1 Package header

```
1 (*package)
                               2 (@@=yoin)
                              Necessary packages: First, LATEX3 stuff.
                               3 \RequirePackage{expl3,13keys2e,13regex,xparse}
                              From zref bundle, for computing the total number of pages of an article.
                               4 \RequirePackage{zref-totpages}
                              We need the absolute paths. This also means we need -recorder option to pdflatex.
                               5 \RequirePackage[abspath]{currfile}
                              For including PDF files.
                               6 \RequirePackage{pdfpages}
                              Package header.
                               7 \ProvidesExplPackage{yoin}{2016/02/28}{v0.0.1}{Joining articles into issues}
                                  General macros
                              Macros not necessarily related to the package; moreorless an addition to ETFX3.
 \yoin_seq_gappend_clist:Nn
                              Globally append clist #2 to seq #1.
                               8 \seq_new:N \l__yoin_seq_tmpa_seq
                               9 \cs_new_protected: Nn \yoin_seq_gappend_clist: Nn {
                              10
                                    \seq_set_from_clist:Nn \l__yoin_seq_tmpa_seq { #2 }
                              11
                                    \seq_gconcat:NNN #1 #1 \l__yoin_seq_tmpa_seq
                              12 }
                              Read a file #2 containing a key-value list and set the keys for #1. No checks are done here, nothing like comments could be used,
\yoin_keys_set_from_file:nn
                              the keys should be separated by a comma (and spaces of course as needed).
                              13 \tl new:N \l yoin keys tmpa tl
                              14 \cs generate variant: Nn \keys set:nn { nV }
                              15 \cs new protected: Nn \yoin keys set from file:nn {
                                    \tl_set_from_file:Nnn \l__yoin_keys_tmpa_tl { } { #2 }
                              16
                                    \keys set:nV { #1 } \l yoin keys tmpa tl
                              17
                              18 }
         \voin keyval parse from file:nn Read a file #2 containing a key-value list and set the keys for #1. No checks are done here, nothing like comments could be used,
                              the keys should be separated by a comma (and spaces of course as needed).
                              19 \cs_generate_variant:Nn \keyval_parse:NNn { NNV }
                              20 \cs_new_protected:Nn \yoin_keyval_parse_from_file:NNn {
```

```
21 \tl_set_from_file:Nnn \l__yoin_keys_tmpa_tl { } { #3 } 22 \keyval_parse:NNV #1 #2 \l__yoin_keys_tmpa_tl 23 }

msg:_boolean-values-only Message for a non-boolean passed to a bool key.

24 \msg_new:nnn { yoin } { boolean-values-only } 25 { Key ~ '#1' ~ accepts ~ boolean ~ values ~ only.}
```

3 Key-value interface for the package setup

First, we define the variables to store the keys.

```
\g yoin subprocess bool
                         Booleans:
   \g yoin article bool
                         26 \bool new: N \g yoin subprocess bool
   \g yoin dryrun bool
                        27 \bool new:N \g_yoin_article_bool
 \g yoin onlyflags bool
                        28 \bool_new:N \g_yoin_dryrun_bool
  \g yoin onlytags bool
                        29 \bool_new:N \g_yoin_onlyflags_bool
                         30 \bool_new:N \g_yoin_onlytags_bool
      \g_yoin_flags_seq Sequences for flags, tags and their filtering:
      \g_yoin_tags_seq 31 \seq_new:N \g_yoin_flags_seq
  \label{lem:convergence} $$ \g_yoin\_onlyflags\_seq $$ 32 \seq_new:N \g_yoin\_tags\_seq $$
  \label{lem:conjugate} $$ \g_yoin_onlytags_seq $$ 33 \seq_new: N \g_yoin_onlyflags_seq $$
                         34 \seq_new:N \g_yoin_onlytags_seq
     \g_yoin_jobname_tl We can modify what the package considers as the value of \jobname, here's a token list for that:
                         35 \tl_new:N \g_yoin_jobname_tl
                         36 \tl_gset_eq:NN \g_yoin_jobname_tl \c_sys_jobname_str
      msg: unknown-tag 37 \msg new:nnnn { yoin } { unknown-flag }
                             { The ~ flag ~ '#1' ~ is ~ unknown ~ to ~ 'yoin'. }
                              { You ~ either ~ misspelled ~ it ~ or ~forgot ~ to ~ declare ~ it. }
                         40 \msg new:nnnn { yoin } { unknown-tag }
                             { The ~ tag ~ '#1' ~ is ~ unknown ~ to ~ 'yoin'. }
                              { You ~ either ~ misspelled ~ it ~ or ~forgot ~ to ~ declare ~ it. }
```

```
\yoin if tag defined:n Conditionals for checking whether a tag/flag was defined.
\yoin if flag defined:n
                         43 \prg_new_protected_conditional:Nnn \yoin_if_tag_defined:n { T, F, TF } {
                               \seq if in:NnTF \g yoin tags seq { #1 } { \prg return true: } { \prg return false: }
                          45 }
                          46 \prg_new_protected_conditional:Nnn \yoin_if_flag_defined:n { T, F, TF } {
                             \seq_if_in:NnTF \g_yoin_flags_seq { #1 } { \prg_return_true: } { \prg_return_false: }
                          48 }
    \ yoin error if tag undefined:n Check whether a tag/flag is defined, if not, issue an error.
   \_yoin_error_if_flag_undefined:n 49 \cs_new_protected:Nn \__yoin_error_if_tag_undefined:n {
                               \yoin_if_tag_defined:nF { #1 } { \msg_error:nnn { yoin } { unknown-tag } { #1 } }
                          51 }
                          52 \cs new protected: Nn \ yoin error if flag undefined:n {
                               \yoin if flag defined:nF { #1 } { \msg error:nnn { yoin } { unknown-flag } { #1 } }
                          54 }
         yoin / general The keys themselves:
                          55 \keys define:nn { yoin / general } {
                          Booleans:
                          56
                                dryrun .bool gset:N = \g yoin dryrun bool,
                               dryrun .initial:n = { false },
                          57
                                article .bool_gset:N = \g_yoin_article_bool,
                          58
                                article .initial:n = { false },
                          59
                                subprocess .bool_gset:N = \g_yoin_subprocess_bool,
                          60
                                subprocess .initial:n = { false },
                          61
                          Keys whose clist values are appended to a seg:
                                defineflags .code:n = \yoin_seq_gappend_clist:Nn \g_yoin_flags_seq { #1 },
                                definetags .code:n = \yoin seq gappend clist:Nn \g yoin tags seq { #1 },
                          A clist key is stored in a seq, also, a corresponding bool is set true. (The point is, if onlyflags/onlytags is not ever set up, we want
                          to know it since we treat it as if we use all flags/tags.)
                          64
                                onlyflags .code:n =
                          65
                                   \seq_gset_from_clist:Nn \g_yoin_onlyflags_seq { #1 }
                                   \bool gset true: N \g yoin onlyflags bool
                          66
                          67
```

```
68
                       onlytags .code:n =
                  69
                          \seq gset from clist: Nn \g yoin onlytags seq { #1 }
                          \bool gset true: N \g yoin onlytags bool
                 70
                  71
                  A key whose value is stored in a token list.
                       jobname .tl_gset:N = \g_yoin_jobname_tl,
                  73 % A key that allows |\yoinMeta| to be called from within the package options.
                  74 %
                         \begin{macrocode}
                       meta .code:n = \yoin yoinmeta:n { #1 },
                 76 }
  \yoin_setup:n Allow keys to be set later. We define both a LATEX3 interface and an xparse UI wrapper.
      \yoinSetup 77 \cs_new_protected:Nn \yoin_setup:n {
                       \keys_set:nn { yoin / general } { #1 }
                  79 }
                  80 \NewDocumentCommand \yoinSetup { R[]{} } {
                       \yoin setup:n { #1 }
                  82 }
                  4 yoinMeta macro — adding issue's metadata
       \yoinMeta
\yoin_yoinmeta:n
                 83 \prop_new:N \l__yoin_yoinmeta_prop
                  84 \cs_new_protected:Nn \__yoin_yoinmeta_storekey:nn {
                       \prop_put:Nnn \l__yoin_yoinmeta_prop { #1 } { #2 }
                  86 }
                  87 \cs_new_protected: Nn \__yoin_yoinmeta_storekey:n {
                       \prop_put:Nnn \l__yoin_yoinmeta_prop { #1 } { }
                  88
                  89 }
                  90 \cs_new_protected:Nn \yoin_yoinmeta:n {
                       \keyval_parse:NNn \ _yoin_yoinmeta_storekey:n \ _yoin_yoinmeta_storekey:nn { #1 }
                  92 }
                  93 \NewDocumentCommand \yoinMeta { R[]{} } {
                       \yoin yoinmeta:n { #1 }
                  95 }
```

5 yoinAdd macro — adding articles to the issue

The key-value interface. In this case, we basically only store the keys for each article in a prop. First, an interface for setting the keys for the articles. \yoin_yoinadd_prop:n returns the name of the prop for the given article; no check for existence is done at this place.

\g_yoin_yoinadd_seq A sequence for storing the list of the existing articles. 96 \seq_new:N \g_yoin_yoinadd_seq \yoin_yoinadd_prop:n \yoin_yoinadd_prop:n returns the name of the prop for the given article; no check for existence is done at this place. \yoin_yoinadd_prop:V \yoin_yoinadd_prop:nn returns property \#2 of article \#1, or \q_no_value if the property is not set. \yoin_yoinadd_prop_item:nn 97 \cs_new:Nn \yoin_yoinadd_prop:n { \yoin_yoinadd_prop_item:Vn g__yoin_article_#1_prop 99 } 100 \cs_generate_variant:Nn \yoin_yoinadd_prop:n { V } 101 \cs new: Nn \yoin yoinadd prop item:nn { \prop_item:cn { \yoin_yoinadd_prop:n { #1 } } { #2 } 103 } 104 \cs_generate_variant:Nn \yoin_yoinadd_prop_item:nn { V }

For processing \yoinAdd, we first set up a tl to contain the name of the article, then create the prop, and finally use l3keys to fill in the prop. Note that if an article is added twice, an error is issued, if the error is ignored, the article is not added but the properties are set.

\1 yoin yoinadd currentarticle tl A tl that stores the name of the article that is being processed by \yoinAdd.

105 \tl_new:N \l__yoin_yoinadd_currentarticle_tl

__yoin_yoinadd_storekey:nn
__yoin_yoinadd_storekey:n

__yoin_yoinadd_storekey:nn Internal macro for storing a key in the prop. The one-parameter variant sets the value of the key empty.

```
106 \cs_new_protected:Nn \__yoin_yoinadd_storekey:nn {
107    \prop_gput:cnn { \yoin_yoinadd_prop:V \l__yoin_yoinadd_currentarticle_tl } { #1 } { #2 }
108 }
109 \cs_new_protected:Nn \__yoin_yoinadd_storekey:n {
110    \prop_gput:cnn { \yoin_yoinadd_prop:V \l__yoin_yoinadd_currentarticle_tl } { #1 } { }
111 }
```

\yoin_yoinadd:nn \voinAdd

The macro \yoinAdd itself. We first set \l_@@_yoinadd_currentarticle_tl, then check whether the same article has not been processed before (issuing an error in that case and finishing). Then, the article is added in \g_yoin_yoinadd_seq, the prop created, the article's name added in the prop with key article and the keys are set. If the article has a .yoin file in its sub-directory, the

key-values in it is added to the prop. If the file does not exist, it means things are wrong (the article should first be set up, before being added to its issue by \yoinAdd).

```
112 \cs_new_protected:Nn \yoin_yoinadd:nn {
      \tl_set:Nn \l__yoin_yoinadd_currentarticle_tl { #1 }
      \seq_if_in:NnTF \g_yoin_yoinadd_seq { #1 } {
114
         \msg_error:nnn { yoin } { yoinadd-duplicatearticle } { #1 }
115
      } {
116
         \seq_gput_right:Nn \g_yoin_yoinadd_seq { #1 }
117
         \prop new:c { \yoin yoinadd prop:n { #1 } }
118
         \clist_map_inline:nn { forceopenany, forceopenright, ignore } {
119
            \__yoin_yoinadd_storekey:nn { ##1 } { 0 }
120
121
         \__yoin_yoinadd_storekey:nn { article } { #1 }
122
         \keys set:nn { yoin / yoinadd } { #2 }
123
         \file if exist:nTF { #1 / #1 .yoin } {
124
            \yoin keyval parse from file:NNn
125
               \ yoin yoinadd storekey:n
126
127
               \ yoin yoinadd storekey:nn
               { #1 / #1 .yoin }
128
         } {
129
130
             \msg error:nnn { yoin } { yoinadd-dotyoinmissing } { #1 }
131
      }
132
133 }
134 \NewDocumentCommand \yoinAdd { m O{} } {
      \yoin_yoinadd:nn { #1 } { #2 }
136 }
```

msg: uyoinadd-duplicatearticle The error messages: for adding a duplicate article and for adding an article with no #1/#1.yoin file.

```
{\tt msg:\_yoinadd-dotyoinmissing~137~\mbox{\mbox{$\mbox{$\mbox{$}$}$}137~\mbox{\mbox{$\mbox{$}$}$}-new:nnn~{\tt {\{ yoin \} {\{ yoinadd-duplicatearticle \} \}}}}}
                                          { The ~ article ~ "#1" ~ has ~ been ~ already ~ processed ~ by ~ \token to str:N \yoinAdd ~.}
                                   139 \msg new:nnn { yoin } { yoinadd-dotyoinmissing }
                                          { The ~ article ~ "#1" ~ has ~ no ~ file "#1/#1.yoin" ~ and ~ was ~ not ~ properly ~ set ~ up.}
```

yoin_d/uyoinadd The keys here are pretty simple; each defined key just stores its value in the prop. We recall that \#1 is the key and \#\#1 is the value.

```
141 \clist map inline:nn { textualkey } {
      \keys define:nn { yoin / yoinadd } {
142
143
         \#1 .code:n = \ yoin yoinadd storekey:nn { \#1 } { \#\#1 },
```

```
144
                        }
                   145 }
                    For boolean keys, we create a manual boolean parser.
                   146 \clist_map_inline:nn { forceopenany, forceopenright, ignore } {
                         \keys_define:nn { yoin / yoinadd } {
                   148
                             #1 .choice:,
                            #1 / true .code:n = \__yoin_yoinadd_storekey:nn { #1 } { 1 },
                   149
                            #1 / false .code:n = \__yoin_yoinadd_storekey:nn { #1 } { 0 },
                   150
                            #1 / unknown .code:n = \msg_error:nnx { yoin } { boolean-values-only } { \l_keys_key_tl },
                   151
                        }
                   152
                   153 }
                   However, for the tag key, we additionally check that the tag exists.
                   154 \keys_define:nn { yoin / yoinadd } {
                         tag .code:n =
                             \__yoin_error_if_tag_undefined:n { #1 }
                   156
                            \__yoin_yoinadd_storekey:nn { tag } { #1 }
                   157
                   158
                   159 }
                       Environment yoinshell
\l yoin yoinshell ignore bool A boolean for storing the ignore key's value.
yoin, // yoinshell Key-value interface to yoinshell.
                   160 \keys define:nn { yoin / yoinshell } {
                   If flag is set and onlyflags is set but the flag is not amongst them, the whole younshell is ignored (by setting the ignore key).
                   161
                         flag .code:n =
                   162
                             \__yoin_error_if_flag_undefined:n { #1 }
                             \bool if:NT \g yoin onlyflags bool {
                   163
                                \seq_if_in:NnF \g_yoin_onlyflags_seq { #1 } {
                   164
                                   \keys_set:nn { yoin / yoinshell } {
                   165
                   166
                                      ignore = true
                   167
                                }
                   168
```

}

169 170

```
The ignore key sets a boolean
                           171
                                  ignore .bool set:N = \label{eq:normalization} your younshell ignore bool,
                                  ignore .initial:n = { false },
                           172
                           173 }
             shellesc.sty A reasonable shell escape that should work in both pdflatex and lualatex in TrX Live 2016.
             \ShellEscape 174 \file_if_exist:nTF { shellesc.sty } {
      \ yoin yoinshell_shellescape:n 175
                                  \RequirePackage { shellesc }
                           176 } {
                           177
                                  \def \ShellEscape #1 { \immediate \write 18 { #1 } }
                           178
                           179 \cs new protected: Nn \ yoin yoinshell shellescape:n {
                                  \ShellEscape { #1 }
                           180
                           181
                           182 \cs_generate_variant: Nn \__yoin_yoinshell_shellescape:n { V }
\ voin yoinshell begin:n Environment yoinshell (one key-value argument). We perform some local definitions that should stay local, so we put everything
   \__yoin_yoinshell_end:
                           in a group. The keys are set. Then we define the macros — "shell commands". If ignore is set or if supprocess is passed to the
                           package, these macros are declared to do nothing, otherwise they are simply wrappers to the ETFX3 counterparts.
              {voinshell}
                           183 \cs new protected: Nn \ yoin yoinshell begin:n {
                                  \group_begin:
                           184
                                  \keys set:nn { yoin / yoinshell } { #1 }
                           185
                                  \bool if:NT \g yoin subprocess bool {
                           186
                           187
                                     \bool set true: N \l yoin yoinshell ignore bool
                                  }
                           188
                                  \bool if:NTF \l yoin yoinshell ignore bool {
                           189
                                     \DeclareDocumentCommand \RunForEach { O{} m } { }
                           190
                                     \DeclareDocumentCommand \AutoRunForEach { O{} } { }
                           191
                                     \DeclareDocumentCommand \Run { O{} m } { }
                           192
                                     \DeclareDocumentCommand \AutoRun { O{} } { }
                           193
                                     \DeclareDocumentCommand \WriteMeta { O{} } { }
                           194
                                 } {
                           195
                                     \DeclareDocumentCommand \RunForEach { O{} m } { \yoin_yoinshell_runforeach:nn { ##1 } { ##2 } }
                           196
                                     \DeclareDocumentCommand \AutoRunForEach { O{} } { \yoin_yoinshell_autorunforeach:n { ##1 } }
                           197
                                     \DeclareDocumentCommand \Run { 0{} m } { \yoin_yoinshell_run:nn { ##1 } { ##2 } }
                           198
                                     \DeclareDocumentCommand \AutoRun { 0{} } { \yoin yoinshell autorun:n { ##1 } }
                           199
                                     \DeclareDocumentCommand \WriteMeta { O{} } { \yoin_yoinshell_writemeta:n { ##1 } }
                           200
                           201
                                     \yoin yoinshell writemeta:n { }
                           202
                                 }
```

```
203
204 \cs_new_protected: Nn \__yoin_yoinshell_end: {
      \group_end:
206 }
207 \NewDocumentEnvironment { yoinshell } { 0{} } {
      \ yoin yoinshell begin:n { #1 }
209 } {
      \__yoin_yoinshell_end:
210
211 }
```

6.1 RunForEach

\l yoin yoinshell runforarticle tag tl First, two tls that will store tags: One for the tag of the article, one that could be passed to \RunForEach that is initially set to \l_yoin_yoinshell_runforeach_onlytag_tl \q_no_value.

```
212 \tl_new:N \l__yoin_yoinshell_runforarticle_tag_tl
213 \tl_new:N \l__yoin_yoinshell_runforeach_onlytag_tl
214 \tl_set:Nn \l__yoin_yoinshell_runforeach_onlytag_tl { \q_no_value }
```

yoin_/urunforeach So far, the only key-val passable to \RunForEach is onlytag, which tests for the tag to be declared and passes it to \1_@@_yoinshell_runforeach_only

```
215 \keys_define:nn { yoin / runforeach } {
216
      onlytag .code:n =
         \ yoin error if tag undefined:n { #1 }
217
         \tl_set:Nn \l__yoin_yoinshell_runforeach_onlytag_tl { #1 }
218
219
220 }
```

_yoin_yoinshell_runforarticle_keyfromprop:nnN This macro lets #3 to the value of property #2 of article #1. It makes it an empty definition if the property is unset.

```
221 \tl_new:N \l__yoin_yoinshell_runforarticle_tmpa_tl
222 \cs_new_protected:Nn \__yoin_yoinshell_runforarticle_keyfromprop:nnN {
      \prop_get:cnN { \yoin_yoinadd_prop:n { #1 } } { #2 } \l__yoin_yoinshell_runforarticle_tmpa_tl
223
      \quark_if_no_value:NTF \l__yoin_yoinshell_runforarticle_tmpa_tl {
224
         \def #3 {}
225
      } {
226
         \let #3 \l__yoin_yoinshell_runforarticle_tmpa_tl
227
228
229 }
```

\ yoin yoinshell runforeach:nn \RunForEach itself just sets the keys (in a group to make things local) and then calls \@@ yoinshell runforarticle:nn on each article.

```
230 \cs new protected: Nn \yoin yoinshell runforeach:nn {
      \group begin:
231
232
      \keys set:nn { yoin / runforeach } { #1 }
      \seq_map_inline: Nn \g_yoin_yoinadd_seq { \__yoin_yoinshell_runforarticle:nn { ##1 } { #2 } }
233
      \group end:
234
235 }
```

otherwise nothing is done (the tags do not match). We only extract the prop to publically available macros like \Article, \Jobname etc. (in a group to make this local), and then run the command in shell escape.

```
236 \cs_new_protected:Nn \__yoin_yoinshell_runforarticle:nn {
      \prop_get:cnN { \yoin_yoinadd_prop:n { #1 } } { tag } \l__yoin_yoinshell_runforarticle_tag_tl
238
      \bool if:nT {
239
         \quark_if_no_value_p:N \l__yoin_yoinshell_runforarticle_tag_tl
240
241
         \quark if no value p:N \l yoin yoinshell runforeach onlytag tl
242
243
         \tl if eq p:NN \l yoin yoinshell runforeach onlytag tl \l yoin yoinshell runforarticle tag tl
      }{
244
245
         \group begin:
         \ yoin yoinshell runforarticle keyfromprop:nnN { #1 } { article } \Article
246
         \ yoin yoinshell runforarticle keyfromprop:nnN { #1 } { jobname } \Jobname
247
          \ yoin yoinshell runforarticle keyfromprop:nnN { #1 } { firstpage } \FirstPage
248
         \__yoin_yoinshell_shellescape:n { #2 }
249
250
         \group_end:
251
      }
252 }
253 \cs_generate_variant:Nn \__yoin_yoinshell_runforarticle:nn { VV }
```

AutoRunForEach (undocumented)

```
254 \tl_new:N \l__yoin_yoinshell_autorunforeach_engine_tl
255 \tl_set:Nn \l__yoin_yoinshell_autorunforeach_engine_tl { \q_no_value }
256 \tl_new:N \l__yoin_yoinshell_autorunforeach_command_tl
257 \tl_new:N \l__yoin_yoinshell_autorunforeach_article_tl
258 \cs_new_protected: Nn \yoin_yoinshell_autorunforeach_new_engine:nn {
      \cs_if_exist:cT { __yoin_yoinshell_autorunforeach_engine_preprocess_ #1 : } {
```

```
260
         \msg warning:nnn { yoin } { autorunforeach-duplicate-engine } { #1 }
261
      \cs_new_protected:cn { __yoin_yoinshell_autorunforeach_engine_preprocess_ #1 : } { #2 }
262
263
264 \cs new protected: Nn \yoin yoinshell autorunforeach new variable:n {
      \tl new:c { 1 yoin yoinshell autorunforeach variable #1 tl }
266
      \keys define:nn { yoin / autorunforeach } {
         #1 .tl_set:c = { l__yoin_yoinshell_autorunforeach_variable_ #1 _tl } ,
267
      }
268
269 }
270 \yoin_yoinshell_autorunforeach_new_engine:nn { latex }
      { \tl_set:Nn \l__yoin_yoinshell_autorunforeach_command_tl
         { cd ~ "./\Article" ~ && ~ latex ~ -recorder ~ "./\Jobname" } }
272
273 \yoin_yoinshell_autorunforeach_new_engine:nn { dvips }
      { \tl_set:Nn \l__yoin_yoinshell_autorunforeach_command_tl
275
         { cd ~ "./\Article" ~ && ~ dvips ~ "./\Jobname.dvi" } }
276 \yoin_yoinshell_autorunforeach_new_engine:nn { ps2pdf }
      { \tl_set:Nn \l__yoin_yoinshell_autorunforeach_command_tl
         { cd ~ "./\Article" ~ && ~ ps2pdf ~ "./\Jobname.ps" } }
278
279 \yoin_yoinshell_autorunforeach_new_engine:nn { pdflatex }
280
      { \tl set:Nn \l yoin yoinshell autorunforeach command tl
281
         { cd ~ "./\Article" ~ && ~ pdflatex ~ -recorder ~ "./\Jobname" } }
282 \yoin yoinshell autorunforeach new engine:nn { lualatex }
      { \tl set:Nn \l yoin yoinshell autorunforeach command tl
284
         { cd ~ "./\Article" ~ && ~ lualatex ~ -recorder ~ "./\Jobname" } }
285 \yoin yoinshell autorunforeach new engine:nn { xelatex }
      { \tl_set:Nn \l__yoin_yoinshell_autorunforeach_command_tl
         { cd ~ "./\Article" ~ && ~ xelatex ~ -recorder ~ "./\Jobname" } }
287
288 \yoin_yoinshell_autorunforeach_new_engine:nn { arara }
289
      { \tl_set:Nn \l__yoin_yoinshell_autorunforeach_command_tl
         { cd ~ "./\Article" ~ && ~ arara ~ "./\Jobname.tex" } }
290
291 \msg_new:nnn { yoin } { autorunforeach-noengine }
      { Engine ~ unspecified ~ for ~ \token_to_str:N \AutoRunForEach . ~ I'm ~ trying ~ 'pdflatex'. }
293 \msg new:nnn { voin } { autorunforeach-duplicate-engine }
      { Engine ~ '#1' ~ defined ~ multiple ~ times. ~ Overwriting ~ the ~ first ~ definition. }
295 \msg new:nnn { yoin } { autorunforeach-unknown-engine }
      { Engine ~ '#1' ~ unknown. ~ I'm ~ trying ~ 'pdflatex'. }
297 \keys define:nn { yoin / autorunforeach } {
      onlytag .code:n = \keys_set:nn { yoin / runforeach } { onlytag = { #1 } } ,
298
      engine .tl_set:N = \l__yoin_yoinshell_autorunforeach_engine_tl ,
299
```

```
300 }
                         301 \cs new protected: Nn \yoin yoinshell autorunforeach:n {
                         302
                                \group begin:
                         303
                               \keys set:nn { yoin / autorunforeach } { #1 }
                               \quark_if_no_value:NT \l__yoin_yoinshell_autorunforeach_engine_tl {
                         304
                                  \msg error:nn { yoin } { autorunforeach-noengine }
                         305
                                  \tl set:Nn \l yoin yoinshell autorunforeach engine tl { pdflatex }
                         306
                         307
                         308
                                \cs_if_exist:cF { __yoin_yoinshell_autorunforeach_engine_preprocess_ \l__yoin_yoinshell_autorunforeach_engine_tl : } {
                                  \msg_error:nnx { yoin } { autorunforeach-unknown-engine } { \l__yoin_yoinshell_autorunforeach engine tl }
                         309
                                   \tl_set:Nn \l__yoin_yoinshell_autorunforeach_engine_tl { pdflatex }
                         310
                         311
                         312
                                \seq_map_inline: Nn \g_yoin_yoinadd_seq {
                                  \tl_set:Nn \l__yoin_yoinshell_autorunforeach_article_tl { ##1 }
                         313
                                  \use:c { _ yoin_yoinshell_autorunforeach_engine_preprocess_ \l _ yoin_yoinshell_autorunforeach_engine_tl : }
                         314
                                  \__yoin_yoinshell_runforarticle:VV
                         315
                                      \l__yoin_yoinshell_autorunforeach_article_tl
                         316
                         317
                                      \l__yoin_yoinshell_autorunforeach_command_tl
                         318
                         319
                                \group_end:
                         320 }
                          6.3
                               Run
\__yoin_yoinshell_run:nn
                         321 \cs_new_protected: Nn \yoin_yoinshell_run:nn {
                         322
                                \group_begin:
                               \keys_set:nn { yoin / run } { #1 }
                         324
                               \let \Jobname \g_yoin_jobname_tl
                               \__yoin_yoinshell_shellescape:n { #2 }
                         325
                                \group_end:
                         326
                         327 }
                              AutoRun (undocumented)
                         328 \tl_new:N \l__yoin_yoinshell_autorun_engine_tl
                         329 \tl_set:Nn \l__yoin_yoinshell_autorun_engine_tl { \q_no value }
                         330 \tl_new:N \l__yoin_yoinshell_autorun_command tl
                         331 \cs_new_protected:Nn \yoin_yoinshell_autorun_new_engine:nn {
                               \cs_new_protected:cn { __yoin_yoinshell_autorun_engine_preprocess_ #1 : } { #2 }
                         332
```

```
333
334 \cs new protected: Nn \yoin yoinshell autorun new variable:n {
      \tl new:c { l yoin yoinshell autorun variable #1 tl }
336
      \keys define:nn { yoin / autorun } {
337
         #1 .tl set:c = l yoin yoinshell autorun variable #1 tl ,
338
      }
339 }
340 \yoin_yoinshell_autorun_new_engine:nn { pdflatex } {
      \tl_clear:N \l__yoin_yoinshell_autorun_command_tl
      \tl_put_right:Nn \l__yoin_yoinshell_autorun_command_tl
342
         { pdflatex ~ -recorder ~ -jobname ~ "\Jobname }
343
      \tl_put_right:NV \l__yoin_yoinshell_autorun_command_tl
344
         \l__yoin_yoinshell_autorun_variable_suffix_tl
345
      \tl_put_right:Nn \l__yoin_yoinshell_autorun_command tl
346
         { " ~ "\noexpand\PassOptionsToPackage{subprocess, ~ jobname=\Jobname}{yoin}\noexpand\input{\Jobname}" }
347
348 }
349 \yoin_yoinshell_autorun_new_variable:n { suffix }
350 \msg new:nnn { yoin } { autorun-noengine }
      { Engine ~ unspecified ~ for ~ \token to str:N \AutoRun . ~ I'm ~ trying ~ 'pdflatex'. }
352 \msg new:nnn { yoin } { autorun-unknown-engine }
      { Engine ~ '#1' ~ unknown. ~ I'm ~ trying ~ 'pdflatex'. }
354 \keys define:nn { yoin / autorun } {
355
      engine .tl set:N = 1 yoin yoinshell autorun engine tl ,
356 }
357 \cs_new_protected:Nn \yoin_yoinshell_autorun:n {
358
      \group begin:
      \keys_set:nn { yoin / autorun } { #1 }
359
      \quark_if_no_value:NT \l__yoin_yoinshell_autorun_engine tl {
360
         \msg_error:nn { yoin } { autorun-noengine }
361
362
         \tl_set:Nn \l__yoin_yoinshell_autorun_engine_tl { pdflatex }
363
      \cs_if_exist:cF { __yoin_yoinshell_autorun_engine_preprocess_ \l__yoin_yoinshell_autorun_engine_t1 : } {
364
         \msg error:nnx { yoin } { autorun-unknown-engine } { \l_yoin_yoinshell_autorun_engine_tl }
365
         \tl set:Nn \l yoin voinshell autorum engine tl { pdflatex }
366
367
368
      \use:c { yoin yoinshell autorun engine preprocess \l yoin yoinshell autorun engine t1 : }
369
      \let \Jobname \g yoin jobname tl
      \ yoin yoinshell shellescape: V \l yoin yoinshell autorun command tl
370
371
      \group end:
372 }
```

6.5 WriteMeta

```
\ yoin yoinshell writemeta:n
                   373 \iow new: N \g yoin yoinshell iow
                   374 \cs new protected: Nn \yoin yoinshell writemeta:n {
                   375
                          \group begin:
                   376
                         \yoin_yoinmeta:n { #1 }
                         \iow_open:Nn \g_yoin_yoinshell_iow { \g_yoin_jobname_tl .yoin }
                   377
                         \prop_map_inline:Nn \l__yoin_yoinmeta_prop {
                   378
                             \inv now: Nn \g_yoin_yoinshell_iow { meta-##1 ~ = ~ { ##2 } , }
                   379
                         }
                   380
                   381
                          \iow_close:N \g__yoin_yoinshell_iow
                   382
                          \group_end:
                   383 }
```

7 macro yoinForEach

\l yoin yoinforeach article tag tl First, two tls that will store tags: One for the tag of the article, one that could be passed to \yoinForEach that is initially set to \l yoin yoinforeach onlytag tl \q_no_value. 384 \tl_new:N \l__yoin_yoinforeach_article_tag_tl 385 \tl_new:N \l__yoin_yoinforeach_onlytag_tl

yoin yoin // yoinforeach So far, the only key-val passable to \yoinForEach is onlytag, which tests for the tag to be declared and passes it to \1 @@ yoinforeach onlytag tl.

```
387 \keys_define:nn { yoin / yoinforeach } {
      onlytag .code:n =
         \__yoin_error_if_tag_undefined:n { #1 }
389
         \tl_set:Nn \l__yoin_yoinforeach_onlytag_tl { #1 }
390
391
392 }
```

386 \tl_set: Nn \l__yoin_yoinforeach_onlytag_tl { \q_no_value }

\ yoin yoinforeach article keyfromprop:nnN This macro lets #3 to the value of property #2 of article #1. It makes it an empty definition if the property is unset.

```
393 \tl_new:N \l__yoin_yoinforeach_tmpa_tl
394 \cs_new_protected: Nn \__yoin_yoinforeach_article_keyfromprop:nnN {
      \prop_get:cnN { \yoin_yoinadd_prop:n { #1 } } { #2 } \l__yoin_yoinforeach_tmpa_tl
      \quark_if_no_value:NTF \l__yoin_yoinforeach_article_tmpa_tl {
396
397
         \def #3 {}
398
      } {
```

```
399
                                    \let #3 \l yoin yoinforeach tmpa tl
                                 }
                          400
                          401 }
\ yoin yoinforeach article metaitem:nnN This macro lets #3 to the value of property #2 of article #1. It makes it an empty definition if the property is unset.
                          402 \cs new:Nn \ yoin yoinforeach article metaitem:nn {
                                 \yoin yoinadd prop item:nn { #1 } { article-#2 }
                          404 }
 \ yoin yoinforeach:nn \yoinforEach itself just sets the keys (in a group to make things local) and then calls \@@_yoinforeach_article:nn on each article.
                          405 \cs_new_protected: Nn \yoin_yoinforeach:nn {
                                 \group_begin:
                          406
                                 \keys_set:nn { yoin / yoinforeach } { #1 }
                          407
                                 \seq_map_inline: Nn \g_yoin_yoinadd_seq { \__yoin_yoinforeach_article:nn { ##1 } { #2 } }
                          408
                          409
                                 \group_end:
                          410 }
    \ yoin yoinshell runforarticle:m If the tag passed to onlytag of \RunForEach is identical to the tag of the article or if any of them is not set, we do what should be done,
                           otherwise nothing is done (the tags do not match). We only extract the prop to publically available macros like \Article, \Jobname
                           etc. (in a group to make this local), and then run the command in shell escape.
                          411 \cs new protected: Nn \ yoin yoinforeach article:nn {
                                 \prop get:cnN { \yoin yoinadd prop:n { #1 } } { tag } \l yoin yoinforeach article tag tl
                          412
                          413
                                 \bool if:nT {
                          414
                                     \quark if no value p:N \l yoin yoinforeach article tag tl
                          415
                                     \quark_if_no_value_p:N \l__yoin_yoinforeach_onlytag_tl
                          416
                          417
                                     ш
                                    \tl_if_eq_p:NN \l__yoin_yoinforeach_onlytag_tl \l__yoin_yoinforeach_article_tag_tl
                          418
                          419
                                 }
                                 {
                          420
                          421
                                     \group_begin:
                                    \DeclareDocumentCommand \Meta { m } { \__yoin_yoinforeach_article_metaitem:nn { #1 } { ##1 } }
                          422
                                    \__yoin_yoinforeach_article_keyfromprop:nnN { #1 } { article } \Article
                          423
                                    \__yoin_yoinforeach_article_keyfromprop:nnN { #1 } { jobname } \Jobname
                          424
                                    \__yoin_yoinforeach_article_keyfromprop:nnN { #1 } { firstpage } \FirstPage
                          425
                                    #2
                          426
                          427
                                     \group_end:
                          428
                                 }
```

429 }

\yoinForEach One optional key-val argument, one mandatory argument — the text to be typeset.

```
430 \NewDocumentCommand \yoinForEach { 0{} +m } {
431  \yoin_yoinforeach:nn { #1 } { #2 }
432 }
```

8 Article setting stuff (undocumented)

Information to be stored in an auxiliary file.

```
433 \tl_new:N \l__yoin_article_tmpa_tl
434 \seq_new:N \l__yoin_article_tmpa_seq
436 \cs new protected: Nn \ yoin article write keyval:nn {
      \iow_now:Nn \g__yoin_article_dotyoin_iow { #1 ~ = ~ { #2 } , }
438 }
439 \cs_generate_variant: Nn \__yoin_article_write_keyval:nn { nx, nV }
440
441 \cs_new_protected: Nn \yoin_article_write_meta:nn {
      \__yoin_article_write_keyval:nn { article-#1 } { #2 }
443 }
444
445 \cs_new_protected:Nn \yoin_article_write: {
      \__yoin_article_write_keyval:nV { jobname } \g_yoin_jobname_tl
446
      \__yoin_article_write_keyval:nx { totpages } { \ztotpages }
447
      \__yoin_article_write_keyval:nV { currdir } \l_yoin_article_currdir_tl
448
      \ yoin article write keyval:nx { firstpage } { \int use:N \l yoin article firstpage int }
449
450 }
451
452 \prop new:N \l yoin article read prop
453
454 \cs new protected: Nn \yoin article read put:nn {
455
      \prop put:Nnn \l yoin article read prop { #1 } { #2 }
456 }
457 \cs_generate_variant:Nn \yoin_article_read_put:nn { V }
458
459 \int_new:N \l_yoin_article_firstpage_int
460 \int_set:Nn \l_yoin_article_firstpage_int { 1 }
461
462 \keys define:nn { yoin / toarticle } {
```

```
firstpage .code:n =
463
464
         \int set:Nn \l yoin article firstpage int { #1 }
465
         \yoin article read put:nn { firstpage } { #1 }
466
467
468
      parent .code:n =
         \file if exist:nT { ../ #1 .yoin } {
469
            \yoin_keys_set_from_file:nn { yoin / toarticle } { ../ #1 .yoin }
470
471
472
         \yoin_article_read_put:nn { parent } { #1 }
473
474
475
      unknown .code:n =
         \yoin_article_read_put:Vn \l_keys_key_tl { #1 }
476
477
478 }
479
480 \bool_new:N \g__yoin_article_read_bool
482 \cs_new_protected: Nn \yoin_article_read: {
483
      \bool if:NF \g voin article read bool {
         \file_if_exist:nT { ../ \l_yoin_article_currdir_tl .yoin1 } {
484
            \yoin_keys_set_from_file:nn { yoin / toarticle } { ../ \l_yoin_article_currdir_tl .yoin1 }
485
         }
486
487
      \bool gset true: N \g yoin article read bool
488
489 }
490
491 \cs_new:Nn \yoin_article_read_meta:n {
492
      \prop_item:Nn \l__yoin_article_read_prop { meta-#1 }
493
494
495 \cs_new_protected:Nn \yoin_article_read_meta_gset_tl_default:Nnn {
      \prop_get:NnNTF \l__yoin_article_read_prop { meta-#2 } \l__yoin_article_tmpa_t1 {
496
497
         \tl_gset_eq:NN #1 \l__yoin_article_tmpa_tl
      } {
498
499
         \tl_gset:Nn #1 { #3 }
      }
500
501
502
```

```
503 \NewDocumentCommand \yoinArticleMeta { m } {
      \yoin article read meta:n { #1 }
505 }
506
507 \tl new:N \l yoin article currdir tl
508 \cs generate variant: Nn \regex extract all:nnN { nV }
509 \cs new protected: Nn \yoin article getcurrdir: N {
      \tl_set:Nx \l__yoin_article_tmpa_tl { \currfileabsdir / }
      \regex_extract_all:nVN { /([^/][^/]+|[^/.]) } \l__yoin_article_tmpa_tl \l__yoin_article_tmpa_seq
511
512
      \seq_get_right:NN \l__yoin_article_tmpa_seq #1
513 }
514
515 \iow_new:N \g__yoin_article_dotyoin_iow
516 \bool_if:NT \g_yoin_article_bool {
      \yoin_article_getcurrdir:N \l_yoin_article_currdir_tl
      \iow_open:Nn \g__yoin_article_dotyoin_iow { \l_yoin_article_currdir_tl .yoin }
518
      \yoin_article_read:
519
520
      \AtBeginDocument {
         \setcounter { page } { \l yoin article firstpage int }
521
522
         \yoin article write:
523
     }
524 }
```

9 yoinProcess

msg: uforceopenanyright Error message for an article having both forceopenany and forceopenright set.

```
525 \msg_new:nnn { yoin } { forceopenanyright }
526 { The ~ article ~ '#1' ~ has ~ both ~ 'forceopenany' ~ and ~ 'forceopenright' ~ keys ~ set. }
```

\yoin_yoinprocess: The cornerstone macro of the package, to some sense. It takes care of the page numbering of the articles, proper placement of stuff in twoside environment, etc.

```
527 \cs_new_protected:Nn \yoin_yoinprocess: {
```

Finish the current page if it's started.

```
528 \clearpage
```

Go to the right page number. This depends on two parameters, cleardoublepage and setpagenumber, the dependence is explained in each of the 4 cases.

```
529 \bool_if:NTF \l__yoin_yoinprocess_cleardoublepage_bool {
530 \bool_if:NTF \l__yoin_yoinprocess_setpagenumber_bool {
```

Case cleardoublepage, setpagenumber. In this case, an empty page is added as necessary to keep the parity of page numbers. For instance, if setpagenumber=110 and last page number is 4, an empty page is added so that there are no two consecutive even pages. The check is on the parity of the sum of the two numbers. The macro $_yoin_yoin_yoin_process_clearonepage$: uses the code of $_xyoin_yoin_yoin_yoin_process_clearonepage$ uses the code of $_xyoin_yoin_yoin_yoin_yoin_yoin_process_clearonepage$.

```
\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \l__yoin_yoinprocess_setpagenumber_int } {

\int_if_odd:nT { \value { page } + \lambda { \lambda { \value { page } } {

\int_if_odd:nT { \value { page } + \lambda { \value { page } {

\int_if_odd:nT { \value { page } {\value {
```

Case cleardoublepage, nosetpagenumber. We simply do a cleardoublepage. Note that __yoin_yoinprocess_cleardoublepage: modifies the value of \g_@@_page_int in a useless way at this place, but we will override the value anyway.

Case nocleardoublepage, setpagenumber. We simply set the page number.

```
539 \bool_if:NTF \l__yoin_yoinprocess_setpagenumber_bool {
540 \setcounter { page } { \int_use:N \l__yoin_yoinprocess_setpagenumber_int }
541 } {
```

Case nocleardoublepage, nosetpagenumber. No adjustment is needed in this case.

```
542 \prg_do_nothing:
543 }
544 }
```

Here, the loop through the articles starts. First, set the internal counter for the page number; this is necessary because if the output of the process is suppressed by the key output=false, we need to keep track of the page number manually.

```
545 \int_gset:Nn \g__yoin_page_int { \value { page } }
546 \seq_map_inline:Nn \g_yoin_yoinadd_seq {
```

Handing of even/odd/pages. First, issue an error if both addarticle/forceopenany and addarticle/forceopenright are set.

```
547
         \bool if:nT {
            \int_compare_p:nNn {
548
                \yoin_yoinadd_prop_item:nn { ##1 } { forceopenany }
549
               + \yoin_yoinadd_prop_item:nn { ##1 } { forceopenright }
550
551
            } = { 2 }
         } {
552
             \msg error:nnn { yoin } { forceopenanyright } { ##1 }
553
         }
554
```

Then, we call cleardoublepage (our internal variant) if: either forceopenright is true; or openright is true and forceopenany is false.

```
555
                                    \bool if:nT {
                          556
                                       \int compare p:nNn { \yoin yoinadd prop item:nn { ##1 } { forceopenright } } = { 1 }
                          557
                                       11 (
                                          \l__yoin_yoinprocess_openright_bool
                          558
                          559
                                          \int_compare_p:nNn { \yoin_yoinadd_prop_item:nn { ##1 } { forceopenany } } = { 0 }
                          560
                          561
                                    } {
                          562
                                       \__yoin_yoinprocess_cleardoublepage:
                          563
                          564
                           If output is true, we use \includepdf to include the PDF of the article.
                                    \bool if:NT \l voin voinprocess output bool {
                          565
                                       \includepdf [ pages = - ] { ##1 / \yoin_yoinadd_prop_item:nn { ##1 } { jobname } .pdf }
                          566
                          567
                           Into file ./<articlename>.yoin1 we save the data to be transferred to the article: the first page number (possibly 1 if alwayspageone
                           key is set) and the name of the this document.
                                    \iow open: Nn \g yoin yoinprocess iow { ##1 .yoin1 }
                          568
                                    \bool if:NTF \l yoin yoinprocess alwayspageone bool {
                          569
                                       \iow now: Nx \g yoin yoinprocess iow { firstpage ~ = ~ { 1 } , }
                          570
                                    } {
                          571
                                       \iow_now:Nx \g__yoin_yoinprocess_iow { firstpage ~ = ~ { \int_use:N \g__yoin_page_int } , }
                          572
                          573
                                    \iow now:Nx \g yoin yoinprocess iow { parent ~ = ~ { \g yoin jobname tl } , }
                          574
                                    \iow_close:N \g__yoin_yoinprocess_iow
                          575
                           Update our internal page counter.
                                    \int gadd:Nn \g__yoin_page_int { \yoin_yoinadd_prop_item:nn { ##1 } { totpages } }
                          576
                                }
                          577
                          578 }
                          Public wrapper around the LATEX3 version.
            \yoinProcess
                          579 \DeclareDocumentCommand \yoinProcess { } { \yoin_yoinprocess: }
       \g voin page int A private counter for tracking the page numbers, and an output stream for writing to .yoin1 files.
\g__yoin_yoinprocess_iow 580 \int_new:N \g__yoin_page_int
                          581 \iow_new:N \g__yoin_yoinprocess_iow
```

\ yoin yoinprocess cleardoublepage: If output is true, issue \cleardoublepage. Since this macro is always called after a page is finished (either after \includepdf or \clearpage), to correct the private page counter, we only need to round its value up to an odd number.

```
582 \cs_new_protected: Nn \__yoin_yoinprocess_cleardoublepage: {
                              \bool_if:NT \l__yoin_yoinprocess_output_bool { \cleardoublepage }
                              \int_if_even:nT { \g_yoin_page_int } { \int_gincr:N \g_yoin_page_int }
                       584
                       585 }
                       Clear exactly one page. Code borrowed from \mathbb{E}T_{\mathsf{F}}X_{\mathcal{E}} kernel's \cleardoublepage.
\ yoin yoinprocess clearonepage:
                       586 \cs new protected: Nn \ yoin yoinprocess clearonepage: {
```

\bool if:NT \l yoin yoinprocess output bool { 587 \hbox {}\newpage \if@twocolumn \hbox {}\newpage \fi 588 589 590 \int_gincr:N \g__yoin_page_int 591

\1 yoin yoinprocess cleardoublepage bool Booleans and counters for values of the keys defined below.

```
\l__yoin_yoinprocess_output_bool 592 \bool_new:N \l__yoin_yoinprocess_cleardoublepage_bool
  \l__yoin_yoinprocess_openright_bool 593 \bool_new:N \l__yoin_yoinprocess_output_bool
\l__yoin_yoinprocess_alwayspageone_bool 594 \bool_new:N \l__yoin_yoinprocess_openright_bool
\l_yoin_yoinprocess_setpagenumber_bool 595 \bool_new:N \l__yoin_yoinprocess_alwayspageone_bool
\l__yoin_yoinprocess_setpagenumber_int 596 \bool new:N \l__yoin_yoinprocess_setpagenumber_bool
                            597 \int new: N \l yoin yoinprocess setpagenumber int
```

yoin_\/\ugeneral Keys for yoinprocess: several boolean keys (including openany as the negation of openright), and setpagenumber, taking as a value either a number or false (if a number is input, it is stored in a counter with the appropriate boolean set true). We actually define these keys as general keys and they are set up either when loading the package of using \yoinSetup, they are defined here because they basically only interact with \voinProcess.

```
598 \keys define:nn { yoin / general } {
      cleardoublepage .bool_set:N = \l__yoin_yoinprocess_cleardoublepage_bool ,
599
      cleardoublepage .initial:n = { false },
600
      output .bool_set:N = \l__yoin_yoinprocess_output_bool ,
601
      output .initial:n = { true },
602
603
      openright .bool set:N = 1 yoin yoinprocess openright bool,
604
      openany .bool set inverse:\mathbb{N} = 1 yoin yoinprocess openright bool,
      openright .initial:n = { false },
605
606
      alwayspageone .bool set:N = 1 yoin yoinprocess alwayspageone bool,
      alwayspageone .initial:n = { false }.
607
```

```
608
      setpagenumber .code:n =
         \str_if_eq:nnTF { #1 } { false } {
609
            \bool_set_false:N \l__yoin_yoinprocess_setpagenumber_bool
610
611
         } {
            \bool_set_true:N \l__yoin_yoinprocess_setpagenumber_bool
612
            \int_set:Nn \l__yoin_yoinprocess_setpagenumber_int { #1 }
613
614
615
      setpagenumber .initial:n = { false },
616
617 }
```

10 Process keys

\ProcessKeysPackageOptions

Process key options given to the package. We do not want to process any options given to the class. Whence \ProcessKeysPackageOptions and not \ProcessKeysOptions.

```
618 \ProcessKeysPackageOptions { yoin / general }
```

11 Experimental