The **chletter** Document Class *

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*This document corresponds to \texttt{chletter} v2.0, dated 2010/10/10.*
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# 6 Letter template

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1 Introduction

The chletter class is suited for typesetting letters with letterhead corresponding to the swiss norm SN 010130.

The default letterhead is set according to Swiss rules. It fits into both right and left windowed ISO 269 C5 and C6/5 envelopes.

This class is mostly compatible with the standard \LaTeX\ classes. It is not limited to letters and may be used as a generic document class.

Its basic usage is very simple and user friendly. It is appropriate to quickly typeset casual documents and letters.

It is however highly configurable and may be used within complex setups to provide automated letters composition.

2 Usage

The following examples describe the regular usage of the chletter class. Basically, this class behaves in a similar way to a standard class and accepts the regular letter commands, including the dedicated letter environment. Much like with standard classes, the only mandatory commands are \documentclass and the document environment (\begin{document} and \end{document}).

2.1 A basic letter

This example shows the plain usage of the chletter class. \author, \address and \date are markup commands which store global values used to build the letterhead. The letter environment actually creates the letter with its letterhead and all the needed layout. \opening, \closing, \encl and \cc are mainly formatting commands. To have multiple lines in a field, one may use \newline (shortcut \ as in this example) or \par (shortcut is an empty line).

Please note that this example would also compile straightforward with the standard letter class (giving a somewhat different output).

\documentclass[chletter]
\begin{document}
\begin{letter}{Name\Address\City}
\opening{Salutation,}
Hello World!
\closing{Valediction.}
\encl{enclosures}
\cc{other recipients}
\end{letter}
\end{document}
Figure 1: Standard letter output by chletter.
2.2 A customized letter

This example provides a good overview of the different class options and macros. The `leftwin` option is to be used with a left windowed envelope, inverting the sender’s and recipient’s addresses. The `leftsig` option places the signature against the left body margin. The `foldmark` option will include a thin line to help folding of C6/5 letters. The `footfill` option will throw the letter foot against the document footer, for refined vertical balancing.

`\makelabels` creates an additional envelope page with only the recipient’s address and the sender’s return address. `\addresswidth` adjusts the letterhead layout (here it is computed to right align the date field, mimicking the standard letter class behaviour). `\location, \name, \return` and `\telephone` are supplementary markup commands. `\object` and `\ps` are extra layout commands. `\longindentation` (which is also provided by the standard letter class) enables alignment of the text with the addresses.

Please note that lines with a comment (\%) should be removed to allow compilation with the standard letter class.

```latex
\documentclass[leftwin,leftsig,foldmark,footfill]{chletter}
\settowidth\addresswidth{\today} %
\makelabels
\location{Our Company}
\name{My name}
\return{\fromlocation, My address, My city} %
\address{My address\My city}
\telephone{My phone\My email}
\signature{My signature\footnotesize My position}
\title{\textbf{About the \textsf{chletter} document class}}

\begin{document}
\begin{letter}{Name\Address\City}
\object %
\opening{Dear \toname,}
Body text.
\closing{Yours truly,}
\encl{Enclosures}
\cc{Other recipients}
\ps{P. S.}{Don’t forget\par\hspace{\longindentation}long indentation!}
\end{letter}
\end{document}
```
About the \texttt{chletter} document class

Dear Name,

Body text.

Yours truly,

My signature

My position

encl Enclosures

cc Other recipients

P. S. Don’t forget

long indentation!

Figure 2: Customized letter output by \texttt{chletter}. 
Figure 3: Cover page output by chletter.
3 Compatibility

The chletter class is based upon the standard classes of the \texttt{LATeX 2\epsilon} distribution. Many documents founded on these classes will also compile with \texttt{chletter}.

3.1 With the \texttt{LATeX 2\epsilon letter class}

The chletter class is `source compatible’ (ascending) with the standard letter class. For the most part a file which compiles with letter will recompile straightforward with chletter. There are however some functional differences, which are described in the following sections.

3.2 With other \texttt{LATeX 2\epsilon classes}

The chletter class is largely `source compatible’ (ascending) with other standard \texttt{LATeX 2\epsilon} classes. It doesn’t implement the sectioning mechanism, but accepts the related commands (\texttt{section} for example). Some commands behave differently (\texttt{maketitle} for example). Obviously, any command specific to the chletter class will prevent compilation with other classes.

3.3 With older versions of chletter

The chletter class has been completely overhauled between versions 1.0 and 2.0. The new code is far more compact and efficient, so is its usage (the commands no more have a plethora of optional arguments). The versions of the class are mostly `source compatible,’ given the deprecated commands are not used: \texttt{\conc} (replaced by \texttt{\object}), \texttt{\letterindent}, \texttt{\letterskip}, \texttt{\fromheight} (replaced by \texttt{\titletopheight}), \texttt{\toheight} (replaced by \texttt{\titlemidheight}) and \texttt{\stockheight} (replaced by \texttt{\titlebotheight}). To add a `compilability layer’, the following code can be inserted in the preamble:

\begin{verbatim}
\newcommand{\conc}[2]{\object{#2}}
\let\letterindent\parindent
\let\letterskip\parskip
\let\fromheight\titletopheight
\let\toheight\titlemidheight
\let\stockheight\titlebotheight
\end{verbatim}

3.4 With upcoming versions of chletter

The chletter class is now considered mature and won’t evolve further (the code is frozen). The class has been thoroughly tested, and there are no known deficiencies.

3.5 With other packages

The chletter class is generic in the sense that it doesn’t rely on anything but the \texttt{LATeX 2\epsilon} kernel. There is no known command clash with any package.

Please note that a \texttt{chextras} companion package is available (but not mandatory). It simplifies the preparation of documents and letters by loading and setting up font, linguistic and other common packages. It also implements a `glue code’ for full source compatibility with older chletter v1.0 documents.
4 Configuration

The default values used by the chletter class are balanced for casual writing of simple articles (the class can eventually replace the standard article class) and letters (of course). Nevertheless this class is highly configurable and customizable.

4.1 Class options

The chletter class accepts the options provided by the \LaTeX\ 2e default classes. These options are: a4paper, a5paper, b5paper, letterpaper, legalpaper, executivepaper, landscape, 10pt, 11pt, 12pt, oneside, twoside, draft, final, leqno, fleqn, onecolumn, twocolumn. The defaults are: a4paper, 10pt, oneside, final, onecolumn. Additionally, the chletter class provides four extra options (described just below) to adjust the general layout of the letters.

- \leftwin\leftwin places the recipient’s address to the left of the letterhead rather than to the right. \leftsig\aligns the signature with the left body margin rather than with the right address. \foldmark\foldmark puts a thin line to help folding of C6/5 letters.
- \footfill\footfill adds an infinite glue between the signature and the letter foot.

4.2 Page layout

The default page layout provided by the chletter class, while generic enough, leaves more place for the text than the standard classes do.

\textwidth 416pt \[5.75in or 14.5cm]\]
\textheight 630pt \[8.75in or 22cm]\]
\oddsidemargin 36pt \[.5in or 1.25cm]\]
\evensidemargin 0pt\]

\titlehead \[These values are used for the letterhead layout. They are related to the \TeX\ origin, which is (1in, 1in) from the top left corner of the page. Please remember that 1in = 72.27pt. \titlehead controls the vertical placement of the first baseline of the letterhead. \titlemargin and \titlewidth control the horizontal position and width of the letterhead. \addressmargin is where the title is split in two. \addresswidth is the width of the right address fields. The title is built by opening a letter environment or by calling directly \maketitle. For A4 paper, the defaults are the following (values in inches and centimeters are rounded):\]

\titlehead 12pt \[.16in or .4cm]\]
\titletopheight 72pt \[1in or 2.5cm]\]
\titlemidheight 72pt \[1in or 2.5cm]\]
\titlebottomheight 72pt \[1in or 2.5cm]\]
\titlemargin 0pt\]
\titlewidth 452pt \[6.25in or 16 cm]\]
\addressmargin 262pt \[3.625in or 9.25cm]\]
\addresswidth 190pt \[2.625in or 6.75cm]\]
Figure 4: The default chletter layout.
4.3 The letter environment

The letter environment performs some special actions in the scope of writing letters. At its beginning, it generates the letterhead according to its arguments and some previously defined values (see below). The letter environment takes in account some global options, for example twocolumn... so yes, it is possible to write two column letters! At its closing, the letter environment generates a cover page if needed (see below).

The letter environment takes one ‘mandatory’ argument: the recipient’s address. The address should be formatted with newline markers (\) as in the standard letter class. The argument is ‘tokenized’ into \toname and \toaddress, which can be used in the letter body. The ‘token separator’ is the first encountered \. Please note that an invocation of the letter environment without argument will retrieve previously defined \toname and \toaddress values (empty by default).

There is an optional argument to specify if the letter is to be indented [i] or not [n] where [n] is the default. Please note that this option will alter the formatting of general \LaTeX{} lists and chletter \ps, \cc and \encl commands (see below).

It is possible to open multiple letter environments within a single document. Global values may be shared between each letter (see next page). Please remember that environments involve some locality; for example a length value altered within a letter environment will recover its initial value outside of the environment.

An ordinary usage would be:

\begin{letter}[i]{ToName\ToAddressFirstLine\ToAddressLastLine}
...
\end{letter}

4.3.1 Cover page

Unlike the standard letter class, this macro doesn’t involve a complex mechanism using the .aux file to build a labels page (the main reason why the standard class is fragile). Anyway, the chletter class provides a way to generate dedicated cover pages. The \makelabels command will set a flag which is checked at the closing of the letter environment. The default behaviour is to put the recipient’s address and, as requested by the Swiss post, the return address above it, separated by a line. \makelabels doesn’t take any argument.

4.3.2 Page breaking

These commands are intended to (try to) control the place where a page break occur. They may be used anywhere in a document.

\stopbreaks \stopbreaks will try to prevent all page breaks after its invocation.
\startbreaks \startbreaks cancels the behaviour of \stopbreaks.

4.3.3 Letter counter

\theletter At each new letter environment opened, this counter is incremented. Please note that thepage and thefootnote counters are reset at the same time.
4.3.4 Letter markup

The commands described here are usually put in the preamble, but they may be called from anywhere in the document. They store their argument in associated values which will be retrieved by the letter environment, for example to build the letterhead. They are common to a bunch of letter classes.

- \name
- \address
- \location
- \telephone
- \return

The values stored by these commands are respectively: \fromname, \fromaddress, \fromlocation, \telephonenumber and \returnaddress. \telephone and \return will format their output (respectively small text and underlined superscript text).

Please note that \return is not defined in the standard letter class. These values are used to build the expeditor’s address fields:

\name{My Name}
\address{My Street\My City}
\return{My Return Address}

\date The date field (stored by kernel \@date value) can be customized by, for example:
\date{Here, \today}

\signature The value stored by this macro is \fromsig, which is used by the \closing command to output the signature field (see below).

Please note that \fromname and \fromsig values default to \@author (initialized by \LaTeX, modified by the standard \author command). The \@date field defaults to \today, which will be localized by a linguistic package (\babel or \polyglossia).

To prevent any value from appearing, it has to be emptied by the corresponding command, for example: \date{}.

These macros can contain anything that fits in a \parbox, including some special stuff (using dedicated packages): \location{\includegraphics{mylogo.pdf}}

Any of the values stored by these commands can be retrieved anywhere in the letter (given the corresponding value is accessible, \@author and \@date requiring a \makeatletter): I, \fromname, declare...

4.3.5 Letter body

These commands are mostly used within a letter environment, but they may be called at document level for special purpose. Their foremost intend is formatting, although they are able to retrieve or store their value at will.

\object

This command will simply output the text given in its argument, followed by a \bigskip. The \object command stores its argument in \@title and actually outputs it. If the argument is either empty or null, then the \object command will output the value of \@title previously set by a \title command. Remember that the default \@title value is an error (set by the \LaTeX kernel):

\title{Answer to your previous letter}
...
\begin{document}
\begin{letter}{}
\begin{object}{...}
\object
Please note that the following code is functionally equivalent (the \@title value set by both methods is global (available outside of the current letter environment):
\begin{document}
\begin{letter}{...}
\object{Answer to your previous letter}
\opening{This command outputs the text given in its argument (adding a \medskip vertical space after it)}:
\opening{Dear Sir,}

It stores its argument in \salutation for further use. \salutation can also be defined previously and be recalled by an \opening with an empty or null argument:
\renewcommand{\salutation}{Dear Sir,}
...
\begin{document}
\begin{letter}{...}
\opening

\closing{This command issues a \medskip, outputs the text given in its argument and generates the signature field, which should provide its own vertical spacing (by default it is 4\bigskip above the signature and 2\bigskip below):}
\closing{Yours sincerely,}

The signature field placement can be altered by invocation of leftsig as a class option. The signature field will contain the value defined by:

- \fromsig (set by \signature{...}) in the first place;
- \fromname (set by \name{...}) if no \signature given;
- \@author (set by \author{...}) if no \name given (eventually empty).

The \closing macro stores its argument in \valediction for later use. As usual, the \valediction value can also be defined before and be output by an invocation of \closing with an empty or null argument:
\renewcommand{\valediction}{Yours sincerely,}
\begin{document}
\begin{letter}{...}
...
\closing{}

Depending on the class option footfill, an extra vertical glue will be added after the signature, in order to balance the appearance of the letter foot. footfill pushes the letter foot text against the document footer (usually the the letter foot is filled by the \ps, \encl and \cc commands). Please note that for a weaker balance a \vfil could be manually added after the \closing command.

Be aware of the locality of macros. \salutation and \valediction values are local to the current letter environment if defined within the environment (usually by \opening and \closing commands), global otherwise. Please look at the \LaTeX documentation for further explanations.
4.3.6 Letter foot

Some formatting commands are intended to be used at the end of the letter (although they can be used anywhere in the document, even outside of a letter environment—just as any formatting command provided by the \texttt{chletter} class).

\texttt{ps} This command is generic in the sense that it is nothing but a shortcut for a \LaTeX\ list. It takes two mandatory arguments. The text contained in the arguments is output as an indented paragraph. The indentation margin is set by the standard \LaTeX\ \texttt{leftmargin} value (which defaults to 18pt at document level, 0pt after the \texttt{closing} of a default letter and 36pt after the \texttt{closing} of an indented [i] letter). Here is an example use:

\begin{verbatim}
\ps{P.S.}{This is a post scriptum}
\end{verbatim}

\texttt{encl} This command is a shortcut for \texttt{ps\{enclname\}} and takes one mandatory argument. Regular use is:

\begin{verbatim}
\encl{1. Your previous letter\par 2. My Curriculum Vit\ae\}
\end{verbatim}

\texttt{cc} This command is a shortcut for \texttt{ps\{ccname\}} and takes one mandatory argument. Regular use is:

\begin{verbatim}
\cc{1. First other recipient\par 2. Second other recipient}
\end{verbatim}

\texttt{enclname} and \texttt{ccname} are set to \{encl\}, respectively \{cc\} by default. They will be adjusted by a linguistic package (babel or polyglossia).

4.4 Sectioning

The class is intended to output short documents (mainly letters!), so the sectioning mechanism is minimalist (no index nor table of contents generation). The stock sectioning commands are here: \texttt{section}, \texttt{subsection}, \texttt{subsubsection}, \texttt{paragraph}, \texttt{subparagraph}, but are merely formatting commands which select some text style and vertical space. As usual, these commands take one mandatory argument.

4.5 Environments

These environments are available and behave as ordinary in the \texttt{chletter} class.

\begin{verbatim}
\description{1. Your previous letter\par 2. My Curriculum Vit\ae\}
\end{verbatim}

The default list values (at document level) are: \texttt{\labelsep6pt}, \texttt{\labelwidth12pt}, \texttt{\leftmargin18pt}. Please note that \texttt{\labelwidth} and \texttt{\labelsep} are redefined by a \texttt{\closing} command to \texttt{\leftmargin2\parindent}, \texttt{\labelwidth3\labelwidth}.

4.6 Paragraphing

\begin{verbatim}
\parindent and \parskip respectively default to 18pt and 9pt at document level.
\end{verbatim}

If a letter environment is called with the [i] option, \texttt{parindent} is kept at its previous value. With the default [n] option, \texttt{parindent} is locally set to 0 (zero).

Please note that the actual value of \texttt{parindent} while a \texttt{\closing} command is issued will alter the layout of \LaTeX\ lists (in fact \texttt{ps}, \texttt{encl} and \texttt{cc} are lists): the \texttt{leftmargin} value (which defaults to 18pt) is then defined as three times the value of \texttt{parindent} (thus 0pt for a default letter and 36pt for an indented letter).
5 Implementation

The chletter code is fairly compact (less than 300 lines) and highly optimized (it relies on \TeX primitives wherever practical), dropping the obsolete legacy (namely \B\TeX 2.09) for the sake of efficiency.

Apart from the options described until now, it is possible (and allowed!) to ‘hook’ into certain pieces of the class code. This enables a degree of customization and extensibility. It would be quite straightforward to add, for example, mail merging features through a dedicated package.

5.1 Initial code

1 (*chletter.cls)
2 \NeedsTeXFormat{LaTeX2e}
3 \ProvidesClass{chletter}[2010/10/10 v2.0 Swiss letter document class]

5.1.1 Declaring options

leftwin There are four specific options: leftwin, leftsig, foldmark and footfill, corresponding to the format of the letter (left envelope window, left signature, folding mark for C6/5 covers, letter foot balancing). The default is to not set any of these options. All other options are borrowed from the standard classes.

4 \DeclareOption{a4paper}{\paperheight297mm\paperwidth210mm}
5 \DeclareOption{a5paper}{\paperheight210mm\paperwidth148mm}
6 \DeclareOption{b5paper}{\paperheight250mm\paperwidth176mm}
7 \DeclareOption{letterpaper}{\paperheight11in\paperwidth8.5in}
8 \DeclareOption{legalpaper}{\paperheight14in\paperwidth8.5in}
9 \DeclareOption{executivepaper}{\paperheight10.5in\paperwidth7.25in}
10 \DeclareOption{landscape}
11 {\@tempdima\paperheight\paperheight\paperwidth\paperwidth\@tempdima}
12 \DeclareOption{10pt}{\def\@ptsize{0}}
13 \DeclareOption{11pt}{\def\@ptsize{1}}
14 \DeclareOption{12pt}{\def\@ptsize{2}}
15 \DeclareOption{oneside}{\@twosidetrue\@mparswitchfalse}
16 \DeclareOption{twoside}{\@twosidetrue\@mparswitchtrue}
17 \DeclareOption{draft}{\overfullrule5\p@}
18 \DeclareOption{final}{\overfullrule\z@}
19 \DeclareOption{leqno}{\input{leqno.clo}}
20 \DeclareOption{fleqn}{\input{fleqn.clo}}
21 \DeclareOption{onecolumn}{\@twocolumntrue\@leftsigtrue}
22 \DeclareOption{twocolumn}{\@twocolumntrue\@leftsigfalse}
23 \DeclareOption{leftwin}{\@leftwintrue}
24 \DeclareOption{leftsig}{\@leftsigfalse}
25 \DeclareOption{foldmark}{\@foldmarkfalse}
26 \DeclareOption{footfill}{\@footfilltrue}

These booleans will be evaluated at the end of the class code. They are false until the associated option is selected.

27 \newif\if@leftwin
28 \newif\if@leftsig
29 \newif\if@foldmark
30 \newif\if@footfill
5.1.2 Executing options
Swiss letters are written on A4 paper. Default font size is 10pt, like in other standard classes. Other switches are set at kernel level.

\ExecuteOptions{a4paper,10pt}
\ProcessOptions\relax
Loading this .clo file leads to a lot of redundancy. But we want compatibility.
\input\expandafter{\@ptsize.clo}

5.1.3 Loading packages
The chletter class does not load additional packages.

5.2 Document layout
This class tries to provide quite a universal layout, not only suitable for letters, but also for other types of short documents. There are anyway some values specific to letters, principally the letterhead values.

5.2.1 Letter counter
\newcounter{letter}
Each time a letter is created by a letter environment, this counter is incremented.

5.2.2 Letter dimensions
These dimensions concern the letterhead, where \titlehead is the absolute position of its first baseline. The title matter is vertically stacked in three strips, each one with its own height. \titlemargin is the absolute position of the letterhead margin, to which the letterhead matter is relative. \longindentation and \indentedwidth are to be used within a letter environment and will be computed on the fly by \maketitle, along with \addressmargin or \addresswidth.
\newdimen\titlehead
\newdimen\titletopheight
\newdimen\titlemidheight
\newdimen\titlebotheight
\newdimen\titlemargin
\newdimen\titlewidth
\newdimen\addressmargin
\newdimen\addresswidth
\newdimen\longindentation
\newdimen\indentedwidth

5.2.3 Paragraphing
We prefer inter paragraph skips in a letter. Swiss letters are rarely indented but the letter environment offers an option to do so. Indentation is still enabled at document level. Setting \normallineskip to zero prevents layout inconsistencies.
\parskip9\p@
\parindent18\p@
\normallineskip\z@
5.2.4 Page layout

All dimensions are measured from a point 1in from the top left corner of the page. Remember that 1in = 72.27pt = 2.54cm = 72bp = 65536sp.

Regarding the header, 12pt (more or less one line) are reserved, plus 24pt spacing before the main text. The footer space is 36pt, including body to footer gap.

\textwidth\paperwidth
\advance\textwidth-9536004sp
\titlewidth\textwidth
\advance\textwidth-36\p@
\textheight\paperheight
\advance\textheight-14093310sp

The left margin of the odd pages is set to 1in + 36pt (more or less 4cm). Sizes of the marginal notes are adapted to quite small margins. Top margin is set to zero.

\oddsidemargin36\p@
\evensidemargin\z@
\marginparwidth48\p@
\marginparsep6\p@
\marginparpush6\p@
\topmargin\z@

The footnotes values are somewhat larger than the default.
\footnotesep12\p@
\skip\footins12\p@

5.2.5 Title layout

What we call ‘title’ here is the letterhead, with the addresses fields and all this kind of stuff. Title is always placed on an odd page at an absolute position.

The vertical position of the title is controled by the \titlehead value (by analogy with \headheight which sets the first baseline of the running head). Please note that letterhead position is not altered by anything but \titlehead (for example it is independant from the \topmargin value).

\titlehead\titletopheight\titlemidheight\titlebotheight

The title (letterhead or cover) field is divided into three strips, each one containing some material. For example, the first field could contain the sender’s address, the second one the recipient’s address and the third one the letter’s date. Obviously the total letterhead height is the sum of these three values (216pt by default).

\titletopheight72\p@
\titlemidheight72\p@
\titlebotheight72\p@
The horizontal position of the title is controlled by \titlemargin which is set to 0pt by default. \titlewidth has already been set as \textwidth + 36pt.

These values are to be computed on the fly by \maketitle depending on user input and actual \titlewidth value. If \addressmargin is defined by the user, then the formula \titlewidth = \addressmargin + \addresswidth will be applied to \addresswidth, otherwise it will be applied to \addressmargin.

5.2.6 Page styles

The default page styles are here, but their layout differ from the standard classes.

5.3 Document markup

These user commands are common to all usual letter classes.

5.3.1 Global declarations

These macros work exactly the same way as with the standard letter class. They don’t output anything, but just define an associated word containing their argument. The layout of \telephonenum (small text) and \returnaddress (underlined small text) is specific to this class and somewhat tricky, intended to manage the best possible appearance. Please note that the default contents of the associated words will be defined later.
The \makelabels command defines a \startlabels macro, which causes cover
pages to be added at the end of each letter. See next page for more information.

\makelabels
\startlabels
\def\makelabels{
def\startlabels{
\let\titletopmatter=\empty
\let\titlebotmatter=\empty
\let\foldmark=\empty}}

\maketitle
This artful piece of code actually outputs the letterhead stuff. \maketitle is always
called at the opening of the letter environment, and at its closing if the
\startlabels flag is not \@null. It outputs the content of \titletopmatter,
\titlemidmatter, \titlebotmatter in three horizontal strips stacked vertically.
These strips have respective heights of \titletopheight, \titlemidheight,
\titlebotheight and are always placed on a new odd page at an absolute po-
sition given by \titlehead and \titlemargin. The width of the strips is given
by \titlewidth. \longindentation and \indentedwidth are computed here, so are
\addressmargin and \addresswidth which are used by \splitfield. Some
dedicated mechanism deals with the \twoside and \twocolumns cases (the letter-
head is always issued on a clear odd page), executing the \@maketitle auxiliary
macro. The \foldmark macro is called at the end of the letterhead.
\def\maketitle{
\ifdim\addressmargin=\z@\else\addresswidth=\titlewidth\else\fi
\advance\addressmargin-\addresswidth\advance\addresswidth=\titlewidth\advance\addresswidth-\addressmargin\fi
\if@twoside\ifodd\c@page\else\thispagestyle{empty}\hb@xt@\z@\{}\clearpage\fi\fi
\if@twocolumn\twocolumn\[
@maketitle\leavevmode\vskip-\topskip\]
\else\vbox{\@parboxrestore\@maketitle}\vskip-\parskip\fi
\advance\longindentation=\addressmargin
\indentedwidth=\textwidth
\advance\indentedwidth=\longindentation}
\def\@maketitle{
\vskip-\topmargin\vskip-\baselineskip\vskip\titlehead\vskip-\headheight\vskip-\headsep
\leftskip=\longindentation\rightskip=\textwidth
\advance\rightskip=\paperwidth
\advance\rightskip=\titlemargin\parbox[t]{\titlewidth}{\hb@xt@\z@\{}\titletopmatter\strut\par}
\parbox[t]{\titlewidth}{\hb@xt@\z@\{}\titlemidmatter\strut\par}
\parbox[t]{\titlewidth}{\hb@xt@\z@\{}\titlebotmatter\strut\par}
\leftskip=\oddidemargin\advance\leftskip-1in\parbox[b]{\z@}{\paperwidth}{\foldmark}\par}
5.3.2 The letter environment

The letter environment is the foremost part of a letter. It takes the recipient’s address as mandatory argument and `{i}` (default is `[n]`) as optional argument to set the `\parindent` value within the group represented by the environment. The first part of the code manages these arguments. It is sturdier than the standard \LaTeX\ `\newenvironment` in the sense that, for example, the mandatory argument is not... mandatory! At its opening, the letter environment tokenizes its mandatory argument into two fields, `\toname` and `\toaddress` (token separator is the first encountered `{\`). If the argument is null (`\begin{letter}{}` or `\begin{letter}`), these values won’t be modified and thus may be defined before the opening of the environment, hence the easy mail merging extension. Then `\maketitle` is called to output the letterhead (the first page of the letter is always issued on a clear odd page, leaving a blank page if necessary in two sided documents). The `\pagestyle` of the first letter page is set to `firstpage` and the letter counter is incremented, while the `page` and `footnote` counters are reset.

```
\def\letter{\futurelet\@let@token\ch@let}
def\ch@let{
\ifx\@let@token[\expandafter\@letter\else\expandafter\ch@lea\fi}
\long\def\ch@lea#1 {\@letter[n]{#1} }
\long\def\@letter[#1]#2{
\ifx#1n\parindent\z@\fi\ifx\@null#2\else\@processto#2@@@\fi\ifx\@empty\toaddress\else\@processto#2@@@\fi
\maketitle\thispagestyle{firstpage}
\global\c@page\@ne\global\c@footnote\z@\global\advance\c@letter\@ne}
\long\def\@processto#1\#2@@@{
def\toname{#1}\def\toaddress{#2}}
```

At its closing, the letter environment removes the last skip, then checks for the definition of `\startlabels`. If undefined, nothing but a `\clearpage` happens. If defined, its contents is executed (usually a redefinition of `\titletopmatter`, `\titlemidmatter` and `\titlebotmatter`) and the `\maketitle` macro is called, taking the `\twoside` case in account (which may produce additional empty pages), then issuing a new page (intended to be a cover) followed by a `\clearpage`.

```
\def\endletter{\removelastskip\ifx\startlabels\undefined\else\startlabels\maketitle\thispagestyle{empty}\fi\clearpage}
```

5.3.3 Page breaking control

When the command `\stopbreaks` is issued no page breaks should occur until `\startbreaks` is called. These macros are used by the `\closing` command.

```
\def\stopbreaks{\interlinepenalty\@M\def\par{\@@par\nobreak}}
\def\startbreaks{\interlinepenalty100\def\par{\@par}}
```

5.3.4 The generic letter commands

Unlike the standard letter class, the `\opening` command doesn’t generate the letterhead (this is done at the opening of the letter environment or by a direct call of `\maketitle`). The content of `\salutation` is either locally filled with the mandatory argument or recalled if the argument is null (either `\opening{}` or `\opening` without argument, look at the neat argument handling code), then output. The `\medskipamount` value controls the vertical spacing.
The `\closing` command is to be called at the end of the letter body. It generates the valediction and the signature. Much like the `\opening` command, its argument either fills or retrieve a value, here `\valediction`. A `\medskip` is issued, page breaking is prevented and `\closingmatter` is added. `\closingmatter` is defined according to the class option `leftsig` and could be completely customized.

The `\object` macro outputs the content of `@title`, either previously defined by a `\title` command or filled by a non empty argument (see `\opening` for an explanation of this behaviour). The `\bigskipamount` value controls the vertical spacing. Styling is left to user’s preference, for example: `\object{\textbf{...}}`.

`\ps`, `\cc`, and `\encl` are further shortcuts, using respectively `\ccname` and `\enclname` as label. There is a trick involved here: the list behaviour is altered after a `\closing` command (see `\closingmatter`); by these means the letter foot benefit from the powerful list feature while the lists defaults are kept at convenient values for use within the letter body.

### 5.3.5 Sections and paragraphs

Some sectioning commands are defined, but they are merely formatting commands. So there is no section numbering nor index and table of contents generation.

### 5.3.6 Environments

This code is borrowed from the standard classes. Please look at the \LaTeX 2ε documentation for further explanation. Remember that all these environments are lists which will be formatted according following the general lists parameters.
5.3.7 Lists

This code is borrowed from the standard classes. Please look at the \LaTeX\ documentation for further explanation. Please also note that list nesting is limited to four levels (seems to be enough for a letter).
5.4 Default settings

As in other classes, some values are set here rather than at kernel level. The values used by the \chletter class are as generic as possible.

5.4.1 Lists

\labelsep, \labelwidth, \leftmargin

These default values are defined at document level and altered by \closingmatter (see next page) in the following manner: \labelwidth3\labelsep (usually 18pt), \leftmargin2\parindent (36pt in an indented letter, 0pt in a default letter).

5.4.2 Environments

Exactly as in the standard classes.

5.4.3 Framed boxes

Apart from their ordinary application, the values defined here are used by the default \foldmark macro defined by the foldmark class option.

5.4.4 Footnotes

Light is right! This definition is minimalist, at the same time sensible.

5.4.5 Letter

Some specific letter values are initialized here.

\fromname, \fromsig, \fromaddress, \fromlocation, \telephonenum, \returnaddress

\fromname is not empty by default, so is \fromsig: they contain the \@author value, which is defined at kernel level to output nothing but a warning message (no author given). \@author will be modified by the \LaTeX \author command. \fromlocation and \fromaddress are somewhat redundant, but they may be used for special purpose. \returnaddress should also output nothing by default, but it has to leave an empty line, hence the \null trick (actually an empty \hbox).

223 \def\fromname{\@author}
224 \def\fromsig{\@author}
225 \let\fromlocation=\empty
226 \let\fromaddress=\empty
227 \let\telephonenum=\empty
228 \def\returnaddress{\null}
\toname These values retrieved or adjusted at the opening of a letter environment. They are initialized here to prevent an error in certain condition.
\toaddress
\salutation These values are retrieved or adjusted respectively by the \opening and \closing commands. They are initialized here to prevent an error in certain condition.
\valediction
\let\toname\@empty
\let\toaddress\@empty
\let\salutation\@empty
\let\valediction\@empty

5.4.6 Words
\ccname
\enclname
\pagename
\headtoname
These words are common to the common letter classes. They will be adjusted by the linguistic packages (babel or polyglossia). \ccname and \enclname are used respectively by the \cc and \encl macros; while \pagename and \headtoname are used within \pagestyle layouts and some additional packages.
\def\ccname{cc}
\def\enclname{encl}
\def\pagename{Page}
\def\headtoname{To}

5.4.7 Date
\today The @date field, which appears in the letterhead, defaults to \today. The \today value will be adjusted by the linguistic packages (babel or polyglossia).
\def\today{
\ifcase\month
January\or February\or March\or April\or May\or June
or July\or August\or September\or October\or November\or December\fi
\space\number\day, \number\year}

5.4.8 Two column mode
\columnsep This is tricky! The idea is to align the columns with the addresses. In a default A4 letter, the second column will align with the recipient’s address and the date.
\columnsep36\p@

5.4.9 The page style
We have \pagestyle{plain} pages in this document class (except the letterhead page which has \thispagestyle{firspage}). We use arabic page numbers.
\pagestyle{plain}
\pagenumbering{arabic}

5.5 Later initializations
This code handles the class options leftwin, leftsig, foldmark, footfill and twocolumn (retrieved by the associated booleans). It defines the default layout of the letter and would be very interesting for those who wish to completely customize the letter appearance by redefining the relevant macros.
5.5.1 Letterhead layout

\titletopmatter The default layout of the letterhead is defined here, taking into account the class option leftwin. \titletopmatter, \titlemidmatter and \titlebotmatter are three strips of \titletopheight, \titlemidheight and \titlebotheight respective heights. Please note the usage of \splitfield{...}{...} which cuts a strip in two columns of \adresstemargin and \addresswidth respective widths.

\def\textwidth{\if@leftwin
  \def\titletopmatter%{
    \splitfield{}{\fromlocation\par\fromname\par\fromaddress\par\telephonenum}}
  \def\titlemidmatter%{
    \returnaddress\par\toname\par\toaddress}
  \def\titlebotmatter%{
    \splitfield{}{\@date}}
  \else
  \def\titletopmatter%{
    \splitfield{\fromlocation\par\fromname\par\fromaddress\par\telephonenum}{\@date}}
  \def\titlemidmatter%{
    \splitfield{}{\returnaddress\par\toname\par\toaddress}}
  \def\titlebotmatter%{
  \fi

\splitfield The letterhead is divided in three vertically stacked strips of \titlewidth width, named respectively \titletopmatter, \titlemidmatter and \titlebotmatter (see above). The purpose of this command is to divide a strip in two columns, the first one of \adresstemargin width, the second one of \addresswidth width (computed on the fly by \maketitle, see above). The letterhead may contain graphics (a logo for example), so we have to cope with the relative vertical placement of text and imported pictures, hence the \hbox and \strut in the definitions of the parboxes.

\long\def\splitfield#1#2% {
\parbox[b][\baselineskip][t]{\adresstemargin}{\hbox to\z@{}{#1}\strut}\parbox[b][\baselineskip][t]{\addresswidth}{\hbox to\z@{}{#2}\strut}}

5.5.2 Signature layout

\closingmatter \closingmatter is output by the \closing command and can contain any piece of text or code. \footfill is an extra glue for better letter foot balancing (see below). Please note the crafty use of the \ps command. Also remember that \leftmargin and \labelwidth values are changed by this \closingmatter.

\def\textwidth{\if@leftsig
  \def\closingmatter%{
    \leftmargin\parindent
    \vskip4\bigskipamount
    \ps{}{\fromsig}
    \vskip2\bigskipamount plus\footfill
    \labelwidth\labelwidth
    \advance\labelwidth-\labelsep
  \else
  \def\closingmatter%{
    \ps{}{\fromsig}
  \fi

\closingmatter
5.5.3 Fold mark

The \foldmark class option alters the \foldmark macro, which causes a line to be added between the letterhead and the main text. Default is \@empty.

\if@foldmark\def\foldmark{\hrule width6\fboxsep\@height\fboxrule}\else\let\foldmark\@empty\fi

5.5.4 Letter footer

A conditional definition of \footfill will alter the layout of \closingmatter (see above), adding an extra vertical glue after the signature. Default is \@empty.

\if@footfill\def\footfill{1fill}\else\let\footfill\z@\fi

5.5.5 Two column mode

The column separator (\columnsep) is initialized earlier in the class code. Please note that in one column mode we reverse the position of the margin paragraphs.

\if@twocolumn\twocolumn\sloppy\else\onecolumn\reversemarginpar\fi

5.6 Legacy

Unfortunately some widely spread packages still rely on this!

\DeclareOldFontCommand\rm{\normalfont\rmfamily}{\mathrm}
\DeclareOldFontCommand\sf{\normalfont\sffamily}{\mathsf}
\DeclareOldFontCommand\tt{\normalfont\ttfamily}{\mathtt}
\DeclareOldFontCommand\bf{\normalfont\bfseries}{\mathbf}
\DeclareOldFontCommand\it{\normalfont\itshape}{\mathit}
\DeclareOldFontCommand\sl{\normalfont\slshape}{\relax}
\DeclareOldFontCommand\sc{\normalfont\scshape}{\relax}

⟨chletter.clj⟩
6 Letter template

The following \LaTeX{} document is intended to be used as a template. It will also compile with the standard letter class and the older version of the chletter class.

Please note that the chextras companion package will simplify the preparation of Swiss documents by setting up linguistic packages, font encoding and document layout. Look at chextras documentation for further information.

\begin{verbatim}
1 (*chlettmp.tex)
2 \documentclass[chletter]
3 \%\usepackage[english,black]{chextras}
4 \author{My name}
5 \address{My address\ My City}
6 \telephone{My phone\ My email}
7 \date{My location, \today}
8 \begin{document}
9 \begin{letter}{Name\ Address\ City}
10 \opening{Dear \toname,}
11 Body text.
12 \closing{Yours truly,}
13 \encl{Enclosures}
14 \cc{Other recipients}
15 \end{letter}
16 \end{document}
17 (*chlettmp.tex)
\end{verbatim}
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.

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