The **apxproof** package[*]
Proofs in Appendix

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1 Usage

TODO

2 Implementation

```
1 \RequirePackage{fancyvrb}
2 \RequirePackage{ifthen}
3 \RequirePackage{environ}
4 \RequirePackage{bibunits}
5 \RequirePackage{amsthm}
6
7 \makeatletter
8 \newtheoremstyle{mystyle}%
9   {3pt}%
10  {3pt}%
11  {\itshape}%
12  {}%
13  {\scshape}%
14  {.}%
15  {.5em}%
16  {}
17 \theoremstyle{mystyle}
18 \def\thmhead#1#2#3{%
19   \thmname{#1}\thmnumber{\@ifnotempty{#1}{ }\@upn{#2}}%
20   \thmnote{ {\the\thm@notefont #3}}}
21 \newwrite\axp@proofsfile
22 \immediate\openout\axp@proofsfile=\jobname.axp
23 \immediate\write\axp@proofsfile{\noexpand\makeatletter\noexpand\let\noexpand\proof\noexpand\
24 \def\FVB@VerbatimOut{%
```

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[*]This document corresponds to apxproof v1.0.0, dated 2016/10/27.

```latex
25    \@bsphack
26    \begingroup
27      \FV@UseKeyValues
28      \FV@DefineWhiteSpace
29      \def\FV@Space{\space}%
30      \FV@DefineTabOut
31      \def\FV@ProcessLine{\immediate\write\axp@proofsfile}%
32      \let\FV@FontScanPrep\relax
33 %% DG/SR modification begin - May. 18, 1998 (to avoid problems with ligatures)
34      \let\@noligs\relax
35 %% DG/SR modification end
36      \FV@Scan}
37 \def\FVE@VerbatimOut{\endgroup\@esphack}
38
39 \let\oldproof\proof
40 \let\endoldproof\endproof
41
42 \renewenvironment{proof}
43 {\immediate\write\axp@proofsfile{\noexpand\begin{oldproof}}\VerbatimOut}
44 {\endVerbatimOut\immediate\write\axp@proofsfile{\noexpand\end{oldproof}}}
45
46 \AtEndDocument{
47    \clearpage\onecolumn\appendix%
48    \let\@oldbiblabel\@biblabel
49    \def\@biblabel{\hspace*{-2em}\small\@oldbiblabel}
50    \begin{bibunit}[alphaabbr]%
51    \renewcommand{\refname}{REFERENCES FOR THE APPENDIX}%
52    \immediate\closeout\axp@proofsfile\input{\jobname.axp}%
53    \putbib%
54    \end{bibunit}%
55 }
56
57 \newcounter{axp@rpcounter}
58
59 \newcommand{\definerep}[2]{%
60 \newtheorem*{#1rp}{#2}
61 \NewEnviron{#1rep}[2][]{%
62    \addtocounter{axp@rpcounter}{1}%
63    \begin{#1}[##1]\label{##2}\BODY\end{#1}%
64    \global\expandafter\let\csname rplet\roman{axp@rpcounter}\endcsname\BODY%
65    \immediate\write\axp@proofsfile{\noexpand\begin{#1rp}[\noexpand\ref{##2}\@ifnotempty{##1}{
66 }}
67 \definerep{proposition}{Proposition}
68 \definerep{lemma}{Lemma}
69 \definerep{observation}{Observation}
70 \definerep{theorem}{Theorem}
71 \definerep{corollary}{Corollary}
72
73 \newcommand{\mysec}[2]{%
74    \edef\tmptitle{#1}%
```

```
75    \section{\tmptitle}\label{#2}%
76    \immediate\write\axp@proofsfile{\noexpand\def\noexpand\tmp{\noexpand\ref{#2}}\noexpand\sec
77  }
78
79  \newcommand{\mysubsec}[2]{%
80    \edef\tmptitle{#1}%
81    \subsection{\tmptitle}\label{#2}%
82    \immediate\write\axp@proofsfile{\noexpand\def\noexpand\tmp{\noexpand\ref{#2}}\noexpand\sub
83  }
84
85  \newcommand{\myparagraph}[2]{%
86    \edef\tmptitle{#1}%
87    \paragraph*{\tmptitle}%
88    \immediate\write\axp@proofsfile{\noexpand\subsection{#1}\noexpand\label{#2}}%
89  }
90
91  \newcommand{\mysubparagraph}[2]{%
92    \edef\tmptitle{#1.}%
93    \subparagraph*{\tmptitle}%
94    \immediate\write\axp@proofsfile{\noexpand\subsection{#1}\noexpand\label{#2}}%
95  }
96
97  \newenvironment{proofsketch}{\vskip3pt\noindent\emph{Proof sketch.} }%
98  {\hfill\qed\vskip3pt}
99
100 \newenvironment{toappendix}{\VerbatimOut}{\endVerbatimOut}
101 \makeatother
```

Change History

v1.0.0