

L^AT_EX Style For Munitions Management Project
Reports, *Environmental Security Technology
Certification Program* *

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Abstract

This package provides class for typesetting Cost & Performance Reports and Final Reports for Munitions Management Reports, US Environmental Security Technology Certification Program.

Contents

1	Introduction	2
2	User Guide	2
2.1	Installation	2
2.2	Invocation	2
2.3	Front Matter	3
2.4	Main Matter	4
3	Implementation	5
3.1	Identification	5
3.2	Options	5
3.3	Loading Class and Packages	6
3.4	Fonts	6
3.5	Page Dimensions and Paragraphing	6
3.6	Headers and Footers	6
3.7	Front Matter	7
3.8	Sectioning	8
3.9	Special Sections	9
3.10	The final word	10

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1 Introduction

As described on its Web site, <http://www.estcp.org>, *The Environmental Security Technology Certification Program (ESTCP)* is a Department of Defense (DoD) program that promotes innovative, cost-effective environmental technologies through demonstration and validation at DoD sites. Munitions Management Projects, financed through this program, are required to file certain reports according to the approved templates. This class provides for typesetting Cost & Performance reports and Final Reports in the L^AT_EX framework.

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2 User Guide

2.1 Installation

The class uses a number of L^AT_EX packages. Normally they should be present in any up-to-date distribution. If you do not have them, you can download them using the links below prior to using the class.

You will need PSFNSS [1]: the L^AT_EX package providing the access to common PostScript fonts. Of course you will need the fonts themselves. You will also need graphics bundle [2], packages geometry [3] and fancyhdr [4].

The installation of the class follows the usual practice [5] for L^AT_EX packages:

1. Run `latex` on `estcpmm.ins`. This will produce the L^AT_EX class `estcpmm.cls`.
2. Put the file `estcpmm.cls` to the place where L^AT_EX can find it (see [5] or the documentation for your T_EX system).
3. Update the database of file names. Again, see [5] or the documentation for your T_EX system for the system-specific details.
4. The file `estcpmm.pdf` provides the documentation for the package (this is the file you are probably reading now).

As an alternative to items 2 and 3 you can just put the file `estcpmm.cls` in the working directory where your `.tex` file is.

2.2 Invocation

To use the class, put in the preamble of your document

```
\documentclass[<options>]{estcpmm}
```

The class recognizes the standard L^AT_EX options, shared by the most document classes [6]. The default font size changing options (`8pt`, `9pt`, `...`, `12pt`) have no effect other than producing a warning in the log, since DoD requires the reports to use 12 pt fonts.

options
`8pt`
`9pt`
`10pt`
`11pt`
`12pt`

2.3 Front Matter

`\frontmatter` . The command `\frontmatter` starts the *Front Matter* of the document. This part includes title page, table of contents, list of figures, list of tables.

`\logo` Many reports have logo in the title page. This logo is set up by the command `\logo[options]{file}`. The syntax of the command is the same as the syntax of the command `\includegraphics` of the `graphicx` package [2]. The obligatory argument `{file}` is the name of the graphics file with the logo, and `[options]`, if present, may, for example, set the dimensions of the logo. Note that our class uses the “extended” version `graphicx` of the package with its “key-value” syntax. For example,

```
\logo[width=2in]{red_corps_castle2.eps}
```

The format of the graphics file depends on the \TeX engine used. If you use `latex`→`dvips`→`pstopdf` route, then you need PostScript files (PS or EPS). If you use `pdflatex` engine, then you need graphics files in JPEG, PNG or PDF formats (see [5] for more information).

`\title` The command `\title` is used to store project name. Unlike the similar command in most document classes [6], our version has both optional and mandatory fields: `\title[[Short Title]]{Full Title}`. The full title is used in the document cover page. The short title is used in footers in the document. For example:

```
\title{A New Project}
\title[A New Project]{A New Project And Great Project}
```

`\subtitle` The command `\subtitle{Sub Title}` is used to store the project subtitle. For example,

```
\subtitle{Final Report}
```

`\date` The macro `\date` stores the date of the document, for example

```
\date{March 2008}
```

`\projectno` The command `\projectno{Project Number}` is used to store the project number. For example,

```
\projectno{MM-234-t567E}
```

`\internalno` The command `\internalno{Internal Project Number}` is used to store the internal project number, if applicable. For example,

```
\projectno{MM-234-t567E}
```

<code>\version</code>	The command <code>\version{<i>Version Information</i>}</code> is used to store the document version, internal project number, etc. For example, <code>\version{DR-ATF-0.8}</code>
<code>\author</code>	The command <code>\author{<i>Authors and Affiliations</i>}</code> stores the names of the authors and their affiliations. For example: <code>\author{A.~U. Thor, University of Laputa\\ C.~O. Rrespondent, Brobdingnag School of Technology}</code>
<code>\maketitle</code>	The command <code>\maketitle</code> typesets the title page of the report. Note that some reports require Form 298 (see, for example, http://www.ntis.gov/pdf/rdpform.pdf). This form should be typeset separately.
<code>\tableofcontents</code>	Table of contents, list of figures, list of tables are typeset with the usual L ^A T _E X commands [6]. Note that these commands always typeset their contents starting from an odd page.
<code>\listoffigures</code>	
<code>\listoftables</code>	

2.4 Main Matter

<code>\mainmatter</code>	The main matter starts with the macro <code>\mainmatter</code> . The text is divided into sections and subsections in the usual L ^A T _E X manner. All familiar L ^A T _E X commands and packages should work without problems.
<code>\specialsection</code>	Unlike standard L ^A T _E X, this class includes in the table of contents both numbered and unnumbered sections. If you need to have a section, that is not included in the table of contents, use <code>\specialsection{<i>Title</i>}</code> command.

3 Implementation

3.1 Identification

We start with the declaration who we are. Most `.dtx` files put driver code in a separate driver file `.drv`. We roll this code into the main file, and use the pseudo-guard `<gobble>` for it.

```
1 <class>\NeedsTeXFormat{LaTeX2e}
2 <*gobble>
3 \ProvidesFile{estcpmm.dtx}
4 </gobble>
5 <class>\ProvidesClass{estcpmm}
6 [2008/12/09 v0.2 Typesetting reports for ESTCP MM Reports]
```

And the driver code:

```
7 <*gobble>
8 \documentclass{ltxdoc}
9 \usepackage{array}
10 \usepackage{url,amsfonts}
11 \usepackage[breaklinks,colorlinks,linkcolor=black,citecolor=black,
12             pagecolor=black,urlcolor=black,hyperindex=false]{hyperref}
13 \PageIndex
14 \CodelineIndex
15 \RecordChanges
16 \EnableCrossrefs
17 \begin{document}
18   \DocInput{estcpmm.dtx}
19 \end{document}
20 </gobble>
21 <*class>
```

3.2 Options

`\estcpmm@size@warning` The font-changing options are not used in our setup, so we just produce a warning:

```
22 \long\def\estcpmm@size@warning#1{%
23   \ClassWarning{estcpmm}{Size-changing option #1 will not be
24     honored}}%
25 \DeclareOption{8pt}{\estcpmm@size@warning{\CurrentOption}}%
26 \DeclareOption{9pt}{\estcpmm@size@warning{\CurrentOption}}%
27 \DeclareOption{10pt}{\estcpmm@size@warning{\CurrentOption}}%
28 \DeclareOption{11pt}{\estcpmm@size@warning{\CurrentOption}}%
29 \DeclareOption{12pt}{\estcpmm@size@warning{\CurrentOption}}%
```

All other options are just sent to the main class:

```
30 \DeclareOption*{\PassOptionsToClass{\CurrentOption}{book}}
31 \ProcessOptions\relax
```

3.3 Loading Class and Packages

We start with the base class and graphicx package

```
32 \LoadClass[12pt]{book}
33 \RequirePackage{graphicx}
```

3.4 Fonts

We use Times for the main font. The guidelines say nothing about other fonts, but to reproduce the familiar look, we also use Helvetica for the sans serifed font, and Courier for the monospaced font:

```
34 \usepackage{mathptmx}
35 \usepackage[scaled]{helvet}
36 \usepackage{courier}
```

3.5 Page Dimensions and Paragraphing

The requirements are 1" margin top, left, right and bottom. Rather ugly from the the point of view of classical typography, but this is how DoD wants it.

```
37 \RequirePackage[margin=1in]{geometry}
```

`\parindent` The paragraphs have no indentation...

```
38 \setlength{\parindent}{0pt}
```

`\parskip` ... and there is one baseline skip between paragraphs

```
39 \setlength{\parskip}{\baselineskip}
```

3.6 Headers and Footers

We use fancyhdr:

```
40 \RequirePackage{fancyhdr}
```

`\headrulewidth` We do not want decorative rules:

```
41 \renewcommand{\headrulewidth}{0pt}
```

```
42 \renewcommand{\footrulewidth}{0pt}
```

We do not have headers:

```
43 \pagestyle{fancy}
```

```
44 \lhead{}
```

```
45 \rhead{}
```

```
46 \chead{}
```

And we put title and date in the footers:

```
47 \lfoot{\textit{\small\@shorttitle}}
```

```
48 \cfoot{\small\thepage}
```

```
49 \rfoot{\textit{\small\@date}}
```

3.7 Front Matter

`\logo` The `\logo` command has the same format as `\includegraphics`. It actually sets up `\includegraphics` in `\maketitle`.

```
50 \newcommand{\logo}[2] []{\gdef\@logo{\includegraphics[#1]{#2}}}%
51 \def\@logo{}
```

`\title` We redefine the title to have both mandatory and optional arguments:

```
52 \renewcommand{\title}[2] []{\gdef\@shorttitle{#1}\gdef\@title{#2}%
53 \ifx\@shorttitle\@empty\gdef\@shorttitle{#2}\fi}
54 \def\@title{}
55 \def\@shorttitle{}
```

`\subtitle` Subtitle:

```
56 \newcommand{\subtitle}[1]{\gdef\@subtitle{#1}}
57 \def\@subtitle{}
```

`\projectno` Project number:

```
58 \newcommand{\projectno}[1]{\gdef\@projectno{#1}}
59 \def\@projectno{}
```

`\internalno` Internal project number:

```
60 \newcommand{\internalno}[1]{\gdef\@internalno{#1}}
61 \def\@internalno{}
```

`\version` Version number:

```
62 \newcommand{\version}[1]{\gdef\@version{#1}}
63 \def\@version{}
```

`\today` We use only month and year in `\today`:

```
64 \def\today{\ifcase\month\or
65 January\or February\or March\or April\or May\or June\or
66 July\or August\or September\or October\or November\or December\fi
67 \space \number\year}
```

`\maketitle` The `\maketitle` macro performs all the work of typesetting the informations. Note that the guidance show flushed right title page.

```
68 \def\maketitle{%
69 \thispagestyle{empty}%
70 \begin{flushright}%
71 \raisebox{0in}[2in][1in]{\@logo}\par
72 \bgroup
73 \fontsize{26pt}{32pt}\bfseries\selectfont\MakeUppercase{\@title}\[-10pt]
74 \rule{\textwidth}{5pt}\par
75 \egroup
```

First, we are setting up the logo—or empty space if none is provided:

And the other elements:

```

76     \bgroup
77     \fontsize{18pt}{24pt}\bfseries\selectfont
78     \ifx\@subtitle\@empty\relax\else\@subtitle\par\fi
79     \ifx\@projectno\@empty\relax\else Project Number \@projectno\par\fi
80     \ifx\@internalno\@empty\relax\else\@internalno\par\fi
81     \ifx\@date\@empty\relax\else\@date\par\fi
82     \ifx\@version\@empty\relax\else\@version\par\fi
83     \ifx\@author\@empty\relax\else\@author\par\fi
84     \egroup
85 \end{flushright}%
86 \clearpage}

```

3.8 Sectioning

`\thesection` We do not use chapter numbers in sections:

```
87 \renewcommand \thesection {\@arabic\c@section}
```

`\section` Sections are in 14pt bold uppercase. They have a decorative rule after heading. The guidelines do not say it, but it seems that a section opens a new page.

```
88 \renewcommand\section{\par\cleardoublepage
89 \addpenalty\@secpenalty\nobreak
90 \secdef\@section\@ssection}
```

`\@section` This is for numbered sections:

```

91 \def\@section[#1]#2{%
92   \ifnum\c@secnumdepth>0\relax
93     \refstepcounter{section}%
94     \addcontentsline{toc}{section}{\thesection\quad #1}%
95   \else
96     \addcontentsline{toc}{section}{#1}%
97   \fi
98   {\noindent\raggedright\interlinepenalty\@M
99    \large\bfseries
100    \ifnum\c@secnumdepth>0\relax
101      \thesection\quad\MakeUppercase{#2}%
102    \else
103      \MakeUppercase{#2}%
104    \fi%
105    \ll[-10pt]\rule{\textwidth}{3pt}%
106    \@afterheading
107    \nobreak\par}}

```

`\@ssection` This is for unnumbered sections, Note that even unnumbered sections go into TOC

```

108 \def\@ssection#1{%
109   \addcontentsline{toc}{section}{#1}%
110   {\noindent\raggedright\interlinepenalty\@M
111    \large\bfseries
112    \MakeUppercase{#1}%
113    \ll[-10pt]\rule{\textwidth}{3pt}%

```



```

114   \@afterheading
115   \nobreak\par}}

\subsection Subsections are also bold uppercase
116 \renewcommand\subsection{\par
117   \addpenalty\@secpenalty\nobreak
118   \secdef\@subsection\@ssubsection}

\@subsection Numbered subsections:
119 \def\@subsection[#1]#2{%
120   \ifnum\c@secnumdepth>1\relax
121     \refstepcounter{subsection}%
122     \addcontentsline{toc}{subsection}{\thesubsection\quad #1}%
123   \else
124     \addcontentsline{toc}{subsection}{#1}%
125   \fi
126   {\noindent\raggedright\interlinepenalty\@M
127     \normalsize\bfseries
128     \ifnum\c@secnumdepth>0\relax
129       \thesubsection\quad\MakeUppercase{#2}%
130     \else
131       \MakeUppercase{#2}%
132     \fi%
133   \@afterheading
134   \nobreak\par}}

\@ssubsection Unnumbered subsections:
135 \def\@ssubsection#1{%
136   \addcontentsline{toc}{subsection}{#1}%
137   {\noindent\raggedright\interlinepenalty\@M
138     \normalsize\bfseries
139     \MakeUppercase{#1}%
140     \@afterheading
141     \nobreak\par}}

```

3.9 Special Sections

Since our unnumbered sections go to the toc, we need to redefine table of contents, list of figures, list of tables, bibliography and index.

```

\specialsection A section that does not go into TOC...
142 \def\specialsection#1{%
143   \par\cleardoublepage
144   \addpenalty\@secpenalty\nobreak
145   {\noindent\raggedright\interlinepenalty\@M
146     \large\bfseries
147     \MakeUppercase{#1}%
148     \[-10pt]\rule{\textwidth}{3pt}%
149     \@afterheading
150     \nobreak\par}}

```

```

\tableofcontents TOC:
151 \renewcommand\tableofcontents{%
152 \specialsection{\contentsname}%
153 \@starttoc{toc}}

\listoffigures LOF:
154 \renewcommand\listoffigures{%
155 \specialsection{\listfigurename}%
156 \@starttoc{lof}}

\listoftables LOT:
157 \renewcommand\listoftables{%
158 \specialsection{\listtablename}%
159 \@starttoc{lot}}

\thebibliography Bibliography uses \section* instead of \chapter*:
160 \renewenvironment{thebibliography}[1]
161     {\section*{\bibname}%
162     \@mkboth{\MakeUppercase\bibname}{\MakeUppercase\bibname}%
163     \list{\@biblabel{\@arabic\c@enumiv}}%
164     {\settowidth\labelwidth{\@biblabel{#1}}%
165     \leftmargin\labelwidth
166     \advance\leftmargin\labelsep
167     \@openbib@code
168     \usecounter{enumiv}%
169     \let\p@enumiv\@empty
170     \renewcommand\theenumiv{\@arabic\c@enumiv}}%
171     \sloppy
172     \clubpenalty4000
173     \@clubpenalty \clubpenalty
174     \widowpenalty4000%
175     \sfcode'\. \@m}
176     {\def\@noitemerr
177     {\@latex@warning{Empty 'thebibliography' environment}}%
178     \endlist}

\theindex Same with the index:
179 \renewenvironment{theindex}
180     {\section*{\indexname}%
181     \parskip\z@ \@plus .3\p@\relax
182     \columnseprule \z@
183     \columnsep 35\p@
184     \let\item\@idxitem}
185     {\clearpage}

3.10 The final word
186 </class>

```

References

- [1] Walter Schmidt. *Using Common PostScript Fonts With L^AT_EX. PSNFSS Version 9.2*, September 2004. <http://ctan.tug.org/tex-archive/macros/latex/required/psnfss>.
- [2] D. P. Carlisle. *Packages in the ‘Graphics’ Bundle*, November 2005. <http://ctan.tug.org/tex-archive/macros/latex/required/graphics>.
- [3] Hideo Umeki. *The geometry Package*, December 2008. <http://ctan.tug.org/tex-archive/macros/latex/contrib/geometry>.
- [4] Piet van Oostrum. *Page Layout in L^AT_EX*, March 2004. <http://ctan.tug.org/tex-archive/macros/latex/contrib/fancyhdr>.
- [5] UK T_EX Users Group. UK list of T_EX frequently asked questions. <http://www.tex.ac.uk/cgi-bin/texfaq2html>, 2006.
- [6] Leslie Lamport. *L^AT_EX: a Document Preparation System*. Addison-Wesley Publishing Company, Reading, Ma., 2 edition, 1994. Illustrations by Duane Bibby.

Change History

v0.2	1
General: First fully functional ver-		

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.

Symbols	<code>\addpenalty</code> 89, 117, 144	<code>\end</code> 19, 85
<code>\.</code> 175	<code>\advance</code> 166	<code>\endlist</code> 178
<code>\@M</code> 98, 110, 126, 137, 145	<code>\author</code> 4	<code>\estcpmm@size@warning</code> <u>22</u>
<code>\@afterheading</code> 106, 114, 133, 140, 149	B	F
<code>\@arabic</code> .. 87, 163, 170	<code>\baselineskip</code> 39	<code>\fi</code> 53, 66, 78– 83, 97, 104, 125, 132
<code>\@author</code> 83	<code>\begin</code> 17, 70	<code>\fontsize</code> 73, 77
<code>\@biblabel</code> ... 163, 164	<code>\bfseries</code> 73, 77, 99, 111, 127, 138, 146	<code>\footrulewidth</code> <u>41</u>
<code>\@clubpenalty</code> 173	<code>\bgroup</code> 72, 76	<code>\frontmatter</code> 3
<code>\@date</code> 49, 81	<code>\bibname</code> 161, 162	
<code>\@empty</code> .. 53, 78–83, 169	C	G
<code>\@idxitem</code> 184	<code>\c@enumiv</code> 163, 170	<code>\gdef</code> 50, 52, 53, 56, 58, 60, 62
<code>\@internalno</code> . 60, 61, 80	<code>\c@secnumdepth</code> 92, 100, 120, 128	H
<code>\@latex@warning</code> ... 177	<code>\c@section</code> 87	<code>\headrulewidth</code> <u>41</u>
<code>\@logo</code> 50, 51, 71	<code>\cfoot</code> 48	I
<code>\@m</code> 175	<code>\chead</code> 46	<code>\ifcase</code> 64
<code>\@mkboth</code> 162	<code>\ClassWarning</code> 23	<code>\ifnum</code> . 92, 100, 120, 128
<code>\@noitemerr</code> 176	<code>\cleardoublepage</code> 88, 143	<code>\ifx</code> 53, 78–83
<code>\@openbib@code</code> 167	<code>\clearpage</code> 86, 185	<code>\includegraphics</code> .. 50
<code>\@plus</code> 181	<code>\clubpenalty</code> .. 172, 173	<code>\indexname</code> 180
<code>\@projectno</code> .. 58, 59, 79	<code>\CodelineIndex</code> 14	<code>\interlinepenalty</code> 98, 110, 126, 137, 145
<code>\@secpenalty</code> 89, 117, 144	<code>\columnsep</code> 183	<code>\internalno</code> 3, 60
<code>\@section</code> 90, <u>91</u>	<code>\columnseprule</code> 182	<code>\item</code> 184
<code>\@shorttitle</code> 47, 52, 53, 55	<code>\contentsname</code> 152	
<code>\@ssection</code> 90, <u>108</u>	<code>\CurrentOption</code> .. 25–30	
<code>\@ssubsection</code> . 118, <u>135</u>	D	L
<code>\@starttoc</code> 153, 156, 159	<code>\date</code> 3	<code>\labelsep</code> 166
<code>\@subsection</code> .. 118, <u>119</u>	<code>\DeclareOption</code> .. 25–30	<code>\labelwidth</code> ... 164, 165
<code>\@subtitle</code> .. 56, 57, 78	<code>\def</code> .. 22, 51, 54, 55, 57, 59, 61, 63, 64, 68, 91, 108, 119, 135, 142, 176	<code>\large</code> 99, 111, 146
<code>\@title</code> 52, 54, 73	<code>\DocInput</code> 18	<code>\leftmargin</code> ... 165, 166
<code>\@version</code> ... 62, 63, 82	<code>\documentclass</code> 8	<code>\let</code> 169, 184
<code>\@</code> 73, 105, 113, 148	E	<code>\lfoot</code> 47
<code>10pt</code> (option) 2	<code>\egroup</code> 75, 84	<code>\lhead</code> 44
<code>11pt</code> (option) 2	<code>\else</code> 78– 83, 95, 102, 123, 130	<code>\list</code> 163
<code>12pt</code> (option) 2	<code>\EnableCrossrefs</code> .. 16	<code>\listfigurename</code> ... 155
<code>8pt</code> (option) 2		<code>\listoffigures</code> .. 4, <u>154</u>
<code>9pt</code> (option) 2		<code>\listoftables</code> ... 4, <u>157</u>
A		<code>\listtablename</code> 158
<code>\addcontentsline</code> 94, 96, 109, 122, 124, 136		<code>\LoadClass</code> 32

