

# The KOMA-Script package `komamarks`\*

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2019/08/26

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## 1 User Manual

This is an experimental beta version without user manual.

## 2 Implementation of `komamarks`

This section is for developers only.

### 2.1 Options

This package currently does not provide any options. Nevertheless processing the options is recommended:

```
1 <*processoptions>
2 \ProcessOptions\relax
3 </processoptions>
```

### 2.2 Handling for new marks similar to `LATEX`

`LATEX` provides `\markright`, `\markboth`, `\leftmark` and `\rightmark` using `TEX`'s `\mark`, `\firstmark` and `\botmark`. Let's do the same for `ε-TEX`'s `\marks`, `\firstmarks`, `\botmarks` and add some new features like `sclayer` does.

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\*This is revision 3199 of file `komamarks.dtx`.

`\marksboth` These are similar to `\markboth` and `\markright` but uses `\marks` instead  
`\marksright` of `\mark` and therefore has one new mandatory argument: the marks  
`\@marksright` register. We can not use L<sup>A</sup>T<sub>E</sub>X's `\markright`, but a local version of it.

```

4 <*body>
5 \newcommand*{\marksboth}[3]{%
6   \begingroup
7     \let\label\relax \let\index\relax \let\glossary\relax
8     \ExecuteDoHook{marks/relax}%
9     \unrestored@protected@edef\@themark{{#2}{#3}}%
10    \global\expandafter\let\csname @themarks\the#1\endcsname\@themark
11    \@temptokena \expandafter{\@themark}%
12    \marks#1{\the\@temptokena}%
13  \endgroup
14  \if@nobreak\ifvmode\nobreak\fi\fi
15 }
16 \def\unrestored@protected@edef{%
17   \let\protect\@unexpandable@protect
18   \edef
19 }
20 \newcommand*{\marksright}[2]{%
21   \begingroup
22     \let\label\relax \let\index\relax \let\glossary\relax
23     \ExecuteDoHook{marks/relax}%
24     \@ifundefined{@themarks\the#1}{%
25       \def\@themark{{}{}}%
26     }{%
27       \expandafter\let\expandafter\@themark\csname @themarks\the#1\endcsname
28     }%
29     \expandafter\@marksright\@themark {#2}%
30     \global\expandafter\let\csname @themarks\the#1\endcsname\@themark
31     \@temptokena \expandafter{\@themark}%
32     \marks#1{\the\@temptokena}%
33   \endgroup
34   \if@nobreak\ifvmode\nobreak\fi\fi
35 }
36 \newcommand*{\@marksright}[3]{%
37   \@temptokena {#1}%
38   \unrestored@protected@edef\@themark{\the\@temptokena}{#3}%
39 }
40 </body>

```

Note, we can use `\ExecuteDoHook` to make it easy to extend relaxing some commands only, if we have `scrbase` loaded. So do it while initialization:

```

41 <*init>
42 \RequirePackage{scrbase}
43 </init>

```

`\leftfirstmarks` These are similar to `\leftmark` resp. `\rightmark` but using  
`\lefttopmarks`  
`\leftbotmarks`  
`\leftmarks`

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`\leftfirstmarks`  
`\lefttopmarks`  
`\leftbotmarks`  
`\leftmarks`

`\firstmarks`, `\topmarks` or `\botmarks` and therefore need one argument.

```

44 <*body>
45 \newcommand*{\leftfirstmarks}[1]{%
46   \expandafter\@leftmark\firstmarks#1\@empty\@empty
47 }
48 \newcommand*{\lefttopmarks}[1]{%
49   \expandafter\@leftmark\topmarks#1\@empty\@empty
50 }
51 \newcommand*{\leftbotmarks}[1]{%
52   \expandafter\@leftmark\botmarks#1\@empty\@empty
53 }
54 \newcommand*{\leftmarks}{\leftbotmarks}
55 \newcommand*{\rightfirstmarks}[1]{%
56   \expandafter\@rightmark\firstmarks#1\@empty\@empty
57 }
58 \newcommand*{\righttopmarks}[1]{%
59   \expandafter\@rightmark\topmarks#1\@empty\@empty
60 }
61 \newcommand*{\rightbotmarks}[1]{%
62   \expandafter\@rightmark\botmarks#1\@empty\@empty
63 }
64 \newcommand*{\rightmarks}{\rightfirstmarks}
65 </body>

```

## 2.3 Handling Marks inside multicol's multicol's Environment

Package `multicol` needs special treatment for marks and we have to patch it to do the same for the  $\varepsilon$ -TeX marks.

Not yet implemented.

```

66 <*init>
67 \RequirePackage{scrfile}
68 </init>
69 <*body>
70 \AfterPackage*{multicol}{%
71   \PackageWarning{komamarks}{%
72     komamarks does not yet support multicol's
73   }%
74 }
75 </body>

```

## 2.4 Multimarks

Usually  $\text{\LaTeX}$ 's marks consist of a left and a right mark. But what about having marks als sequence of items? In this case we need to setup the  $n$ -th mark item in such a sequence and to get the  $n$ -th mark item in such a sequence. Here it would be nice to have `expl3`, i.e., `l3seq` instead of only  $\text{\LaTeX}_{2\varepsilon}$ 's `\@tfor`.

Not yet implemented completely and therefore currently not usable.

`\marksall` Like `\marksboth` but instead of two mark argument (for the left and the right mark) it has only one mark argument, which is a token list with a token for each mark.

```

76 <*body>
77 \newcommand*{\marksall}[2]{%
78   \begingroup
79   \let\label\relax \let\index\relax \let\glossary\relax
80   \ExecuteDoHook{marks/relax}%
81   \unrestored@protected@edef\@themark{#2}%
82   \global\expandafter\let\csname @themarks\the#1\endcsname\@themark
83   \@temptokena \expandafter{\@themark}%
84   \marks#1{\the\@temptokena}%
85   \endgroup
86   \if@nobreak\ifvmode\nobreak\fi\fi
87 }
88 </body>

```

`\marksnth` Like `\marksright` but instead of changing the right (second) mark it changes the n-th mark.

```

89 <*body>
90 \newcommand*{\marksnth}[3]{%
91   \begingroup
92   \let\label\relax \let\index\relax \let\glossary\relax
93   \ExecuteDoHook{marks/relax}%
94   \@tempcnta=\z@
95   \let\@themark\@empty
96   \ifundefined{@themarks\the#1}{%
97     \expandafter\expandafter\expandafter\@tfor
98     \expandafter\expandafter\expandafter\reserved@a
99     \expandafter\expandafter\expandafter:%
100    \expandafter\expandafter\expandafter=%
101    \csname @themarks\the#1\endcsname\do {%
102      \advance\@tempcnta \@ne
103      \ifnum \number #2=\@tempcnta
104        \unrestored@protected@edef\@themark{\@themark{#3}}%
105      \else
106        \unrestored@protected@edef\@themark{\@themark{\reserved@a}}%
107      \fi
108    }%
109  }%
110  \@whilenum \number #2>\@tempcnta\do {%
111    \advance\@tempcnta \@ne
112    \ifnum \number #2=\@tempcnta
113      \unrestored@protected@edef\@themark{\@themark{#3}}%
114    \else
115      \unrestored@protected@edef\@themark{\@themark{}}%
116    \fi

```

```

117 }%
118 \global\expandafter\let\csname @themarks\the#1\endcsname\@themark
119 \@temptokena \expandafter{\@themark}%
120 \marks#1{\the\@temptokena}%
121 \endgroup
122 \if@nobreak\ifvmode\nobreak\fi\fi
123 }
124 \</body>

```

`\marksnthplus` Like `\marksnth` but with one more argument, that is used till the end of the mark sequence.

```

125 <*body>
126 \newcommand*{\marksnthplus}[4]{%
127 \begin{group}
128 \let\label\relax \let\index\relax \let\glossary\relax
129 \ExecuteDoHook{marks/relax}%
130 \@tempcnta=\z@
131 \let\@themark\@empty
132 \ifundefined{@themarks\the#1}{\do {%
133 \expandafter\expandafter\expandafter\@tfor
134 \expandafter\expandafter\expandafter\reserved@a
135 \expandafter\expandafter\expandafter:%
136 \expandafter\expandafter\expandafter=%
137 \csname @themarks\the#1\endcsname\do {%
138 \advance\@tempcnta \@ne
139 \ifnum \number #2=\@tempcnta
140 \unrestored@protected@edef\@themark{\@themark{#3}}%
141 \else
142 \ifnum \number #2>\@tempcnta
143 \unrestored@protected@edef\@themark{\@themark{\reserved@a}}%
144 \else
145 \unrestored@protected@edef\@themark{\@themark{#4}}%
146 \fi
147 \fi
148 }%
149 }%
150 \@whilenum \number #2>\@tempcnta\do {%
151 \advance\@tempcnta \@ne
152 \ifnum \number #2=\@tempcnta
153 \unrestored@protected@edef\@themark{\@themark{#3}}%
154 \else
155 \unrestored@protected@edef\@themark{\@themark{}}%
156 \fi
157 }%
158 \global\expandafter\let\csname @themarks\the#1\endcsname\@themark
159 \@temptokena \expandafter{\@themark}%
160 \marks#1{\the\@temptokena}%
161 \endgroup
162 \if@nobreak\ifvmode\nobreak\fi\fi

```

```

163 }
164 </body>

\marksnthcleartail Like \marksnth but removes all items above the n-th.
165 <*body>
166 \newcommand*{\marksnthcleartail}[3]{%
167   \begingroup
168     \let\label\relax \let\index\relax \let\glossary\relax
169     \ExecuteDoHook{marks/relax}%
170     \@tempcnta=\z@
171     \let\@themark\@empty
172     \ifundefined{@themarks\the#1}{\{%
173       \expandafter\expandafter\expandafter\@tfor
174       \expandafter\expandafter\expandafter\reserved@a
175       \expandafter\expandafter\expandafter:%
176       \expandafter\expandafter\expandafter=%
177       \csname @themarks\the#1\endcsname\do {%
178         \advance\@tempcnta \@ne
179         \ifnum \number #2=\@tempcnta
180           \unrestored@protected@edef\@themark{\@themark{#3}}%
181         \else
182           \ifnum \number #2>\@tempcnta
183             \unrestored@protected@edef\@themark{\@themark{\reserved@a}}%
184           \fi
185         \fi
186       }%
187     }%
188     \@whilenum \number #2>\@tempcnta\do {%
189       \advance\@tempcnta \@ne
190       \ifnum \number #2=\@tempcnta
191         \unrestored@protected@edef\@themark{\@themark{#3}}%
192       \else
193         \unrestored@protected@edef\@themark{\@themark{}}%
194       \fi
195     }%
196     \global\expandafter\let\csname @themarks\the#1\endcsname\@themark
197     \@temptokena \expandafter{\@themark}%
198     \marks#1{\the\@temptokena}%
199   \endgroup
200   \if@nobreak\ifvmode\nobreak\fi\fi
201 }
202 </body>

\nthmarknotdefined This macro usually expands to nothing, if the n-th mark is not yet de-
                    fined.
203 <*body>
204 \newcommand*{\nthmarknotdefined}{}
205 </body>

```

`\nthtopmarks` Like `\leftfirstmarks` or `\rightfirstmarks` etc. but not using  
`\nthfirstmarks` `\@leftmark` or `\@rightmark` that is `\@firstoftwo` or `\@secondoftwo`  
`\nthbotmarks` but `\@nthofm`.

```

\@nthofm 206 ⟨*body⟩
207 \newcommand*{\nthtopmarks}[2]{%
208   \expandafter\@nthofm\expandafter{\topmarks#1}{#2}%
209 }
210 \newcommand*{\nthfirstmarks}[2]{%
211   \expandafter\@nthofm\expandafter{\firstmarks#1}{#2}%
212 }
213 \newcommand*{\nthbotmarks}[2]{%
214   \expandafter\@nthofm\expandafter{\botmarks#1}{#2}%
215 }
216 \newcommand{\@nthofm}[2]{%
217   \begingroup
218     \@tempcnta=\z@
219     \let\reserved@a\nthmarknotdefined
220     \@tfor\reserved@b:=#1\do{%
221       \advance\@tempcnta\@ne
222       \ifnum \number #2=\@tempcnta
223         \let\reserved@a\reserved@b
224       \fi
225     }%
226   \expandafter\def\expandafter\reserved@a\expandafter{\expandafter\endgroup
227     \reserved@a}%
228   \reserved@a
229 }
230 ⟨/body⟩

```

## Change History

v0.0

General: Start of new package . 1

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