

# L<sup>A</sup>T<sub>E</sub>X Class huawei<sup>\*</sup>

Yegor Bugayenko  
yegor256@gmail.com

2023-08-03, 0.17.0

## 1 Introduction

The provided class huawei helps you design your work documents and presentations keeping the code short and the style elegant enough both for management and technical papers. To use the class you simply mention its name in the preamble:



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

We recommend you to use `latexmk` to compile your `.tex` files to `.pdf`. The simplest setup will require a few files staying next to your `.tex` file, in the same directory (“story” is the name of your project here):

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

The content of your `.latexmkrc` file would be this:

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

Make sure the `.gitignore` file lists all the files generated by `pdflatex` during the compilation. You don’t need to commit them to your repository, since they are temporary and will be generated again when you compile your document. In order to compile the document, just say `latexmk` on the command line.

---

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

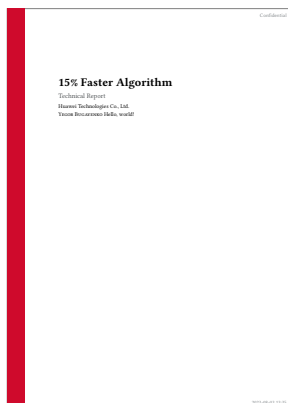
## 2 Class Options

There are a few class options, provided in square brackets after the `\documentclass`, which can help you fine-tune the layout of your document:

<code>landscape</code>	The option <code>landscape</code> makes the document in landscape format, also changing the size of the paper to 16x9 inches (the default page size is <a href="#">A4</a> ), making it perfect for presentations.
<code>dark</code>	The option <code>dark</code> turns on a dark layout, where the page color is black and the text is white.
<code>slides</code>	The option <code>slides</code> makes all headers a bit larger, assuming that the document is in the landscape mode and being presented as a slide deck.
<code>nocover</code>	The option <code>nocover</code> , if it's present, avoids printing the cover images on the first page by the <code>\PrintTitlePage</code> command.
<code>anonymous</code>	The option <code>anonymous</code> removes the name of the author everywhere, including the bottom of the page, where the author's name stays next to the name of the company.
<code>nobrand</code>	The option <code>nobrand</code> avoids mentioning the brand of Huawei anywhere in the document and removes the logo too.
<code>nosecurity</code>	The option <code>nosecurity</code> avoids mentioning the level of security at the right top corner of the document and also avoids showing the ID of the author where it usually is visible.
<code>nodate</code>	The option <code>nodate</code> doesn't show the date and time at the bottom of each page, where they usually are rendered in ISO 8601 format.
<code>nopaging</code>	The option <code>nopaging</code> avoids page numbers at the bottom of each page.
<code>authordraft</code>	The option <code>authordraft</code> prints a big "It's a draft" message across each page.
<code>breaks</code>	The option <code>breaks</code> forces all <code>\section</code> to start from a new page.

## 3 Preamble

In the preamble you can specify meta information about the document, such as its title or author's name, here is how:

	<pre>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}</pre>
---	---

It's recommended to use `\renewcommand*` instead of `\renewcommand` in order to let  $\LaTeX$  catch you if by mistake a new line gets into the content.

The following meta commands are defined:

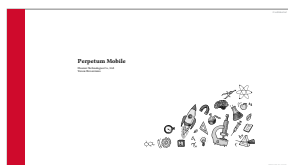
<code>\thetitle</code>	<code>\thetitle</code> is the main title of the document to be used in the text and in the properties of the PDF document.
<code>\thesubtitle</code>	<code>\thesubtitle</code> is the subtitle to be printed under the title.

`\theauthor`     `\theauthor` is the author of the document in “first-name last-name” format.  
`\theid`           `\theid` is the internal ID of the author, if it’s applicable.  
`\thesecurity`   It is the level of security of the document, which is usually printed at the top right corner of it; usual values are “Internal,” “Confidential,” or “Secret.”  
Default values of all these commands are empty. If you don’t renew them in your document, nothing will be printed.

## 4 Custom Commands

Inside the document body you can use these commands:

`\PrintFirstPage`     It is recommended to use `\PrintFirstPage` for rendering the first page in landscape document, for example a project charter. The only argument of the command is the name of an image to render at the right bottom corner. You can omit the name and just call the command with an empty argument. In this case the default image will be rendered, a pretty good looking one:



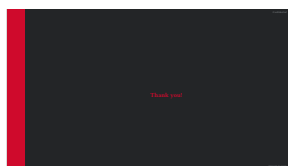
```
1 \documentclass[landscape]{huawei}
2 \renewcommand*
3   \thetitle{Perpetum Mobile}
4 \renewcommand*
5   \theauthor{Yegor Bugayenko}
6 \begin{document}
7 \PrintFirstPage{}
8 \end{document}
```

`\PrintLastPage`     `\PrintLastPage` prints the last page of a project charter or a similar landscape document:



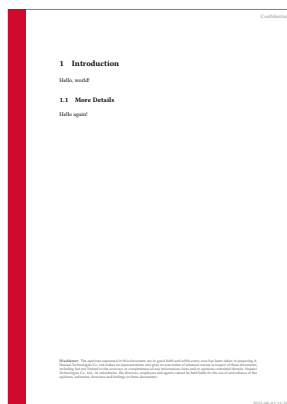
```
1 \documentclass[landscape]{huawei}
2 \begin{document}
3 \PrintLastPage{}
4 \end{document}
```

`\PrintThankYouPage`   `\PrintThankYouPage` prints the last page with a "Thank You" message in the center.



```
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

You are free to design your documents any way you want. However, it would be convenient for yourself and for your readers, if you follow the convention we have for business and technical documents.

The rule of thumb is simple: try *not* to format your documents. Instead, let the class designed by us do this work for you. Just type the content without changing the layout, adding colors, changing fonts, etc. The less you modify the look-and-feel, the better your documents will be perceived by your readers.

### 5.1 Two Columns

In the landscape format it's recommended to use two columns, for better readability of the text. Here is how:



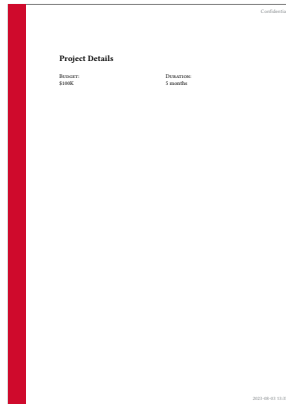
```

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

```

### 5.2 Crumbs

When you need to put many small information pieces into one page, we recommend you to use “crumbs”:



```

1 \documentclass{huawei}
2 \begin{document}
3 \newpage
4 \section*{Project Details}
5 \begin{multicols}{2}
6 \raggedright
7 \PrintCrumb{Budget}{\$100K}
8 \PrintCrumb{Duration}{5 months}
9 \end{multicols}
10 \end{document}

```

## 6 Implementation

First, we load the parent class:

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

Then, we parse package options:

```

2 \makeatletter
3 \DeclareOption{breaks}{
4   \let\huawei@oldsection\section
5   \renewcommand\section{\clearpage\huawei@oldsection}
6 }
7 \newif\ifhuawei@dark
8 \DeclareOption{dark}{\huawei@darktrue}
9 \newif\ifhuawei@slides
10 \DeclareOption{slides}{\huawei@slidestrue}
11 \newif\ifhuawei@nosecurity
12 \DeclareOption{nosecurity}{\huawei@nosecuritytrue}
13 \newif\ifhuawei@authordraft
14 \DeclareOption{authordraft}{\huawei@authordrafttrue}
15 \newif\ifhuawei@nobrand
16 \DeclareOption{nobrand}{\huawei@nobrandtrue}
17 \newif\ifhuawei@nodate
18 \DeclareOption{nodate}{\huawei@nodatetrue}
19 \newif\ifhuawei@nocover
20 \DeclareOption{nocover}{\huawei@nocovertrue}
21 \newif\ifhuawei@nopaging
22 \DeclareOption{nopaging}{\huawei@nopagingtrue}
23 \newif\ifhuawei@landscape
24 \DeclareOption{landscape}{\huawei@landscapetrue}
25 \newif\ifhuawei@anonymous
26 \DeclareOption{anonymous}{\huawei@anonymoustrue}
27 \ProcessOptions\relax
28 \makeatother

```

Then, we set the size of the page:

```

29 \RequirePackage{geometry}
30 \makeatletter\ifhuawei@landscape
31   \geometry{paperwidth=16in, paperheight=9in,
32     left=4in, right=2in, top=1.5in, bottom=1.5in}

```

```

33 \else
34 \geometry{a4paper, left=1.5in, right=1in,
35 top=1.2in, bottom=1.2in}
36 \fi\makeatother

Then, we set the size of the font:
37 \makeatletter\ifhuawei@slides
38 \usepackage[fontsize=24pt]{fontsize}
39 \fi\makeatother

Then, we configure the encodings:
40 \RequirePackage[T1]{fontenc}
41 \RequirePackage[utf8]{inputenc}

Then, we include a few important packages:
42 \RequirePackage{tabularx}
43 \RequirePackage{anyfontsize}
44 \RequirePackage{multicol}
45 \RequirePackage{ragged2e}
46 \RequirePackage{multicol}
47 \RequirePackage{paralist}
48 \RequirePackage{makecell}
49 \RequirePackage{graphicx}
50 \RequirePackage{array}
51 \RequirePackage[abspath]{currfile}
52 \RequirePackage{wrapfig}
53 \RequirePackage{lastpage}
54 \RequirePackage{tikz}
55 \RequirePackage{tabularx}
56 \RequirePackage{titling}
57 \RequirePackage{svg}

Then, we configure libertine font:
58 \PassOptionsToPackage{tt=false,type1=true}{libertine}
59 \RequirePackage{libertine}

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

Then, we configure footmisc:
62 \PassOptionsToPackage{para}{footmisc}
63 \RequirePackage{footmisc}
64 \setlength{\footnotemargin}{2pt}
65 \setlength{\footnotesep}{2pt}

Then, we configure enumitem:
66 \RequirePackage{enumitem}
67 \setlist{nosep}

Then, we configure textpos:
68 \RequirePackage[absolute]{textpos}
69 \TPGrid{16}{16}

Then, we configure datetime:
70 \PassOptionsToPackage{mmdyyy,iso}{datetime}
71 \RequirePackage{datetime}
72 \newtimeformat{daytime}{\twodigit{\THEHOUR}:\twodigit{\THEMINUTE}}

```

Then, to enable \pageref\* command, we configure hyperref:

```
73 \PassOptionsToPackage{hidelinks}{hyperref}
74 \RequirePackage{hyperref}
```

Then, we configure biblatex:

```
75 \RequirePackage[maxnames=1,minnames=1,natbib=true,
76   citestyle=numeric,bibstyle=numeric,
77   url=false,isbn=false,isbn=false]{biblatex}
```

Then, we make figure captions smaller and in sf font:

```
78 \PassOptionsToPackage{font={small,sf}}{caption}
79 \RequirePackage{caption}
```

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

```
80 \RequirePackage{float}
81 \floatstyle{boxed}
82 \restylefloat{table}
83 \restylefloat{figure}
```

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

```
84 \makeatletter
85 \g@addto@macro\@floatboxreset\centering
86 \makeatother
```

Then, we set spacing between lines:

```
87 \RequirePackage{setspace}
88 \setstretch{1.08}
```

Then, we define branded colors:

```
89 \PassOptionsToPackage{table}{xcolor}
90 \RequirePackage{xcolor}
91 \definecolor{red}{HTML}{CF0A2C}
92 \definecolor{black}{HTML}{232527}
93 \definecolor{gray}{HTML}{878C8F}
94 \definecolor{yellow}{HTML}{F2DC5D}
95 \definecolor{blue}{HTML}{2274A5}
96 \definecolor{green}{HTML}{499167}
97 \definecolor{orange}{HTML}{F06543}
```

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

```
98 \makeatletter\newcommand\huawei@header[1]{\%
99   \ifhuawei@slides%
100     \setstretch{0.8}%
101     \fontsize{19pt}{24pt}\selectfont%
102   \else%
103     \setstretch{0.8}%
104     \fontsize{11pt}{13pt}\selectfont%
105   \fi%
106   \sffamily\color{gray}#1\par%
107 }}\makeatother
```

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

```
108 \makeatletter\newcommand\huawei@bar{%
109   \begin{textblock}{1}[0,0](0,0)%
```

```

110 \tikz \node[fill=red,minimum width=\TPHorizModule,
111         minimum height=16\TPVertModule] {};%
112 \end{textblock}%
113 }\makeatother

```

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

```

114 \makeatletter\newcommand\huawei@logo[1]{
115 \def\BLACK{\ifhuawei@dark white\else black\fi}
116 \def\BLANK{\ifhuawei@dark black\else white\fi}
117 \begin{tikzpicture}[y=0.80pt, x=0.80pt, yscale=-#1,
118 xscale=#1, inner sep=0pt, outer sep=0pt]
119 \begin{scope}[even odd rule,line width=0.800pt]
120 \begin{scope}[shift={(0,-0.00024)}]
121 \path[fill=\BLACK] (10.9375,30.2240) -- (10.9375,33.6097)
122 .. controls (10.9375,34.5713) and (10.4603,35.0845) ..
123 (9.5932,35.0845) .. controls (8.7212,35.0845) and
124 (8.2411,34.5565)
125 .. (8.2411,33.5686) -- (8.2411,30.2278) -- (7.0415,30.2278)
126 -- (7.0415,33.6097) .. controls (7.0415,35.2737) and
127 (7.9658,36.2272) .. (9.5774,36.2272) .. controls
128 (11.2041,36.2272) and (12.1371,35.2554) .. (12.1371,33.5609) --
129 (12.1371,30.2240)
130 -- (10.9375,30.2240) -- cycle;
131 \path[fill=\BLACK] (15.3511,30.2240) -- (12.7456,36.1351) --
132 (13.9702,36.1351) -- (14.4731,34.9903) -- (14.5091,34.9045) --
133 (17.2158,34.9045) -- (17.7467,36.1351) -- (19.0045,36.1351) --
134 (16.4233,30.2590) -- (16.4001,30.2240) -- cycle;
135 \path[fill=\BLACK] (22.4840,30.2240) -- (21.1414,34.2912) --
136 (19.8344,30.2271) -- (18.5578,30.2271) -- (20.6186,36.1388) --
137 (21.6120,36.1388) -- (22.9573,32.2553) -- (24.3016,36.1388) --
138 (25.3034,36.1388) -- (27.3592,30.2271) -- (26.1152,30.2271) --
139 (24.8055,34.2912) -- (23.4626,30.2240) -- cycle;
140 \path[fill=\BLACK] (34.2236,30.2240) -- (34.2236,36.1300) --
141 (35.4074,36.1300) -- (35.4074,30.2240) -- cycle;
142 \path[fill=\BLACK] (0.2686,30.2244) -- (0.2686,36.1384) --
143 (1.4686,36.1384) -- (1.4686,33.7365) -- (4.1780,33.7365) --
144 (4.1780,36.1384) -- (5.3783,36.1384) -- (5.3783,30.2244) --
145 (4.1780,30.2244) -- (4.1780,32.6102) -- (1.4686,32.6102) --
146 (1.4686,30.2244) -- cycle;
147 \path[fill=\BLACK] (28.3267,30.2284) -- (28.3267,36.1344) --
148 (32.7928,36.1344) -- (32.7928,35.0575) -- (29.5105,35.0575) --
149 (29.5105,33.5931) -- (31.6931,33.5931) -- (31.6931,32.5160) --
150 (29.5105,32.5160) -- (29.5105,31.3052) -- (32.6785,31.3052) --
151 (32.6785,30.2284) -- cycle;
152 \path[fill=\BLANK] (15.8594,31.7207) -- (16.7149,33.7008) --
153 (16.7119,33.7008) -- (16.7701,33.8374) -- (14.9552,33.8374) --
154 (15.0127,33.7008) -- (15.0117,33.7008) -- cycle;
155 \path[fill=red] (15.2113,0.0001) .. controls (14.7353,0.0422) and
156 (13.4491,0.3349) .. (13.4491,0.3349) -- (13.4486,0.3349) .. controls
157 (10.5495,1.0843) and (9.8643,3.7151) .. (9.8643,3.7151) .. controls
158 (9.7227,4.1575) and (9.6584,4.6109) .. (9.6395,5.0380) --
159 (9.6395,5.6194) .. controls (9.6780,6.5176) and (9.8777,7.1883) ..
160 (9.8777,7.1883) .. controls (10.8461,11.4823) and
161 (15.6075,18.5379) .. (16.6308,20.0200) .. controls

```



```

162 (16.7034,20.0920) and(16.7615,20.0660) ..
163 (16.7615,20.0660) .. controls(16.8720,20.0355) and
164 (16.8633,19.9296) .. (16.8633,19.9296) --
165 (16.8654,19.9301) .. controls (18.4416,4.1760) and
166 (15.2113,0.0001) .. (15.2113,0.0001) -- (15.2113,0.0001) -- cycle;
167 \path[fill=red] (20.4192,0.0000) .. controls (20.4192,0.0000) and
168 (17.1748,4.1782) .. (18.7521,19.9415) --
169 (18.7542,19.9415) .. controls (18.7664,20.0416) and
170 (18.8374,20.0624) ..(18.8374,20.0624) .. controls
171 (18.9430,20.1033) and(18.9971,20.0019) .. (18.9971,20.0019) --
172 (18.9976,20.0029) .. controls (20.0472,18.4829) and
173 (24.7814,11.4657) ..(25.7455,7.1882) .. controls(25.7455,7.1882) and
174 (26.2683,5.1179) .. (25.7636,3.7150) .. controls
175 (25.7636,3.7150) and (25.0470,1.0434) ..(22.1442,0.3375) .. controls
176 (22.1442,0.3375) and (21.3077,0.1251) .. (20.4193,0.0000) --
177 (20.4192,0.0000) -- cycle;
178 \path[fill=red] (5.4542,4.7294) .. controls (5.4542,4.7294) and
179 (2.6920,7.3513) .. (2.5547,10.1307) -- (2.5558,10.1307) --
180 (2.5558,10.5519) .. controls (2.5579,10.5836) and
181 (2.5595,10.6157) .. (2.5615,10.6480) .. controls
182 (2.6804,12.8893) and (4.3665,14.2157) ..
183 (4.3665,14.2157) .. controls (7.0831,16.8634) and
184 (13.6611,20.2062) .. (15.1896,20.9647) .. controls
185 (15.2110,20.9727) and (15.2900,20.9985) ..
186 (15.3364,20.9399) .. controls (15.3364,20.9399) and
187 (15.3605,20.9216) .. (15.3715,20.8887) --
188 (15.3715,20.8189) .. controls (15.3704,20.8149) and
189 (15.3683,20.8109) .. (15.3663,20.8065) --
190 (15.3669,20.8065) .. controls (11.1809,11.6620) and
191 (5.4543,4.7294) .. (5.4543,4.7294) -- (5.4542,4.7294) -- cycle;
192 \path[fill=red] (30.1695,4.7294) .. controls (30.1695,4.7294) and
193 (24.4602,11.6403) .. (20.2761,20.7662) --
194 (20.2777,20.7657) .. controls (20.2777,20.7657) and
195 (20.2283,20.8715) .. (20.3082,20.9399) .. controls
196 (20.3082,20.9399) and (20.3320,20.9579) .. (20.3650,20.9652) --
197 (20.4229,20.9652) .. controls (20.4333,20.9622) and
198 (20.4444,20.9582) .. (20.4554,20.9507) --
199 (20.4554,20.9517) .. controls (22.0255,20.1724) and
200 (28.5525,16.8516) .. (31.2563,14.2162) .. controls
201 (31.2563,14.2162) and (32.9686,12.8412) ..
202 (33.0583,10.6334) .. controls (33.2560,7.5672) and
203 (30.1696,4.7294) .. (30.1696,4.7294) -- (30.1695,4.7294) -- cycle;
204 \path[fill=red] (35.3082,13.8080) .. controls (35.3082,13.8080) and
205 (26.0003,18.8031) .. (21.1876,22.0494) -- (21.1882,22.0499) --
206 (21.1893,22.0509) .. controls (21.1893,22.0509) and
207 (21.1019,22.1081) .. (21.1324,22.2106) .. controls
208 (21.1324,22.2106) and (21.1781,22.2933) .. (21.2446,22.2933) --
209 (21.2446,22.2938) .. controls (22.9684,22.2968) and
210 (29.4914,22.3041) .. (29.6549,22.2736) .. controls
211 (29.6549,22.2736) and (30.4983,22.2399) ..
212 (31.5406,21.8395) .. controls (31.5406,21.8395) and
213 (33.8608,21.1019) .. (35.0659,18.4677) .. controls
214 (35.0659,18.4677) and (35.6166,17.3662) .. (35.6246,15.8187) --
215 (35.6246,15.7531) .. controls (35.6206,15.1563) and

```

```

216 (35.5365,14.4957) .. (35.3083,13.8080) --
217 (35.3082,13.8080) -- cycle;
218 \path[fill=red] (0.3129,13.8313) .. controls (-0.5339,16.4531) and
219 (0.6062,18.5656) .. (0.6080,18.5690) .. controls
220 (1.7962,21.0795) and (4.0641,21.8401) ..
221 (4.0641,21.8401) .. controls (5.1112,22.2703) and
222 (6.1586,22.3000) .. (6.1586,22.3000) .. controls
223 (6.3221,22.3300) and (12.6713,22.3030) ..
224 (14.3725,22.2950) .. controls (14.4445,22.2945) and
225 (14.4842,22.2221) .. (14.4842,22.2221) .. controls
226 (14.4892,22.2142) and (14.4936,22.2062) .. (14.4955,22.1989) --
227 (14.4955,22.1333) .. controls (14.4814,22.0893) and
228 (14.4439,22.0584) .. (14.4439,22.0584) --
229 (14.4450,22.0578) .. controls (9.6347,18.8126) and
230 (0.3130,13.8315) .. (0.3130,13.8315) -- (0.3129,13.8313) -- cycle;
231 \path[fill=red] (14.1782,23.1010) -- (3.2285,23.4850) .. controls
232 (4.4160,25.6018) and (6.4158,27.2469) ..
233 (8.4990,26.7416) .. controls (9.9366,26.3822) and
234 (13.1935,24.1105) .. (14.2687,23.3429) --
235 (14.2651,23.3399) .. controls (14.3487,23.2648) and
236 (14.3188,23.2045) .. (14.3188,23.2045) .. controls
237 (14.2913,23.1062) and (14.1783,23.1063) .. (14.1783,23.1063) --
238 (14.1782,23.1010) -- cycle;
239 \path[fill=red] (21.4305,23.1090) -- (21.4294,23.1130) .. controls
240 (21.4294,23.1130) and (21.3333,23.1252) ..
241 (21.3064,23.1972) .. controls (21.3064,23.1972) and
242 (21.2831,23.2956) .. (21.3478,23.3445) --
243 (21.3467,23.3455) .. controls (22.3950,24.0973) and
244 (25.5729,26.3191) .. (27.1039,26.7505) .. controls
245 (27.1039,26.7505) and (27.3359,26.8294) .. (27.7246,26.8435) --
246 (27.9581,26.8435) .. controls (28.9839,26.8075) and
247 (30.7708,26.2805) .. (32.3946,23.4907) --
248 (21.4305,23.1090) -- cycle;
249 \end{scope}%
250 \end{scope}%
251 \end{tikzpicture}%
252 }\makeatother

```

Then, we configure headers using fancyhdr:

```

253 \RequirePackage{fancyhdr}
254 \pagestyle{fancy}
255 \renewcommand{\headrulewidth}{0pt}
256 \fancyhf{}
257 \makeatletter\fancyfoot[L]{
258   \huawei@bar
259   \ifhuawei@authordraft%
260     \begin{textblock}{14}[0.5,0.5](8,8)%
261       \tikz \node[minimum width=14\TPHorizModule] {%
262         \fontsize{64}{64}\selectfont\sffamily\scshape%
263         \color{gray!20}\rotatebox{30}{it is a draft}
264       };%
265     \end{textblock}%
266   \else\fi%
267 }\makeatother

```

```

268 \makeatletter\lhead[L]{
269   \ifnum\value{page}=1\else%
270     \ifhuawei@nbrand\else%
271       \begin{textblock}{8}[0,0](1.2,0.2)%
272         \huawei@logo{\ifhuawei@slides 1.8\else 1\fi}%
273       \end{textblock}%
274     \fi%
275   \fi%
276 }\makeatother
277 \makeatletter\lhead[R]{
278   \begin{textblock}{8}[1,0](15.8,0.2)%
279     \raggedleft\huawei@header{%
280       \ifhuawei@nosecurity\else%
281         \thesecurity
282       \fi%
283     }%
284   \end{textblock}%
285 }\makeatother
286 \makeatletter\lfoot[R]{
287   \begin{textblock}{8}[0,1](1.2,15.8)%
288     \ifnum\value{page}=1\else%
289       \huawei@header{\raggedright%
290         \ifhuawei@anonymous\else%
291           \theauthor%
292         \ifhuawei@nosecurity\else%
293           \ifx\theid\empty\else, \theid\fi
294         \fi%
295         \ifhuawei@nbrand\else%
296           \newline
297         \fi%
298       \fi%
299       \ifhuawei@nbrand\else%
300         \thecompany{}
301       \fi%
302     }%
303   \fi%
304   \end{textblock}%
305   \begin{textblock}{8}[1,1](15.8,15.8)%
306     \raggedleft\huawei@header{%
307       \ifnum\value{page}=1\else%
308         \ifhuawei@nopaging\else%
309           Page \#\thepage{} of \pageref*{LastPage}%
310         \ifhuawei@nodate\else%
311           \\\
312         \fi%
313       \fi%
314     \fi%
315     \ifhuawei@nodate\else%
316       \today{} \settimeformat{daytime}\currenttime{}%
317     \fi%
318   }%
319   \end{textblock}%
320 }\makeatother

```

abstract Then, we redefine abstract environment:

```

321 \RequirePackage{changepage}
322 \renewenvironment{abstract}
323   {\begin{adjustwidth}{0pt}{1in}{\scshape Abstract:}\newline\small}
324   {\end{adjustwidth}}
```

\maketitle Then, we redefine \maketitle:

```

325 \makeatletter\renewcommand\maketitle{%
326   \vspace*{18pt}
327   {\bfseries{\Huge\thetitle\par}}
328   \ifx\thesubtitle\empty\else%
329     {\color{gray!50!black}\large\thesubtitle\par}
330   \fi
331   \ifhuawei@nobraand\else%
332     \ifhuawei@anonymous\else%
333       \ifx\thecompany\empty\else%
334         \thecompany\newline
335       \fi
336     \fi
337   \fi
338   \ifx\theauthor\empty\else%
339     {\scshape\ifhuawei@anonymous
340       Anonymous Authors
341     \else%
342       \theauthor
343     \fi}%
344   \fi%
345   \ifhuawei@anonymous\else%
346     \ifx\theauthor\empty\else
347       \ifhuawei@nobraand\else%
348         \ifx\theid\empty\else
349           $,;$/ {\theid}
350         \fi
351       \fi
352     \fi
353   \fi
354   \vspace{2em}
355 }\makeatother
```

\PrintCrumb Then, we define \PrintCrumb:

```

356 \newcommand\PrintCrumb[2]{%
357   \begin{minipage}{\columnwidth}%
358     \raggedright\textsc{#1}:\#\#2%
359   \end{minipage}\vspace{1em}%
360 }
```

\PrintThankYouPage Then, we define \PrintThankYouPage:

```

361 \newcommand\PrintThankYouPage{
362   \newpage
363   \vspace*{\fill}
364   \begin{center}
365     \normalsize
366     {\Huge\color{red}\textbf{Thank you!}}
367   \end{center}
```

```

368 \vspace*{\fill}
369 }

```

\PrintDisclaimer Then, we define \PrintDisclaimer:

```

370 \makeatletter\newcommand\PrintDisclaimer{%
371 \justify\vspace*{\fill}%
372 \begingroup%
373 \setstretch{0.55}%
374 \sffamily\scriptsize\color{gray!50!black}%
375 \textbf{Disclaimer}: The opinions expressed in
376 this document are in good faith and
377 while every care has been taken in preparing it,
378 \ifhuawei@nobraand%
379 the author%
380 \else%
381 \thecompany{}%
382 \fi
383 makes no representations and gives no warranties
384 of whatever nature in respect of these documents,
385 including but not limited to the accuracy or completeness
386 of any information, facts and/or opinions contained therein.
387 \ifhuawei@nobraand%
388 The author%
389 \else%
390 \thecompany{}%
391 \fi,
392 its subsidiaries, the directors, employees and agents
393 cannot be held liable for the use of and reliance of
394 the opinions, estimates, forecasts and findings in
395 these documents.
396 \par
397 \endgroup%
398 }\makeatother

```

\PrintFirstPage Then, we define \PrintFirstPage:

```

399 \makeatletter\newcommand\PrintFirstPage[1]{
400 \ifhuawei@landscape\else
401 \PackageError{huawei}{It's allowed to use
402 PrintFirstPage only in landscape mode}{Read huawei.pdf
403 for more information}
404 \fi
405 \huawei@bar
406 \def\param{#1}%
407 \ifx\param\empty\else
408 \includegraphics[height=2in]{#1}
409 \newline
410 \fi
411 \vspace*{0.5in}
412 \maketitle
413 \ifhuawei@nocover\else
414 \begin{textblock}[14][1,1](14,14)
415 \raggedleft\includegraphics[height=3.6in]{huawei-cover-picture.pdf}
416 \end{textblock}
417 \fi

```

```
418 }\makeatother
```

\PrintLastPage Then, we define \PrintLastPage:

```
419 \makeatletter\newcommand\PrintLastPage{
420   \ifhuawei@landscape\else
421     \PackageError{huawei}{It's allowed to use
422       PrintLastPage only in landscape mode}{Read huawei.pdf
423       for more information}
424   \fi
425   \newpage
426   \vspace*{1in}
427   \begin{center}
428     \begin{minipage}{0.6\columnwidth}\raggedright
429       \normalsize
430       \setlength{\parskip}{6pt}
431       {\Huge\color{red}\textbf{Thank you!}}
432     \end{minipage}
433     \vspace{0.5in}
434
435     Bring digital to every person, home and organization
436     \newline
437     for a fully connected, intelligent world.
438
439     \textbf{%
440       Copyright \copyright{} \the\year{} \thecompany{}
441       \newline
442       All Rights Reserved.%
443     }
444
445     The information in this document may contain predictive
446     statements including, without limitation, statements regarding
447     the future financial and operating results, future product
448     portfolio, new technology, etc. There are a number of factors that
449     could cause actual results and developments to differ materially
450     from those expressed or implied in the predictive statements.
451     Therefore, such information is provided for reference purpose
452     only and constitutes neither an offer nor an acceptance.
453     \ifhuawei@nobraand%
454       The author%
455     \else%
456       \thecompany{}%
457     \fi
458     may change the information at any time without notice.
459   \end{center}%
460 \end{center}%
461 }\makeatother
```

\PrintBibliography Then, we define \PrintBibliography:

```
462 \makeatletter\newcommand\PrintBibliography{
463   \setlength\bibitemsep{3pt}
464   \AtNextBibliography{\small}
465   \newpage
466   \raggedright
467   \ifhuawei@landscape
```

```

468 \begin{multicols}{3}\setstretch{0.95}\printbibliography\end{multicols}
469 \else
470 \begin{multicols}{2}\setstretch{0.95}\printbibliography\end{multicols}
471 \fi
472 }\makeatother

```

Then, we set the background color of the document:

```

473 \makeatletter\ifhuawei@dark
474 \RequirePackage{pagecolor}
475 \pagecolor{black}
476 \color{white}
477 \fi

```

Then, we configure layout:

```

478 \AtBeginDocument{%
479 \raggedbottom%
480 \raggedcolumns%
481 \setlength\headheight{32pt}%
482 \setlength\footskip{32pt}%
483 \setlength\topskip{0mm}%
484 \setlength\parindent{0pt}%
485 \setlength\parskip{6pt}%
486 \setlength\columnsep{32pt}%
487 \def\arraystretch{1.5}%
488 }

```

Then, we renew a few commands:

```

489 \renewcommand\title[1]{\renewcommand\thetitle{#1}}
490 \newcommand\thetitle{\textbackslash{}thetitle}
491 \newcommand*\thecompany{Huawei Technologies Co., Ltd.}
492 \newcommand\thesubtitle{}
493 \renewcommand\author[1]{\renewcommand\theauthor{#1}}
494 \newcommand\theauthor{\textbackslash{}theauthor}
495 \newcommand*\thesecurity{Confidential}
496 \newcommand*\theid{}
497 \ifcsname nospell\endcsname\else\newcommand\nospell[1]{#1}\fi

```

## Change History

v0.1.0	General: The first draft version. . . . . 5	v0.17.0	General: All figures and tables are bordered by default. . . . . 7
v0.10.0	General: Some colors redefined. . . . . 5		All figures and tables are centered by default. . . . . 7
v0.11.0	General: The fixed-width font is rendered correctly now, without <code>ffcode</code> . . . . . 5		Smaller and sans-serif font for captions of figures. . . . . 7
v0.12.0	General: The <code>abstract</code> is now formatted correctly. . . . . 5	v0.3.0	General: The cover picture added for front pages. . . . . 5
v0.14.0	General: The <code>13build</code> is now used for build automation, instead of <code>Makefile</code> . . . . . 5	v0.4.0	General: The current time is rendered without seconds. . . . . 5
v0.15.0	General: A new package option <code>breaks</code> introduced, which forces all sections to start from a new page. . . . . 5	v0.5.0	General: The <code>DEPENDS.txt</code> file added. 5
v0.16.0	General: The <code>doi</code> tag enabled for <code>biblatex</code> . . . . . 7	v0.6.0	General: The <code>ffcode</code> and <code>href-ul</code> packages created an their code removed from this class. . . . . 5
		v0.7.0	General: The <code>authordraft</code> option is now supported. . . . . 5



# 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.

<b>Symbols</b>	<b>319, 324, 359, 367,</b>	<b>\ifhuawei@authordraft</b>
<b>\#</b> ..... 309	<b>416, 459, 460, 468, 470</b>	..... 13, 259
<b>\;</b> ..... 349	<b>\endcsname</b> ..... 497	<b>\ifhuawei@dark</b> ....
<b>\@floatboxreset</b> .... 85		..... 7, 115, 116, 473
<b>\\</b> ..... 311, 358	<b>F</b>	<b>\ifhuawei@landscape</b>
<b>A</b>	<b>\fancyfoot</b> .... 257, 286	. 23, 30, 400, 420, 467
<b>\abstract</b> ..... <u>321</u>	<b>\fancyhead</b> .... 268, 277	<b>\ifhuawei@nobrand</b> .
<b>\AddToHook</b> ..... 61	<b>\fancyhf</b> ..... 256	15, 270, 295, 299,
<b>\arraystretch</b> ..... 487	<b>\fill</b> ..... 363, 368, 371	331, 347, 378, 387, 453
<b>\AtBeginDocument</b> .. 478	<b>\floatstyle</b> ..... 81	<b>\ifhuawei@nocover</b> 19, 413
<b>\AtNextBibliography</b> 464	<b>\fontsize</b> .. 101, 104, 262	<b>\ifhuawei@nodate</b> ..
<b>\author</b> ..... 493	<b>\footnotemargin</b> .... 64	..... 17, 310, 315
<b>B</b>	<b>\footnotesep</b> ..... 65	<b>\ifhuawei@nopaging</b>
<b>\begin</b> 109, 117, 119, 120,	<b>\footskip</b> ..... 482	..... 21, 308
260, 271, 278, 287,	<b>G</b>	<b>\ifhuawei@nosecurity</b>
305, 323, 357, 364,	<b>\g@addto@macro</b> ..... 85	..... 11, 280, 292
414, 427, 428, 468, 470	<b>\geometry</b> ..... 31, 34	<b>\ifhuawei@slides</b> ..
<b>\bfseries</b> ..... 327	<b>H</b>	..... 9, 37, 99, 272
<b>\bibitemsep</b> ..... 463	<b>\headheight</b> ..... 481	<b>\ifnum</b> ..... 269, 288, 307
<b>\BLACK</b> ..... 115, 121,	<b>\headrulewidth</b> .... 255	<b>\ifx</b> ..... 293, 328,
131, 135, 140, 142, 147	<b>\huawei@anonymoustrue</b>	333, 338, 346, 348, 407
<b>\BLANK</b> ..... 116, 152	..... 26	<b>\includegraphics</b> 408, 415
<b>C</b>	<b>\huawei@authordrafttrue</b>	<b>J</b>
<b>\centering</b> ..... 85	..... 14	<b>\justify</b> ..... 371
<b>\clearpage</b> ..... 5	<b>\huawei@bar</b> . 108, 258, 405	<b>L</b>
<b>\color</b> ..... 106, 263,	<b>\huawei@darktrue</b> .... 8	<b>\large</b> ..... 329
329, 366, 374, 431, 476	<b>\huawei@header</b> ....	<b>\LoadClass</b> ..... 1
<b>\columnsep</b> ..... 486	... 98, 279, 289, 306	<b>M</b>
<b>\columnwidth</b> ... 357, 428	<b>\huawei@landscapetrue</b>	<b>\makeatletter</b> ..... 2
<b>\copyright</b> ..... 440	..... 24	... 2, 30, 37, 84,
<b>\currenttime</b> ..... 316	<b>\huawei@logo</b> ... 114, 272	98, 108, 114, 257,
<b>D</b>	<b>\huawei@nobrandtrue</b> . 16	268, 277, 286, 325,
<b>\DeclareOption</b> ....	<b>\huawei@nocovertrue</b> . 20	370, 399, 419, 462, 473
.. 3, 8, 10, 12, 14,	<b>\huawei@nodatetrue</b> . 18	<b>\makeatother</b> 28, 36, 39,
16, 18, 20, 22, 24, 26	<b>\huawei@nopagingtrue</b> 22	86, 107, 113, 252,
<b>\def</b> .... 115, 116, 406, 487	<b>\huawei@nosecuritytrue</b>	267, 276, 285, 320,
<b>\definecolor</b> .... 91,	..... 12	355, 398, 418, 461, 472
92, 93, 94, 95, 96, 97	<b>\huawei@oldsection</b> 4, 5	<b>\maketitle</b> .... <u>325</u> , 412
<b>E</b>	<b>\huawei@slidetrue</b> . 10	<b>\microtypesetup</b> .... 61
<b>\empty</b> ..... 293, 328,	<b>\Huge</b> ..... 327, 366, 431	<b>N</b>
333, 338, 346, 348, 407	<b>I</b>	<b>\newif</b> .... 7, 9, 11, 13,
<b>\end</b> . 112, 249, 250, 251,	<b>\ifcsname</b> ..... 497	15, 17, 19, 21, 23, 25
265, 273, 284, 304,	<b>\ifhuawei@anonymous</b>	<b>\newline</b> ..... 296,
	25, 290, 332, 339, 345	323, 334, 409, 436, 441

<code>\newpage</code> . . . 362, 425, 465	<code>\raggedleft</code> . 279, 306, 415	<code>\textbf</code> . 366, 375, 431, 439
<code>\newtimeformat</code> . . . . 72	<code>\raggedright</code> . . . . .	<code>\textsc</code> . . . . . 358
<code>\node</code> . . . . . 110, 261	... 289, 358, 428, 466	<code>\the</code> . . . . . 440
<code>\normalsize</code> . . . . 365, 429	<code>\relax</code> . . . . . 27	<code>\theauthor</code> . . . . 291,
<code>\nospell</code> . . . . . 497	<code>\renewcommand</code> . . . . .	338, 342, 346, 493, 494
	... 5, 255, 325, 489, 493	<code>\thecompany</code> . . . . .
<b>P</b>	<code>\renewenvironment</code> . 322	... 300, 333, 334,
<code>\PackageError</code> . . 401, 421	<code>\RequirePackage</code> . . . . .	381, 390, 440, 456, 491
<code>\pagecolor</code> . . . . . 475	... 29, 40, 41,	<code>\THEHOUR</code> . . . . . 72
<code>\pageref</code> . . . . . 309	42, 43, 44, 45, 46,	<code>\theid</code> . . 293, 348, 349, 496
<code>\pagestyle</code> . . . . . 254	47, 48, 49, 50, 51,	<code>\THEMINUTE</code> . . . . . 72
<code>\par</code> . . . . 106, 327, 329, 396	52, 53, 54, 55, 56,	<code>\thepage</code> . . . . . 309
<code>\param</code> . . . . . 406, 407	57, 59, 60, 63, 66,	<code>\thesecurity</code> . . . 281, 495
<code>\parindent</code> . . . . . 484	68, 71, 74, 75, 79,	<code>\thesubtitle</code> 328, 329, 492
<code>\parskip</code> . . . . . 430, 485	80, 87, 90, 253, 321, 474	<code>\thetitle</code> . . 327, 489, 490
<code>\PassOptionsToPackage</code>	<code>\restylefloat</code> . . . . 82, 83	<code>\tikz</code> . . . . . 110, 261
... 58, 62, 70, 73, 78, 89	<code>\rotatebox</code> . . . . . 263	<code>\title</code> . . . . . 489
<code>\path</code> . . . . . 121, 131,	<b>S</b>	<code>\today</code> . . . . . 316
135, 140, 142, 147,	<code>\scriptsize</code> . . . . . 374	<code>\topskip</code> . . . . . 483
152, 155, 167, 178,	<code>\scshape</code> . . . 262, 323, 339	<code>\TPGrid</code> . . . . . 69
192, 204, 218, 231, 239	<code>\section</code> . . . . . 4, 5	<code>\TPHorizModule</code> . 110, 261
<code>\PrintBibliography</code> <u>462</u>	<code>\selectfont</code> . 101, 104, 262	<code>\TPVertModule</code> . . . . 111
<code>\printbibliography</code>	<code>\setlength</code> . . . . . 64,	<code>\twodigit</code> . . . . . 72
... 468, 470	65, 430, 463, 481,	<b>U</b>
<code>\PrintCrumb</code> . . . . . 356	482, 483, 484, 485, 486	<code>\usepackage</code> . . . . . 38
<code>\PrintDisclaimer</code> . . 370	<code>\setlist</code> . . . . . 67	<b>V</b>
<code>\PrintFirstPage</code> . . . 399	<code>\setstretch</code> . . . . . 88,	<code>\value</code> . . . . . 269, 288, 307
<code>\PrintLastPage</code> . . . . 419	100, 103, 373, 468, 470	<code>\vspace</code> 326, 354, 359, 363,
<code>\PrintThankYouPage</code> <u>361</u>	<code>\settimeformat</code> . . . . 316	368, 371, 411, 426, 433
<code>\ProcessOptions</code> . . . . 27	<code>\sffamily</code> . . 106, 262, 374	
<b>R</b>	<code>\small</code> . . . . . 323, 464	<b>Y</b>
<code>\raggedbottom</code> . . . . . 479	<b>T</b>	<code>\year</code> . . . . . 440
<code>\raggedcolumns</code> . . . . 480	<code>\textbackslash</code> . 490, 494	