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CUSTOMIZING CLASSICthesis WITH  
THE ARSCLASSICA PACKAGE



USER MANUAL

Italian TeX and LaTeX User Group

<http://www.guitex.org/>

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The titlepage reproduces an engraving of Maurits Cornelis Escher, titled *Plane Filling with Birds* (the picture is obtained from <http://www.mcescher.com/>).

## ABSTRACT

The package changes some typographical aspects of the ClassicThesis style, by André Miede. It allows to reproduce the look of the guide *The art of writing with L<sup>A</sup>T<sub>E</sub>X* (in Italian) [Pantieri and Gordini, 2012]. The hint for the original modification of ClassicThesis was given to me by Daniel Gottschlag. The package was written for the Italian T<sub>E</sub>X and L<sup>A</sup>T<sub>E</sub>X User Group (<http://www.guitex.org/>).

## SOMMARIO

Il pacchetto modifica alcuni aspetti tipografici dello stile ClassicThesis, di André Miede. Permette di riprodurre la veste grafica della guida *L'arte di scrivere con L<sup>A</sup>T<sub>E</sub>X* [Pantieri e Gordini, 2012]. Lo spunto per l'originale rielaborazione di ClassicThesis mi è stato offerto da Daniel Gottschlag. Il pacchetto è stato scritto per il Gruppo Utilizzatori Italiani di T<sub>E</sub>X e L<sup>A</sup>T<sub>E</sub>X (<http://www.guitex.org/>).

## ACKNOWLEDGEMENTS

I wish first of all to thank the members of the Staff of the Italian T<sub>E</sub>X and L<sup>A</sup>T<sub>E</sub>X User Group, in particular Prof. Enrico Gregorio and Andrea Tonelli, for their invaluable aid during the writing of this work, the detailed explanations, the patience and the precision in the suggestions, the supplied solutions, the competence and the kindness. Thanks also to all the people who have discussed with me on the forum of the Group, prodigal of precious observations and good advices.

Finally, thanks to André Miede, for his wonderful ClassicThesis style, and to Daniel Gottschlag, who has given to me the hint for this original reworking.

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# 1

## FUNDAMENTALS

This chapter introduces the (truly simple) basic notions of ArsClassica and presents its fundamental ideas and peculiarities.

### 1.1 INTRODUCTION

The ArsClassica package changes some typographical aspects of the ClassicThesis style, by André Miede [Miede, 2011; Pantieri, 2011]. It allows to reproduce the layout of my guide *The Art of Writing with L<sup>A</sup>T<sub>E</sub>X* [Pantieri and Gordini, 2012] (in Italian) and of this document. The hint for this original reworking of ClassicThesis was given to me by Daniel Gottschlag.

### 1.2 USE OF THE PACKAGE

This package is shaped to be executed on a *complete* installation of MiK<sub>T</sub>E<sub>X</sub> or T<sub>E</sub>X Live, and uses freely available fonts. It works with the KOMA-Script classes (scrreprt, scrbook and scartcl) and requires the classicthesis package, *updated to the last version available (the 4.0)*. ArsClassica must be loaded *after* classicthesis:

---

```
\documentclass[...]{scrreprt} % or scrbook or scartcl

\usepackage[...]{classicthesis}
\usepackage{arsclassica}

\begin{document}
...
\end{document}
```

---

For example, this document has been obtained with the following code:

---

```
\documentclass[10pt,a4paper,twoside,openright,titlepage,fleqn,%
             headinclude,footinclude,BCOR5mm,%
             numbers=noenddot,cleardoublepage=empty,%
             tablecaptionabove]{scrreprt}

\usepackage{...}
\usepackage[eulerchapternumbers,subfig,beramono,%
             eulermath,pdfspacing]{classicthesis}
\usepackage{arsclassica}

\begin{document}
...
\end{document}
```

---

It is recommended, but not compulsory, to use the options beramono, eulerchapternumbers and eulermath together with ArsClassica.

### 1.3 THE STYLE

The typographical style obtained with `ArsClassica` differs from `ClassicThesis` for the following aspects:

- use of Iwona font, by Janusz M. Nowacki, for the titles of the sectioning units of the document (chapters, sections, subsections, sub-subsections, paragraphs and subparagraphs), for the labels of description lists, for the headlines and the label of the captions (`ClassicThesis` does not use any sans serif font);
- customized chapter numbers;
- semi-transparent headlines; the headlines are separated from the page number by a small rule;
- captions with labels in boldface (`ClassicThesis` does not use boldface fonts);
- itemize lists with semi-transparent bullets.

The `ArsClassica` package is conceived to provide to the user a ready-to-use typographical style: therefore it has no loading option and it is *not* configurable or customizable in any way. If you change the previous settings, you will risk to destroy the equilibrium of the style, so it is *highly recommended* to keep them unchanged.

One of the principles of  $\text{\LaTeX}$  is that it allows the author to take no interest in the typographical questions, permitting him to focus only the structure and the contents of the document. This fact should always be taken in consideration: using a style written by others, the user accepts all the typographical settings chosen for him by the author of the style, and he is not forced to study typography to fix the layout of his publications. This is the case of `ArsClassica` too: if you change its settings, you will contradict this philosophy and, consequently, you must study (a lot of) typography to obtain acceptable results.

The style obtained with `ArsClassica` is *not* therefore configurable or customizable. The typographical style is something of very personal: if you like the package and find attractive the idea to take no interest in the problem of the style definition, then you will use `ArsClassica` with satisfaction; otherwise, if you have different needs or you are not satisfied with the layout of the package, then you should try other classes or packages, even building your own style.

### 1.4 NEW COMMANDS

The package offers the `\ctLaTeX`, `\ctLaTeXe` and `\ctTeX` commands, which allow to reproduce respectively the  $\text{\LaTeX}$ ,  $\text{\LaTeX} 2_{\epsilon}$  and  $\text{\TeX}$  logos correctly written in Iwona.

### 1.5 EXAMPLES

Note: The content of this chapter is just some dummy text. It is not a real language.



(a) Asia personas duo.



(b) Pan ma signo.



(c) Methodicamente o uno.



(d) Titulo debitas.

Figure 1: Tu duo titulo debitas latente.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque.

A subsection

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

A sub-subsection

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

Table 1: Lorem ipsum dolor sit amet.

p	$\neg p$
V	F
F	V

**A PARAGRAPH** Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna.

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

**MANE** Lorem ipsum dolor sit amet, consectetur adipiscing elit.

**TEKEL** Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris.

**FARES** Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna.

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetur id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.

# 2 | THE CODE

Announcement of the package and requirement for the necessary packages.

```
1 \NeedsTeXFormat{LaTeX2e}
2 \ProvidesPackage{arsclassica}[2012/02/05 v4.0 Customizing
   ClassicThesis (LP)]
3 \RequirePackage{classicthesis}
4 \RequirePackage{caption}
```

Use of Iwona as font sans serif.

```
5 \renewcommand{\sfdefault}{iwona}
```

Customized chapter numbers.

```
6 \let\chapterNumber\undefined
7 \ifthenelse{\boolean{@eulerchapters}}{
8 {\newfont{\chapterNumber}{eurb10 scaled 5000}}%
9 {\newfont{\chapterNumber}{pplr9d scaled 5000}}
```

Small caps sans serif.

```
10 \ifthenelse{\boolean{@minionprospacing}}%
11 {%
12   \DeclareRobustCommand{\spacedallcaps}[1]{\sffamily%
13     \textssc{\MakeTextUppercase{#1}}}%
14   \DeclareRobustCommand{\spacedlowsmallcaps}[1]%
15     {\sffamily\textssc{\MakeTextLowercase{#1}}}%
16 }{%
17   \ifthenelse{\boolean{@pdfspacing}}%
18   {%
19     \microtypesetup{expansion=false}%
20     \DeclareRobustCommand{\spacedallcaps}[1]%
21       {\sffamily\textls[160]{\MakeTextUppercase{#1}}}%
22     \DeclareRobustCommand{\spacedlowsmallcaps}[1]%
23       {\sffamily\textls[80]{\scshape\MakeTextLowercase{#1}}}%
24   }{%
25     \RequirePackage{soul}
26     \sodef\allcapsspacing{\sffamily\upshape}%
27       {0.15em}{0.65em}{0.6em}%
28     \sodef\lowsmallcapsspacing{\sffamily\scshape}%
29       {0.075em}{0.5em}{0.6em}%
30     \DeclareRobustCommand{\spacedallcaps}[1]%
31       {\MakeTextUppercase{\allcapsspacing{#1}}}%
32     \DeclareRobustCommand{\spacedlowsmallcaps}[1]%
33       {\MakeTextLowercase{\textsc%
34         {\lowsmallcapsspacing{#1}}}}%
35   }%
36 }
```

Semi-transparent headlines and page numbers in Iwona.

---

```

37 \renewcommand{\sectionmark}[1]{\markright{\textsc%
38 {\MakeTextLowercase{\thesection}} \spacedlowsmallcaps{#1}}}
39 \lehead{\mbox{\llap{\small\thepage\kern1em\color{halfgray}%
40 \vline}%
41 \color{halfgray}\hspace{0.5em}\headmark\hfil}}
42 \rohead{\mbox{\hfil\color{halfgray}%
43 \headmark\hspace{0.5em}}}%
44 \rlap{\small{\color{halfgray}\vline}\kern1em\thepage}}
45 \renewcommand{\headfont}{\normalfont\sffamily}
46 \renewcommand{\pnumfont}{\small\sffamily}

```

---

Use of Iwona for the titles of sectioning units (chapters, sections, subsections, sub-subsections, paragraphs, subparagraphs) and for the labels of description lists.

---

```

47 \RequirePackage{titlesec}
48     % parts
49     \ifthenelse{\boolean{@parts}}%
50     {%
51     \titleformat{\part}[display]
52     {\normalfont\centering\large}%
53     {\thispagestyle{empty}\partname~\thepart}{1em}%
54     {\color{Maroon}\spacedallcaps}
55     }{\relax}
56     % chapters
57     \ifthenelse{\boolean{@linedheaders}}%
58     {%
59     \titleformat{\chapter}[display]%
60     {\relax}{\raggedleft{\color{halfgray}%
61     \chapterNumber\thechapter} \ \ }{0pt}%
62     {\titlerule\vspace*{.9\baselineskip}\raggedright%
63     \spacedallcaps}%
64     [\normalsize\vspace*{.8\baselineskip}\titlerule]%
65     }{%
66     \titleformat{\chapter}[block]%
67     {\normalfont\Large\sffamily}%
68     {{\color{halfgray}\chapterNumber\thechapter%
69     \hspace{10pt}\vline} }{10pt}%
70     {\spacedallcaps}}
71     % sections
72     \titleformat{\section}
73     {\normalfont\Large\sffamily}{\textsc%
74     {\MakeTextLowercase{\thesection}}}%
75     {1em}{\spacedlowsmallcaps}
76     % subsections
77     \titleformat{\subsection}
78     {\normalfont\sffamily}{\textsc{\MakeTextLowercase%
79     {\thesubsection}}}{1em}{\normalsize}
80     % subsubsections
81     \titleformat{\subsubsection}
82     {\normalfont\sffamily\itshape}{\textsc%
83     {\MakeTextLowercase{\thesubsubsection}}}%
84     {1em}{\normalsize\itshape}
85     % paragraphs

```

```

86 \titleformat{\paragraph}[runin]
87     {\normalfont\normalsize\sffamily}{\textsc%
88     {\MakeTextLowercase{\theparagraph}}}%
89     {0pt}{\spacedlowsmallcaps}
90 % descriptionlabels
91 \renewcommand{\descriptionlabel}[1]{\hspace*{\labelsep}%
92 \bfseries\spacedlowsmallcaps{#1}}
93 \titlespacing*{\chapter}{0pt}{1\baselineskip}%
94 {2\baselineskip}
95 \titlespacing*{\section}{0pt}{2\baselineskip}%
96 {.8\baselineskip}[\marginparsep]
97 \titlespacing*{\subsection}{0pt}{1.5\baselineskip}%
98 {.8\baselineskip}[\marginparsep]
99 \titlespacing*{\paragraph}{0pt}{1\baselineskip}%
100 {1\baselineskip}
101
102 \newcommand\formatchapter[1]{%
103 \vbox to \ht\strutbox{
104 \setbox0=\hbox{\chapterNumber\thechapter\hspace{10pt}\vline\
105 }
106 \advance\hsize-\wd0 \advance\hsize-10pt\raggedright
107 \spacedallcaps{#1}\vss}}
108 \titleformat{\chapter}[block]
109     {\normalfont\Large\sffamily}
110     {\textcolor{halfgray}{\chapterNumber\thechapter}
111     \hspace{10pt}\vline\ }{10pt}
112     {\formatchapter}
113
114 \rofoot[\mbox{\makebox[0pt][l]{\kern1em\the page}}]{}

```

---

Itemize lists with semi-transparent labels.

```

114 \renewcommand\labelitemi{\color{halfgray}$\bullet$}

```

---

Settings of captions.

```

115 \captionsetup{format=hang,font=small,labelfont={sf,bf}}
116 \captionsetup[table]{skip=\medskipamount}

```

---

Settings of hyperref.

```

117 \hypersetup{%
118     colorlinks=true, linktocpage=true, pdfstartpage=1,
119     pdfstartview=FitV, breaklinks=true, pdfpagemode=UseNone,
120     pageanchor=true, pdfpagemode=UseOutlines,%
121     plainpages=false, bookmarksnumbered,
122     bookmarksopen=true,%
123     bookmarksopenlevel=1,%
124     hypertexnames=true, pdfhighlight=/0,%
125     urlcolor=webbrown, linkcolor=RoyalBlue,
126     citecolor=webgreen,%
127     hyperfootnotes=false, pdfpagelabels,
128     pdfsubject={},%
129     pdfkeywords={},%
130     pdfcreator={pdfLaTeX},%
131     pdfproducer={LaTeX with hyperref and ClassicThesis}%

```

132 }

---

Some fine adjustment when the minitoc package is used.

---

```

133 \@ifpackageloaded{minitoc}
134 {%
135     \MakeLowercase{\gdef\noexpand\ptctitle{\ptctitle}}
136     \MakeLowercase{\gdef\noexpand\mtctitle{\mtctitle}}
137     \MakeLowercase{\gdef\noexpand\stctitle{\stctitle}}
138     \setlength{\mtcindent}{0pt}
139     \renewcommand{\mtifont}{\normalsize\sffamily
140         \scshape\lsstyle}
141 }
142 {}

```

---

Definition of the `\ctLaTeX`, `\ctLaTeXe` and `\ctTeX` commands, which allow to reproduce respectively the  $\text{\LaTeX}$ ,  $\text{\LaTeX}_{2\epsilon}$  e  $\text{\TeX}$  logos correctly written in Iwona.

---

```

143 \def\@ppljLaTeX{{\upshape
144     \sbox\z@{\check@mathfonts\fontsize\sf@size\z@%
145     \math@fontsfalse\selectfont A}%
146     \sbox\tw@ T%
147     L\kern-.55\wd\z@
148     \vbox to\ht\tw@{\copy\z@\vss}%
149     \kern-.25\wd@
150     \ctTeX}}
151 \def\@ppljTeX{{\upshape T\kern -.08em \lower .3ex\hbox{E}%
152 \kern -.08em X}}
153
154 \def\@ppljscLaTeX{{\upshape\scshape
155     \sbox\z@{\check@mathfonts\fontsize\sf@size\z@%
156     \math@fontsfalse\selectfont a}%
157     \sbox\tw@ t%
158     l\kern-.6\wd\z@
159     \vbox to\ht\tw@{\copy\z@\vss}%
160     \kern-.25\wd@
161     \ctTeX}}
162 \def\@ppljscTeX{{\upshape\scshape t\kern -.085em
163 \lower .25ex\hbox{e}\kern -.085em x}}
164
165 \def\@iwonaLaTeX{{\upshape
166     \sbox\z@{\check@mathfonts\fontsize\sf@size\z@%
167     \math@fontsfalse\selectfont A}%
168     \sbox\tw@ T%
169     L\kern-.5\wd\z@
170     \vbox to\ht\tw@{\copy\z@\vss}%
171     \kern-.2\wd@
172     \ctTeX}}
173 \def\@iwonaTeX{{\upshape T\kern -.12em \lower .3ex\hbox{E}%
174 \kern -.12em X}}
175
176 \def\@iwonascLaTeX{{\upshape\scshape
177     \sbox\z@{\check@mathfonts\fontsize\sf@size\z@%
178     \math@fontsfalse%

```

```

179 \selectfont a}%
180 \sbox\tw@ t%
181 l\kern-.5\wd\z@
182 \vbox to\ht\tw@{\copy\z@\vss}%
183 \kern-.2\wd@
184 \ctTeX}}
185 \def\@iwonascTeX{{\upshape\scshape t\kern -.1em
186 \lower .25ex\hbox{e}\kern -.1em x}}
187
188 \def\ct@sc{sc}
189 \def\ctTeX{\csname @\f@family\ifx\@shape\ct@sc sc%
190 \fi TeX\endcsname}
191
192 \DeclareRobustCommand\ctLaTeX{%
193 \texorpdfstring{\textls[1]{\csname @\f@family\ifx%
194 \@shape\ct@sc sc\fi LaTeX\endcsname}}{LaTeX}}
195 \DeclareRobustCommand\ctLaTeXe{%
196 \texorpdfstring{\textls[1]{\ctLaTeX\csname @\ifx%
197 \@shape\ct@sc sc\fi twoe\endcsname}}{LaTeXe}}
198
199 \def\@twoe{\kern.1em$\m@th2_{\textstyle\varepsilon}$}
200 \def\@sctwoe{\kern.15em$\m@th{\scriptscriptstyle2}%
201 _\varepsilon$}
202
203 \DeclareRobustCommand\ctTeX{%
204 \texorpdfstring{\textls[1]{\@ctTeX}}{TeX}}
205
206 \def\toc@headingbkORrp{%
207 \def\toc@heading{%
208 \chapter*{\contentsname}%
209 \@mkboth{\spacedlowsmallcaps{\contentsname}}
210 {\spacedlowsmallcaps{\contentsname}}}}
211 \@ifclassloaded{scrreprt}{\toc@headingbkORrp}{}
212 \@ifclassloaded{scrbook}{\toc@headingbkORrp}{}

```



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