographyOption[boolean]{subentry}[true]{%
39   \setbool{bbx:subentry}{#1}}
40
41 \DeclareFieldFormat{bibentrysetcount}{\mkbibparens{\mknumalph{#1}}}
42 \DeclareFieldFormat{labelnumberwidth}{\mkbibbrackets{#1}}
43 \DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
44
45 \defbibenvironment{bibliography}
46   {\list
47     {\printtext[labelnumberwidth]{%
48       \printfield{labelprefix}%
49       \printfield{labelnumber}}}
50     {\setlength{\labelwidth}{\labelnumberwidth}%
51      \setlength{\leftmargin}{\labelwidth}%
52      \setlength{\labelsep}{\biblabelsep}%
53      \addtolength{\leftmargin}{\labelsep}%
54      \setlength{\itemsep}{\bibitemsep}%
55      \setlength{\parsep}{\bibparsep}}%
56     \renewcommand*{\makelabel}[1]{\hss#1}}
57   {\endlist}
58   {\item}
59
60 \defbibenvironment{shorthand}
61   {\list
62     {\printfield[shorthandwidth]{shorthand}}}
```

```

63     {\setlength{\labelwidth}{\shorthandwidth}%
64      \setlength{\leftmargin}{\labelwidth}%
65      \setlength{\labelsep}{\biblabelsep}%
66      \addtolength{\leftmargin}{\labelsep}%
67      \setlength{\itemsep}{\bibitemsep}%
68      \setlength{\parsep}{\bibparsep}%
69      \renewcommand*{\makeLabel}[1]{\hss##1}}
70 \endlist}
71 {\item}
72
73 \DeclareBibliographyDriver{set}{%
74   \entryset
75     {\ifbool{bbx:subentry}
76      {\printfield[bibentrysetcount]{entrysetcount}%
77       \printunit*{\addnbspace}}
78      {}}
79   {}%
80   \newunit\newblock
81   \usebibmacro{setpageref}%
82   \finentry}

```

## 2.4 Author–year style: oxyear.bbx

### 2.4.1 PRELIMINARIES

First we load the common oxref features.

```

20 \RequireBibliographyStyle{oxref}

```

Here we set some defaults different to the standard ones. The author can still override them.

```

21 \ExecuteBibliographyOptions{giveninits,labeldateparts,sorting=nyt,pagetracker,maxcitenames=2}

```

### 2.4.2 DATE MERGING OPTION

We provide the mergedate option from the author-year style. In case it isn't clear from the standard documentation, the purpose of this option is twofold: it determines whether the date printed at the head of the reference is the same as or different from labeldate as used in the citations, and to what extent the date information at the head of the reference is repeated later on. The OGS and NHR consistently use a variant that is between the basic and compact options, in that the year is always moved to the head of the reference (matching labeldate) but the month and day are never moved; this is implemented as the year value.

```

22 \DeclareBibliographyOption{mergedate}[true]{%
23   \ifcsdef{bbx@opt@mergedate@#1}
24     {\csuse{bbx@opt@mergedate@#1}}
25     {\PackageError{biblatex}
26      {Invalid option 'mergedate=#1'}
27      {Valid values are 'maximum', 'compact', 'basic', 'minimum', \MessageBreak
28       'year', 'true' (=year), and 'false'.}}}
29 \DeclareTypeOption{mergedate}[true]{%
30   \ifcsdef{bbx@opt@mergedate@#1}
31     {\csuse{bbx@opt@mergedate@#1}}
32     {\PackageError{biblatex}
33      {Invalid option 'mergedate=#1'}
34      {Valid values are 'maximum', 'compact', 'basic', 'minimum', \MessageBreak
35       'year', 'true' (=year), and 'false'.}}}

```

The various values affect the definition of the following macro, used at the head of the reference, for which we coin the `dateLabel` field format.

```

36 \providebibmacro*{date+extradate}{}
37 \DeclareFieldFormat{dateLabel}{\mkbibparens{#1}}
38 \DeclareFieldFormat{labeldate}{%
39   \iflabeldateisdate{%
40     \def\currentfield{date}%
41   }{%
42     \iflabeldateisanydate{%
43       \def\currentfield{\thefield{labeldatesource}date}%
44     }{%
45       \def\currentfield{\thefield{labeldatesource}}}%
46   \iffieldannotation{inferred}{\mkbibbrackets{#1}}{#1}%
47   \undef\currentfield}

```

On a related note, the `labeldate` uses the `origdate` if provided in preference to `date`, and falls back to `pubstate` if provided.

```

48 \DeclareLabeldate{%
49   \field{origdate}
50   \field{date}
51   \field{year}
52   \field{eventdate}
53   \field{pubstate}
54   \literal{nodate}
55 }

```

The `extradate` string should be printed bare.

```

56 \DeclareFieldFormat{extradate}{%
57   \iffieldundef{\thefield{labeldatesource}}{%
58     \iffieldnums{\thefield{labeldatesource}year}{~}%
59   }{%
60     \iffieldnums{\thefield{labeldatesource}}{~}%
61   }%
62   \mkbibemph{\mknumalph{#1}}}%

```

We provide tests similar to `\labeldateisdate` to tell if the `labeldate` is (a) any type of date, and (b) neither a date nor `pubstate`.

```

63 \def\iflabeldateisanydate{%
64   \ifboolexpr{%
65     togl {blx@labeldateparts}
66     and not test {\iffieldundef{labeldatesource}}
67     and (
68       test {\iffieldequalstr{labeldatesource}{year}}
69       or not test {\iffieldundef{\thefield{labeldatesource}year}}
70     )}}
71 \def\iflabeldateispubstate{%
72   \ifboolexpr{%
73     not test {\iffieldundef{labeldatesource}}
74     and test {\iffieldequalstr{labeldatesource}{pubstate}}}}

```

We also provide a wrapper around `\printlabeldateextra` that does nothing if the label date is the 'nodate' literal *and* `sortyear` is defined. Sadly `sortyear` is consumed before we get to this point, so we need a proxy toggle.

```

75 \newtoggle{blx@ox@nonodate}
76 \DeclareBibliographyOption[boolean]{nonodate}[true]{%
77   \settoggle{blx@ox@nonodate}{#1}}
78 \DeclareTypeOption[boolean]{nonodate}[true]{%
79   \settoggle{blx@ox@nonodate}{#1}}
80 \DeclareEntryOption[boolean]{nonodate}[true]{%
81   \settoggle{blx@ox@nonodate}{#1}}
82 \newbibmacro*{labeldate}{%
83   \ifboolexpr{
84     test {\iffieldequalstr{labeldatesource}{nodate}}
85     and
86     togl {blx@ox@nonodate}}
87   }{\printtext[datelabel]{\printlabeldateextra}}

```

Here we provide the various possible definitions. The authoryear implementation does it by clearing, changing or restoring the normal definitions of the date and issue+date macros. This is not so great for us as our versions of those macros are quite complex (too much to keep repeating). There are additional complications that arise from us using or igdate in preference to date for the label year, and from our option that requires us to print some dates without years. Conceptually it is more straightforward to clear the data fields instead.

- true is the same as year (see below).

```

88 \def\bbx@opt@mergedate@true{\bbx@opt@mergedate@year}

```

- maximum merges the issue and the whole date with the date label. Therefore, we clear year, month, and day from the date used for the label, as well as the issue field.

```

89 \def\bbx@opt@mergedate@maximum{%
90   \renewbibmacro*{date+extradate}{%
91     \iffieldundef{labelyear}}{%
92       \iflabeldateisdate{%
93         \printtext[datelabel]{%
94           \printfield{issue}\clearfield{issue}%
95           \setunit*{\addspace}%
96           \printdateextra}%
97         \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
98       }{%
99         \iflabeldateisanydate{%
100           \printtext[datelabel]{%
101             \csuse{print\thefield{labeldatesource}dateextra}}%
102           \clearfield{\thefield{labeldatesource}year}%
103           \clearfield{\thefield{labeldatesource}season}%
104           \clearfield{\thefield{labeldatesource}month}%
105           \clearfield{\thefield{labeldatesource}day}%
106         }{%
107           \usebibmacro{labeldate}%
108           \iflabeldateispubstate}{\clearfield{\thefield{labeldatesource}}}}}}

```

- compact merges the whole date (but not issue) with date label. Therefore, we clear year, month, and day from the date used for the label, but leave the issue field alone.

```

109 \def\bbx@opt@mergedate@compact{%
110   \renewbibmacro*{date+extradate}{%
111     \iffieldundef{labelyear}}{%
112       \iflabeldateisdate{%
113         \printtext[datelabel]{\printdateextra}%

```

```

114     \clearfield{year}\clearfield{season}\clearfield{month}\clearfield{day}%
115   }{%
116     \iflabeldateisanydate{%
117       \printtext[datelabel]{%
118         \csuse{print\thefield{labeldatesource}dateextra}}%
119       \clearfield{\thefield{labeldatesource}year}%
120       \clearfield{\thefield{labeldatesource}season}%
121       \clearfield{\thefield{labeldatesource}month}%
122       \clearfield{\thefield{labeldatesource}day}%
123     }{%
124       \usebibmacro{labeldate}%
125       \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}}}}

```

- year 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.

```

126 \def\bbx@opt@mergedate@year{%
127 \renewbibmacro*{date+extradate}{%
128 \iffieldundef{labelyear}}{%
129 \usebibmacro{labeldate}%
130 \iflabeldateisdate{%
131 \clearfield{year}
132 }{%
133 \iflabeldateisanydate{%
134 \clearfield{\thefield{labeldatesource}year}%
135 }{%
136 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}}%
137 }}}}

```

- basic will merge a year-only date with the date label, but will otherwise display the label year at the head of the reference and the full date later. Therefore we clear the year if and only if there is no month component *and* (if this is the regular date) no issue.

```

138 \def\bbx@opt@mergedate@basic{%
139 \renewbibmacro*{date+extradate}{%
140 \iffieldundef{labelyear}}{%
141 \usebibmacro{labeldate}%
142 \iflabeldateisdate{%
143 \ifboolexpr{
144 test {\ifdateshavedifferentprecision{label}}{}
145 or
146 not test {\iffieldundef{issue}}
147 }{}{%
148 \clearfield{year}}%
149 }{%
150 \iflabeldateisanydate{%
151 \ifdateshavedifferentprecision{label}{\thefield{labeldatesource}}{}{%
152 \clearfield{\thefield{labeldatesource}year}}%
153 }{%
154 \iflabeldateispubstate{}{\clearfield{\thefield{labeldatesource}}}}%
155 }}}}

```

- minimum will only merge the date with the label date if the two are identical, that is, a bare year with no month or disambiguating suffix. Therefore we clear the year if and only if there is no month component, no extradate, *and* (if this is the regular date) no issue.

```

156 \def\bbx@opt@mergedate@minimum{%
157 \renewbibmacro*{date+extradate}{%
158 \iffieldundef{Labelyear}}{%
159 \usebibmacro{labeldate}%
160 \iflabeldateisdate{%
161 \ifboolexpr{
162 test {\ifdateshavedifferentprecision{label}}
163 or
164 not test {\iffieldundef{extradate}}
165 or
166 not test {\iffieldundef{issue}}
167 }{%
168 \clearfield{year}}%
169 }{%
170 \iflabeldateisanydate{%
171 \ifboolexpr{
172 test {\ifdateshavedifferentprecision{label}\thefield{labeldatesource}}
173 or
174 not test {\iffieldundef{extradate}}
175 }{%
176 \clearfield{\thefield{labeldatesource}year}}%
177 }{%
178 \iflabeldateispubstate}{\clearfield{\thefield{labeldatesource}}}%
179 }}}}

```

- false suppresses any merging. We only clear the label date source if it is a non-date field other than pubstate.

```

180 \def\bbx@opt@mergedate@false{%
181 \renewbibmacro*{date+extradate}{%
182 \iffieldundef{Labelyear}}{%
183 \usebibmacro{labeldate}%
184 \iflabeldateisanydate}{%
185 \iflabeldateispubstate}{\clearfield{\thefield{labeldatesource}}}%
186 }}}}

```

We set the default to be true/year.

```

187 \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 extravagantly named `\mknoyeardaterangefull` and `\mknoyeardaterangetrunc`.

```

188 \newrobustcmd*{\mknoyeardaterangefull}[2]{%
189 \iffieldundef{#2month}}{%
190 \datecircaprint
191 \printtext[#2date]{%
192 \iffieldundef{#2season}}{%
193 \csuse{mkbibdate#1}{#2month}{#2day}%
194 \blx@printtime{#2}}%
195 }{%
196 \csuse{mkbibseasondate#1}{#2season}}%
197 \dateuncertainprint
198 \iffieldundef{#2endmonth}}{%
199 \iffieldequalstr{#2endmonth}}{%
200 \mbox{\bibdaterangesep}%
201 }{%

```

```

202     \bibdaterangesep
203     \enddatecircaprint
204     \iffieldundef{#2season}{%
205         \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
206         \blx@printtime{#2}{end}%
207     }{%
208         \csuse{mkbibseasondate#1}{#2endseason}}%
209     \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.

```

210     \newrobustcmd*{\mknoyeardaterangetrunc}[2]{%
211         \iffieldundef{#2month}{}%
212         \datecircaprint
213         \printtext[#2date]{%
214             \iffieldundef{#2season}{%
215                 \ifboolexpr{
216                     test {\iffieldsequal{labelyear}{labelendyear}}
217                     and
218                     test {\iffieldsequal{#2month}{#2endmonth}}
219                 }{%
220                     \csuse{mkbibdate#1}{#2day}%
221                 }{%
222                     \csuse{mkbibdate#1}{#2month}{#2day}}%
223             }{%
224                 \csuse{mkbibseasondate#1}{#2season}}%
225             \dateuncertainprint
226             \iffieldundef{#2endmonth}{}%
227             \iffieldequalstr{#2endmonth}{}%
228             \mbox{\bibdaterangesep}%
229         }{%
230             \bibdaterangesep
231             \enddatecircaprint
232             \iffieldundef{#2season}{%
233                 \csuse{mkbibdate#1}{#2endmonth}{#2endday}%
234             }{%
235                 \csuse{mkbibseasondate#1}{#2endseason}}%
236             \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.

```

237     \xpatchcmd{\mkdaterangefull}{%
238         \iffieldundef{#2year} {}%
239     }{%
240         \iffieldundef{#2year} {\mknoyeardaterangefull{#1}{#2}}%
241     }{}{}
242     \xpatchcmd{\mkdaterangetrunc}{%
243         \iffieldundef{#2year} {}%
244     }{%
245         \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
246     }{}{}
247     \xpatchcmd{\mkdaterangefullexta}{%
248         \iffieldundef{#2year} {}%
249     }{%
250         \iffieldundef{#2year} {\mknoyeardaterangefullexta{#1}{#2}}%

```

```

251 }{}
252 \xpatchcmd{\mkdaterangetruncextra}{%
253 \iffieldundef{#2year} {}}%
254 }{%
255 \iffieldundef{#2year} {\mknoyeardaterangetrunc{#1}{#2}}%
256 }{}

```

### 2.4.3 BIBLIOGRAPHY FORMATTING

We let biblatex measure shorthands so we can use `\shorthandwidth` later.

```

257 \DeclareFieldFormat{shorthandwidth}{#1}

```

We enhance the family-given name format to handle the pseudo and inferred annotations.

```

258 \xpretonameformat{family-given}{%
259 \iffieldannotation{inferred}{\ifnumequal{\value{listcount}}{1}{\bibopenbracket}{}{}%
260 \ifitemannotation{inferred}{\bibopenbracket}{}%
261 }{}
262 \xpatchnameformat{family-given}{%
263 \usebibmacro{name:andothers}%
264 }{%
265 \ifitemannotation{pseudo}{%
266 \addspace\printtext[parens]{\bibsstring{pseudo}}%
267 }{}%
268 \ifitemannotation{inferred}{\bibclosebracket}{}%
269 \usebibmacro{name:andothers}%
270 \iffieldannotation{inferred}{%
271 \ifboolexpr{
272 test {\ifnumequal{\value{listcount}}{\value{maxnames}}}
273 or
274 test {\ifnumequal{\value{listcount}}{\value{listtotal}}}
275 or (
276 test {\ifnumequal{\value{listcount}}{\value{minnames}}}
277 and
278 test {\ifnumgreater{\value{listtotal}}{\value{maxnames}}} )
279 }\bibclosebracket}{}%
280 }{}%
281 }{}
282 \DeclareNameAlias{shortauthor}{family-given}
283 \DeclareNameAlias{shorteditor}{family-given}

```

Names at the head of the reference are family-given, but names elsewhere are given-family.

```

284 \DeclareNameAlias{sortname}{family-given}
285 \DeclareNameAlias{author}{family-given}
286 \DeclareNameAlias{editor}{family-given}
287 \DeclareNameAlias{translator}{family-given}

```

The bibliography formatting is just like authoryear except we do not eliminate item separation by default.

```

288 \defbibenvironment{bibliography}
289 {\list
290 {}
291 {\setlength{\leftmargin}{\bibhang}%
292 \setlength{\itemindent}{-\leftmargin}%
293 \setlength{\itemsep}{\bibitemsep}%
294 \setlength{\parsep}{\bibparsep}}

```

```
295   {\endlist}
296   {\item}
```

The shorthand formatting is just like `authoryear`.

```
297   \defbibenvironment{shorthand}
298     {\list
299       {\printfield[shorthandwidth]{shorthand}}
300       {\setlength{\labelwidth}{\shorthandwidth}%
301        \setlength{\leftmargin}{\labelwidth}%
302        \setlength{\labelsep}{\biblabelsep}%
303        \addtolength{\leftmargin}{\labelsep}%
304        \setlength{\itemsep}{\bibitemsep}%
305        \setlength{\parsep}{\bibparsep}%
306        \renewcommand*{\makeLabel}[1]{##1\hss}}
307     {\endlist}
308     {\item}
```

#### 2.4.4 NAME AND DATE FORMATTING

We set up hashing just as in `authoryear`.

```
309   \InitializeBibliographyStyle{\global\undef\bbx@lasthash}
```

We ensure related entries do not interfere with the hashing.

```
310   \xapptobibmacro{begrelated}{%
311     \booltrue{bbx@inset}}{}{}
312   \xapptobibmacro{endrelated}{%
313     \usebibmacro*{bbx:savehash}}{}{}%
```

We patch the author macro so that the date label information appears at the end (as in `authoryear`).

```
314   \xpatchbibmacro{author}{%
315     \iffieldundef{authortype}%
316   }{%
317     \usebibmacro{date+extradate}%
318     \setunit*{\addspace}%
319     \iffieldundef{authortype}%
320   }{}{}%
321   \xpatchbibmacro{author}{%
322     \global\undef\bbx@lasthash
323   }{%
324     \global\undef\bbx@lasthash
325     \usebibmacro{labeltitle}%
326     \setunit*{\addspace}%
327     \usebibmacro{date+extradate}%
328   }{}{}%
```

We patch it further so that, where an author name has a corresponding (different) short author name, the short name is given first and the long name given in parentheses. Note that this only affects cases where `authoraddon` has not been provided.

```
329   \xpatchbibmacro{namepairs}{%
330     \printnames[by#1]%
331   }{}%
```

```

332   \printnames[#1]%
333   }{}
334   \xpatchbibmacro{author+altauthor}{%
335     \printnames{author}%
336   }{%
337     \ifboolexpr{%
338       ( not test {\ifnameundef{shortauthor}} )
339       and
340       test {\ifnumequal{\value{shortauthor}}{\value{author}}}
341     }{%
342       \usebibmacro{namepairs}{author}{shortauthor}%
343     }{%
344       \printnames{author}%
345     }%
346   }{}%

```

We apply the same patches to `bbx:editor`, but also move the editor string to after the date label.

```

347   \xpatchbibmacro{bbx:editor}{%
348     \usebibmacro{#1}%
349   }{%
350     \usebibmacro{date+extradate}%
351     \setunit*{\addspace}%
352     \usebibmacro{#1}%
353   }{}%
354   \xpatchbibmacro{bbx:editor}{%
355     \global\undef\bbx@lasthash
356   }{%
357     \global\undef\bbx@lasthash
358     \usebibmacro{labeltitle}%
359     \setunit*{\addspace}%
360     \usebibmacro{date+extradate}%
361   }{}%
362   \xpatchbibmacro{editor+alteditor}{%
363     \printnames[byeditor]%
364   }{%
365     \printnames[editor]%
366   }{}
367   \xpatchbibmacro{editor+alteditor}{%
368     \printnames{editor}%
369   }{%
370     \ifboolexpr{%
371       ( not test {\ifnameundef{shorteditor}} )
372       and
373       test {\ifnumequal{\value{shorteditor}}{\value{editor}}}
374     }{%
375       \usebibmacro{namepairs}{editor}{shorteditor}%
376     }{%
377       \printnames{editor}%
378     }%
379   }{}%

```

We apply the same patches to `bbx:translator` as we do for `bbx:editor`, except for the shortening one.

```

380   \xpatchbibmacro{bbx:translator}{%
381     \global\undef\bbx@lasthash
382   }{%
383     \global\undef\bbx@lasthash
384     \usebibmacro{labeltitle}%
385     \setunit*{\addspace}%

```

```

386   \usebibmacro{date+extradate}%
387   }{}%
388   \xpatchbibmacro{bbx:translator}{%
389     \usebibmacro{#1}%
390   }{}%
391   \usebibmacro{date+extradate}%
392   \setunit*{\addspace}%
393   \usebibmacro{#1}%
394   }{}%

```

The `labeltitle` macro differs from the one from `authoryear` in that it also includes the subtitle. We record the fact that we have cleared the title.

```

395   \newtoggle{blx@ox@clearedtitle}
396   \newbibmacro*{labeltitle}{%
397     \iffieldundef{label}{%
398       \iffieldundef{shorttitle}{%
399         \ifboolexpr{
400           test {\iffieldundef{title}}
401           and
402           test {\iffieldundef{subtitle}}
403         }{}%
404         \printfield{library}%
405         \clearfield{library}%
406       }{}%
407       \printtext[title]{%
408         \printfield[titlecase]{title}%
409         \setunit{\subtitlepunct}%
410         \printfield[titlecase]{subtitle}}%
411       \clearfield{title}%
412       \clearfield{subtitle}%
413       \toggletrue{blx@ox@clearedtitle}%
414       \setunit{\addspace}%
415     }%
416   }{}%
417   \printtext[title]{\printfield[titlecase]{shorttitle}}%
418   }%
419 }{}%
420   \printfield{label}%
421   }%
422 }

```

If the `labeltitle` pulls the title from a `maintitle+title` macro, we flick a switch to make the driver use `maintitle+volume` instead.

```

423   \xpretobibmacro{maintitle+title}{%
424     \iftoggle{blx@ox@clearedtitle}{%
425       \usebibmacro{maintitle+volume}%
426       \clearfield{maintitle}%
427       \clearfield{volume}%
428     }{}%
429   }{}%
430   \DeclareFieldFormat[mvbook,mvcollection,mvreference,proceedings,mvproceedings]{maintitle+volume}{#1}

```

The date of online entries is printed in parentheses; as the year is moved after the author, this can lead to empty parentheses unless a month is printed, so we change the test accordingly.

```

431   \xpatchbibdriver{online}{%
432     \iffieldundef{year}%
433   }{}%

```

```

434 \ifbool{expr}{
435   test {\iffieldundef{season}}
436   and
437   test {\iffieldundef{month}}
438 }%
439 }{}

```

We ensure the label title in citations matches the formatting used for the equivalent information in the bibliography entry.

```

440 \DeclareFieldFormat[bookinbook]{citetitle}{%
441   \ifbool{expr}{
442     test {\iffieldequalstr{entrysubtype}{poem}}
443     or
444     test {\iffieldequalstr{entrysubtype}{play}}
445   }{%
446     \mkbibemph{#1}%
447   }{%
448     \mkbibquote{#1\isdot}}}}
449 \DeclareFieldFormat[suppperiodical,inaudio,inmusic,inmovie,invideo,online,%
450   image,manuscript,unpublished]{citetitle}{%
451   \def\currentfield{title}%
452   \ifbool{expr}{
453     test {\iffieldannotation{descriptor}}
454     or (
455       test {\iffieldundef{shorttitle}}
456       and
457       test {\iffieldundef{title}}
458     )
459   }{#1}{\mkbibquote{#1\isdot}}%
460   \undef\currentfield}
461 \DeclareFieldFormat[suppperiodical,inaudio,inmusic,inmovie,invideo,online,%
462   image,manuscript,unpublished]{citetitle}{%
463   \def\currentfield{title}%
464   \ifbool{expr}{
465     test {\iffieldannotation{descriptor}}
466     or (
467       test {\iffieldundef{shorttitle}}
468       and
469       test {\iffieldundef{title}}
470     )
471   }{#1}{\mkbibquote{#1\isdot}}%
472   \undef\currentfield}
473 \DeclareFieldFormat[audio,music]{citetitle}{%
474   \def\currentfield{title}%
475   \ifbool{expr}{
476     test {\iffieldannotation{descriptor}}
477     or (
478       test {\iffieldundef{shorttitle}}
479       and
480       test {\iffieldundef{title}}
481     )
482   }{#1}{%
483     \iffieldequalstr{entrysubtype}{podcast}{%
484       \mkbibquote{#1\isdot}}%
485     }{%
486       \mkbibemph{#1}}}%
487   \undef\currentfield}
488 \DeclareFieldFormat[movie,video]{citetitle}{%
489   \def\currentfield{title}%
490   \ifbool{expr}{

```

```

491     test {\iffieldannotation{descriptor}}
492     or (
493         test {\iffieldundef{shorttitle}}
494         and
495         test {\iffieldundef{title}}
496     )
497 }{#1}{%
498     \ifboolexpr{
499         test {\iffieldequalstr{entrysubtype}{episode}}
500         or
501         test {\iffieldequalstr{entrysubtype}{clip}}
502         or
503         test {\iffieldequalstr{entrysubtype}{webcast}}
504     }{%
505         \mkbibquote{#1\isdot}%
506     }{%
507         \mkbibemph{#1}}}%
508 \undef\currentfield}
509 \DeclareFieldFormat[legislation,legal]{citetitle}{#1}
510 \DeclareFieldFormat[misc]%
511     {citetitle}{%
512     \def\currentfield{title}%
513     \ifboolexpr{
514         test {\iffieldannotation{descriptor}}
515         or (
516             test {\iffieldundef{shorttitle}}
517             and
518             test {\iffieldundef{title}}
519         )
520     }{#1}{%
521         \iffieldequalstr{relatedtype}{in}{%
522             \mkbibquote{#1\isdot}%
523         }{%
524             \mkbibemph{#1}}}%
525     }}%
526 \undef\currentfield}

```

### 2.4.5 JOURNAL DIVISION FORMATTING

Oxyear uses a colon to demarcate page numbers in journal articles.

```

527 \renewcommand*{\bibpagespunct}{%
528     \ifboolexpr{
529         test {\ifentrytype{article}}
530         or
531         test {\ifentrytype{supperperiodical}}
532         or
533         test {\ifentrytype{review}}
534     }{%
535         \addcolon\space
536     }{%
537         \addcomma\space
538     }%
539 }

```

### 2.4.6 MANUSCRIPTS

We include the library field as a fallback title.

```

540 \DeclareLabeltitle{%
541   \field{shorttitle}
542   \field{title}
543   \field{maintitle}
544   \field{library}
545 }

```

## 2.4.7 SOURCE MAPS

We use the source mapping capabilities of Biber to fix the following issues.

```

546 \DeclareStyleSourcemap{%
547   \maps[datatype=bibtex]{%

```

### Suppressing a ‘nodate’ label

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.

```

548   \map[overwrite=true]{
549     \step[notmatch=\regexp{nonodate}, fieldsource=options, final]
550     \step[fieldsource=sortyear, final]
551     \step[fieldset=options, append, fieldvalue={,nonodate}]
552   }
553   \map[overwrite=true]{
554     \step[notfield=options, final]
555     \step[fieldsource=sortyear, final]
556     \step[fieldset=options, fieldvalue={nonodate}]
557   }

```

### Standards

The purpose of this map is to change the number into a label in the absence of an author, so that the citations come out right and the date is positioned correctly.

```

558   \map[overwrite=false]{
559     \pertype{standard}
560     \step[notfield=author,
561           fieldsource=number,
562           fieldtarget=label]
563   }
564 }}

```

## 2.5 Alphabetic style: `oxalph.bbx`

### 2.5.1 PRELIMINARIES

This style is based on `oxyear`.

```

20 \RequireBibliographyStyle{oxyear}

```

### 2.5.2 SUPPRESSING LABELEXTRA

Since the label codes do all the disambiguation, it is not necessary for the date at the head of the reference to have a disambiguation component.

```

21 \xpatchcmd{\bbx@opt@mergedate@maximum}{%
22   \printdateextra
23 }{%
24   \printdate
25 }{}{}
26 \xpatchcmd{\bbx@opt@mergedate@maximum}{%
27   \csuse{print\thefield{labeldatesource}dateextra}
28 }{%
29   \csuse{print\thefield{labeldatesource}date}
30 }{}{}
31 \xpatchcmd{\bbx@opt@mergedate@compact}{%
32   \csuse{print\thefield{labeldatesource}dateextra}
33 }{%
34   \csuse{print\thefield{labeldatesource}date}
35 }{}{}
36 \xpatchbibmacro{labeldate}{%
37   \printlabeldateextra
38 }{%
39   \printlabeldate
40 }{}{}
41 \ExecuteBibliographyOptions{mergedate}

```

### 2.5.3 LABEL CODES: PRINTING

This next code is extracted from the standard alphabetic style, and among other things ensures the citation labels are printed in the bibliography.

```

42 \ExecuteBibliographyOptions{labelalpha,sorting=anyt}
43
44 \DeclareFieldFormat{labelalphawidth}{\mkbibbrackets{#1}}
45 \DeclareFieldFormat{shorthandwidth}{\mkbibbrackets{#1}}
46
47 \defbibenvironment{bibliography}
48   {\list
49     {\printtext[labelalphawidth]{%
50       \printfield{labelprefix}%
51       \printfield{labelalpha}%
52       \printfield{extraalpha}}}
53     {\setlength{\labelwidth}{\labelalphawidth}%
54      \setlength{\leftmargin}{\labelwidth}%
55      \setlength{\labelsep}{\biblabelsep}%
56      \addtolength{\leftmargin}{\labelsep}%
57      \setlength{\itemsep}{\bibitemsep}%
58      \setlength{\parsep}{\bibparsep}}%
59     \renewcommand*{\makelabel}[1]{##1\hss}}
60   {\endlist}
61   {\item}
62
63 \defbibenvironment{shorthand}
64   {\list
65     {\printfield[shorthandwidth]{shorthand}}
66     {\setlength{\labelwidth}{\shorthandwidth}%
67      \setlength{\leftmargin}{\labelwidth}%
68      \setlength{\labelsep}{\biblabelsep}%
69      \addtolength{\leftmargin}{\labelsep}%

```

```

70     \setlength{\itemsep}{\bibitemsep}%
71     \setlength{\parsep}{\bibparsep}%
72     \renewcommand*{\makeatlabel}[1]{##1\hss}}
73   {\endlist}
74   {\item}

```

#### 2.5.4 LABEL CODES: GENERATING

The standard labels are generated from the `labelname` and year. We widen the net a bit, so that if there is no `labelname`, we fall back to the `shortlabeltitle` or `labeltitle`; also we use `labelyear` in place of year. The `shortlabeltitle` is generated from all the capital letters in the title and subtitle, with the help of a source map.

```

75   \DeclareStyleSourceMap{%
76     \maps[datatype=bibtex]{%
77       \map[overwrite=false]{%
78         \step[fieldsource=title, final]
79         \step[fieldset=shortlabeltitle, origfieldval]
80         \step[fieldsource=subtitle]
81         \step[fieldset=shortlabeltitle, origfieldval, append=true]
82         \step[fieldsource=shortlabeltitle,
83           match=\regexp{[^\p{Lu}]},
84           replace=\regexp{}}
85       }}}
86   \DeclareLabelAlphaTemplate{%
87     \labelelement{
88       \field[final]{shorthand}
89       \field{label}
90       \field[strwidth=3, strside=left, ifnames=1]{labelname}
91       \field[strwidth=1, strside=left]{labelname}
92       \field[strwidth=3, strside=left]{shortlabeltitle}
93       \field[strwidth=4, strside=left]{labeltitle}
94     }
95     \labelelement{
96       \field[strwidth=2, strside=right]{labelyear}
97     }
98   }

```

## Citation styles

### 3.1 Notes style: oxnotes.cbx

The standard verbose style works without further adjustment.

```
20 \RequireCitationStyle{verbose}
```

### 3.2 Author–year style: oxyyear.cbx

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

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

This sets `uniquename` to `full`, but that conflicts with `giveninits` 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.

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

We provide a slightly different `labeldate` macro that obeys the `nonodate` option.

```
22 \newbibmacro*{cite:labeldate+extradate}{%
23   \ifboolexpr{
24     test {\iffielddundef{labelyear}}
25     or
26     ( test {\iffieldequalstr{labeldatesource}{nodate}}
27       and
28       togl {blx@ox@nonodate} )
29   }{\printtext[bibhyperref]{\printlabeldateextra}}
```

We insert anonymous author handling into `cite`.

```
30 \xpatchbibmacro{cite}{%
31   \printnames{labelname}%
32 }{%
33   \ifboolexpr{
34     test {\iffieldequalstr{labelnamesource}{author}}
35     and
36     togl {blx@ox@autoanon}
37     and
38     test {\iffieldequals{rawauthor}{\oxrefanon}}
```

```

39   }{%
40   \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
41   }{%
42   \printnames{labelname}%
43   }%
44   }{}

```

The name and year are usually separated by a space, but if the date is replaced by a word (e.g. ‘forthcoming’, ‘n.d.’), they are separated by a comma.

```

45   \DeclareDelimFormat{nameyeardelim}{%
46   \iflabeldateisanydate
47   {\addspace}%
48   {\addcomma\space}}
49   \DeclareDelimFormat{nonameyeardelim}{%
50   \iflabeldateisanydate
51   {\addspace}%
52   {\addcomma\space}}

```

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

```

53   \renewcommand*\multicitedelim{\addsemicolon\space}
54   \renewcommand*\compcitedelim{\addsemicolon\space}

```

The page reference postnote is given after a colon.

```

55   \renewcommand*\postnotedelim{\addcolon\space}

```

### 3.3 Notes style: oxnum.cbx

The standard numeric style works, needing only a little configuration.

```

20   \RequireCitationStyle{numeric-comp}

```

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

```

21   \renewcommand*\multicitedelim{\addsemicolon\space}
22   \renewcommand*\compcitedelim{\addsemicolon\space}

```

The page reference postnote is given after a colon.

```

23   \renewcommand*\postnotedelim{\addcolon\space}

```

### 3.4 Notes style: oxalph.cbx

The standard alphabetic style works, needing only a little configuration.

```

20   \RequireCitationStyle{alphabetic}

```

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

```

21   \renewcommand*\multicitedelim{\addsemicolon\space}
22   \renewcommand*\compcitedelim{\addsemicolon\space}

```

The page reference postnote is given after a colon.

```
23 \renewcommand*{\postnotedelim}{\addcolon\space}
```

### 3.5 Common citation fixes

This code is appended to all the citation style files.

We fix the `textcite` macro so if the `anon` option is set to `long` or `short`, a value of ‘Anonymous’ is replaced by the `bibstring`.

```
1 \xpatchbibmacro{textcite}{%
2 \printnames{labelname}%
3 }{%
4 \ifboolexpr{
5 test {\iffieldequalstr{labelnamesource}{author}}
6 and
7 togl {blx@ox@autoanon}
8 and
9 test {\iffieldequals{rawauthor}{\oxrefanon}}
10 }{%
11 \iftoggle{blx@ox@abbranon}{\bibcpsstring{anon}}{\bibcplstring{anon}}%
12 }{%
13 \printnames{labelname}%
14 }%
15 }{}}
```

## Data model adjustments

### 4.1 oxnotes.dbx, oxyyear.dbx, oxnum.dbx, and oxalph.dbx

We provide an additional name part for handling titles.

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

The datatype and origdatatype fields are used for prefixing the date with a description.

```
21 \DeclareDatamodelFields[type=field,datatype=literal]{datatype,origdatatype}
```

The authoraddon and editoraddon fields are used for handling pseudonyms. The serieseditor field is used for the editor of a book series, as opposed to the editor of the particular cited work.

```
22 \DeclareDatamodelFields[type=list,datatype=name]{authoraddon,editoraddon,serieseditor}
```

The jointauthor and jointauthortype fields are used for internally for handling editors/translators who can be considered joint authors.

```
23 \DeclareDatamodelFields[type=list,datatype=name]{jointauthor}
24 \DeclareDatamodelFields[type=field,datatype=literal]{jointauthortype}
```

The rawauthor field is used internally for checking whether an the name given in the author field is a keyword meaning ‘anonymous’.

```
25 \DeclareDatamodelFields[type=field,datatype=literal]{rawauthor}
26 \DeclareDatamodelEntryfields{datatype,origdatatype,authoraddon,editoraddon,%
27   serieseditor,jointauthor,jointauthortype,rawauthor}
```

We provide a shortlabeltitle field to contain our custom reduction of the labeltitle.

```
28 \DeclareDatamodelFields[type=field,datatype=literal]{shortlabeltitle}
```

This data model is borrowed from biblatex-manuscripts-philology.

```
29 \DeclareDatamodelEntrytypes{manuscript}
30 \DeclareDatamodelFields[type=field,datatype=literal]{catalog,dating,%
31   shortlibrary,columns, collection,shortcollection,usualtitle,shelfmark,%
32   sortshelfmark,support,columns,layer}
33 \DeclareDatamodelFields[type=list,datatype=name]{scribe,owner}
```

```
34 \DeclareDatamodelFields[type=list,datatype=literal]{origin}
35 \DeclareDatamodelEntryfields[manuscript]{catalog, dating, shortlibrary, %
36 shortcollection, columns, languages, collection, usualtitle, shelfmark, %
37 sortshelfmark, support, columns, origin, scribe, owner}
```

This data model helps with legal citations.

```
38 \DeclareDatamodelFields[type=field,datatype=date]{pardate}
39 \DeclareDatamodelEntryfields[jurisdiction]{pardate}
```

## Localization modules

### 5.1 English: english-oxref.lbx

Here we set some language-specific punctuation and date formatting.

```

20 \InheritBibliographyExtras{english}
21 \DeclareBibliographyExtras{%
22   \def\finalandcomma{\addcomma}%
23   \protected\def\mkusbibordinal#1{%
24     \begingroup
25     \@tempcnta0#1\relax\number\@tempcnta
26     \@whilenum\@tempcnta>100\do{\advance\@tempcnta-100\relax}%
27     \ifnum\@tempcnta>20
28       \@whilenum\@tempcnta>9\do{\advance\@tempcnta-10\relax}%
29     \fi
30     \ifcase\@tempcnta th\or st\or d\or d\else th\fi
31     \endgroup}%
32 }

```

We load the standard set of localization strings, then add our adjustments.

```

33 \DeclareBibliographyStrings{%
34   inherit      = {english},

```

These are new strings defined by oxref:

- Roles expressed as functions

```

35   director      = {{director}}{dir\adddot}},
36   directors    = {{directors}}{dirs\adddot}},
37   performer    = {{}},
38   performers   = {{}},
39   reader       = {{reader}}{reader}},
40   readers      = {{readers}}{readers}},
41   conductor     = {{conductor}}{cond\adddot}},
42   conductors   = {{conductors}}{cond\adddot}},
43   serieseditor = {{series editor}}{ser\adddotsspace ed\adddot}},
44   serieseditors = {{series editors}}{ser\adddotsspace eds\adddot}},
45   holder       = {{holder}}{holder}},
46   holders      = {{holders}}{holders}},
47   editorcm     = {{editor and compiler}}{ed\adddotsspace and comp\adddot}},
48   editorcms    = {{editors and compilers}}{eds\adddotsspace and comp\adddot}},

```

- Roles expressed as actions

```

49 byperformer = {{}},
50 bydirector = {{directed by}}{dir\addot}},
51 byreader = {{read by}}{read by}},
52 byconductor = {{conducted by}}{cond\addot}},
53 byserieseditor = {{edited by}}{ed\addot}},
54 byholder = {{held by}}{held by}},
55 byeditorcm = {{edited and compiled by}}{ed\addotsspace and comp\addot}},

```

- Publication details

```

56 facsimile = {{facsimile edition}}{facs\addotsspace edn\addot}},
57 revised = {{revised edition}}{rev\addotsspace edn\addot}},
58 revisedenlarged = {{revised and enlarged edition}}{rev\addotsspace and enl\addotsspace
↔ edn\addot}},
59 revisedreprint = {{revised reprint}}{rev\addotsspace repr\addot}},
60 suppto = {{Supplement to}}{Supplement to}},
61 equals = {{=}}{=}},
62 original = {{original}}{orig\addot}},

```

- Publication state

```

63 impressin = {{to be published in}}{to be published in}},

```

- Pagination

```

64 book = {{book}}{bk\addot}},
65 books = {{books}}{bks\addot}},
66 canto = {{canto}}{canto}},
67 cantos = {{cantos}}{cantos}},
68 stanza = {{stanza}}{stanza}},
69 stanzas = {{stanzas}}{stanzas}},
70 act = {{Act}}{Act}},
71 acts = {{Acts}}{Acts}},
72 scene = {{Scene}}{Scene}},
73 scenes = {{Scenes}}{Scenes}},
74 folio = {{folio}}{fo\addot}},
75 folios = {{folios}}{fos\addot}},
76 article = {{article}}{art\addot}},
77 articles = {{articles}}{arts\addot}},
78 clause = {{clause}}{cl\addot}},
79 clauses = {{clauses}}{cls\addot}},
80 regulation = {{regulation}}{reg\addot}},
81 regulations = {{regulations}}{regs\addot}},
82 rule = {{rule}}{r\addot}},
83 rules = {{rules}}{rr\addot}},
84 booktotal = {{book}}{bk\addot}},
85 booktotals = {{books}}{bks\addot}},
86 cantototal = {{canto}}{canto}},
87 cantototals = {{cantos}}{cantos}},
88 stanzatotal = {{stanza}}{stanza}},
89 stanzatotals = {{stanzas}}{stanzas}},
90 acttotal = {{Act}}{Act}},
91 acttotals = {{Acts}}{Acts}},
92 scenetotal = {{Scene}}{Scene}},
93 scenetotals = {{Scenes}}{Scenes}},
94 foliototal = {{folio}}{fo\addot}},
95 foliototals = {{folios}}{fos\addot}},
96 articletotal = {{article}}{art\addot}},
97 articletotals = {{articles}}{arts\addot}},

```

```

98 clausetotal      = {{clause}}{cl\addot}},
99 clausetotals     = {{clauses}}{cls\addot}},
100 regulationtotal  = {{regulation}}{reg\addot}},
101 regulationtotals = {{regulations}}{regs\addot}},
102 ruletotal        = {{rule}}{r\addot}},
103 ruletotals       = {{rules}}{rr\addot}},

```

- Types

```

104 facebook        = {{Facebook post}}{Facebook post}},
105 tweet           = {{Twitter post}}{Twitter post}},
106 podcast         = {{podcast}}{podcast}},
107 clip            = {{video}}{video}},
108 webcast         = {{webcast}}{webcast}},
109 poster          = {{poster}}{poster}},

```

- Miscellaneous

```

110 nolocation      = {{no place}}{n\addot p\addot}},
111 modified        = {{last modified}}{last modified}},
112 recorded        = {{recorded}}{recorded}},
113 uploaded        = {{uploaded}}{uploaded}},
114 filed           = {{filed}}{filed}},
115 issued          = {{issued}}{issued}},

```

- Labels

```

116 anon            = {{Anonymous}}{Anon\addot}},
117 pseudo          = {{Pseudo-}}{Ps\addot-}},
118 urldown         = {{downloaded}}{downloaded}},

```

- Country names, patents, and patent requests,

```

119 countryjp       = {{Japan}}{JP}},
120 patentjp        = {{Japanese patent}}{Japanese pat.\addot}},
121 patreqjp        = {{Japanese patent request}}{Japanese pat.\addot req.\addot}},

```

- These are borrowed from other styles.

```

122 1column         = {{one column}}{1\addnbspace col\addot}},
123 2column         = {{two columns}}{2\addnbspace col\addot}},
124 inflayer        = {{inferior layer}}{inf\addotsspace lay\addot}},
125 suplayer        = {{superior layer}}{sup\addotsspace lay\addot}},
126 paper           = {{paper}}{pap\addot}},
127 papyrus         = {{papyrus}}{papy\addot}},
128 pergament       = {{pergament}}{perg\addot}},
129 eucase          = {{Case}}{Case}},
130 eujoinedcases   = {{Joined Cases}}{Joined Cases}},
131 commissiondecision = {{Commission Decision}}{Commission Decision}},
132 application      = {{Application}}{App\addot}},
133 order           = {{Order}}{Ord\addot}},
134 bill            = {{Bill}}{Bill}},
135 draft           = {{draft}}{draft}},
136 opened          = {{opened for signature}}{opened for signature}},
137 signed          = {{signed}}{signed}},
138 adopted         = {{adopted}}{adopted}},

```

```
139   inforce           = {{entered into force}}{entered into force}},
```

The rest of these strings are the standard ones, overridden to match the examples in the *Oxford Guide to Style* and *New Hart's Rules*. Many of these are guesses extrapolated from what is given.

The roles expressed as functions do not need adjusting. The roles expressed as actions do not typically end in 'by' when abbreviated; the 'with' parts go first when abbreviated if there is more than one editorial role (at least, that is one way of interpreting the examples).

```
140   byeditor          = {{edited by}}{ed\adddot}},
141   bycompiler        = {{compiled by}}{comp\adddot}},
142   byfounder         = {{founded by}}{found\adddot}},
143   bycontinuator     = {{continued by}}{cont\adddot}},
144   byredactor        = {{redacted by}}{red\adddot}},
145   byreviser         = {{revised by}}{rev\adddot}},
146   byreviewer        = {{reviewed by}}{rev\adddot}},
147   bycollaborator    = {{in collaboration with}}{in collab\adddotsspace with}},
148   bytranslator      = {{translated \lbox@lfromlang\ by}}{trans\adddot\ \lbox@sfromlang}},
149   bycommentator     = {{commented by}}{comm\adddot}},
150   byannotator       = {{annotated by}}{annot\adddot}},
151   byeditortr        = {{edited and translated \lbox@lfromlang\ by}}%
152                       {ed\adddotsspace and trans\adddot\ \lbox@sfromlang}},
153   byeditorco        = {{edited and commented by}}%
154                       {ed\adddotsspace and comm\adddot}},
155   byeditoran        = {{edited and annotated by}}%
156                       {ed\adddotsspace and annot\adddot}},
157   byeditorin        = {{edited, with an introduction, by}}%
158                       {ed.\adddotsspace with introduction}},
159   byeditorfo        = {{edited, with a foreword, by}}%
160                       {ed.\adddotsspace with foreword}},
161   byeditoraf        = {{edited, with an afterword, by}}%
162                       {ed.\adddotsspace with afterword}},
163   byeditortrco      = {{edited, translated \lbox@lfromlang\finalandcomma\ and commented by}}%
164                       {ed.,\addabbrvspace trans\adddot\ \lbox@sfromlang\finalandcomma\ and
165                       ↪ comm\adddot}},
166   byeditortran      = {{edited, translated \lbox@lfromlang\finalandcomma\ and annotated by}}%
167                       {ed.,\addabbrvspace trans\adddot\ \lbox@sfromlang\finalandcomma\ and
168                       ↪ annot\adddot}},
169   byeditortrin      = {{edited and translated \lbox@lfromlang, with an introduction, by}}%
170                       {with introduction, ed\adddotsspace and trans\adddot\ \lbox@sfromlang}},
171   byeditortrfo      = {{edited and translated \lbox@lfromlang, with a foreword, by}}%
172                       {with foreword, ed\adddotsspace and trans\adddot\ \lbox@sfromlang}},
173   byeditortraf      = {{edited and translated \lbox@lfromlang, with an afterword, by}}%
174                       {with afterword, ed\adddotsspace and trans\adddot\ \lbox@sfromlang}},
175   byeditorcoin      = {{edited and commented, with an introduction, by}}%
176                       {with introduction, ed\adddotsspace and comm\adddot}},
177   byeditorcofo      = {{edited and commented, with a foreword, by}}%
178                       {with foreword, ed\adddotsspace and comm\adddot}},
179   byeditorcoaf      = {{edited and commented, with an afterword, by}}%
180                       {with afterword, ed\adddotsspace and comm\adddot}},
181   byeditoranin      = {{edited and annotated, with an introduction, by}}%
182                       {with introduction, ed\adddotsspace and annot\adddot}},
183   byeditoranfo      = {{edited and annotated, with a foreword, by}}%
184                       {with foreword, ed\adddotsspace and annot\adddot}},
185   byeditoranaf      = {{edited and annotated, with an afterword, by}}%
186                       {with afterword, ed\adddotsspace and annot\adddot}},
187   byeditortrcoin    = {{edited, translated \lbox@lfromlang\finalandcomma\ and commented, with
188                       ↪ an introduction, by}}%
189                       {with introduction, ed.,\addabbrvspace trans\adddot\
190                       ↪ \lbox@sfromlang\finalandcomma\ and comm\adddot}},
```

```

187 byeditortrcofo = {{edited, translated \lbox@lfromlang\finalandcomma\ and commented, with a
↪ foreword, by}}%
188     {with foreword, ed.,\addabrvspace trans\adddot\
↪ \lbox@sfromlang\finalandcomma\ and comm\adddot}},
189 byeditortrcoaf = {{edited, translated \lbox@lfromlang\finalandcomma\ and commented, with
↪ an afterword, by}}%
190     {with afterword, ed.,\addabrvspace trans\adddot\
↪ \lbox@sfromlang\finalandcomma\ and comm\adddot}},
191 byeditortranin = {{edited, translated \lbox@lfromlang\finalandcomma\ and annotated, with
↪ an introduction, by}}%
192     {with introduction, ed.,\addabrvspace trans\adddot\
↪ \lbox@sfromlang\finalandcomma\ and annot\adddot}},
193 byeditortranfo = {{edited, translated \lbox@lfromlang\finalandcomma\ and annotated, with a
↪ foreword, by}}%
194     {with foreword, ed.,\addabrvspace trans\adddot\
↪ \lbox@sfromlang\finalandcomma\ and annot\adddot}},
195 byeditortranaf = {{edited, translated \lbox@lfromlang\finalandcomma\ and annotated, with
↪ an afterword, by}}%
196     {with afterword, ed.,\addabrvspace trans\adddot\
↪ \lbox@sfromlang\finalandcomma\ and annot\adddot}},
197 bytranslatorco = {{translated \lbox@lfromlang\ and commented by}}%
198     {trans\adddot\ \lbox@sfromlang\ and comm\adddot}},
199 bytranslatoran = {{translated \lbox@lfromlang\ and annotated by}}%
200     {trans\adddot\ \lbox@sfromlang\ and annot\adddot}},
201 bytranslatorin = {{translated \lbox@lfromlang, with an introduction, by}}%
202     {trans\adddot\ \lbox@sfromlang\ with introduction}},
203 bytranslatorfo = {{translated \lbox@lfromlang, with a foreword, by}}%
204     {trans\adddot\ \lbox@sfromlang\ with foreword}},
205 bytranslatoraf = {{translated \lbox@lfromlang, with an afterword, by}}%
206     {trans\adddot\ \lbox@sfromlang\ with afterword}},
207 bytranslatorcoin = {{translated \lbox@lfromlang\ and commented, with an introduction, by}}%
208     {with introduction, trans\adddot\ \lbox@sfromlang\ and comm\adddot}},
209 bytranslatorcofo = {{translated \lbox@lfromlang\ and commented, with a foreword, by}}%
210     {with foreword, trans\adddot\ \lbox@sfromlang\ and comm\adddot}},
211 bytranslatorcoaf = {{translated \lbox@lfromlang\ and commented, with an afterword, by}}%
212     {with afterword, trans\adddot\ \lbox@sfromlang\ and comm\adddot}},
213 bytranslatoranin = {{translated \lbox@lfromlang\ and annotated, with an introduction, by}}%
214     {with introduction, trans\adddot\ \lbox@sfromlang\ and annot\adddot}},
215 bytranslatoranfo = {{translated \lbox@lfromlang\ and annotated, with a foreword, by}}%
216     {with foreword, trans\adddot\ \lbox@sfromlang\ and annot\adddot}},
217 bytranslatoranaf = {{translated \lbox@lfromlang\ and annotated, with an afterword, by}}%
218     {with afterword, trans\adddot\ \lbox@sfromlang\ and annot\adddot}},

```

The roles expressed as objects and terms for supplementary material are not abbreviated.

```

219 withinroduction = {{with an introduction by}{with an introduction by}},
220 withcommentator = {{with a commentary by}{with a commentary by}},
221 withannotator = {{with annotations by}{with annotations by}},
222 withinroduction = {{with an introduction by}{with an introduction by}},
223 withforeword = {{with a foreword by}{with a foreword by}},
224 withafterword = {{with an afterword by}{with an afterword by}},
225 introduction = {{introduction}{introduction}},

```

The abbreviations for some publication details are different.

```

226 newseries = {{new series}{\mkbibacro{NS}}},
227 oldseries = {{old series}{\mkbibacro{OS}}},
228 edition = {{edition}{edn\adddot}},
229 reprint = {{reprint\nopunct}{repr\adddot\nopunct}},
230 reviewof = {{review of}{review of}},
231 reprintas = {{reprinted as}{repr\adddotsspace as}},

```

```

232 reprintfrom = {{from}}{from}},
233 translationas = {{English translation as}}{Eng\addotsspace trans\addotsspace as}},
234 origpubin = {{originally published in}}{originally pub\addot}},

```

There is also a different abbreviation for ‘paragraph’.

```

235 paragraph = {{paragraph}}{para\addot}},
236 paragraphs = {{paragraphs}}{paras\addot}},

```

*New Hart’s Rules* uses ‘accessed’ for URL dates.

```

237 urlseen = {{accessed}}{accessed}},

```

Scholarly citation terms are abbreviated. Oxford style is to use ‘henceforth’ for shorthands and ‘at’ to cite a page within a range.

```

238 idem = {{idem}}{id\addot}},
239 idemsm = {{idem}}{id\addot}},
240 idemsf = {{eadem}}{ead\addot}},
241 idemsn = {{idem}}{id\addot}},
242 idempm = {{eidem}}{eid\addot}},
243 idempf = {{eaedem}}{eaed\addot}},
244 idempn = {{eadem}}{ead\addot}},
245 idemp = {{eidem}}{eid\addot}},
246 citedas = {{henceforth}}{henceforth}},
247 thiscite = {{at}}{at}},

```

Languages are abbreviated.

```

248 langamerican = {{English}}{Eng\addot}},
249 langbrazilian = {{Brazilian}}{Braz\addot}},
250 langcatalan = {{Catalan}}{Catal\addot}},
251 langcroatian = {{Croatian}}{Croat\addot}},
252 langczech = {{Czech}}{Czech}},
253 langdanish = {{Danish}}{Dan\addot}},
254 langdutch = {{Dutch}}{Dutch}},
255 langenglish = {{English}}{Eng\addot}},
256 langestonian = {{Estonian}}{Eston\addot}},
257 langfinnish = {{Finnish}}{Finn\addot}},
258 langfrench = {{French}}{Fr\addot}},
259 langgerman = {{German}}{Ger\addot}},
260 langgreek = {{Greek}}{Gr\addot}},
261 langitalian = {{Italian}}{It\addot}},
262 langlatin = {{Latin}}{Lat\addot}},
263 langnorwegian = {{Norwegian}}{Norw\addot}},
264 langpolish = {{Polish}}{Pol\addot}},
265 langportuguese = {{Portuguese}}{Port\addot}},
266 langrussian = {{Russian}}{Russ\addot}},
267 langslovene = {{Slovene}}{Slov\addot}},
268 langspanish = {{Spanish}}{Sp\addot}},
269 langswedish = {{Swedish}}{Swed\addot}},
270 }

```

## 5.2 British English: british-oxref.lbx

Here we set some language-specific punctuation and date formatting.

```

20 \InheritBibliographyExtras{british}
21 \DeclareBibliographyExtras{%
22   \protected\def\mkbibdatelong#1#2#3{%
23     \iffieldundef{#3}
24       {}
25     {\stripzeros{\thefield{#3}}%
26       \iffieldundef{#2}{\nobreakspace}}%
27     \iffieldundef{#2}
28       {}
29     {\mkbibmonth{\thefield{#2}}%
30       \iffieldundef{#1}{\space}}%
31     \stripzeros{\thefield{#1}}}%
32 \def\finalandcomma{\addcomma}%
33 \def\bibtimesep{\addperiod}%
34 }

```

We use the British abbreviations for 12-hour clock times.

```

35 \DeclareBibliographyStrings{%
36   inherit      = {english-oxref},
37   am           = {{a\adddot m\adddot}{a\adddot m\adddot}},
38   pm           = {{p\adddot m\adddot}{p\adddot m\adddot}},
39 }

```

### 5.3 American English: american-oxref.lbx

```

20 \InheritBibliographyExtras{english-oxref}
21 \DeclareBibliographyExtras{\uspunctuation}
22 \InheritBibliographyStrings{english-oxref}

```