The `ginpenc` package[*]

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Abstract

If the package `inputenc` is used and German Umlauts are input directly, they are converted to `\"a` etc. This breaks the sort algorithm of `makeindex`, for instance. This package converts Umlauts and the Sharp s to the short forms, defined by the `babel` package, e.g. `"a`, instead, if the text is typeset in German.

Contents

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[*]This file has version 1.0 last revised 2003/09/29, documentation dated 2003/09/29.

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1 The user interface

To use this package place

```
\usepackage{ginpenc}
```

in the preamble of your document. No options are necessary.

If you also use the `babel` package, the German Umlauts and the Sharp S are written to outputfiles, e.g. the `idx` files, as `"A`, `"O`, `"U`, `"a`, `"o`, `"u`, and `"s` instead of `\"A`, `\"O`, `\"U`, `\"a`, `\"o`, `\"u`, and `\ss` if one of the German dialects (`german`, `ngerman`, `austrian`, `naustrian`) is active. If another language is active, this package does not do anything.

This should not change anything in the document itself. But output to auxiliary files as the index file with the extension `.idx` are written with these short-hand forms instead of the long forms. This helps `makeindex` to sort the entries correctly, if the command-line switch `-g` is given.

2 New commands

\inputenc   This package defines the command `\inputenc` which returns the active encoding. If no encoding is active, it does not return anything.

Acknowledgements

Most Code parts are by Heiko Oberdiek (`oberdiek@uni-freiburg.de`) (see `news-message.txt`).

3 The implementation

Heading of the package:

```
1 \ProvidesPackage{ginpenc}
2   [\giefiledate\space v\giefileversion\space
3         Replace \string\"a by "a with babel for German texts]
```

\ifginpenc@babel   Stores if babel has been loaded.

```
4 \newif\ifginpenc@babel
```

Everything has to be done at `\begin{document}` in order to ensure that the packages `inputenc` and `babel` are loaded before the code is executed.

```
5 \AtBeginDocument{%
```

\inputenc   Default value for `\inputenc`:

```
6    \let\inputenc\empty
```

\inputencoding   Redefinition of `\inputencoding` to store the input encoding name.
First, copy the original command.

```
7    \newcommand*\gie@inputencoding{}%
8    \let\gie@inputencoding\inputencoding
```

Redefine `\inputencoding`

```
9    \def\inputencoding#1{%
```

\inputenc   Define `\inputenc` to the current value.

```
10     \def\inputenc{#1}%
```

Call the original `\inputencoding` command.

```
11     \gie@inputencoding{#1}%
```

If `babel` is loaded, load the corresponding definition file that redefines the `\"A` to
`"A` etc.

```
12     \ifginpenc@babel
13       \IfFileExists{\inputenc.gie}{%
14         \input{\inputenc.gie}%
15         }{%
16         \PackageWarning{ginpenc}{Encoding file \inputenc.gie not
17           found}%
18         }%
19     \fi
20     }%
```

\inputenc   Since the package `inputenc` calls `\inputencoding` the first time before it is rede-
fined the encoding has to be found out by a different way.

```
21     \begingroup
22     \expandafter\ifx\csname @inpenc@undefined\endcsname\relax
23       \edef\x{\endgroup}%
24     \else
25       \def\@inpenc@undefined@#1{\def\noexpand\inputenc{#1}}%
26       \edef\x{\endgroup
27         \@inpenc@undefined
28       }%
29     \fi
30     \x
```

If `babel` is loaded, load the corresponding definition file that redefines the `\"A` to
`"A` etc.

```
31     \@ifpackageloaded{babel}{%
32       \ginpenc@babeltrue
33       \ifx\inputenc\empty
34       \else
35         \IfFileExists{\inputenc.gie}{%
36           \input{\inputenc.gie}%
```

Add the new commands to the extras section of all German languages.

```
37           \addto\extrasgerman{\umlautgerman}%
38           \addto\extrasngerman{\umlautgerman}%
```

```
39        \addto\extrasaustrian{\umlautgerman}%
40        \addto\extrasnaustrian{\umlautgerman}%
41        \addto\noextrasgerman{\umlautnotgerman}%
42        \addto\noextrasngerman{\umlautnotgerman}%
43        \addto\noextrasaustrian{\umlautnotgerman}%
44        \addto\noextrasnaustrian{\umlautnotgerman}%
```

Select active language to let take effect the \extras commands.

```
45        \expandafter\selectlanguage\expandafter{\languagename}%
46        }{%
47        \PackageWarning{ginpenc}{Encoding file \inputenc.gie not
48          found}%
49        }%
50      \fi
51    }{}%
52  }
```

4 Encoding files

Only the file `ansinew.gie` is described since the other files work the same.

4.1 ansinew.gie

```
53 \ProvidesFile{ansinew.gie}[\giefiledate\space v\giefileversion\space
54   Input encoding file]%
```

The work is done in a group in order to avoid a change of the `shorthand` state. To reach a global definition of the commands they are defined with \gdef.

```
55 \begingroup
```

Switch on the German shorthands.

```
56 \shorthandon{"}%
```

\umlautgerman   Redefine the character codes in order to use the short versions of the Umlaut commands.

```
57 \gdef\umlautgerman{%
58   \DeclareInputText{196}{"A}%
59   \DeclareInputText{214}{"O}%
60   \DeclareInputText{220}{"U}%
61   \DeclareInputText{223}{"s}%
62   \DeclareInputText{228}{"a}%
63   \DeclareInputText{246}{"o}%
64   \DeclareInputText{252}{"u}%
65 }%
```

Switch off the German shorthands.

```
66 \shorthandoff{"}%
```

\umlautnotgerman   Redefine the character codes in order to use the long versions of the Umlaut commands outside German text.

```
67 \gdef\umlautnotgerman{%
68   \DeclareInputText{196}{\"A}%
69   \DeclareInputText{214}{\"O}%
70   \DeclareInputText{220}{\"U}%
```

```
71   \DeclareInputText{223}{\ss}%
72   \DeclareInputText{228}{\"a}%
73   \DeclareInputText{246}{\"o}%
74   \DeclareInputText{252}{\"u}%
75 }%

76 \endgroup
```

4.2   applemac.gie

```
77 \ProvidesFile{applemac.gie}[\giefiledate\space v\giefileversion\space
78   Input encoding file]%
79 \begingroup
80 \shorthandon{"}%
81 \gdef\umlautgerman{%
82   \DeclareInputText{128}{"A}%
83   \DeclareInputText{133}{"O}%
84   \DeclareInputText{134}{"U}%
85   \DeclareInputText{138}{"a}%
86   \DeclareInputText{154}{"o}%
87   \DeclareInputText{159}{"u}%
88   \DeclareInputText{167}{"s}%
89 }%
90 \shorthandoff{"}%
91 \gdef\umlautnotgerman{%
92   \DeclareInputText{128}{\"A}%
93   \DeclareInputText{133}{\"O}%
94   \DeclareInputText{134}{\"U}%
95   \DeclareInputText{138}{\"a}%
96   \DeclareInputText{154}{\"o}%
97   \DeclareInputText{159}{\"u}%
98   \DeclareInputText{167}{\ss}%
99 }%
100 \endgroup
```

4.3   ascii.gie

```
101 \ProvidesFile{ascii.gie}[\giefiledate\space v\giefileversion\space
102   Input encoding file]%
103 \begingroup
104 \gdef\umlautgerman{}%
105 \gdef\umlautnotgerman{}%
106 \endgroup
```

4.4   cp1250.gie

```
107 \ProvidesFile{cp1250.gie}[\giefiledate\space v\giefileversion\space
108   Input encoding file]%
109 \begingroup
110 \shorthandon{"}%
111 \gdef\umlautgerman{%
112   \DeclareInputText{196}{"A}%
113   \DeclareInputText{214}{"O}%
114   \DeclareInputText{220}{"U}%
115   \DeclareInputText{223}{"s}%
116   \DeclareInputText{228}{"a}%
```

```
117   \DeclareInputText{246}{"o}%
118   \DeclareInputText{252}{"u}%
119 }%
120 \gshorthandoff{"}%
121 \def\umlautnotgerman{%
122   \DeclareInputText{196}{\"A}%
123   \DeclareInputText{214}{\"O}%
124   \DeclareInputText{220}{\"U}%
125   \DeclareInputText{223}{\ss}%
126   \DeclareInputText{228}{\"a}%
127   \DeclareInputText{246}{\"o}%
128   \DeclareInputText{252}{\"u}%
129 }%
130 \endgroup
```

4.5   cp1252.gie

```
131 \ProvidesFile{cp1252.gie}[\giefiledate\space v\giefileversion\space
132   Input encoding file]%
133 \begingroup
134 \shorthandon{"}%
135 \gdef\umlautgerman{%
136   \DeclareInputText{196}{"A}%
137   \DeclareInputText{214}{"O}%
138   \DeclareInputText{220}{"U}%
139   \DeclareInputText{223}{"s}%
140   \DeclareInputText{228}{"a}%
141   \DeclareInputText{246}{"o}%
142   \DeclareInputText{252}{"u}%
143 }%
144 \shorthandoff{"}%
145 \gdef\umlautnotgerman{%
146   \DeclareInputText{196}{\"A}%
147   \DeclareInputText{214}{\"O}%
148   \DeclareInputText{220}{\"U}%
149   \DeclareInputText{223}{\ss}%
150   \DeclareInputText{228}{\"a}%
151   \DeclareInputText{246}{\"o}%
152   \DeclareInputText{252}{\"u}%
153 }%
154 \endgroup
```

4.6   cp437.gie

```
155 \ProvidesFile{cp437.gie}[\giefiledate\space v\giefileversion\space
156   Input encoding file]%
157 \begingroup
158 \shorthandon{"}%
159 \gdef\umlautgerman{%
160   \DeclareInputText{142}{"A}%
161   \DeclareInputText{153}{"O}%
162   \DeclareInputText{154}{"U}%
163   \DeclareInputText{132}{"a}%
164   \DeclareInputText{148}{"o}%
165   \DeclareInputText{129}{"u}%
166 }%
```

6

```
167 \shorthandoff{"}%
168 \gdef\umlautnotgerman{%
169   \DeclareInputText{142}{\"A}%
170   \DeclareInputText{153}{\"O}%
171   \DeclareInputText{154}{\"U}%
172   \DeclareInputText{132}{\"a}%
173   \DeclareInputText{148}{\"o}%
174   \DeclareInputText{129}{\"u}%
175 }%
176 \endgroup
```

4.7 cp437de.gie

```
177 \ProvidesFile{cp437de.gie}[\giefiledate\space v\giefileversion\space
178   Input encoding file]%
179 \begingroup
180 \shorthandon{"}%
181 \gdef\umlautgerman{%
182   \DeclareInputText{142}{"A}%
183   \DeclareInputText{153}{"O}%
184   \DeclareInputText{154}{"U}%
185   \DeclareInputText{225}{"s}%
186   \DeclareInputText{132}{"a}%
187   \DeclareInputText{148}{"o}%
188   \DeclareInputText{129}{"u}%
189 }%
190 \shorthandoff{"}%
191 \gdef\umlautnotgerman{%
192   \DeclareInputText{142}{\"A}%
193   \DeclareInputText{153}{\"O}%
194   \DeclareInputText{154}{\"U}%
195   \DeclareInputText{225}{\ss}%
196   \DeclareInputText{132}{\"a}%
197   \DeclareInputText{148}{\"o}%
198   \DeclareInputText{129}{\"u}%
199 }%
200 \endgroup
```

4.8 cp850.gie

```
201 \ProvidesFile{cp850.gie}[\giefiledate\space v\giefileversion\space
202   Input encoding file]%
203 \begingroup
204 \shorthandon{"}%
205 \gdef\umlautgerman{%
206   \DeclareInputText{142}{"A}%
207   \DeclareInputText{153}{"O}%
208   \DeclareInputText{154}{"U}%
209   \DeclareInputText{225}{"s}%
210   \DeclareInputText{132}{"a}%
211   \DeclareInputText{148}{"o}%
212   \DeclareInputText{129}{"u}%
213 }%
214 \shorthandoff{"}%
215 \gdef\umlautnotgerman{%
216   \DeclareInputText{142}{\"A}%
```

```
217  \DeclareInputText{153}{\"O}%
218  \DeclareInputText{154}{\"U}%
219  \DeclareInputText{225}{\ss}%
220  \DeclareInputText{132}{\"a}%
221  \DeclareInputText{148}{\"o}%
222  \DeclareInputText{129}{\"u}%
223 }%
224 \endgroup
```

4.9 cp852.gie

```
225 \ProvidesFile{cp852.gie}[\giefiledate\space v\giefileversion\space
226   Input encoding file]%
227 \begingroup
228 \shorthandon{"}%
229 \gdef\umlautgerman{%
230   \DeclareInputText{142}{"A}%
231   \DeclareInputText{153}{"O}%
232   \DeclareInputText{154}{"U}%
233   \DeclareInputText{225}{"s}%
234   \DeclareInputText{132}{"a}%
235   \DeclareInputText{148}{"o}%
236   \DeclareInputText{129}{"u}%
237 }%
238 \shorthandoff{"}%
239 \gdef\umlautnotgerman{%
240   \DeclareInputText{142}{\"A}%
241   \DeclareInputText{153}{\"O}%
242   \DeclareInputText{154}{\"U}%
243   \DeclareInputText{225}{\ss}%
244   \DeclareInputText{132}{\"a}%
245   \DeclareInputText{148}{\"o}%
246   \DeclareInputText{129}{\"u}%
247 }%
248 \endgroup
```

4.10 cp865.gie

```
249 \ProvidesFile{cp865.gie}[\giefiledate\space v\giefileversion\space
250   Input encoding file]%
251 \begingroup
252 \shorthandon{"}%
253 \gdef\umlautgerman{%
254   \DeclareInputText{142}{"A}%
255   \DeclareInputText{153}{"O}%
256   \DeclareInputText{154}{"U}%
257   \DeclareInputText{225}{"s}%
258   \DeclareInputText{132}{"a}%
259   \DeclareInputText{148}{"o}%
260   \DeclareInputText{129}{"u}%
261 }%
262 \shorthandoff{"}%
263 \gdef\umlautnotgerman{%
264   \DeclareInputText{142}{\"A}%
265   \DeclareInputText{153}{\"O}%
266   \DeclareInputText{154}{\"U}%
```

```
267    \DeclareInputText{225}{\ss}%
268    \DeclareInputText{132}{\"a}%
269    \DeclareInputText{148}{\"o}%
270    \DeclareInputText{129}{\"u}%
271 }%
272 \endgroup
```

4.11   decmulti.gie

```
273 \ProvidesFile{decmulti.gie}[\giefiledate\space v\giefileversion\space
274   Input encoding file]%
275 \begingroup
276 \shorthandon{"}%
277 \gdef\umlautgerman{%
278    \DeclareInputText{196}{"A}%
279    \DeclareInputText{214}{"O}%
280    \DeclareInputText{220}{"U}%
281    \DeclareInputText{223}{"s}%
282    \DeclareInputText{228}{"a}%
283    \DeclareInputText{246}{"o}%
284    \DeclareInputText{252}{"u}%
285 }%
286 \shorthandoff{"}%
287 \gdef\umlautnotgerman{%
288    \DeclareInputText{196}{\"A}%
289    \DeclareInputText{214}{\"O}%
290    \DeclareInputText{220}{\"U}%
291    \DeclareInputText{223}{\ss}%
292    \DeclareInputText{228}{\"a}%
293    \DeclareInputText{246}{\"o}%
294    \DeclareInputText{252}{\"u}%
295 }%
296 \endgroup
```

4.12   latin1.gie

```
297 \ProvidesFile{latin1.gie}[\giefiledate\space v\giefileversion\space
298   Input encoding file]%
299 \begingroup
300 \shorthandon{"}%
301 \gdef\umlautgerman{%
302    \DeclareInputText{196}{"A}%
303    \DeclareInputText{214}{"O}%
304    \DeclareInputText{220}{"U}%
305    \DeclareInputText{223}{"s}%
306    \DeclareInputText{228}{"a}%
307    \DeclareInputText{246}{"o}%
308    \DeclareInputText{252}{"u}%
309 }%
310 \shorthandoff{"}%
311 \gdef\umlautnotgerman{%
312    \DeclareInputText{196}{\"A}%
313    \DeclareInputText{214}{\"O}%
314    \DeclareInputText{220}{\"U}%
315    \DeclareInputText{223}{\ss}%
316    \DeclareInputText{228}{\"a}%
```

```
317    \DeclareInputText{246}{\"o}%
318    \DeclareInputText{252}{\"u}%
319 }%
320 \endgroup
```

4.13 latin2.gie

```
321 \ProvidesFile{latin2.gie}[\giefiledate\space v\giefileversion\space
322   Input encoding file]%
323 \begingroup
324 \shorthandon{"}%
325 \gdef\umlautgerman{%
326   \DeclareInputText{196}{"A}%
327   \DeclareInputText{214}{"O}%
328   \DeclareInputText{220}{"U}%
329   \DeclareInputText{223}{"s}%
330   \DeclareInputText{228}{"a}%
331   \DeclareInputText{246}{"o}%
332   \DeclareInputText{252}{"u}%
333 }%
334 \shorthandoff{"}%
335 \gdef\umlautnotgerman{%
336   \DeclareInputText{196}{\"A}%
337   \DeclareInputText{214}{\"O}%
338   \DeclareInputText{220}{\"U}%
339   \DeclareInputText{223}{\ss}%
340   \DeclareInputText{228}{\"a}%
341   \DeclareInputText{246}{\"o}%
342   \DeclareInputText{252}{\"u}%
343 }%
344 \endgroup
```

4.14 latin3.gie

```
345 \ProvidesFile{latin3.gie}[\giefiledate\space v\giefileversion\space
346   Input encoding file]%
347 \begingroup
348 \shorthandon{"}%
349 \gdef\umlautgerman{%
350   \DeclareInputText{196}{"A}%
351   \DeclareInputText{214}{"O}%
352   \DeclareInputText{220}{"U}%
353   \DeclareInputText{223}{"s}%
354   \DeclareInputText{228}{"a}%
355   \DeclareInputText{246}{"o}%
356   \DeclareInputText{252}{"u}%
357 }%
358 \shorthandoff{"}%
359 \gdef\umlautnotgerman{%
360   \DeclareInputText{196}{\"A}%
361   \DeclareInputText{214}{\"O}%
362   \DeclareInputText{220}{\"U}%
363   \DeclareInputText{223}{\ss}%
364   \DeclareInputText{228}{\"a}%
365   \DeclareInputText{246}{\"o}%
366   \DeclareInputText{252}{\"u}%
```

```
367 }%
368 \endgroup
```

4.15   latin5.gie

```
369 \ProvidesFile{latin5.gie}[\giefiledate\space v\giefileversion\space
370   Input encoding file]%
371 \begingroup
372 \shorthandon{"}%
373 \gdef\umlautgerman{%
374   \DeclareInputText{196}{"A}%
375   \DeclareInputText{214}{"O}%
376   \DeclareInputText{220}{"U}%
377   \DeclareInputText{223}{"s}%
378   \DeclareInputText{228}{"a}%
379   \DeclareInputText{246}{"o}%
380   \DeclareInputText{252}{"u}%
381 }%
382 \shorthandoff{"}%
383 \gdef\umlautnotgerman{%
384   \DeclareInputText{196}{\"A}%
385   \DeclareInputText{214}{\"O}%
386   \DeclareInputText{220}{\"U}%
387   \DeclareInputText{223}{\ss}%
388   \DeclareInputText{228}{\"a}%
389   \DeclareInputText{246}{\"o}%
390   \DeclareInputText{252}{\"u}%
391 }%
392 \endgroup
```

4.16   latin9.gie

```
393 \ProvidesFile{latin9.gie}[\giefiledate\space v\giefileversion\space
394   Input encoding file]%
395 \begingroup
396 \shorthandon{"}%
397 \gdef\umlautgerman{%
398   \DeclareInputText{196}{"A}%
399   \DeclareInputText{214}{"O}%
400   \DeclareInputText{220}{"U}%
401   \DeclareInputText{223}{"s}%
402   \DeclareInputText{228}{"a}%
403   \DeclareInputText{246}{"o}%
404   \DeclareInputText{252}{"u}%
405 }%
406 \shorthandoff{"}%
407 \gdef\umlautnotgerman{%
408   \DeclareInputText{196}{\"A}%
409   \DeclareInputText{214}{\"O}%
410   \DeclareInputText{220}{\"U}%
411   \DeclareInputText{223}{\ss}%
412   \DeclareInputText{228}{\"a}%
413   \DeclareInputText{246}{\"o}%
414   \DeclareInputText{252}{\"u}%
415 }%
416 \endgroup
```

4.17 next.gie

```
417 \ProvidesFile{next.gie}[\giefiledate\space v\giefileversion\space
418   Input encoding file]%
419 \begingroup
420 \shorthandon{"}%
421 \gdef\umlautgerman{%
422   \DeclareInputText{133}{"A}%
423   \DeclareInputText{150}{"O}%
424   \DeclareInputText{154}{"U}%
425   \DeclareInputText{217}{"a}%
426   \DeclareInputText{240}{"o}%
427   \DeclareInputText{246}{"u}%
428   \DeclareInputText{251}{"s}%
429 }%
430 \shorthandoff{"}%
431 \gdef\umlautnotgerman{%
432   \DeclareInputText{133}{\"A}%
433   \DeclareInputText{150}{\"O}%
434   \DeclareInputText{154}{\"U}%
435   \DeclareInputText{217}{\"a}%
436   \DeclareInputText{240}{\"o}%
437   \DeclareInputText{246}{\"u}%
438   \DeclareInputText{251}{\"s}%
439 }%
440 \endgroup
```

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Index

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