The outlining package*

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1 Introduction

Every scientific document requires outlining before it is written. The following paragraph shows outline plus final text.

Best-practices outlines

A best-practices are three level outlines.

- 1 Each pararagraph shall have a single topic
- 2 Each topic consists of multiple major points
- 2.1 Major may have optional minor points

Document Outline

Best-practices outlines	1
1 Each pararagraph shall have a	
$single\ topic\ \dots\dots\dots$	1
2 Each topic consists of multiple	
$major\ points$	1
2.1 Major may have optional mi-	
nor points	1

2 Implementation

Some internal macros:

- 1 \newcommand{\@disableOutlining}{}
- ${\tt 2 \ \ leTopics} \{\}$
- 3 \newcommand{\@disableMajors}{}
- 4 \newcommand{\@disableMinors}{}
- 5 \newcommand{\@outlineAtBegin}{}
- 6 \newcommand{\@outlineAtEnd}{}

^{*}This document corresponds to outlining v0.1, dated 2017/10/23.

2.1 Package Options

```
disable Disable all package output
                           7 \DeclareOption{disable}{\renewcommand{\@disableOutlining}{disable}}
           outlineatbegin Outline at document begin
                           8 \DeclareOption{outlineatbegin}{\renewcommand{\@outlineAtBegin}{\listOutline}}
             outlineatend Outline at document end
                           beamer Prepare output as beamer frames
                           10 \DeclareOption{beamer}{\newcommand{\@beamer}{}}
                                 Activation Commands
                           11 \ProcessOptions\relax
                           13 \usepackage{xifthen}
                           14 \leftarrow {\colored{\colored}}
                              {\usepackage[obeyFinal, \@disableOutlining]{todonotes}}
                           18 \newcounter{majornum}
                           19 \newcounter{minornum}
                           20 \AtBeginDocument{\@outlineAtBegin}
                           21 \AtEndDocument{\@outlineAtEnd}
           \outlineTopics Activate topics and deactive major and minor points
                           22 \newcommand{\outlineTopics}{
                           23 \renewcommand{\@disableTopics}{}
                           24 \renewcommand{\@disableMajors}{disable}
                           25 \renewcommand{\@disableMinors}{disable}
                          Activate topic and major points and deactive minor points
     \outlineTopicsMajors
                           27 \newcommand{\outlineTopicsMajors}{
                           28 \renewcommand{\@disableTopics}{}
                           29 \renewcommand{\@disableMajors}{}
                           30 \renewcommand{\@disableMinors}{disable}
                           31 }
                          Activate topics, major and minor points
\outlineTopicsMajorsMinors
                           32 \newcommand{\outlineTopicsMajorsMinors}{
                           33 \renewcommand{\@disableTopics}{}
                           34 \renewcommand{\@disableMajors}{}
                           35 \renewcommand{\@disableMinors}{}
                           36 }
```

2.3 Main Commands/Environment

topic Topic environment containing major/minor points

```
37 \newenvironment{topic}[1][]
              38 {\tt \{ifthenelse\{\isundefined\{\Qbeamer\}\}}\\
                   {\setcounter{majornum}{0}\setcounter{minornum}{0}\todo
                     [color=red!40, size=\footnotesize, inline,\@disableTopics]
              40
              41
                   {\begin{frame}\frametitle{#1} \itemize\@newlistfalse}
              42
              43 }
              44 {\ifthenelse{\isundefined{\@beamer}}
              45 {}
                   {\enditemize \end{frame}}
              47 }
      \major Major point
              48 \newcommand{\major}[1]
              49 {\ifthenelse{\isundefined{\@beamer}}
                   {\stepcounter{majornum}\setcounter{minornum}{0}\todo
                     [color=green!10, size=\footnotesize, inline,\@disableMajors]
              51
                     {\textit{\themajornum \enspace #1}}}
              52
              53
                   {\item #1}
              54 }
              55
      \minor Minor point
              56 \newcommand{\minor}[1]
              57 {\ifthenelse{\isundefined{\@beamer}}
                   {\stepcounter{minornum}\todo
                     [color=gray!10, size=\footnotesize, inline, \@disableMinors]
              59
              60
                     {\themajornum.\theminornum \enspace #1}}
              61
                     %\begin{itemize}
              62
                     % \item #1
              63
                     %\end{itemize}
              64
                    }
              65
              66 }
\listOutline Outline list
              67 \newcommand{\listOutline}{
              68 \clearpage
              69 \listoftodos[Document Outline]
              70 \clearpage
              71 }
                     Statement Relations
              2.4
              From statement A results in statement B
              72 \newcommand{\hence}{$\Rightarrow$ }
```

```
\summary Summary of previous statements
73 \newcommand{\summary}{{\boldmath $\varSigma$} }
\resolved Requirement statement fullfilled
74 \newcommand{\resolved}{\textbf{\checkmark}}
\missed Requirement statement not fullfilled
75 \newcommand{\missed}{\textbf{X}}
```