

L^AT_EX Class **huawei***

Yegor Bugayenko
yegor256@gmail.com

2026-10-26, 0.19.2

1 Introduction

The class **huawei** facilitates the preparation of work documents and presentations, while keeping the source concise and the style sufficiently refined for both managerial and technical papers. The class is invoked by naming it in the preamble:



```
1 \documentclass{huawei}
2 \begin{document}
3 Hello, world!
4 \end{document}
```

The use of **latexmk** is recommended for compiling **.tex** files into **.pdf**. The simplest configuration requires a small number of files alongside the **.tex** file, within the same directory (“story” here serves as the project name):

```
story\
  .latexmkrc
  .gitignore
  story.tex
```

The contents of the **.latexmkrc** file would be as follows:

```
$pdflatex = 'pdflatex %0 --shell-escape %S';
```

The **.gitignore** file should list every file produced by **pdflatex** during compilation. Such artefacts need not be committed to the repository, since they are temporary and are regenerated upon each compilation. To compile the document, the command **latexmk** suffices.

*The sources are in GitHub at [yegor256/huawei.cls](https://github.com/yegor256/huawei.cls)

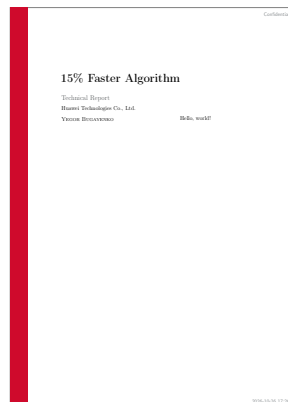
2 Class Options

A number of class options, supplied in square brackets after `\documentclass`, permit fine adjustment of the document's layout. An option that neither the class nor any loaded package recognizes stops the compilation with an error:

- landscape** The **landscape** option sets the document in landscape orientation and adjusts the paper size to 16x9 inches (the default page size being [A4](#)), rendering it well-suited to presentations.
- dark** The **dark** option enables a dark layout, in which the page background is black and the text white.
- slides** The **slides** option enlarges all headers somewhat, on the assumption that the document is in landscape orientation and is to be presented as a slide deck.
- nocover** The **nocover** option, when present, suppresses the printing of cover images on the first page by the `\PrintTitlePage` command.
- anonymous** The **anonymous** option removes the author's name from every location, including the foot of the page, where it would otherwise stand alongside the name of the company.
- nobrand** The **nobrand** option suppresses any mention of the Huawei brand within the document and likewise removes the logo.
- nosecurity** The **nosecurity** option suppresses the security classification ordinarily printed at the upper right corner of the document and likewise hides the author's ID where it would otherwise appear.
- nodate** The **nodate** option suppresses the date and time at the foot of each page, where they are otherwise rendered in ISO 8601 format.
- nopaging** The **nopaging** option suppresses the page numbers at the foot of each page.
- authordraft** The **authordraft** option prints a large "it is a draft" message diagonally across each page.
- breaks** The **breaks** option compels every `\section` to begin on a new page.
- boring** The **boring** option sets the entire document in Helvetica, paints section titles in red, and draws a gray bar at the foot of each page, making the layout more compliant with the expectations of Huawei.

3 Preamble

Within the preamble, meta-information about the document may be supplied, such as the title or the author's name, in the following manner:



```
1 \documentclass{huawei}
2 \renewcommand*
3   \thetitle{15% Faster Algorithm}
4 \renewcommand*
5   \thesubtitle{Technical Report}
6 \renewcommand*
7   \theauthor{Yegor Bugayenko}
8 \begin{document}
9 \maketitle
10 Hello, world!
11 \end{document}
```

The use of `\renewcommand*` in lieu of `\renewcommand` is recommended, so that L^AT_EX may detect any inadvertent newline that should slip into the content.

The following meta commands are defined:

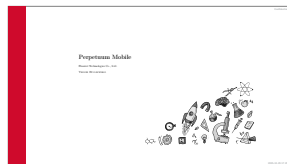
<code>\thetitle</code>	<code>\thetitle</code> is the principal title of the document, employed both within the text and within the metadata of the PDF.
<code>\thesubtitle</code>	<code>\thesubtitle</code> is the subtitle, printed beneath the title.
<code>\theauthor</code>	<code>\theauthor</code> denotes the author of the document in “first-name last-name” format.
<code>\theid</code>	<code>\theid</code> denotes the internal ID of the author, where applicable.
<code>\thesecurity</code>	This denotes the security classification of the document, ordinarily printed at the upper right corner; typical values include “Internal,” “Confidential,” or “Secret.”

The default values of `\thesubtitle` and `\theid` are empty; should they not be renewed within the document, nothing is printed in their place. The default value of `\thesecurity` is “Confidential,” while `\thetitle` and `\theauthor` print their own names as a reminder to renew them.

4 Custom Commands

The following commands are available within the body of the document:

<code>\PrintFirstPage</code>	The use of <code>\PrintFirstPage</code> is recommended for rendering the first page of a landscape document, for example a project charter. The sole argument denotes the name of an image to be rendered above the title. The argument may be left empty, whereupon no image is rendered there. A default image of agreeable appearance is rendered at the lower right corner, unless the <code>nocover</code> option is present:
------------------------------	--



```

1 \documentclass[landscape]{huawei}
2 \renewcommand*
3   \thetitle{Perpetuum Mobile}
4 \renewcommand*
5   \theauthor{Yegor Bugayenko}
6 \begin{document}
7 \PrintFirstPage{}
8 \end{document}

```

<code>\PrintLastPage</code>	<code>\PrintLastPage</code> prints the last page of a project charter or a similar landscape document:
-----------------------------	--

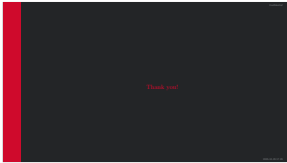


```

1 \documentclass[landscape]{huawei}
2 \begin{document}
3 \PrintLastPage{}
4 \end{document}

```

<code>\PrintThankYouPage</code>	<code>\PrintThankYouPage</code> prints the final page with a “Thank You” message in the centre.
---------------------------------	---



```

1 \documentclass[landscape,dark]{huawei}
2 \begin{document}
3 \PrintThankYouPage{}
4 \end{document}

```

`\PrintDisclaimer` `\PrintDisclaimer` prints a paragraph at the bottom of the page with a standard disclaimer:



```

1 \documentclass{huawei}
2 \begin{document}
3 \section{Introduction}
4 Hello, world!
5 \subsection{More Details}
6 Hello again!
7 \PrintDisclaimer
8 \end{document}

```

5 Best Practices

Authors are at liberty to design their documents as they see fit. Nevertheless, adherence to the conventions established for business and technical documents is convenient both for the author and for the reader.

The rule of thumb is simple: *abstain* from formatting the document. The class itself should be entrusted with this task. Content should merely be entered, without alteration of layout, addition of colours, modification of fonts, and the like. The less the look-and-feel is tampered with, the more favourably the document will be received by its readers.

5.1 Two Columns

Within landscape format, the use of two columns is recommended in the interest of readability. The following illustrates this:



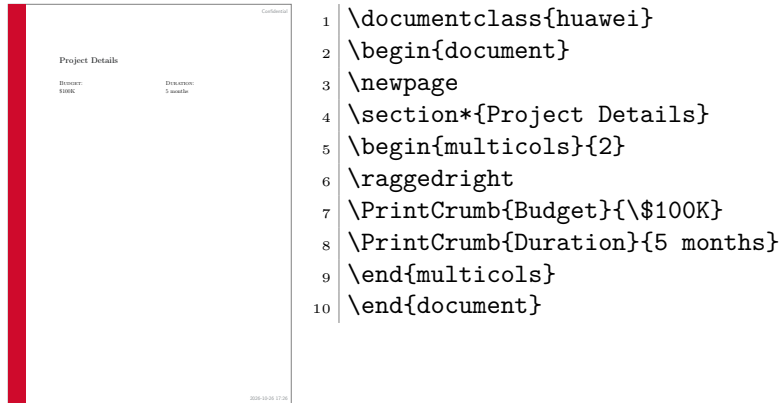
```

1 \documentclass[landscape]{huawei}
2 \begin{document}
3 \newpage
4 \begin{multicols}{2}
5 \section*{First}
6 The first column content goes here.
7 \columnbreak
8 \section*{Second}
9 The second column content goes here.
10 \end{multicols}
11 \end{document}

```

5.2 Crumbs

Whenever a multitude of small pieces of information must be accommodated on a single page, the use of “crumbs” is recommended:



6 Implementation

First, we load the parent class:

```
1 \LoadClass[12pt]{article}
```

Then, we parse class options:

```
2 \RequirePackage{pgfopts}
3 \pgfkeys{
4   /huawei/.cd,
5   boring/.store in=\huawei@boring,
6   breaks/.store in=\huawei@breaks,
7   dark/.store in=\huawei@dark,
8   slides/.store in=\huawei@slides,
9   nosecurity/.store in=\huawei@nosecurity,
10  authordraft/.store in=\huawei@authordraft,
11  nobrand/.store in=\huawei@nobrand,
12  nodate/.store in=\huawei@nodate,
13  nocover/.store in=\huawei@nocover,
14  nopaging/.store in=\huawei@nopaging,
15  landscape/.store in=\huawei@landscape,
16  anonymous/.store in=\huawei@anonymous,
17 }
18 \ProcessPgfPackageOptions{/huawei}
```

Then, we fail if any class option remains unused by both the class and the packages when the document begins, since it is most probably misspelled:

```
19 \AddToHook{begindocument/before}{%
20   \ifx\@unusedoptionlist\@empty\else%
21     \ClassError{huawei}{Unknown class option(s): \@unusedoptionlist}%
22     {Check the spelling of the options given to \string\documentclass}%
23   \fi%
24 }
```

Then, we set Helvetica as the default font for the entire document, if the `boring` document option is used:

```

25 \ifdefined\huawei@boring
26   \RequirePackage[scaled]{helvet}
27   \renewcommand\familydefault{\sfdefault}
28 \fi

```

Then, we redefine `\section` command in order to break pages for each section, with the help of `titlesec` package:

```

29 \RequirePackage{titlesec}
30 \ifdefined\huawei@boring
31   \def\huawei@sectioncolor{red}
32 \else
33   \def\huawei@sectioncolor{black}
34 \fi
35 \makeatletter
36 \titleformat
37   {\section}
38   {\color{\huawei@sectioncolor}\ifdefined\huawei@breaks\clearpage\fi\normalfont\Large\bfseries}
39   {\color{\huawei@sectioncolor}\thesection}{1em}{}
40 \makeatother

```

Then, we set the size of the page:

```

41 \RequirePackage{geometry}
42 \makeatletter\ifdefined\huawei@landscape
43   \ifdefined\huawei@boring
44     \geometry{paperwidth=16in, paperheight=9in,
45       left=3in, right=2.5in, top=1in, bottom=1.8in}
46   \else
47     \geometry{paperwidth=16in, paperheight=9in,
48       left=4in, right=2in, top=1.5in, bottom=1.5in}
49   \fi
50 \else
51   \geometry{a4paper, left=1.5in, right=1in,
52     top=1.2in, bottom=1.2in}
53 \fi\makeatother

```

Then, we set the size of the font:

```

54 \makeatletter\ifdefined\huawei@slides
55   \RequirePackage[fontsize=24pt]{fontsize}
56 \fi\makeatother

```

Then, we configure the encodings:

```

57 \PassOptionsToPackage{T1}{fontenc}
58 \RequirePackage{fontenc}
59 \PassOptionsToPackage{utf8}{inputenc}
60 \RequirePackage{inputenc}

```

Then, we include a few important packages:

```

61 \RequirePackage{tabularx}
62 \RequirePackage{anyfontsize}
63 \RequirePackage{multicol}
64 \RequirePackage{ragged2e}
65 \RequirePackage{paralist}
66 \RequirePackage{makecell}
67 \RequirePackage{graphicx}
68 \RequirePackage{array}
69 \PassOptionsToPackage{abspath}{currfile}

```

```

70 \RequirePackage{currfile}
71 \RequirePackage{wrapfig}
72 \RequirePackage{tikz}
73 \RequirePackage{titling}
74 \RequirePackage{svg}

    Then, we include lastpage package to enable total counting of pages:
75 \RequirePackage{lastpage}

    Then, we configure microtype:
76 \RequirePackage{microtype}
77 \AddToHook{env/verbatim/begin}{\microtypesetup{protrusion=false}}

    Then, we configure footmisc:
78 \PassOptionsToPackage{para}{footmisc}
79 \RequirePackage{footmisc}
80 \setlength{\footnotemargin}{2pt}
81 \setlength{\footnotesep}{2pt}

    Then, we configure enumitem:
82 \PassOptionsToPackage{inline}{enumitem}
83 \RequirePackage{enumitem}
84 \setlist{nosep}

    Then, we configure textpos:
85 \PassOptionsToPackage{absolute}{textpos}
86 \RequirePackage{textpos}
87 \TPGrid{16}{16}

    Then, we configure datetime:
88 \PassOptionsToPackage{mmdyyyy,iso}{datetime}
89 \RequirePackage{datetime}
90 \newtimeformat{daytime}{\twodigit{\THEHOUR}:\twodigit{\THEMINUTE}}

    Then, to enable \pageref* command, we configure hyperref:
91 \PassOptionsToPackage{hidelinks}{hyperref}
92 \RequirePackage{hyperref}

    Then, we pass the title and the author to the metadata of the PDF, leaving
the author out if the anonymous class option is used:
93 \makeatletter\AtBeginDocument{%
94   \hypersetup{%
95     pdftitle={\thetitle},%
96     pdfauthor={\ifdefined\huawei@anonymous\else\theauthor\fi}%
97   }%
98 }\makeatother

    Then, we configure biblatex:
99 \PassOptionsToPackage{maxnames=1,minnames=1,natbib=true,
100   citestyle=numeric,bibstyle=numeric,
101   url=false,isbn=false}{biblatex}
102 \RequirePackage{biblatex}

    Then, we make figure captions smaller and in sf font:
103 \PassOptionsToPackage{font={small,sf}}{caption}
104 \RequirePackage{caption}

```

Then, we make all figures and tables bordered by default, with the help of the float package:

```
105 \RequirePackage{float}
106 \floatstyle{boxed}
107 \restylefloat{table}
108 \restylefloat{figure}
```

Then, we make sure all figures and tables are centered by default, as recommended [here](#):

```
109 \makeatletter
110 \g@addto@macro\@floatboxreset\centering
111 \makeatother
```

Then, we set spacing between lines:

```
112 \RequirePackage{setspace}
113 \setstretch{1.08}
```

Then, we define branded colors:

```
114 \PassOptionsToPackage{table}{xcolor}
115 \RequirePackage{xcolor}
116 \makeatletter
117 \ifdefined\huawei@boring
118   \definecolor{red}{HTML}{8C1A11}
119   \definecolor{black}{HTML}{000000}
120   \definecolor{gray}{HTML}{878C8F}
121   \definecolor{lightgray}{HTML}{DCDDDF}
122   \definecolor{yellow}{HTML}{F6C342}
123   \definecolor{blue}{HTML}{2B62BA}
124   \definecolor{green}{HTML}{499167}
125   \definecolor{orange}{HTML}{F7CEA1}
126 \else
127   \definecolor{red}{HTML}{CF0A2C}
128   \definecolor{black}{HTML}{232527}
129   \definecolor{gray}{HTML}{878C8F}
130   \definecolor{lightgray}{HTML}{DCDDDF}
131   \definecolor{yellow}{HTML}{F2DC5D}
132   \definecolor{blue}{HTML}{2274A5}
133   \definecolor{green}{HTML}{499167}
134   \definecolor{orange}{HTML}{F06543}
135 \fi
136 \makeatother
```

\huawei@header Then, we define \huawei@header:

```
137 \makeatletter\newcommand\huawei@header[1]{\%
138   \ifdefined\huawei@slides%
139     \setstretch{0.8}%
140     \fontsize{19pt}{24pt}\selectfont%
141   \else%
142     \setstretch{0.8}%
143     \fontsize{11pt}{13pt}\selectfont%
144   \fi%
145   \sffamily\color{gray}#1\par%
146 }\makeatother
```

Then, we define the colors of the ink and of the page, which swap in the **dark** mode:

```
147 \def\huawei@black{\ifdefined\huawei@dark white\else black\fi}
148 \def\huawei@blank{\ifdefined\huawei@dark black\else white\fi}
```

\huawei@bar Then, we define \huawei@bar:

```
149 \makeatletter\newcommand\huawei@bar{%
150   \ifdefined\huawei@boring%
151     \begin{textblock}{16}[0,1](0,16)%
152       \tikz \node[fill=lightgray,minimum width=16\TPHorizModule,
153         minimum height=1.5\TPVertModule] {};%
154     \end{textblock}%
155   \ifdefined\huawei@nobrand\else%
156     \begin{textblock}{8}[1,0.5](15,15.25)%
157       \raggedleft\huawei@logo{1.4}
158     \end{textblock}%
159   \fi%
160   \ifdefined\huawei@nobrand\else%
161     \begin{textblock}{8}[0,0.5](1,15.25)%
162       \fontsize{16}{16}\selectfont%
163       \textcolor{gray}{\thecompany{}}%
164     \end{textblock}%
165   \fi%
166   \ifdefined\huawei@nosecurity\else%
167     \begin{textblock}{8}[0.5,0.5](7,15.25)%
168       \fontsize{16}{16}\selectfont%
169       \centering\textcolor{gray}{\thesecurity}%
170     \end{textblock}%
171   \fi%
172   \ifdefined\huawei@nopaging\else%
173     \begin{textblock}{8}[1,0.5](12,15.25)%
174       \raggedleft\fontsize{16}{16}\selectfont%
175       \textcolor{gray}{Page \#\thepage{} of \pageref*{LastPage}}%
176     \end{textblock}%
177   \fi%
178   \begin{textblock}{2}[1,0.5](14,15.25)%
179     \tikz \path[scale=0.3, draw=none, rotate=40, fill=\huawei@blank] (0,0) .. controls (3,1
180   \end{textblock}%
181   \else%
182     \begin{textblock}{1}[0,0](0,0)%
183       \tikz \node[fill=red,minimum width=\TPHorizModule,
184         minimum height=16\TPVertModule] {};%
185     \end{textblock}%
186   \fi%
187 }\makeatother
```

\huawei@logo Then, we define \huawei@logo:

```
188 \makeatletter\newcommand\huawei@logo[1]{
189   \definecolor{logo-red}{HTML}{CF0A2C}
190   \begin{tikzpicture}[y=0.80pt, x=0.80pt, yscale=-#1,
191     xscale=#1, inner sep=0pt, outer sep=0pt]
192     \begin{scope}[even odd rule,line width=0.800pt]
193       \begin{scope}[shift={(0,-0.00024)}]
194         \path[fill=\huawei@black] (10.9375,30.2240) -- (10.9375,33.6097)
```

```

195 .. controls (10.9375,34.5713) and (10.4603,35.0845) ..
196 (9.5932,35.0845) .. controls (8.7212,35.0845) and
197 (8.2411,34.5565)
198 .. (8.2411,33.5686) -- (8.2411,30.2278) -- (7.0415,30.2278)
199 -- (7.0415,33.6097) .. controls (7.0415,35.2737) and
200 (7.9658,36.2272) .. (9.5774,36.2272) .. controls
201 (11.2041,36.2272) and (12.1371,35.2554) .. (12.1371,33.5609) --
202 (12.1371,30.2240)
203 -- (10.9375,30.2240) -- cycle;
204 \path[fill=\huawei@black] (15.3511,30.2240) -- (12.7456,36.1351) --
205 (13.9702,36.1351) -- (14.4731,34.9903) -- (14.5091,34.9045) --
206 (17.2158,34.9045) -- (17.7467,36.1351) -- (19.0045,36.1351) --
207 (16.4233,30.2590) -- (16.4001,30.2240) -- cycle;
208 \path[fill=\huawei@black] (22.4840,30.2240) -- (21.1414,34.2912) --
209 (19.8344,30.2271) -- (18.5578,30.2271) -- (20.6186,36.1388) --
210 (21.6120,36.1388) -- (22.9573,32.2553) -- (24.3016,36.1388) --
211 (25.3034,36.1388) -- (27.3592,30.2271) -- (26.1152,30.2271) --
212 (24.8055,34.2912) -- (23.4626,30.2240) -- cycle;
213 \path[fill=\huawei@black] (34.2236,30.2240) -- (34.2236,36.1300) --
214 (35.4074,36.1300) -- (35.4074,30.2240) -- cycle;
215 \path[fill=\huawei@black] (0.2686,30.2244) -- (0.2686,36.1384) --
216 (1.4686,36.1384) -- (1.4686,33.7365) -- (4.1780,33.7365) --
217 (4.1780,36.1384) -- (5.3783,36.1384) -- (5.3783,30.2244) --
218 (4.1780,30.2244) -- (4.1780,32.6102) -- (1.4686,32.6102) --
219 (1.4686,30.2244) -- cycle;
220 \path[fill=\huawei@black] (28.3267,30.2284) -- (28.3267,36.1344) --
221 (32.7928,36.1344) -- (32.7928,35.0575) -- (29.5105,35.0575) --
222 (29.5105,33.5931) -- (31.6931,33.5931) -- (31.6931,32.5160) --
223 (29.5105,32.5160) -- (29.5105,31.3052) -- (32.6785,31.3052) --
224 (32.6785,30.2284) -- cycle;
225 \path[fill=\huawei@blank] (15.8594,31.7207) -- (16.7149,33.7008) --
226 (16.7119,33.7008) -- (16.7701,33.8374) -- (14.9552,33.8374) --
227 (15.0127,33.7008) -- (15.0117,33.7008) -- cycle;
228 \path[fill=logo-red] (15.2113,0.0001) .. controls (14.7353,0.0422) and
229 (13.4491,0.3349) .. (13.4491,0.3349) -- (13.4486,0.3349) .. controls
230 (10.5495,1.0843) and (9.8643,3.7151) .. (9.8643,3.7151) .. controls
231 (9.7227,4.1575) and (9.6584,4.6109) .. (9.6395,5.0380) --
232 (9.6395,5.6194) .. controls (9.6780,6.5176) and (9.8777,7.1883) ..
233 (9.8777,7.1883) .. controls (10.8461,11.4823) and
234 (15.6075,18.5379) .. (16.6308,20.0200) .. controls
235 (16.7034,20.0920) and (16.7615,20.0660) ..
236 (16.7615,20.0660) .. controls (16.8720,20.0355) and
237 (16.8633,19.9296) .. (16.8633,19.9296) --
238 (16.8654,19.9301) .. controls (18.4416,4.1760) and
239 (15.2113,0.0001) .. (15.2113,0.0001) -- (15.2113,0.0001) -- cycle;
240 \path[fill=logo-red] (20.4192,0.0000) .. controls (20.4192,0.0000) and
241 (17.1748,4.1782) .. (18.7521,19.9415) --
242 (18.7542,19.9415) .. controls (18.7664,20.0416) and
243 (18.8374,20.0624) .. (18.8374,20.0624) .. controls
244 (18.9430,20.1033) and (18.9971,20.0019) .. (18.9971,20.0019) --
245 (18.9976,20.0029) .. controls (20.0472,18.4829) and
246 (24.7814,11.4657) .. (25.7455,7.1882) .. controls (25.7455,7.1882) and
247 (26.2683,5.1179) .. (25.7636,3.7150) .. controls
248 (25.7636,3.7150) and (25.0470,1.0434) .. (22.1442,0.3375) .. controls

```

```

249 (22.1442,0.3375) and (21.3077,0.1251) .. (20.4193,0.0000) --
250 (20.4192,0.0000) -- cycle;
251 \path[fill=logo-red] (5.4542,4.7294) .. controls (5.4542,4.7294) and
252 (2.6920,7.3513) .. (2.5547,10.1307) -- (2.5558,10.1307) --
253 (2.5558,10.5519) .. controls (2.5579,10.5836) and
254 (2.5595,10.6157) .. (2.5615,10.6480) .. controls
255 (2.6804,12.8893) and (4.3665,14.2157) ..
256 (4.3665,14.2157) .. controls (7.0831,16.8634) and
257 (13.6611,20.2062) .. (15.1896,20.9647) .. controls
258 (15.2110,20.9727) and (15.2900,20.9985) ..
259 (15.3364,20.9399) .. controls (15.3364,20.9399) and
260 (15.3605,20.9216) .. (15.3715,20.8887) --
261 (15.3715,20.8189) .. controls (15.3704,20.8149) and
262 (15.3683,20.8109) .. (15.3663,20.8065) --
263 (15.3669,20.8065) .. controls (11.1809,11.6620) and
264 (5.4543,4.7294) .. (5.4543,4.7294) -- (5.4542,4.7294) -- cycle;
265 \path[fill=logo-red] (30.1695,4.7294) .. controls (30.1695,4.7294) and
266 (24.4602,11.6403) .. (20.2761,20.7662) --
267 (20.2777,20.7657) .. controls (20.2777,20.7657) and
268 (20.2283,20.8715) .. (20.3082,20.9399) .. controls
269 (20.3082,20.9399) and (20.3320,20.9579) .. (20.3650,20.9652) --
270 (20.4229,20.9652) .. controls (20.4333,20.9622) and
271 (20.4444,20.9582) .. (20.4554,20.9507) --
272 (20.4554,20.9517) .. controls (22.0255,20.1724) and
273 (28.5525,16.8516) .. (31.2563,14.2162) .. controls
274 (31.2563,14.2162) and (32.9686,12.8412) ..
275 (33.0583,10.6334) .. controls (33.2560,7.5672) and
276 (30.1696,4.7294) .. (30.1696,4.7294) -- (30.1695,4.7294) -- cycle;
277 \path[fill=logo-red] (35.3082,13.8080) .. controls (35.3082,13.8080) and
278 (26.0003,18.8031) .. (21.1876,22.0494) -- (21.1882,22.0499) --
279 (21.1893,22.0509) .. controls (21.1893,22.0509) and
280 (21.1019,22.1081) .. (21.1324,22.2106) .. controls
281 (21.1324,22.2106) and (21.1781,22.2933) .. (21.2446,22.2933) --
282 (21.2446,22.2938) .. controls (22.9684,22.2968) and
283 (29.4914,22.3041) .. (29.6549,22.2736) .. controls
284 (29.6549,22.2736) and (30.4983,22.2399) ..
285 (31.5406,21.8395) .. controls (31.5406,21.8395) and
286 (33.8608,21.1019) .. (35.0659,18.4677) .. controls
287 (35.0659,18.4677) and (35.6166,17.3662) .. (35.6246,15.8187) --
288 (35.6246,15.7531) .. controls (35.6206,15.1563) and
289 (35.5365,14.4957) .. (35.3083,13.8080) --
290 (35.3082,13.8080) -- cycle;
291 \path[fill=logo-red] (0.3129,13.8313) .. controls (-0.5339,16.4531) and
292 (0.6062,18.5656) .. (0.6080,18.5690) .. controls
293 (1.7962,21.0795) and (4.0641,21.8401) ..
294 (4.0641,21.8401) .. controls (5.1112,22.2703) and
295 (6.1586,22.3000) .. (6.1586,22.3000) .. controls
296 (6.3221,22.3300) and (12.6713,22.3030) ..
297 (14.3725,22.2950) .. controls (14.4445,22.2945) and
298 (14.4842,22.2221) .. (14.4842,22.2221) .. controls
299 (14.4892,22.2142) and (14.4936,22.2062) .. (14.4955,22.1989) --
300 (14.4955,22.1333) .. controls (14.4814,22.0893) and
301 (14.4439,22.0584) .. (14.4439,22.0584) --
302 (14.4450,22.0578) .. controls (9.6347,18.8126) and

```

```

303 (0.3130,13.8315) .. (0.3130,13.8315) -- (0.3129,13.8313) -- cycle;
304 \path[fill=logo-red] (14.1782,23.1010) -- (3.2285,23.4850) .. controls
305 (4.4160,25.6018) and (6.4158,27.2469) ..
306 (8.4990,26.7416) .. controls (9.9366,26.3822) and
307 (13.1935,24.1105) .. (14.2687,23.3429) --
308 (14.2651,23.3399) .. controls (14.3487,23.2648) and
309 (14.3188,23.2045) .. (14.3188,23.2045) .. controls
310 (14.2913,23.1062) and (14.1783,23.1063) .. (14.1783,23.1063) --
311 (14.1782,23.1010) -- cycle;
312 \path[fill=logo-red] (21.4305,23.1090) -- (21.4294,23.1130) .. controls
313 (21.4294,23.1130) and (21.3333,23.1252) ..
314 (21.3064,23.1972) .. controls (21.3064,23.1972) and
315 (21.2831,23.2956) .. (21.3478,23.3445) --
316 (21.3467,23.3455) .. controls (22.3950,24.0973) and
317 (25.5729,26.3191) .. (27.1039,26.7505) .. controls
318 (27.1039,26.7505) and (27.3359,26.8294) .. (27.7246,26.8435) --
319 (27.9581,26.8435) .. controls (28.9839,26.8075) and
320 (30.7708,26.2805) .. (32.3946,23.4907) --
321 (21.4305,23.1090) -- cycle;
322 \end{scope}%
323 \end{scope}%
324 \end{tikzpicture}%
325 }\makeatother

```

Then, we configure headers using fancyhdr:

```

326 \RequirePackage{fancyhdr}
327 \pagestyle{fancy}
328 \renewcommand{\headrulewidth}{0pt}
329 \fancyhf{}
330 \makeatletter\fancyfoot[L]{
331   \huawei@bar
332   \ifdefined\huawei@authordraft%
333     \begin{textblock}{14}[0.5,0.5](8,8)%
334       \tikz \node[minimum width=14\TPHorizModule] {%
335         \fontsize{64}{64}\selectfont\sffamily\scshape%
336         \color{gray!20}\rotatebox{30}{it is a draft}%
337       };%
338     \end{textblock}%
339   \else\fi%
340 }\makeatother
341 \makeatletter\fancyhead[L]{
342   \ifnum\value{page}=1\else%
343     \ifdefined\huawei@nobrand\else%
344       \ifdefined\huawei@boring\else%
345         \begin{textblock}{8}[0,0](1.2,0.2)%
346           \huawei@logo{\ifdefined\huawei@slides 1.8\else 1\fi}%
347         \end{textblock}%
348       \fi
349     \fi%
350   \fi%
351 }\makeatother
352 \makeatletter\fancyhead[R]{
353   \ifdefined\huawei@boring\else%
354     \begin{textblock}{8}[1,0](15.8,0.2)%

```

```

355     \raggedleft\huawei@header{%
356     \ifdefined\huawei@nosecurity\else%
357     \thesecurity%
358     \fi%
359     }%
360     \end{textblock}%
361     \fi%
362 }\makeatother
363 \makeatletter\foot[R]{
364   \ifdefined\huawei@boring\else%
365     \begin{textblock}{8}[0,1](1.2,15.8)%
366     \ifnum\value{page}=1\else%
367       \huawei@header{\raggedright%
368       \ifdefined\huawei@anonymous\else%
369         \theauthor%
370         \ifdefined\huawei@nosecurity\else%
371           \ifx\theid\empty\else, \theid\fi%
372         \fi%
373         \ifdefined\huawei@nobrand\else%
374           \newline
375         \fi%
376       \fi%
377       \ifdefined\huawei@nobrand\else%
378         \thecompany{}\fi%
379     }%
380   }%
381   \fi%
382   \end{textblock}%
383   \begin{textblock}{8}[1,1](15.8,15.8)%
384     \raggedleft\huawei@header{%
385     \ifnum\value{page}=1\else%
386       \ifdefined\huawei@nopaging\else%
387         Page \#\thepage{} of \pageref*{LastPage}%
388       \ifdefined\huawei@nodate\else%
389         \\
390       \fi%
391     \fi%
392     \fi%
393     \ifdefined\huawei@nodate\else%
394       \today{} \settimeformat{daytime}\currenttime{}%
395     \fi%
396   }%
397   \end{textblock}%
398   \fi%
399 }\makeatother

```

abstract Then, we redefine abstract environment:

```

400 \RequirePackage{changepage}
401 \renewenvironment{abstract}
402   {\begin{adjustwidth}{0pt}{1in}{\scshape Abstract:}\newline\small}
403   {\end{adjustwidth}}

```

\maketitle Then, we redefine \maketitle:

```

404 \makeatletter\renewcommand\maketitle{%

```

```

405 \vspace*{18pt}%
406 {%
407   \bfseries{\begin{spacing}{.9}}\Huge\raggedright%
408   \ifdefined\huawei@boring%
409     \color{red}%
410     \fi%
411   \thetitle\par\end{spacing}}%
412 }%
413 \ifx\thesubtitle\empty\else%
414   {\color{gray!50!black}\large\raggedright\thesubtitle\par}%
415 \fi%
416 \ifdefined\huawei@nobrand\else%
417   \ifdefined\huawei@anonymous\else%
418     \ifx\thecompany\empty\else%
419       \thecompany\par%
420     \fi%
421   \fi%
422 \fi%
423 \parbox{.6\textwidth}{\raggedright%
424   \ifx\theauthor\empty\else%
425     {\scshape\ifdefined\huawei@anonymous%
426       Anonymous Authors%
427     \else%
428       \theauthor%
429     \fi}%
430   \fi%
431   \ifdefined\huawei@anonymous\else%
432     \ifx\theauthor\empty\else%
433       \ifdefined\huawei@nosecurity\else%
434         \ifx\theid\empty\else%
435           $;$/ {\theid}%
436         \fi%
437       \fi%
438     \fi%
439   \fi%
440 \par%
441 }%
442 \vspace{2em}%
443 }\makeatother

```

\PrintCrumb Then, we define \PrintCrumb:

```

444 \newcommand\PrintCrumb[2]{%
445   \begin{minipage}{\columnwidth}%
446     \raggedright\textsc{#1}:\#2%
447   \end{minipage}\vspace{1em}%
448 }

```

\PrintThankYouPage Then, we define \PrintThankYouPage:

```

449 \newcommand\PrintThankYouPage{
450   \newpage
451   \vspace*{\fill}
452   \begin{center}
453     \normalsize
454     {\Huge\color{red}\textbf{Thank you!}}

```

```

455 \end{center}
456 \vspace*{\fill}
457 }

```

\PrintDisclaimer Then, we define \PrintDisclaimer:

```

458 \makeatletter\newcommand\PrintDisclaimer{%
459 \justify\vspace*{\fill}%
460 \begingroup%
461 \setstretch{0.55}%
462 \sffamily\scriptsize\color{gray!50!black}%
463 \textbf{Disclaimer}: The opinions expressed in
464 this document are in good faith and
465 while every care has been taken in preparing it,
466 \ifdefined\huawei@nobraand%
467 the author%
468 \else%
469 \thecompany{}%
470 \fi%
471 makes no representations and gives no warranties
472 of whatever nature in respect of these documents,
473 including but not limited to the accuracy or completeness
474 of any information, facts and/or opinions contained therein.
475 \ifdefined\huawei@nobraand%
476 The author%
477 \else%
478 \thecompany{}%
479 \fi,
480 its subsidiaries, the directors, employees and agents
481 cannot be held liable for the use of and reliance on
482 the opinions, estimates, forecasts and findings in
483 these documents.
484 \par%
485 \endgroup%
486 }\makeatother

```

\PrintFirstPage Then, we define \PrintFirstPage:

```

487 \makeatletter\newcommand\PrintFirstPage[1]{%
488 \ifdefined\huawei@landscape\else%
489 \ClassError{huawei}{It's allowed to use
490 PrintFirstPage only in landscape mode}{Read huawei.pdf
491 for more information}
492 \fi%
493 \huawei@bar%
494 \def\huawei@param{#1}%
495 \ifx\huawei@param\empty\else%
496 \includegraphics[height=2in]{#1}%
497 \newline%
498 \fi%
499 \vspace*{0.5in}%
500 \maketitle%
501 \ifdefined\huawei@nocover\else%
502 \begin{textblock}[14][1,1](14,14)%
503 \raggedleft\includegraphics[height=3.6in]{huawei-cover-picture.pdf}%
504 \end{textblock}%

```

```

505 \fi%
506 }\makeatother

```

\PrintLastPage Then, we define \PrintLastPage:

```

507 \makeatletter\newcommand\PrintLastPage{%
508 \ifdefined\huawei@landscape\else%
509 \ClassError{huawei}{It's allowed to use
510 \PrintLastPage only in landscape mode}{Read huawei.pdf
511 for more information}
512 \fi%
513 \newpage%
514 \vspace*{1in}%
515 \begin{center}%
516 \begin{minipage}{0.8\columnwidth}\raggedright%
517 \normalsize%
518 \setlength{\parskip}{6pt}%
519 {\Huge\color{red}\textbf{Thank you!}}%
520 \par%
521 \vspace{0.5in}%
522 \par%
523 \ifdefined\huawei@nobrand\else%
524 Bring digital to every person, home and organization
525 \newline%
526 for a fully connected, intelligent world.
527 \par%
528 \textbf{%
529 Copyright \copyright{} \the\year{} \thecompany{}
530 \newline
531 All Rights Reserved.%
532 }
533 \par%
534 \fi%
535 The information in this document may contain predictive
536 statements including, without limitation, statements regarding
537 the future financial and operating results, future product
538 portfolio, new technology, etc. There are a number of factors that
539 could cause actual results and developments to differ materially
540 from those expressed or implied in the predictive statements.
541 Therefore, such information is provided for reference purpose
542 only and constitutes neither an offer nor an acceptance.
543 \ifdefined\huawei@nobrand%
544 The author%
545 \else%
546 \thecompany{}%
547 \fi{}
548 may change the information at any time without notice.
549 \end{minipage}
550 \end{center}%
551 }\makeatother

```

\PrintBibliography Then, we define \PrintBibliography:

```

552 \makeatletter\newcommand\PrintBibliography{%
553 \setlength\bibitemsep{3pt}%
554 \AtNextBibliography{\small}%

```

```

555 \ifdefined\huawei@breaks\newpage\fi%
556 \begingroup%
557 \raggedright%
558 \setstretch{0.95}%
559 \ifdefined\huawei@landscape%
560 \begin{multicols}{3}\printbibliography\end{multicols}%
561 \else%
562 \ifdefined\huawei@breaks%
563 \begin{multicols}{2}\printbibliography\end{multicols}%
564 \else
565 \printbibliography%
566 \fi%
567 \fi%
568 \endgroup%
569 }\makeatother

```

Then, we set the background color of the document, if required by the **dark** class option:

```

570 \makeatletter\ifdefined\huawei@dark%
571 \RequirePackage{pagecolor}%
572 \pagecolor{black}%
573 \color{white}%
574 \fi

```

Then, we configure the layout:

```

575 \AtBeginDocument{%
576 \raggedbottom%
577 \raggedcolumns%
578 \setlength\headheight{32pt}%
579 \setlength\footskip{32pt}%
580 \setlength\topskip{0mm}%
581 \setlength\parindent{0pt}%
582 \setlength\parskip{6pt}%
583 \setlength\columnsep{32pt}%
584 \renewcommand{\arraystretch}{1}%
585 }

```

Then, we renew a few commands:

```

586 \renewcommand\title[1]{\renewcommand\thetitle{#1}}
587 \newcommand\thetitle{\textbackslash{}thetitle}
588 \newcommand*\thecompany{Huawei Technologies Co., Ltd.}
589 \newcommand\thesubtitle{}
590 \renewcommand\author[1]{\renewcommand\theauthor{#1}}
591 \newcommand\theauthor{\textbackslash{}theauthor}
592 \newcommand*\thesecurity{Confidential}
593 \newcommand*\theid{}
594 \ifcsname nospell\endcsname\else\newcommand\nospell[1]{#1}\fi

```

Change History

v0.1.0	General: The first draft version. . .	5	v0.18.0	General: Now we use pgfopts for parsing class options.	5
v0.10.0	General: Some colors redefined. . .	5	\PrintBibliography: The bibliography prints in one column unless breaks class option is specified.	16	
v0.11.0	General: The fixed-width font is rendered correctly now, without ffcode	5	v0.19.0	General: New option boring added, making the layout of the document more compliant with the expectations of Huawei. . . .	5
v0.12.0	General: The abstract is now formatted correctly.	5	v0.3.0	General: The cover picture added for front pages.	5
v0.14.0	General: The l3build is now used for build automation, instead of Makefile	5	v0.4.0	General: The current time is rendered without seconds.	5
v0.15.0	General: A new package option breaks introduced, which forces all sections to start from a new page.	5	v0.5.0	General: The DEPENDS.txt file added.	5
v0.16.0	General: The doi tag enabled for biblatex	7	v0.6.0	General: The ffcode and href-ul packages created and their code removed from this class.	5
v0.17.0	General: All figures and tables are bordered by default.	8	v0.7.0	General: The authordraft option is now supported.	5
	All figures and tables are centered by default.	8			
	Smaller and sans-serif font for captions of figures.	7			

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		
\# 175, 387	\definecolor ... 118,	\huawei@black 147, 194, 204,
\; 435	119, 120, 121,	208, 213, 215, 220
\@empty 20	122, 123, 124,	\huawei@blank 148, 179, 225
\@floatboxreset ... 110	125, 127, 128,	\huawei@boring 5, 25,
\@unusedoptionlist .	129, 130, 131,	30, 43, 117, 150,
..... 20, 21	132, 133, 134, 189	344, 353, 364, 408
\\ 389, 446	\documentclass 22	\huawei@breaks 6, 38, 555, 562
A	E	
\abstract 400	\empty . 371, 413, 418,	\huawei@dark 7, 147, 148, 570
\AddToHook 19, 77	424, 432, 434, 495	\huawei@header 137, 355, 367, 384
\anonymous 2	\end 154, 158,	\huawei@landscape .. 15, 42, 488, 508, 559
\arraystretch 584	164, 170, 176,	\huawei@logo 157, 188, 346
\AtBeginDocument 93, 575	180, 185, 322,	\huawei@nobrand 11,
\AtNextBibliography 554	323, 324, 338,	155, 160, 343,
\author 590	347, 360, 382,	373, 377, 416,
\authordraft 2	397, 403, 411,	466, 475, 523, 543
	447, 455, 504,	\huawei@nocover 13, 501
	549, 550, 560, 563	\huawei@nodate 12, 388, 393
	\endcsname 594	\huawei@nopaging 14, 172, 386
B	F	
\begin 151, 156,	\familydefault 27	\huawei@nosecurity 9, 166, 356, 370, 433
161, 167, 173,	\fancyfoot 330, 363	\huawei@param . 494, 495
178, 182, 190,	\fancyhead 341, 352	\huawei@sectioncolor 31, 33, 38, 39
192, 193, 333,	\fancyhf 329	\huawei@slides 8, 54, 138, 346
345, 354, 365,	\fill 451, 456, 459	\Huge 407, 454, 519
383, 402, 407,	\floatstyle 106	\hypersetup 94
445, 452, 502,	\fontsize . 140, 143,	
515, 516, 560, 563	162, 168, 174, 335	
\bfseries 38, 407	\footnotemargin ... 80	
\bibitemsep 553	\footnotesep 81	
\boring 2	\footskip 579	
\breaks 2		
C	G	I
\centering 110, 169	\g@addto@macro 110	\ifcsname 594
\ClassError 21, 489, 509	\geometry ... 44, 47, 51	\ifdefined 25, 30, 38, 42, 43, 54, 96, 117, 138, 147, 148, 150, 155, 160, 166, 172, 332, 343, 344, 346, 353, 356, 364, 368, 370, 373, 377, 386, 388, 393, 408,
\clearpage 38		
\color .. 38, 39, 145,		
336, 409, 414,		
454, 462, 519, 573		
\columnsep 583	H	
\columnwidth .. 445, 516	\headheight 578	
\copyright 529	\headrulewidth 328	
\currenttime 394	\huawei@anonymous 16, 96, 368, 417, 425, 431	
D	\huawei@authordraft 10, 332	
\dark 2	\huawei@bar 149, 331, 493	
\def 31, 33, 147, 148, 494		

