The **camnotes** package (v1.0)

Dafydd Evans and David McConnell

{evansd8,mcconnelld}@cf.ac.uk

16th January 2018

The **camnotes** package provides tools for typesetting lecture notes and provides an interface to the **camel** and **latextree** document processing systems.

1 Introduction

This package provides commands for typesetting lecture notes in various formats, and adopts some macros and environments from `exam.cls` for setting questions and answers, including multiple choice and multiple answer questions. The package also provides a standard interface to the `latextree` python package.

The most recent version of the package can be found at

https://github.com/cardiffmaths/texmf/tex/latex/camnotes

2 Options

The following options are available.

`blanks`	replace contents of `\blank` macros by (inline) blank boxes
	replace `blankbox` and `solution` environments by blank boxes
`noproofs`	exclude proofs
`blankoproofs`	replace proofs by blank boxes
`noanswers`	exclude answers
`blankanswers`	replace answers by blank boxes
`student`	equivalent to choosing `blanks`, `noproofs` and `noanswers`.

3 Partial handouts

\blank	Contents replaced by (an inline) blank box when the `blanks` option is chosen.
blankbox	Content is replaced by a blank box when the `blanks` option is chosen.
solution	Solution environment: responds to the `blanks` option.
proof	Proof environment: responds to the `noproofs` and `blankproofs` options.
answer	Answer environment: responds to the `noanswers` and `blankanswers` options.
\sol	Macro for short solutions: a wrapper for the `solution` environment.
\pro	Macro for short proofs: a wrapper for the `proof` environment.
\ans	Macro for short answers: a wrapper for the `answer` environment.
\setproofcolour	Set the proof colour.
\setsolutioncolour	Set the solution colour.
\setanswercolour	Set the answer colour.
\setstretchfactor	Set stretch factor for blank boxes (to accomodate handwriting).
\setimagestretchfactor	Set stretch factor for blank images (to accomodate hand-drawing).
\setboxrule	Set the width of the box border (default is zero).

4 Questions and Answers

The package adapts some macros and environments from `exam.cls` for typesetting different question types (including multiple choice and multiple answer).

questions	List environment for questions.
parts	List environment for parts of a question.
subparts	List environment for subparts of a question.
\question	Item type for `questions` environment.
\part	Item type for `parts` environment.
\subpart	Item type for `subparts` environment.
choices	List environment for multiple choice options (chose exactly one).
checkboxes	List environment for multiple answer options (choose zero or more).
\choice	Item type for incorrect choice in `choices` and `checkboxes` environments.
\correctchoice	Item type for correct choice in `choices` and `checkboxes` environments.

5 Implementation

5.1 Declare options and load packages

Declare and process options

```
1 \newif\ifcamnotes@blanks\camnotes@blanksfalse
2 \newif\ifcamnotes@noproofs\camnotes@noproofsfalse
3 \newif\ifcamnotes@blankproofs\camnotes@blankproofsfalse
4 \newif\ifcamnotes@noanswers\camnotes@noanswersfalse
5 \newif\ifcamnotes@blankanswers\camnotes@blankanswersfalse
6 \newif\if@student\@studentfalse
7 \DeclareOption{blanks}{\camnotes@blankstrue}
8 \DeclareOption{noproofs}{\camnotes@noproofstrue}
9 \DeclareOption{blankproofs}{\camnotes@blankproofstrue}
10 \DeclareOption{noanswers}{\camnotes@noanswerstrue}
11 \DeclareOption{blankanswers}{\camnotes@blankanswerstrue}
12 \DeclareOption{student}{%
13 \camnotes@blankstrue
14 \camnotes@noproofstrue
15 \camnotes@noanswerstrue
16 }
17 \ProcessOptions
18 \relax
```

Type out some useful information

```
19 \typeout{--------------------}
20 \ifcamnotes@blanks\typeout{blanks on}\fi
21 \ifcamnotes@noproofs\typeout{no proofs}\fi
22 \ifcamnotes@blankproofs\typeout{blank proofs}\fi
23 \ifcamnotes@noanswers\typeout{no answers}\fi
24 \ifcamnotes@blankanswers\typeout{blank answers}\fi
25 \typeout{--------------------}
```

Load all required packages

```
26 \RequirePackage{amsmath,amsfonts,amssymb}
27 \RequirePackage[dvipsnames]{xcolor}
28 \RequirePackage{newfloat}
29 \RequirePackage{caption}
30 \RequirePackage{graphicx}
31 \RequirePackage{tikz}
32 \RequirePackage{xifthen}
33 \RequirePackage{comment}
34 \RequirePackage{environ}
35 \RequirePackage{setspace}
36 \RequirePackage{etoolbox}
37 \RequirePackage{tcolorbox}
38 \tcbuselibrary{breakable}
39 \tcbuselibrary{skins}
```

Set entity names (override these with camlang.sty)

```
40 \let\proofname\@undefined
```

```
41 \newcommand{\proofname}{Proof}
42 \newcommand{\answername}{Answer}
43 \newcommand{\solutionname}{Solution}
```

5.2 Colours

Set default colours

```
44 \newcommand{\camnotes@BackgroundColour}{white}
45 \newcommand{\camnotes@TextColour}{black}
46 \newcommand{\camnotes@ShowColour}{black}
47 \newcommand{\camnotes@ProofColour}{black}
48 \newcommand{\camnotes@SolutionColour}{black}
49 \newcommand{\camnotes@AnswerColour}{black}
50 \AtBeginDocument{
51     \color{\camnotes@TextColour}
52     \pagecolor{\camnotes@BackgroundColour}
53 }
```

Commands for setting custom colours

```
54 \newcommand{\backgroundcolour}[1]{\renewcommand{\camnotes@BackgroundColour}{#1}}
55 \newcommand{\textcolour}[1]{\renewcommand{\camnotes@TextColour}{#1}}
56 \newcommand{\showcolour}[1]{\renewcommand{\camnotes@ShowColour}{#1}}
57 \newcommand{\proofcolour}[1]{\renewcommand{\camnotes@ProofColour}{#1}}
58 \newcommand{\solutioncolour}[1]{\renewcommand{\camnotes@SolutionColour}{#1}}
59 \newcommand{\answercolour}[1]{\renewcommand{\camnotes@AnswerColour}{#1}}
```

5.3 Parameters

\setstretchfactor Set stretch factor for blank text. This parameter is passed to the \setstretch command of the setspace package.

```
60 \newcommand{\camnotes@StretchFactor}{1}
61 \newcommand{\setstretchfactor}[1]{\renewcommand{\camnotes@StretchFactor}{#1}}
```

\setimagestretchfactor Set stretch factor for blank images.

```
62 \newcommand{\camnotes@ImageStretchFactor}{1}
63 \newcommand{\setimagestretchfactor}[1]{\renewcommand{\camnotes@ImageStretchFactor}{#1}}
```

\setimagestretchfactor Set stretch factor for blank images.

```
64 \newcommand{\camnotes@BoxRule}{0pt}
65 \newcommand{\setboxrule}[1]{\renewcommand{\camnotes@BoxRule}{#1}}
```

5.4 Blanks

Internal titles

```
66 \newcommand{\camnotes@BoxTitle}{}
67 \newcommand{\camnotes@ProofTitle}{\proofname}
68 \newcommand{\camnotes@SolutionTitle}{\solutionname}
69 \newcommand{\camnotes@AnswerTitle}{\answername}
```

```
70 \newcommand{\camnotes@makeboxtitle}{%
71 \textcolor{\camnotes@TextColour}{\noindent\textbf{\camnotes@CurrentBoxTitle}\smallbreak}
72 }
```

Macros for recording the current options (used by camnotesbox)

```
73 \newcommand{\camnotes@CurrentColour}{black}
74 \newcommand{\camnotes@CurrentBoxRule}{0pt}
75 \newcommand{\camnotes@CurrentBoxTitle}{}
```

\ifcamnotes@blankmode   Internal switch to indicate blank mode within various environments

```
76 \newif\ifcamnotes@blankmode
77 \camnotes@blankmodefalse
```

camnotes@blankimagemode   Boolean for blank images in blankbox/solution/proof/answer environments.

```
78 \newif\ifcamnotes@blankimagemode
79 \camnotes@blankimagemodefalse
```

\blank   Inline show/hide command (uses tcolorbox)

```
80 \newcommand{\blank}[1]{#1}
81 \ifcamnotes@blanks
82     \renewtcbox{\blank}{
83       on line,
84       colback=\camnotes@BackgroundColour,
85       coltext={\ifcamnotes@blanks\camnotes@BackgroundColour\else\camnotes@ShowColour\fi},
86       boxrule={\ifcamnotes@blanks\camnotes@BoxRule\else0pt\fi}
87     }
88 \fi
```

camnotes@tcbox   Basic tcolorbox.

```
89 \newenvironment{camnotes@tcbox}{%
90 \begin{tcolorbox}[
91 breakable,
92 notitle,
93 boxrule={\camnotes@BoxRule},
94 colback={\camnotes@BackgroundColour},
95 before={\smallskip},
96 after={},
97 coltext={\camnotes@CurrentColour},
98 skin=enhanced,
99 height fixed for = first and middle,
100 ignore nobreak,
101 flushleft upper
102 ]
103 \begingroup
104 }{
105 \endgroup
106 \end{tcolorbox}
107 }
```

camnotes@basicbox Basic box. Blank boxes/proofs/solutions/answers are implemented by set-
ting the \camnotes@blankmode switch within these environments before calling
camnotes@basicbox.

```
108 \newenvironment{camnotes@basicbox}[1][]{
109 \ifthenelse{\isempty{#1}}%
110 {\renewcommand{\camnotes@CurrentBoxTitle}{}}%
111 {\renewcommand{\camnotes@CurrentBoxTitle}{#1}}
112 \ifcamnotes@blankmode
113 \renewcommand{\camnotes@CurrentColour}{\camnotes@BackgroundColour}
114 \setstretch{\camnotes@StretchFactor}
115 \begin{camnotes@tcbox}
116 \ifthenelse{\isempty{#1}}{}{\camnotes@makeboxtitle}
117 \else
118 \par
119 \ifthenelse{\isempty{#1}}{}{\camnotes@makeboxtitle}
120 \color{\camnotes@CurrentColour}
121 \fi
122 }{
123 \ifcamnotes@blankmode
124 \end{camnotes@tcbox}
125 \setstretch{1}
126 \fi
127 \camnotes@blankmodefalse
128 \color{\camnotes@TextColour}
129 }
130 \newenvironment{camnotes@framedbox}[1][]{
131 \ifthenelse{\isempty{#1}}%
132 {\renewcommand{\camnotes@CurrentBoxTitle}{}}%
133 {\renewcommand{\camnotes@CurrentBoxTitle}{#1}}
134 \ifcamnotes@blankmode
135 \renewcommand{\camnotes@CurrentColour}{\camnotes@BackgroundColour}
136 \setstretch{\camnotes@StretchFactor}
137 \else
138 \color{\camnotes@CurrentColour}
139 \fi
140 \begin{camnotes@tcbox}
141 \ifthenelse{\isempty{#1}}{}{\camnotes@makeboxtitle}
142 }{
143 \end{camnotes@tcbox}
144 \ifcamnotes@blankmode
145 \setstretch{1}
146 \fi
147 \camnotes@blankmodefalse
148 \color{\camnotes@TextColour}
149 }
```

blankbox Blankbox environment. Visibility is controlled by the blanks options.

```
150 \newenvironment{blankbox}{%
151 \renewcommand{\camnotes@CurrentColour}{\camnotes@ShowColour}
```

```
152 \ifcamnotes@blanks
153 \camnotes@blankmodetrue
154 \fi
155 \begin{camnotes@basicbox}
156 }{%
157 \end{camnotes@basicbox}
158 }
```

solution   Solution environment. Visibility is controlled by the `blanks` options.

```
159 \newenvironment{solution}{
160 \renewcommand{\camnotes@CurrentColour}{\camnotes@SolutionColour}
161 \ifcamnotes@blanks
162 \camnotes@blankmodetrue
163 \fi
164 \begin{camnotes@framedbox}[\solutionname]
165 }{
166 \end{camnotes@framedbox}
167 }
```

proof   Proof environment. Visibility is controlled by the `noproofs` and `blankproofs` options.

```
168 \let\proof\@undefined
169 \let\endproof\@undefined
170 \ifcamnotes@noproofs
171 \excludecomment{proof}
172 \else
173 \newenvironment{proof}{
174 \renewcommand{\camnotes@CurrentColour}{\camnotes@ProofColour}
175 \ifcamnotes@blankproofs
176 \camnotes@blankmodetrue
177 \fi
178 \begin{camnotes@basicbox}[\proofname]
179 }{
180 \end{camnotes@basicbox}
181 }
182 \fi
```

answer   Proof environment. Visibility is controlled by the `noproofs` and `blankproofs` options.

```
183 \ifcamnotes@noanswers
184 \excludecomment{answer}
185 \else
186 \newenvironment{answer}{
187 \renewcommand{\camnotes@CurrentColour}{\camnotes@AnswerColour}
188 \ifcamnotes@blankanswers
189 \camnotes@blankmodetrue
190 \fi
191 \begin{camnotes@framedbox}[\answername]
192 }{
```

```
193 \end{camnotes@framedbox}
194 }
195 \fi
```

\bbx   Short commands for `blankbox`, `solution`, `proof` and `answer` environments.
\sol
\prf
\ans

```
196 \newcommand{\bbx}[1]{\begin{blankbox}{#1}\end{blankbox}}
197 \newcommand{\sol}[1]{\begin{solution}{#1}\end{solution}}
198 \newcommand{\prf}[1]{\begin{proof}{#1}\end{proof}}
199 \newcommand{\ans}[1]{\begin{answer}{#1}\end{answer}}
```

5.5   Images

\includegraphics   We redefine includegraphics so that it responds to the `blanks`, `blankproofs` and `blankanswers` options. Where necessary we set \camnotes@blankmodetrue when entering these environments then \camnotes@blankmodefalse when leaving them.

```
200 \let\oldincludegraphics=\includegraphics
201 \renewcommand\includegraphics[2][]{
202 \ifcamnotes@blankmode
203 \scalebox{\camnotes@ImageStretchFactor}{
204 \phantom{\oldincludegraphics[#1]{#2}}
205 }
206 \else
207 \oldincludegraphics[#1]{#2}
208 \fi
209 }
```

altgraphics   Shows the second image in blanked environments, otherwise shows the first.

```
210 \newlength\imageheight
211 \newlength\imagewidth
212 \newcommand{\altgraphics}[3][scale=1]{
213 \ifcamnotes@blankmode
214 \settoheight{\imageheight}{\oldincludegraphics[#1]{#2}}
215 \settowidth{\imagewidth}{\oldincludegraphics[#1]{#2}}
216 \scalebox{\camnotes@ImageStretchFactor}{
217 \oldincludegraphics[height=\imageheight,width=\imagewidth,keepaspectratio]{#3}
218 }
219 \else
220 \oldincludegraphics[#1]{#2}
221 \fi
222 }
```

\blanktikz   Macro to replace tikz pictures by blank space. To limit the scope it should be included inside `blankbox`, `solution`, `proof`, or `answer` environments.

```
223 \newcommand{\blanktikz}{%
224 \ifcamnotes@blankmode
225 \tikzset{every picture/.style={
226 scale=\camnotes@ImageStretchFactor,
227 execute at end picture={
```

```
228 \draw[fill=\camnotes@BackgroundColour] (current bounding box.south west) rectangle (current bou
229 }}}
230 \fi
231 }
```

\blankgraphics   If the 'blanks' option is used, the image is replaced with blank space of the same
                  size.

```
232 \newcommand{\blankgraphics}[2][scale=1]{
233     \ifcamnotes@blankmode
234      \scalebox{\camnotes@ImageStretchFactor}{\phantom{\oldincludegraphics[#1]{#2}}}
235     \else
236      \oldincludegraphics[#1]{#2}
237     \fi
238 }
```

\hidegraphics   To manually specify different dimensions for the 'blank' and 'full' versions of an
\showgraphics   image

```
239 \newcommand{\hidegraphics}[2][scale=1]{
240     \ifcamnotes@blankmode
241      \oldincludegraphics[#1]{#2}
242     \else
243      \null
244     \fi
245 }
246 \newcommand{\showgraphics}[2][scale=1]{
247     \ifcamnotes@blankmode
248      \null
249     \else
250      \oldincludegraphics[#1]{#2}
251     \fi
252 }
```

5.6   Local options

blankson   Environments to override the global blanks option.
blanksoff
```
253 \newif\ifcamnotes@globalblanks\camnotes@globalblanksfalse
254 \ifcamnotes@blanks\camnotes@globalblankstrue\fi
255 \newenvironment{blankson}{
256 \camnotes@blankstrue
257 \begingroup
258 }{
259 \endgroup
260 \ifcamnotes@globalblanks\camnotes@blankstrue\else\camnotes@blanksfalse\fi
261 }
262 \newenvironment{blanksoff}{
263 \camnotes@blanksfalse
264 \begingroup
265 }{
266 \endgroup
```

```
267 \ifcamnotes@globalblanks\camnotes@blankstrue\else\camnotes@blanksfalse\fi
268 }
```

proofson Environments to override the global `noproofs` and `blankproofs` proof options.
proofsoff
```
269 \newif\ifcamnotes@globalnoproofs\camnotes@globalnoproofsfalse
270 \newif\ifcamnotes@globalblankproofs\camnotes@globalblankproofsfalse
271 \ifcamnotes@noproofs\camnotes@globalnoproofstrue\fi
272 \ifcamnotes@blankproofs\camnotes@globalblankproofstrue\fi
273 \newenvironment{proofson}{
274 \camnotes@noproofsfalse
275 \camnotes@blankproofsfalse
276 \begingroup
277 }{
278 \endgroup
279 \ifcamnotes@globalnoproofs\camnotes@noproofstrue\else\camnotes@noproofsfalse\fi
280 \ifcamnotes@globalblankproofs\camnotes@blankproofstrue\else\camnotes@blankproofsfalse\fi
281 }
282 \newenvironment{proofsoff}{
283 \camnotes@noproofstrue
284 \begingroup
285 }{
286 \endgroup
287 \ifcamnotes@globalnoproofs\camnotes@noproofstrue\else\camnotes@noproofsfalse\fi
288 }
```

answerson Environments to override the global `noanswers` or `blankanswers` options.
answersoff
```
289 \newif\ifcamnotes@globalnoanswers\camnotes@globalnoanswersfalse
290 \newif\ifcamnotes@globalblankanswers\camnotes@globalblankanswersfalse
291 \ifcamnotes@noanswers\camnotes@globalnoanswerstrue\fi
292 \ifcamnotes@blankanswers\camnotes@globalblankanswerstrue\fi
293 \newenvironment{answerson}{
294 \camnotes@noanswersfalse
295 \camnotes@blankanswersfalse
296 \begingroup
297 }{
298 \endgroup
299 \ifcamnotes@globalnoanswers\camnotes@noanswerstrue\else\camnotes@noanswersfalse\fi
300 \ifcamnotes@globalblankanswers\camnotes@blankanswerstrue\else\camnotes@blankanswersfalse\fi
301 }
302 \newenvironment{answersoff}{
303 \camnotes@noanswerstrue
304 \begingroup
305 }{
306 \endgroup
307 \ifcamnotes@globalnoanswers\camnotes@noanswerstrue\else\camnotes@noanswersfalse\fi
308 }
```

5.7   Macros and environments adapted from `exam.cls`

Commands to define symbols for choices and checkboxes

```
309 \newcommand{\choicechar}[1]{\def\choice@char{#1}}
310 \newcommand{\chosenchar}[1]{\def\chosen@char{#1}}
311 \newcommand{\checkboxchar}[1]{\def\checkbox@char{#1}}
312 \newcommand{\checkedchar}[1]{\def\checked@char{#1}}
```

Set default symbols

```
313 \newcommand{\bigsquare}{\raisebox{0.5ex}{\fbox{\phantom{\rule{0.5ex}{0.5ex}}}}}
314 \choicechar{$\bigcirc$}
315 \chosenchar{$\text{\rlap{\,$\checkmark$}}\bigcirc$}
316 \checkboxchar{$\bigsquare$}
317 \checkedchar{$\text{\rlap{\,\!$\checkmark$}}\bigsquare$}
```

Hooks (for customization)

```
318 \newcommand\questionshook{}
319 \newcommand\partshook{}
320 \newcommand\subpartshook{}
321 \newcommand\subsubpartshook{}
322 \newcommand\choiceshook{}
323 \newcommand\checkboxeshook{}
```

Counters

```
324 \newcounter{question}
325 \newcounter{partno}
326 \newcounter{subpart}
327 \newcounter{subsubpart}
328 \newcounter{choice}
```

Item labels for questions, parts, subparts and subsubparts

```
329 \newcommand\questionlabel{\arabic{question}.}
330 \newcommand\partlabel{(\alph{partno})}
331 \newcommand\subpartlabel{(\roman{subpart})}
332 \newcommand\subsubpartlabel{\alph{subsubpart}.}
```

Questions

```
333 \newenvironment{questions}{
334   \def\@queslevel{question}
335   \def\question{
336     \@checkqueslevel{question}
337     \item
338   }
339   \def\subpart{
340     \@checkqueslevel{subpart}
341     \item
342   }
343   \def\subsubpart{
344     \@checkqueslevel{subsubpart}
345     \item
346   }
347   \list{\questionlabel}{
```

```
348       \usecounter{question}
349       \settowidth{\leftmargin}{10.\hskip\labelsep}
350       \labelwidth\leftmargin\advance\labelwidth-\labelsep
351       \partopsep=0pt
352       \questionshook
353       }
354 }{
355 \endlist
356 }
```

Parts

```
357 \newenvironment{parts}{
358 \def\@queslevel{part}
359 \def\part{
360       \@checkqueslevel{part}
361       \item
362 }
363 \list{\partlabel}{
364       \usecounter{partno}\def\makelabel##1{\hss\llap{##1}}
365       \settowidth{\leftmargin}{(m)\hskip\labelsep}
366       \labelwidth\leftmargin\advance\labelwidth-\labelsep
367       \topsep=0pt
368       \partopsep=0pt
369       \partshook
370 }
371 }{
372 \endlist
373 }
```

Subparts

```
374 \newenvironment{subparts}{
375 \def\@queslevel{subpart}
376 \list{\subpartlabel}{
377       \usecounter{subpart}\def\makelabel##1{\hss\llap{##1}}
378       \settowidth{\leftmargin}{vii.\hskip\labelsep}
379       \labelwidth\leftmargin\advance\labelwidth-\labelsep
380       \topsep=0pt
381       \partopsep=0pt
382       \subpartshook
383       }
384 }{
385 \endlist
386 }
```

Subsubparts

```
387 \newenvironment{subsubparts}{
388 \def\@queslevel{subsubpart}
389 \list{\subsubpartlabel}{
390     \usecounter{subsubpart}\def\makelabel##1{\hss\llap{##1}}
391     \settowidth{\leftmargin}{($\psi$)\hskip\labelsep}
392     \labelwidth\leftmargin\advance\labelwidth-\labelsep
```

```
393         \topsep=0pt
394         \partopsep=0pt
395         \subsubpartshook
396       }
397 }{
398 \endlist
399 }
```

Choices

```
400 \renewcommand\thechoice{\Alph{choice}.}
401 \newcommand\choicelabel{\thechoice}
402 \newif\if@correctchoice
403 \@correctchoicefalse
404 \newcommand\CorrectChoiceEmphasis[1]{
405 \def\CorrectChoice@Emphasis{#1}
406 }
407 \CorrectChoiceEmphasis{\bfseries}
408 \let\correctchoiceemphasis\CorrectChoiceEmphasis
409 \newenvironment{choices}{
410 \list{\choice@char}{
411 \usecounter{choice}
412 \settowidth{\leftmargin}{W.\hskip\labelsep}
413         \def\choice{
414         \if@correctchoice
415             \endgroup
416           \fi
417           \item
418 }
419 \def\CorrectChoice{
420 \if@correctchoice
421         \endgroup
422         \fi
423         \ifcamnotes@noanswers
424 \item
425 \else
426 \ifcamnotes@blankanswers
427 \item
428 \else
429 \begingroup
430                 \@correctchoicetrue
431 \CorrectChoice@Emphasis
432             \item[\chosen@char]
433      \fi
434 \fi
435 }
436 \let\correctchoice\CorrectChoice
437         \topsep=2pt
438         \partopsep=0pt
439         \choiceshook
440 }
```

```
441 }{
442 \if@correctchoice
443 \endgroup
444 \fi
445 \endlist
446 }
```

Checkboxes

```
447 \newenvironment{checkboxes}{
448 \list{\checkbox@char}{
449 \usecounter{choice}
450         \settowidth{\leftmargin}{W.\hskip\labelsep}
451         \def\choice{
452          \if@correctchoice
453             \endgroup
454          \fi
455 \item
456 }
457 \def\CorrectChoice{
458         \if@correctchoice
459            \endgroup
460         \fi
461         \ifcamnotes@noanswers
462         \item
463 \else
464 \ifcamnotes@blankanswers
465 \item
466 \else
467 \begingroup
468             \@correctchoicetrue
469             \CorrectChoice@Emphasis
470             \item[\checked@char]
471 \fi
472 \fi
473 }
474        \let\correctchoice\CorrectChoice
475        \topsep=2pt
476        \partopsep=0pt
477        \checkboxeshook
478      }
479 }{
480     \if@correctchoice
481        \endgroup
482     \fi
483     \endlist
484 }
485 %% Validatte nesting level
486 %    \begin{macrocode}
487 \def\@checqueslevel#1{
488   \begingroup
```

14

```
489     \def\@temp{#1}
490     \ifx\@temp\@queslevel
491       \null
492     \else
493       \ClassError{camnotes}{
494         I found a #1 where I expected to find a \@queslevel
495         \MessageBreak
496       }{
497         Both #1 and \@queslevel \space can be used only inside the correct
498         \MessageBreak \space \space
499         environment and outside of any smaller environment
500         \MessageBreak
501       }
502     \fi
503   \endgroup
504 }
```

Move up one level

```
505 \long\def\uplevel#1{
506   \par\bigskip
507   \vbox{
508     \leftskip=\@totalleftmargin
509     \advance\leftskip-\leftmargin
510     \advance\@totalleftmargin-\leftmargin
511     \advance\linewidth\leftmargin
512     #1
513   }
514   \nobreak
515 }
```

Index

Numbers written in italic refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

16

17