

The `yaletter` Class, v1.1

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Abstract

The `yaletter` (“Yet Another Letter”) class produces letters in a variety of preset, but also any arbitrary, formats; handles multiple addresses and letterheads, including a “database” of each; produces envelopes of any size; and produces labels of any size (e.g., label sheets).

1 Introduction

While it may seem archaic in our days of email and other electronic communication, sometimes it remains necessary to send a simple letter; and sometimes, even electronic messages require a nicely-formatted letter with real letterhead. Yet despite the presence of multiple high-quality letter-writing projects, \LaTeX seems curiously faulty in this regard. An American letter is a very direct thing formatted in a very specific and well-defined way, yet despite many attempts I’ve been unable to persuade \LaTeX to produce properly spaced and styled American-style letters. It’s often a minor problem—a rule that I can’t get rid of, or excessive spacing—but it’s a problem that simply ruins the appearance of the letter in my judgement.

So here’s the `yaletter` class, or the “yet another” letter class. There are plenty of letter classes, of course, but I still think this one fills a gap that just wasn’t filled before.

This document is typeset in accordance with the \LaTeX `DOCSTRIP` utility, which allows the extraction of code and documentation from the same source documentation.

The numbering in this document is in *dozenal*; that is, numbering goes 1, 2, 3, 4, 5, 6, 7, 8, 9, 7, 8, 10, 11... It uses the `dozenal` \LaTeX package to make this happen. For more information, visit <http://www.dozenal.org>.

The package *does not* work with anything but `pdftex`; it uses a few `pdftex` primitives internally. I didn’t think it was worth the effort to make it generic.

2 Letter Commands

To begin with, we need to be able to specify actual letter commands; that is, commands which create the date, the inside address, the salutation, the farewell, the signature, and the enclosure line. Some of these may be absent in a particular letter, but a letter document class must account for all of them.

These commands will all be defined if you begin your document with the following:

`\documentclass{yaletter}`

Once you do this, you've got `yaletter` to work with.

`yaletter` does depend on `textpos` (for envelopes and labels) and `xkeyval` (for the arguments to `\yaoptions`), as well as on `geometry` and `fancyhdr` (for the purposes one would expect). If these are not installed, go ahead and install them; otherwise `yaletter` can't do its work.

2.1 Parts of a Letter

It is important to understand the parts of a normal business letter if you are going to use the `yaletter` class, so let's go over those very briefly first.

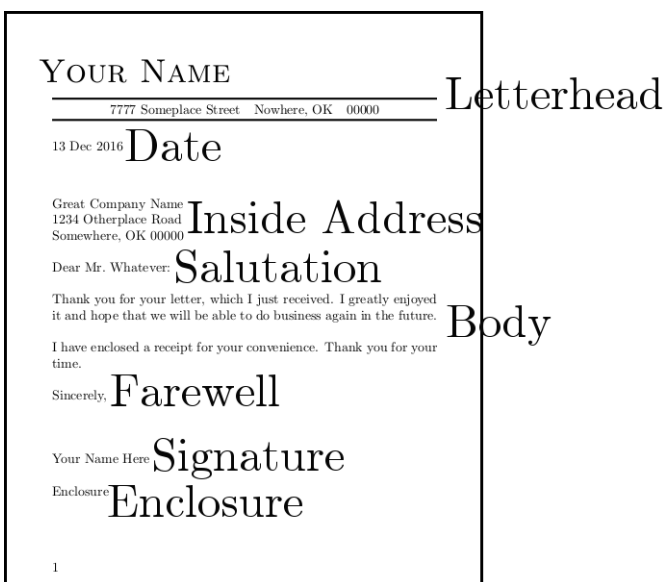


Figure 1: Parts of a Basic American Letter, Labelled

Figure 1 should be pretty self-explanatory, so we won't spend time talking about it. These are the parts of a letter that we'll be discussing, though, and this is (mostly) the default appearance of an opening page in `yaletter` (*mutatis mutandis*, of course; e.g., you'll almost certainly have a different letterhead).

2.2 Date Commands

`\yadate` `\yadate` takes a single argument, which is the date that you want to be printed. It is indented from the left margin by the length `\yahdateskip`, which can be set in either the plain-`TEX` length-setting way (e.g., `\yahdateskip=3in`) or the `LATEX` way (e.g., `\setlength{\yahdateskip}{3in}`).

The space above and below dates are set by `\ya@predate` and `\ya@postdate`, but as the `@` in the names suggest, these really shouldn't be set in the document itself. These should be consistent across all letters of a given type, so preferably they should be set in the `\yaoptions` command, as explained in Section 3.

You can style your date arbitrarily by putting your style commands into the macro `\yadatestyle`. `\yadatestyle` is expanded right before the date itself. Remember that you need to use font-changing commands, not environments, for this; e.g., use `\itshape`, not `\textit`.

2.3 Inside Address

The “inside address” is the address of the addressee; it is so called because it appears inside the letter, as opposed to on the envelope, where it also appears. The macro `\yainsideaddr` takes a single argument, which is the inside address you want to be typeset.

The argument of `\yainsideaddr` will be typeset left-justified in a box which will be indented by the value of `\yahinsideaddrskip`. Like `\yahdateskip`, this can be adjusted in either plain TEX or $\text{L}\text{A}\text{T}\text{E}\text{X}$ fashion.

You can insert style commands for your inside address using the `\yainsideaddrstyle` macro, which takes one argument, which is the style commands you desire. This is subject to the same restrictions as `\yadatestyle`.

The space above and below the inside address is governed by `\ya@preinsideaddr` and `\ya@postinsideaddr`; however, as the `@` indicates, these should not be adjusted internally. Rather, they should be set using the `\yaoptions` command discussed in Section 3.

A typical inside address would probably look something like this:

```
\yainsideaddr{Great Company Name \\ 1234 Otherplace Road \\  
Somewhere, OK 00000}
```

It’s also possible (and often easier) to use addresses defined by the `\defineaddress` command, as explained in Section 8.

2.4 Salutation

The salutation, typically just “Dear So-and-so,” is produced by the command `\yasalutation`. This also takes a single argument, the name which you’d like to salute. E.g., running `\yasalutation{Mr.~Anderson}` will produce the string, “Dear Mr. Anderson:” (by default).

It doesn’t have to use the word “Dear,” or to use a colon after the name. The word used in the salutation is inserted by the macro `\ya@saluword`, and the punctuation by `\ya@salupunct`. The spaces above and below the salutation are produced by `\ya@presalutation` and `\ya@postsalutation`. All of these, as the `@` sign indicates, should not be set in the body of the document; rather, they should be set using the `\yaoptions` command discussed in Section 3.

The salutation will be indented from the left by the distance `\yahsalutationskip`, which can be set in either the plain TEX or $\text{L}\text{A}\text{T}\text{E}\text{X}$ ways.

The styling of the salutation is governed by `\yasalutationstyle`, which is subject to the same limitations as the other style commands.

2.5 Farewell, Signature, and Enclosure

We treat these three together, since they always go together. Insert the farewell with `\yafarewell`, which is indented from the left margin by the value of `\yahfarewellskip`. The

`\yafarewell`
`\yahfarewellskip`

spacing above and below the farewell are governed by `\ya@prefarewell` and `\ya@postfarewell`, but these should be set using the `\yaoptions` command discussed in Section 3.

By default, this produces the string “Sincerely,” but it need not use that word or that punctuation. `\ya@farewellword` and `\ya@farewellpunct` set each of these; however, these should also be set using the `\yaoptions` command discussed in Section 3.

`\yafarewellstyle` The farewell can be styled with `\yafarewellstyle`, which is subject to the same restrictions as the similar commands for other parts of the letter.

`\yasignature` The signature is given by `\yasignature`, which produces the value of the macro `\ya@signatureword`, typically set in the `\yaoptions` command discussed in Section 3.

`\yahsignatureskip` Similarly, the space above and below the signature is governed by `\ya@presignature` and `\ya@postsignature`. The signature is indented by the value of `\yahsignatureskip`, which can be set in the usual ways. It is styled by `\yasignaturestyle`, subject to the usual restrictions.

`\yaenclosure` The enclosure is included by issuing `\yaenclosure`. This produces the value of `\ya@enclosureword`, indented by the value of `\yahenclosureskip`, styled according to the value of `\yaenclosurestyle`. The space above and below it is governed by `\ya@preenclosure` and `\ya@postenclosure`. As usual, commands containing `@` should be changed using the `\yaoptions` command discussed in Section 3.

3 Letter Options

Letters simply don’t follow the same rules as other typeset documents. I’ve never seen a letter, for example, that had two-sided formatting. (Except, of course, for so-called “open letters,” but these are really just articles or books addressed at a particular person, so they’re not really our use case here.) Margins are typically much smaller than in other typeset works, leading to a much larger typeblock. Headers and footers typically *do* contain rules (lines), often with not only the current page number but also the total number of pages (e.g., “Page 2 of 4”).

`\yaoptions` So `yaletter` has the command `\yaoptions`, which gives the user the ability to set a variety of different dimensions within the letter. It includes `fancyhdr` by itself, since the standard L^AT_EX header styles simply don’t address the needs of letter-writing. And `\yaoptions` allows one to set many of the dimensions that `fancyhdr` requires, so that we can keep these things as far as possible in just one place.

`\yaoptions` takes a single argument, which is a list of key-value assignments. In the table below, you’ll find a table showing the `\yaoptions` keys, along with their default values and a brief description of what they’re for.

By “key-value” options, I mean that they are assigned by the means of the phrase *key = value*. For example, for a default `yaletter` on half-letter paper, do the following:

```
\yaoptions{pageheight=8in,pagewidth=5.5in}
```

All the options here can be set in the same way.

You *can* have multiple `\yaoptions` commands; options specified in later ones will override any conflicting options in earlier ones. Therefore, you can have options set in a file which you include, then override some of them after inputting that file to reset some of them.

Option	Default	Description
pageheight	11in	The height of the paper
pagewidth	8.5in	The width of the paper
lftmarg	0.5in	The left margin of the letter
rgtmarg	0.5in	The right margin of the letter
topmarg	0.5in	The top margin of the letter
botmarg	1.0in	The bottom margin of the letter
footskip	24pt	The distance between the bottom of the typeblock and the bottom of the footer
headsep	12pt	The distance between the bottom of the header and the top of the typeblock
headheight	12pt	The height of the header line
headwidth	\textwidth	The width of the header and footer lines
headrulewidth	0.4pt	The thickness of the line underneath the header
footrulewidth	0.4pt	The thickness of the line above the footer
predate	24pt	The space between the letterhead (if any) and the date
postdate	12pt	The space after the date
datehskip	0pt	The horizontal space prior to the date
preinsideaddr	12pt	The space inserted before the inside address
postinsideaddr	0pt	The space inserted after the inside address
insideaddrhskip	0pt	The horizontal space inserted prior to the inside address
presalutation	0pt	The space inserted before the salutation
postsalutation	0pt	The space inserted after the salutation
saluword	Dear	The word used in the salutation; don't forget to include a space at the end, if you change this
salupunct	:	The punctuation used after the salutation
saluskip	0pt	The horizontal spacing prior to the salutation
prefarewell	0pt	The space inserted before the farewell line (e.g., "Sincerely,")
postfarewell	12pt	The space inserted after the farewell line (e.g., "Sincerely,")
farewellskip	0pt	The horizontal space inserted prior to the salutation
farewellword	Sincerely	The word used in the farewell line
farewellpunct	,	The punctuation used after the farewell word
presignature	12pt	The space inserted before the signature line
postsignature	0pt	The space inserted after the signature line
signatureskip	0pt	The horizontal space inserted prior to the signature

<code>signatureword</code>	Your Name Here	The content of the signature; typically the name of the letter writer
<code>preenclosure</code>	Opt	The space inserted before the enclosure line
<code>postenclosure</code>	Opt	The space inserted after the enclosure line
<code>enclosureskip</code>	Opt	The horizontal space inserted prior to the enclosure line
<code>enclosureword</code>	Enclosure	The word inserted when there are enclosures
<code>parskip</code>	12pt	The space between paragraphs
<code>parindent</code>	Opt	The indentation of the first line of each paragraph
<code>datafile</code>	<i>None</i>	The file which <code>yaletter</code> will read to get your letter data

If you put a suitable `\yaoptions` directive in your data file, you need only tell `yaletter` where your data file is located by saying `\yaoptions{datafile={yourdatafile}}`, and you'll have consistently formatted letters.

Some of these defaults may seem curiously small; remember that these values *stack*. That is, `postdate` and `preinsideaddr` are *both* skipped in between the date and the inside address. If there is a `parskip`, that space will be added, too. So keep these things in mind if the spacing seems larger than you expected. The default settings are suitable for a block-formatted letter.

The idea behind putting so many different settings in a single command is that you can easily run many different letters with a consistent look and feel, but by including that one command. However, sometimes you may need to change some individual parts of these; e.g., maybe you want the name in the signature line to change. That's certainly doable, as we saw in Section 2.

4 Letterheads

This is an important part of any letter package; you want to be able to use nice-looking, fancy letterhead without having to (a) buy paper pre-printed with it, or (b) hand-code or hand-copy the letterhead into each individual document.

So `yaletter` allows you to save your letterheads in a data file (probably kept in your `.texlive` directory or some similar place). You can access those letterheads by name, by prefixing `\letterhead` to them.

`\defineletterhead` The `\defineletterhead` macro takes two arguments: the first is the name of the letterhead, the second is the letterhead code itself. That code can be of arbitrary complexity (though it's probably best to enclose it all in a box to prevent any settings you use leaking out into the remainder of the document), but we'll use something pretty simple for our example here. Let's say you want the following code for your letterhead:

```
\vbox{%
    \hbox to\linewidth{%
```

```

        \fontsize{72pt}{72pt}\selectfont%
        Your Name\hfil%
    }\hbox to\linewidth{%
        \vrule width\textwidth depth1.5pt%
    }
}

```

You want to call this letterhead `namehead`. You can tell `yaletter` that this is your letterhead and that it's called `namehead` by doing this:

```

\defineletterhead{namehead}{%
    \vbox{%
        \hbox to\linewidth{%
            \fontsize{72pt}{72pt}\selectfont%
            Your Name\hfil%
        }\hbox to\linewidth{%
            \vrule width\textwidth depth1.5pt%
        }
    }
}%

```

`\letterheadNAME` You then actually use this letterhead by calling `\letterheadNAME`, replacing the string “NAME” with the name you assigned your letterhead earlier. In this case, by calling `\letterheadnamehead`.

`\yauseletterhead` You can also use a letterhead via the `\yauseletterhead` command, which takes a single argument: the name assigned to the letterhead in the `\defineletterhead` command. So the letterhead we defined as `namehead` can be put into the letter with `\yauseletterhead{namehead}`.

So `\yauseletterhead{namehead}` and `\letterheadnamehead` are identical in their effect.

This system allows you to maintain as many letterheads as you want, and to easily insert them into a letter, by name, with the inclusion of merely a single line.

Although we've not done so here, it's a good idea to keep your letterhead names in all-caps, or something similarly distinctive.

5 Letter Styles

In American usage, there are primarily two styles of letter: “block” and “modified block.” Block letters are universally left-aligned, with a blank space between paragraphs and no indentation. Modified block letters are left-aligned, with a blank space between paragraphs and no indentation, but with the date, salutation, farewell, and signature lines indented to halfway across the page.

`yaletter` adds a “normal” style, in which paragraphs are typeset as normal; that is, with no space between them (other than normal glue) and indentation at the beginning, but otherwise identical to modified block style.

Block format is the default for `yaletter`, as it's the most common in the United States.

`\yaletterblock` To explicitly request block format, issue `\yaletterblock` in your preamble. To get modified

`\yalettermodblock` block format, issue `\yalettermodblock` in your preamble. To get normal format, issue `\yaletternormal` in your preamble.

`\yaparskip` The actual space between paragraphs is governed by the special length `\yaparskip`. To change this, use `\setlength{\yaparskip}{2em}` (or whatever your desired length is). This defaults to 12pt.

`\yaparindent` The actual indentation for paragraphs is governed by the special length `\yaparindent`. To change this, use `\setlength{\yaparindent}{24pt}` (or whatever your desired length is). This defaults to 0pt.

These parameters mean that you have complete control over indentation and paragraph skipping, even after specifying a particular format (with `\yaletterblock`, for example). Issuing `\yaparskip=24pt` and `\yaparindent=24pt` will give you the desired paragraph skip and indentation within the normal block format.

The only trick here is to remember that, if you're using `\yaletternormal` and you want a non-zero `\parskip`, you have to set `\yaparskip` *after* your `\begin{document}`. I'm not really sure why you'd ever want to do this, but you know your needs better than I do, so I wanted it to be an option.

Further note that these are merely convenience commands; you can do everything these letter styles do simply by adjusting the parameters in `\yaoptions`. These little macros are merely syntactic sugar.

6 Headers and Footers

It makes sense for letters to have very distinctive headers and footers, especially since there is usually no indentation beginning paragraphs. Since paragraph breaks are marked only by spacing, when such a break falls at the end of a page, it may be hard to tell without a clearly marked footer. But there should not be a header on the first page, which has plenty of information already included, possibly including a letterhead, to make it very clear to the reader what he is looking at.

So `yaletter` includes `fancyhdr`, since it will be needed for almost anything. It furthermore resets both `\headrulewidth` and `\footrulewidth` to 0.4pt, since these are both very helpful guides when reading a letter's text. (Note that both of these can be changed, if desired, in `\yaoptions`.)

On the first page, the page style is automatically set as `yafirstpage`. `yafirstpage` is defined as follows:

```
\fancypagestyle{yafirstpage}{%
  \renewcommand\headrulewidth{0pt}
  \renewcommand\footrulewidth{0.4pt}
  \fancyhf{}%
  \fancyfoot[C]{Page \thepage\ of \yalastpage}%
}%
```

If you want the first page footer to be different, redefine `yafirstpage` with whatever parameters you would like.

Headers on subsequent pages are defined by the page style `yaothepage`:


```

\fancypagestyle{yaotherpage}{%
    \renewcommand\headrulewidth{0.4pt}
    \renewcommand\footrulewidth{0.4pt}
    \fancyhf{}%
    \fancyhead[L]{\yawriter\ to \yaaddressee}%
    \fancyhead[R]{\yathedate}%
    \fancyfoot[C]{Page \thepage\ of \yalastpage}%
}%

```

This, too, can of course be redefined to be whatever you want it to be, with the usual `fancyhdr` commands.

7 Special Variables

In Section 6, we saw a couple of special variables used, which contain values like the addressee of the letter, the author of the letter, and so forth. We can use these variables in headers and footers especially, but they are useful in other places, as well.

`\yawriter` `\yawriter` contains the author of the letter. It is set by using the macro `\yasetwriter`, and styled with the contents of the macro `\yawriterstyle`. For example, to set the letter's writer as "John Doe" and set it in italics, run the following:

```

\yawriterstyle{\itshape}
\yasetwriter{John Doe}
\yawriter

```

`\yasetaddressee` Similarly, there are the macros `\yasetaddressee`, `\yaaddresseestyle`, and `\yaaddressee`.
`\yaaddresseestyle` These can be used with the `\yawriter` commands to develop things like the default header,
`\yaaddressee` which briefly states the parties to the letter.

`\yathedate` There is also `\yathedate`, which holds the date which was entered in the `\yadate` macro,
`\yalastpage` and the `\yalastpage`, which holds the page number of the last page. (Note that this isn't necessarily the last page of your whole document, which might be closed by an envelope or label page; rather, it's the page which contains the signature.)

8 Addresses

It's likely that you have a list of addresses that you normally send letters to, and it doesn't make sense for you to have to type them every time. So `yaletter` allows you to define addresses, along with shorthands, in a database of sorts and refer to them that way, as well as simply entering them manually where they need to go.

`\defineaddress` `\defineaddress` takes three arguments. The first is the name by which you want to refer to the address; the second is the short name, which will be inserted into the `\yaaddressee` or `\yawriter` spot; and the last is the code of the address itself. An example would be the following:

```

\defineaddress{FIRST}{Great Company}{%
    Great Company Name \\
    1234 Otherplace Road \\
}

```

```
        Somewhere , OK  00000%
    }
```

`\yatoaddress` To actual use this address, one has a number of options. To use the address as the inside address, `yaletter` provides the `\yatoaddress` macro, which takes the single argument of the name of the address defined by `\defineaddress`. For example:

```
\yainsideaddr{\yatoaddress{FIRST}}
```

The `\yatoaddress` macro both typesets the address itself and resets `\yaaddressee` to the short name given in `\defineaddress`.

`\yareturnaddress` `yaletter` also provides the similar commands `\yareturnaddress`, which both typesets the address and sets `\yawriter` to the short name given in the corresponding `\defineaddress`; and `\yafromaddress`, which sets `\yawriter` but does not typeset the address itself.

`\yaaddress` Finally, `\yaaddress` just typesets the address, and doesn't set any other variables.

If you already have an address database, it is probably helpful to develop a script which will convert your addresses into appropriate `\defineaddress` macros. Fortunately, this probably isn't very difficult.

9 Envelopes

`yaletter` also provides plenty of facilities for typesetting envelopes. You can use the same convenient address facilities for envelopes as you can for letters.

`\yaenvelope` `\yaenvelope` is the primary macro, and it takes two arguments: the first is the width of the envelope, the second is its height. These can be given in any dimension that `pdftex` understands; likely this will be inches or millimeters. `yaletter` will create this envelope at the point in the document that you invoke `\yaenvelope`, so if you're doing this in the same file as your letter, you should issue this after your letter is complete. It will start a new page if necessary. So, for a standard American business envelope:

```
\yaenvelope{9.5in}{4.125in}
```

`\yaenvunit` You can control the placing of the return address and the to address very precisely. To select the unit you'd like to use for that control, use `\yaenvunit`, which takes a single argument, which is the unit you'd like to use for positioning envelope elements. I have found a tenth of an inch convenient for this purpose, and that is consequently the default:

```
\yaenvunit{0.1in}
```

You then set the value of several count registers; those count registers will be multiplied by the value of `\yaenvunit` for positioning. The registers are:

Dimension	Description	Default
<code>\yaenvrethskip</code>	Return address's distance from the left edge of the envelope	2
<code>\yaenvretvskip</code>	Return address's distance from the top edge of the envelope	1
<code>\yaenvtohskip</code>	To address's distance from the left edge of the envelope	42
<code>\yaenvtovskip</code>	To address's distance from the top edge of the envelope	18

Set these in the manner of plain- \TeX counts, not \LaTeX counters. E.g.:

```
\yaenvtovskip=5
```

`\yaenvtoaddr` and `\yaenvretaddr` The actual addresses to be printed are held in `\yaenvtoaddr`, which holds the to address; and `\yaenvretaddr`, which holds the return address. Redefine these before issuing your `\yaenvelope` command:

```
\def\yaenvretaddr{%
    Your Name \\
    7777 Someplace Street \\
    Nowhere, OK 00000%
}%
\def\yaenvtoaddr{\yaaddress{FIRST}}
```

Here we have the return address entered manually, but the to address entered as an address defined with `\defineaddress`, using `\yaaddress`, which typesets the address itself but does not set any variables.

Because some envelope sizes are quite common, `yaletter` provides them as simple commands. The table below gives these commands along with the envelope size they mimic, plus the skips for each of their parts. The unit of skipping is, in all cases, `0.1in`, which you can change if you need to adjust this spacing. Changing the font size to any significant degree will likely require such adjustments.

All of these commands are prefixed with `ya`; the North American sizes are prefixed with `yana`. Subsequently, letters in the names are retained, while digits are made lowercase roman numerals. Finally, `envelope` is suffixed to the end. So, e.g., a C6 envelope becomes `\yacviienvelope`.

Size	Command	Ret. hskip	Ret. vskip	To hskip	To vskip
No. 10	<code>\business</code> <code>\yananoxenvelope</code>	2	1	42	18
DL	<code>\yadlenvelope</code>	2	1	36	18
C6	<code>\yacviienvelope</code>	2	1	26	20
C6/C5	<code>\yacvicvenvelope</code>	2	1	42	18
C5	<code>\yacvenvelope</code>	2	1	38	28
C4	<code>\yacivenvelope</code>	3	3	60	42
C3	<code>\yaciienvelope</code>	3	3	84	60

A-2	<code>\yanaaiivelope</code>	2	1	22	20
A-6	<code>\yanaavivelope</code>	2	1	26	22
A-7	<code>\yanaaviivelope</code>	2	1	30	24
A-8	<code>\yanaaviiivelope</code>	2	1	34	24
A-9	<code>\yanaaixvelope</code>	2	1	38	28
A-10	<code>\yanaaxvelope</code>	2	1	42	28
No. 6 $\frac{3}{4}$	<code>\yananovivelope</code>	2	1	26	14
No. 7 $\frac{3}{4}$	<code>\yananoviivelope</code>	2	1	32	16
No. 9	<code>\yananoixvelope</code>	2	1	36	16
No. 11	<code>\yananoxivelope</code>	2	1	48	20
No. 12	<code>\yananoxiivelope</code>	2	1	48	22
No. 14	<code>\yananoxivenvelope</code>	2	1	52	24

`yaletter` can print any size of envelope; if your printer can handle it, `yaletter` can make it. The table above just presents presets for a number of common situations.

It bears repeating that all of these settings assume no change in font size; however, especially for the larger envelopes, you'll likely want to increase the font size. You'll probably want to adjust the `hskip` and `vskip` for both addresses at that time.

7 Labels

Oftentimes, however, we don't want to print on envelopes; we just want to print on labels, which we can then attach to envelopes (or to packages, or to whatever). `yaletter` caters to this need, too.

`\yalabelsheet` The main macro is `\yalabelsheet`, which due to the nature of label sheets takes many arguments which are best explained explicitly:

```
\yalabelsheet {<page-width>} {<page-height>} {<label-width>} {<label-height>}
{<horizontal-separation>} {<vertical-separation>} {<number-across>} {<number-down>}
```

That's *eight* mandatory arguments. Unfortunately, this seems unavoidable; we can't assume that labels are evenly spaced on the sheet, nor can we assume that labels are sensibly divided on the page. The macro does assume that they are arranged in rows and columns; that is all.

The first six arguments are all lengths, and can be given in any unit that `TeX` understands. The last two are simply integers; so for a sheet of labels grouped in ten rows of three, one simply enters `{3}{10}`.

Even these eight parameters are not sufficient, however, because we can't assume that the margins of the label sheet are the same as the gaps between the labels themselves. So because with `TeX` we are limited to nine arguments, we have separate parameters to set these margins:

Margin	Length
Left	<code>\yableftmarg</code>
Right	<code>\yalabrightmarg</code>
Top	<code>\yalabtopmarg</code>
Bottom	<code>\yalabbotmarg</code>

`\yalabeltext` Redefining `\yalabeltext` will place the contents of that macro in each of the labels on the newly-created label page. E.g.:

```
\def\yalabeltext{\yaaddress{FIRST}}
```

will result in the address (defined with `\defineaddress` with the label `FIRST`) being typeset in all the labels of the newly created label sheet. This is very handy for printing out an entire sheet of, say, return address labels. However, because often you'd like different text on each label, `\yalabeltext` defaults to empty, so no text will be printed onto the labels. This means that it will appear to be a completely blank page.

`\yaplacelabel` You can place individual labels with the `\yaplacelabel` command:

```
\yaplacelabel {<text>} {<number-across>} {<number-down>}
```

The first argument contains the text you'd like printed on the label; it consists of arbitrary \LaTeX code and can be the result of other commands (e.g., your first argument may be something like `\yaaddress{FIRST}`). The second and third tell `yaletter` which label you'd like this text to go on; the second argument is the number of columns across you'd like to skip, the third is the number of rows down you'd like to skip.

These are zero-indexed. That is, if you want to typeset a label in the first label on the sheet, use `{0}{0}`. The whole first row will have a `{0}` for the second argument; the whole first column will have a `{0}` for the first argument.

Note that `yaletter` does *not* check if you've given it coordinates for a label that actually exists; if you tell `yaletter` to typeset a label in the fourth row when there are only two, it will obey you, and your label will be off the page.

`\yalabelmarg` Each label is typeset in a box. You can indent the box from the left edge of the label by setting the length `\yalabelmarg`, which defaults to `0.1in`.

`\yashowboxeson` Sometimes it's useful to see the boxes that you're typesetting in, even though you don't want to print them. E.g., it's easier to tell if your text fits inside the label if you can see the boundaries of that label. To make these boxes visible, run `\yashowboxeson`; to turn them off again, run `\yashowboxesoff`.

When you're defining a new label sheet, it's important not to trust the measurements on the packaging. For example, Avery 8660 says that its labels are one inch high, but it also says that they're twenty-five millimeters high; obviously, one of these must be slightly off, since one inch equals 25.4 millimeters. It turns out that using twenty-five millimeters works better, though a ruler says that one inch is the correct measurement. Go figure.

`yaletter` offers two presets for label sheets: Avery 8660 and Avery 8663. Why these two? Because those are the two that I happen to have in my drawer here! In any case, they are accessed using the `\yaavery` command, which takes one argument: the number of the

label package. E.g., `\yaavery{8660}` will give you a sheet of labels in size Avery 8660.

Defining new label sheets is relatively easy. If you want it to fit into this avery naming scheme, define it like so:

```
\expandafter\def\cename avery????\endcename{%
    \yalabtopmarg=0.5in
    \yalabbotmarg=0.5in
    \yalableftmarg=0.1875in
    \yalabrightmarg=0.1875in
    \yalabelsheet{8.5in}{11in}{2.625in}{25mm}{0.125in}{0in}{3}{10}%
}%
```

That's the setting for Avery 8660; replace `????` with the number label you want, and set the appropriate dimensions. Use a ruler; it's the only way to be sure. Also, the margins are typically not printed on the packaging, so you'll need to get those manually anyway. After this, `\yaavery{????}` will get you a sheet with these settings.

For some other manufacturer, or if you just don't like this naming scheme, don't bother; just replace the first line about with `\def\nameoflabelsheet{%`. Then running `\nameoflabelsheet` will give you a label sheet with your settings.

ε Examples

A common need for label sheets is to print an entire sheet with the same text on each label; typically this is to produce a sheet of return-address labels, to be attached to envelopes when they are mailed. A minimal working example to produce such a label sheet:

```
\documentclass{yaletter}
\defineaddress{HOME}{John Q.\ Public}{%
    John Q.\ Public \
    65 North Buffalo Terrace \
    Somewhere, NY 00000
}%
\begin{document}
\def\yalabeltext{\yaaddress{HOME}}
\yalabtopmarg=0.5in
\yalabbotmarg=0.5in
\yalableftmarg=0.1875in
\yalabrightmarg=0.1875in
\yashowboxeson
\yalabelsheet{8.5in}{11in}{2.625in}{25mm}{0.125in}{0in}{3}{10}%
\end{document}
```

This will yield a sheet of return address labels (note that `\yashowboxeson` was issued here, just so we can see the labels better; for actual printing, one wouldn't want this):

John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000
John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000	John Q. Public 61 North Buffalo Terrace Somewhere, NY 00000

The basic types of letters are demonstrated in Figure 2 on page 14. Specifically, Figure 2 demonstrates block, modified block, and normal-style letters.

A standard American business envelope (No. 10) is easier to form. A minimal example producing such an envelope is as follows:

```

\documentclass{yaletter}
\defineaddress{HOME}{John Q.\ Public}{%
    Your Name \\
    7777 Someplace Street \\
    Nowhere, OK 00000%
}%
\def\yaenvretaddr{\yaaddress{HOME}}
\def\yaenvtoaddr{Your Name \\ 7777 Someplace Street \\ Nowhere, OK 00000}
\def
\begin{document}
\global\yaenvrethskip=2
\global\yaenvretvskip=1
\global\yaenvtohskip=42
\global\yaenvtovskip=18
\yaenvelope{9.5in}{4.125in}%
\end{document}

```

These are the same settings as can be obtained with `\yabusiness` or `\yananoxenvelope`; they're spelled out here just for demonstrative purposes. They will result in the following envelope:

YOUR NAME

7777 Someplace Street Nowhere, OK 00000

13 Dec 2016

Great Company Name
1234 Otherplace Road
Somewhere, OK 00000

Dear Mr. Whatever:

Thank you for your letter, which I just received. I greatly enjoyed it and hope that we will be able to do business again in the future.

I have enclosed a receipt for your convenience. Thank you for your time.

Sincerely,

Your Name Here

Enclosure

Page 1 of 1

Block Style

YOUR NAME

7777 Someplace Street Nowhere, OK 00000

13 Dec 2016

Great Company Name
1234 Otherplace Road
Somewhere, OK 00000

Dear Mr. Whatever:

Thank you for your letter, which I just received. I greatly enjoyed it and hope that we will be able to do business again in the future.

I have enclosed a receipt for your convenience. Thank you for your time.

Sincerely,

Your Name Here

Enclosure

Page 1 of 1

Modified Block Style

YOUR NAME

7777 Someplace Street Nowhere, OK 00000

13 Dec 2016

Great Company Name
1234 Otherplace Road
Somewhere, OK 00000

Dear Mr. Whatever:

Thank you for your letter, which I just received. I greatly enjoyed it and hope that we will be able to do business again in the future.

I have enclosed a receipt for your convenience. Thank you for your time.

Sincerely,

Your Name Here

Enclosure

Page 1 of 1

Normal Style

Figure 2: Examples of the Three Basic Letter Types

John Q. Public
65 North Buffalo Terrace
Somewhere, NY 00000

Recipient's Name
7777 Someplace Street
Nowhere, OK 00000

You can print this as you wish; but keep in mind that you may have to rotate the page with your pdf viewer, depending on what orientation your printer expects.

10 Implementation

First, we need to require `xkeyval`, so that we can make `yaoptions` work correctly without a confusing array of options.

```
1 \RequirePackage{xkeyval}
```

Next, define the necessary options and dimensions. Set good defaults for standard L^AT_EX dimensions.

```
2 \pagenumbering{arabic}
3 \newdimen\ya@lftmarg\ya@lftmarg=0.5in
4 \newdimen\ya@rgtmarg\ya@rgtmarg=0.5in
5 \newdimen\ya@topmarg\ya@topmarg=0.5in
6 \newdimen\ya@botmarg\ya@botmarg=1.0in
7 \paperheight=\the\pdfpageheight
8 \paperwidth=\the\pdfpagewidth
9 \newdimen\ya@pageheight\ya@pageheight=\the\paperheight
10 \newdimen\ya@pagewidth\ya@pagewidth=\the\paperwidth
11 \marginparwidth=0pt
12 \marginparpush=0pt
13 \topmargin=0pt
14 \headheight=12pt
15 \headsep=12pt
16 \footskip=24pt
17 \marginparsep=0pt
18 \newdimen\ya@headheight\ya@headheight=\the\headheight
19 \newdimen\ya@headsep\ya@headsep=\the\headsep
20 \newdimen\ya@footskip\ya@footskip=\the\footskip
21 \oddsidemargin=0pt
```

```

22 \newdimen\ya@oddsidemargin\ya@oddsidemargin=\the\oddsidemargin
23 \newdimen\ya@headwidth\ya@headwidth=0pt
24 \def\ya@headrulewidth{0.4pt}
25 \def\ya@footrulewidth{0.4pt}
26 \newdimen\ya@predate\ya@predate=12pt
27 \newdimen\ya@postdate\ya@postdate=12pt
28 \newdimen\ya@preinsideaddr\ya@preinsideaddr=12pt
29 \newdimen\ya@postinsideaddr\ya@postinsideaddr=0pt
30 \newdimen\ya@presalutation\ya@presalutation=0pt
31 \newdimen\ya@postsalutation\ya@postsalutation=0pt
32 \newdimen\ya@prefarewell\ya@prefarewell=0pt
33 \newdimen\ya@postfarewell\ya@postfarewell=12pt
34 \newdimen\ya@presignature\ya@presignature=12pt
35 \newdimen\ya@postsignature\ya@postsignature=0pt
36 \newdimen\ya@preenclosure\ya@preenclosure=0pt
37 \newdimen\ya@postenclosure\ya@postenclosure=0pt
38 \def\ya@saluword{Dear }
39 \def\ya@salupunct{:}
40 \def\ya@farewellword{Sincerely}
41 \def\ya@farewellpunct{,}
42 \def\ya@signatureword{Your Name Here}
43 \def\ya@enclosureword{Enclosure}
44 \def\yaaddressee{}
45 \def\yawriter{}

```

Now we define yaoptions and the actual key-value pairs which serve as its argument.

```

46 \define@key{yaoptions}{lftmarg}{\global\ya@lftmarg=#1}
47 \define@key{yaoptions}{rgtmarg}{\global\ya@rgtmarg=#1}
48 \define@key{yaoptions}{topmarg}{\global\ya@topmarg=#1}
49 \define@key{yaoptions}{botmarg}{\global\ya@botmarg=#1}
50 \define@key{yaoptions}{pageheight}{\global\ya@pageheight=#1}
51 \define@key{yaoptions}{pagewidth}{\global\ya@pagewidth=#1}
52 \define@key{yaoptions}{footskip}{\global\ya@footskip=#1}
53 \define@key{yaoptions}{headsep}{\global\ya@headsep=#1}
54 \define@key{yaoptions}{headheight}{\global\ya@headheight=#1}
55 \define@key{yaoptions}{oddsidemargin}{\global\ya@oddsidemargin=#1}
56 \define@key{yaoptions}{headwidth}{\global\ya@headwidth=#1}
57 \define@key{yaoptions}{headrulewidth}{\global\def\ya@headrulewidth{#1}}
58 \define@key{yaoptions}{footrulewidth}{\global\def\ya@footrulewidth{#1}}
59 \define@key{yaoptions}{predate}{\global\ya@predate=#1}
60 \define@key{yaoptions}{postdate}{\global\ya@postdate=#1}
61 \define@key{yaoptions}{preinsideaddr}{\global\ya@preinsideaddr=#1}
62 \define@key{yaoptions}{postinsideaddr}{\global\ya@postinsideaddr=#1}
63 \define@key{yaoptions}{presalutation}{\global\ya@presalutation=#1}
64 \define@key{yaoptions}{postsalutation}{\global\ya@postsalutation=#1}
65 \define@key{yaoptions}{prefarewell}{\global\ya@prefarewell=#1}
66 \define@key{yaoptions}{postfarewell}{\global\ya@postfarewell=#1}
67 \define@key{yaoptions}{presignature}{\global\ya@presignature=#1}

```

```

68 \define@key{yaoptions}{postsignature}{\global\ya@postsignature=#1}
69 \define@key{yaoptions}{preenclosure}{\global\ya@preenclosure=#1}
70 \define@key{yaoptions}{postenclosure}{\global\ya@postenclosure=#1}
71 \define@key{yaoptions}{datehskip}{\global\yahdateskip=#1}
72 \define@key{yaoptions}{insideaddrhskip}{\global\yahinsideaddrskip=#1}
73 \define@key{yaoptions}{saluskip}{\global\yahsalutationskip=#1}
74 \define@key{yaoptions}{farewellskip}{\global\yahfarewellskip=#1}
75 \define@key{yaoptions}{signatureskip}{\global\yahsignatureskip=#1}
76 \define@key{yaoptions}{enclosureskip}{\global\yahenclosureskip=#1}
77 \define@key{yaoptions}{enclosureword}{\global\def\ya@enclosureword{#1}}
78 \define@key{yaoptions}{saluword}{\global\def\ya@saluword{#1}}
79 \define@key{yaoptions}{salupunct}{\global\def\ya@salupunct{#1}}
80 \define@key{yaoptions}{farewellword}{\global\def\ya@farewellword{#1}}
81 \define@key{yaoptions}{farewellpunct}{\global\def\ya@farewellpunct{#1}}
82 \define@key{yaoptions}{signatureword}{\global\def\ya@signatureword{#1}}
83 \define@key{yaoptions}{signatureword}{\global\def\ya@signatureword{#1}}
84 \define@key{yaoptions}{addressee}{\yasetaddressee{#1}}
85 \define@key{yaoptions}{writer}{\yasetwriter{#1}}
86 \define@key{yaoptions}{parskip}{\global\yaparskip=#1}
87 \define@key{yaoptions}{parindent}{\global\yaparindent=#1}
88 \define@key{yaoptions}{datafile}{\global\input{#1}}
89 \newcommand\yaoptions[1]{%
90 \setkeys{yaoptions}{#1}%
91 \geometry{top=\the\ya@topmarg,bottom=\the\ya@botmarg,
92 left=\the\ya@lftmarg,right=\the\ya@rgtmarg,
93 paperheight=\the\ya@pageheight,paperwidth=\the\ya@pagewidth,
94 footskip=\the\ya@footskip,headsep=\the\ya@headsep,
95 headheight=\the\ya@headheight}
96 \ifdim\ya@headwidth=0pt
97 \global\headwidth=\the\textwidth
98 \else
99 \global\headwidth=\the\ya@headwidth
100 \fi
101 \renewcommand{\headrulewidth}{\ya@headrulewidth}
102 \renewcommand{\footrulewidth}{\ya@footrulewidth}
103 }%

```

Set `\normalsize` so that L^AT_EX doesn't complain. While we're at it, set all the default L^AT_EX font sizes, since people are often accustomed to using them.

```

104 \renewcommand{\normalsize}{\fontsize{10pt}{12pt}\selectfont}
105 \newcommand\scriptsize{\@setfontsize\scriptsize\@viipt\@viiipt}
106 \newcommand\tiny{\@setfontsize\tiny\@vpt\@vipt}
107 \newcommand\large{\@setfontsize\large\@xiipt{14}}
108 \newcommand\Large{\@setfontsize\Large\@xivpt{18}}
109 \newcommand\LARGE{\@setfontsize\LARGE\@xxiipt{22}}
110 \newcommand\huge{\@setfontsize\huge\@xxxpt{25}}
111 \newcommand\Huge{\@setfontsize\Huge\@xxxvpt{30}}

```

Now we need to set some basic page dimensions so that `geometry` doesn't complain. We just

start with the default page dimensions of the system, getting them from pdfTeX; it doesn't really matter, since `geometry` will set the actual dimensions later.

```
112 \paperheight=\the\pdfpageheight
113 \paperwidth=\the\pdfpagewidth
```

Now we add the necessary package: `geometry` and `fancyhdr`.

```
114 \RequirePackage{geometry}
115 \RequirePackage{fancyhdr}
```

Now define the default page styles. The first, `yafirstpage`, obviously is used for the first page of the letter; the other, `yaotherpage`, is used for all other pages.

```
116 \fancypagestyle{yafirstpage}{%
117 \renewcommand\headrulewidth{0pt}
118 \renewcommand\footrulewidth{0.4pt}
119 \fancyhf{}}%
120 \fancyfoot[C]{Page \thepage\ of \yalastpage}%
121 }%
122 \fancypagestyle{yaotherpage}{%
123 \renewcommand\headrulewidth{0.4pt}
124 \renewcommand\footrulewidth{0.4pt}
125 \fancyhf{}}%
126 \fancyhead[L]{\yawriter\ to \yaaddressee}%
127 \fancyhead[R]{\yathedate}%
128 \fancyfoot[C]{Page \thepage\ of \yalastpage}%
129 }%
130 \fancypagestyle{yaenvpage}{%
131 \renewcommand\headrulewidth{0pt}
132 \renewcommand\footrulewidth{0pt}
133 \fancyhf{}}%
134 \newgeometry{margin=0pt}
135 }%
```

Now let's define the letterhead code. Each letterhead is defined by `\defineletterhead`, which takes two arguments: the first is the name of the letterhead, which will be appended to another command of the form `\letterheadNAME`; and the second is the actual letterhead code itself.

```
136 \def\defineletterhead#1#2{%
137 \global\expandafter\def\csname letterhead#1\endcsname{%
138 \hbox{#2}}%
139 }%
140 \vskip1pt
141 \@afterindentfalse\@afterheading
142 }%
```

We also define `\yauseletterhead`, which takes as its single argument the name of the letterhead as given in a `\defineletterhead` command.

```
143 \def\yauseletterhead#1{%
144 \csname letterhead#1\endcsname%
145 }%
```

Define the basic letter types with `\ya@lettertype`; 0 is block, 1 is modified block, and 2 is “normal.”

```
146 \newcount\ya@lettertype\ya@lettertype=0
```

Now define some of the basic lengths; these are all user-accessible (that is, they don’t contain “@”). They deal with paragraph spacing and indentation.

```
147 \newdimen\yaparskip\yaparskip=12pt
148 \newdimen\yaparindent\yaparindent=0pt
149 \newdimen\yahdateskip\yahdateskip=0pt
150 \newdimen\yahinsideaddrskip\yahinsideaddrskip=0pt
151 \newdimen\yahsalutationskip\yahsalutationskip=0pt
152 \newdimen\yahfarewellskip\yahfarewellskip=0pt
153 \newdimen\yahsignatureskip\yahsignatureskip=0pt
154 \newdimen\yahenclosureskip\yahenclosureskip=0pt
```

Define the letter types. These really simply redefine a few variables, and can be duplicated entirely with the `\yaoptions` command, but these command provide a little syntactic sugar.

```
155 \def\yaletterblock{%
156 \everypar={%
157 \parindent=\the\yaparindent
158 \parskip=\the\yaparskip
159 }%
160 }%
161 \def\yalettermodblock{%
162 \everypar={%
163 \parindent=\the\yaparindent
164 \parskip=\the\yaparskip
165 }%
166 \yahdateskip=\textwidth%
167 \divide\yahdateskip by2%
168 \yahfarewellskip=\textwidth%
169 \divide\yahfarewellskip by 2%
170 \yahsignatureskip=\textwidth%
171 \divide\yahsignatureskip by 2%
172 \ya@lettertype=1
173 }%
174 \def\yaletternormal{%
175 \yaparskip=0pt
176 \yaparindent=24pt
177 \everypar={%
178 \parindent=\the\yaparindent
179 \parskip=\the\yaparskip
180 }%
181 \yahdateskip=\textwidth%
182 \divide\yahdateskip by2%
183 \yahfarewellskip=\textwidth%
184 \divide\yahfarewellskip by2%
185 \yahsignatureskip=\textwidth%
```

```

186 \divide\yahsignatureskip by2%
187 \ya@lettertype=2
188 \ya@preinsideaddr=24pt%
189 \ya@presalutation=12pt%
190 \ya@postsalutation=12pt%
191 \ya@prefarewell=12pt%
192 }

```

Now we define some of the actual letter macros. These put in things like dates, inside addresses, salutations, and so forth. We use our space parameters, defined above, to make sure they all get put in the right places.

```

193 \def\yadatestyle{}
194 \def\yadate#1{%
195 \vskip\ya@predate%
196 \noindent\hskip\yahdateskip\hbox{%
197 \yadatestyle #1%
198 \hfil%
199 }%
200 \vskip\ya@postdate%
201 \global\def\yathedate{#1}%
202 }%
203 \def\yainsideaddrstyle{}
204 \def\yainsideaddr#1{%
205 \vskip\ya@preinsideaddr%
206 \noindent\hskip\yahinsideaddrskip\hbox{%
207 \vbox{\yainsideaddrstyle\noindent #1}
208 }
209 \vskip\ya@postinsideaddr%
210 }%
211 \def\yasalutationstyle{}
212 \def\yasalutation#1{%
213 \vskip\ya@presalutation%
214 \noindent\hskip\yahsalutationskip\hbox{%
215 \yasalutationstyle%
216 \ya@saluword #1\ya@salupunct\hfil%
217 }%
218 \vskip\ya@postsalutation%
219 }%
220 \def\yafarewellstyle{}
221 \def\yafarewell{%
222 \vskip\ya@prefarewell%
223 \noindent\hskip\yahfarewellskip\hbox{%
224 \yafarewellstyle%
225 \ya@farewellword\ya@farewellpunct\hfil%
226 }%
227 \vskip\ya@postfarewell%
228 }%
229 \def\yasignaturestyle{}

```

```

230 \def\yasignature{%
231 \vskip\ya@presignature%
232 \noindent\hskip\yahsignatureskip\hbox{%
233 \yasignaturestyle%
234 \ya@signatureword\hfil%
235 }%
236 \vskip\ya@postsignature%
237 \label{thelast}%
238 }%
239 \def\yaenclosurestyle{}
240 \def\yaenclosure{%
241 \vskip\ya@preenclosure%
242 \noindent\hskip\yahenclosureskip\hbox to\linewidth{%
243 \yaenclosurestyle%
244 \ya@enclosureword\hfil%
245 }%
246 \vskip\ya@postenclosure%
247 }%

```

Now we need to include some code for the headers and footers. These are basically simply container macros with certain information contained in them.

```

248 \def\yaaddresseestyle{\itshape}
249 \def\yasetaddressee#1{%
250 \global\def\yaaddressee{\yaaddresseestyle #1}}%
251 }%
252 \def\yawriterstyle{\itshape}
253 \def\yasetwriter#1{%
254 \global\def\yawriter{\yawriterstyle #1}}%
255 }%
256 \def\yalastpagestyle{}
257 \def\yalastpage{%
258 {\yalastpagestyle \pageref{thelast}}%
259 }%

```

Now we can start work on the address commands. These define addresses that can then be referred to by name, similarly to the letterheads. It takes a first argument, the name of the address; a second, the short name you'd like to be used for the `\yawriter` or `\yaaddressee`; and a third, the actual code for the address.

```

260 \def\defineaddress#1#2#3{%
261 \global\expandafter\def\csname address#1\endcsname{%
262 \noindent\parskip=0pt\parindent=0pt%
263 #3%
264 }%
265 \global\expandafter\def\csname shortname#1\endcsname{%
266 #2%
267 }%
268 }%

```

Now we define three commands to actually use this. We can issue `\yatoaddress{NAME}`,

which will typeset the actual address and set the addressee to the short name define in the second argument of `\defineaddress`; and `\yareturnaddress{NAME}`, which does the same thing but sets the writer rather than the addressee. `\yafromaddress` sets the writer but does not typeset the address. Finally, `\yaaddress` just typesets the address by itself.

```

269 \def\yatoaddress#1{%
270 \yasetaddressee{\csname shortname#1\endcsname}%
271 \csname address#1\endcsname%
272 }%
273 \def\yareturnaddress#1{%
274 \yasetwriter{\csname shortname#1\endcsname}%
275 \csname address#1\endcsname%
276 }%
277 \def\yafromaddress#1{%
278 \yasetwriter{\csname shortname#1\endcsname}%
279 }%
280 \def\yaaddress#1{%
281 \csname address#1\endcsname%
282 }%

```

Now we define the code for envelopes. This is pretty easy to follow. `\yaenvelope` takes two arguments, the width and height of the envelope. It uses `\yaenvtoaddr` and `\yaenvretaddr` in the place the appropriate addresses. We also provide `\yaenvunit` to let people use whatever unit they want; `1in` is the default.

```

283 \RequirePackage{textpos}
284 \def\yashowboxeson{%
285 \TPoptions{showboxes=true}
286 }%
287 \def\yashowboxesoff{%
288 \TPoptions{showboxes=false}
289 }%
290 \def\yaenvunit#1{%
291 \setlength{\TPHorizModule}{#1}%
292 \setlength{\TPVertModule}{#1}%
293 }%
294 \yaenvunit{0.1in}
295 \def\yaenvtoaddr{%
296 TO ADDRESS%
297 }%
298 \def\yaenvretaddr{%
299 RETURN ADDRESS%
300 }%
301 \newcount\yaenvrethskip\yaenvrethskip=2
302 \newcount\yaenvretvskip\yaenvretvskip=1
303 \newcount\yaenvtohskip\yaenvtohskip=42
304 \newcount\yaenvtovskip\yaenvtovskip=18
305 \def\yaenvelope#1#2{%
306 \clearpage%
307 \eject\pdfpagewidth=#1 \pdfpageheight=#2%

```



```

308 \thispagestyle{yaenvpage}
309 \begin{textblock}{100}(\yaenvrethskip,\yaenvretvskip)
310 \parskip=0pt\parindent=0pt%
311 \yaenvretaddr%
312 \end{textblock}
313 \begin{textblock}{100}(\yaenvtohskip,\yaenvtovskip)
314 \parskip=0pt\parindent=0pt%
315 \yaenvtoaddr%
316 \end{textblock}
317 }%
318 \def\yabusiness{%
319 \global\yaenvrethskip=2
320 \global\yaenvretvskip=1
321 \global\yaenvtohskip=42
322 \global\yaenvtovskip=18
323 \yaenvelope{9.5in}{4.125in}%
324 }%
325 \def\yananoxenvelope{%
326 \global\yaenvrethskip=2
327 \global\yaenvretvskip=1
328 \global\yaenvtohskip=42
329 \global\yaenvtovskip=18
330 \yaenvelope{9.5in}{4.125in}%
331 }%
332 \def\yadlenvelope{%
333 \global\yaenvrethskip=2
334 \global\yaenvretvskip=1
335 \global\yaenvtohskip=36
336 \global\yaenvtovskip=18
337 \yaenvelope{8.66in}{4.33in}%
338 }%
339 \def\yacvienvelope{%
340 \global\yaenvrethskip=2
341 \global\yaenvretvskip=1
342 \global\yaenvtohskip=26
343 \global\yaenvtovskip=20
344 \yaenvelope{6.4in}{4.5in}%
345 }%
346 \def\yacvicvenvelope{%
347 \global\yaenvrethskip=2
348 \global\yaenvretvskip=1
349 \global\yaenvtohskip=42
350 \global\yaenvtovskip=18
351 \yaenvelope{9in}{4.5in}%
352 }%
353 \def\yacvenvelope{%
354 \global\yaenvrethskip=2

```

```

355 \global\yaenvretvskip=1
356 \global\yaenvtohskip=38
357 \global\yaenvtovskip=28
358 \yaenvelope{9in}{6.4in}%
359 }%
360 \def\yacivenvelope{%
361 \global\yaenvrethskip=3
362 \global\yaenvretvskip=3
363 \global\yaenvtohskip=60
364 \global\yaenvtovskip=42
365 \yaenvelope{12.8in}{9.0in}%
366 }%
367 \def\yaciienvelope{%
368 \global\yaenvrethskip=3
369 \global\yaenvretvskip=3
370 \global\yaenvtohskip=84
371 \global\yaenvtovskip=60
372 \yaenvelope{18in}{12.8in}%
373 }%
374 \def\yanaaiienvelope{%
375 \global\yaenvrethskip=2
376 \global\yaenvretvskip=1
377 \global\yaenvtohskip=22
378 \global\yaenvtovskip=20
379 \yaenvelope{5.75in}{4.375in}%
380 }%
381 \def\yanaaviienvelope{%
382 \global\yaenvrethskip=2
383 \global\yaenvretvskip=1
384 \global\yaenvtohskip=26
385 \global\yaenvtovskip=22
386 \yaenvelope{6.5in}{4.75in}%
387 }%
388 \def\yanaaviiienvelope{%
389 \global\yaenvrethskip=2
390 \global\yaenvretvskip=1
391 \global\yaenvtohskip=30
392 \global\yaenvtovskip=24
393 \yaenvelope{7.25in}{5.25in}%
394 }%
395 \def\yanaaviiiienvelope{%
396 \global\yaenvrethskip=2
397 \global\yaenvretvskip=1
398 \global\yaenvtohskip=34
399 \global\yaenvtovskip=24
400 \yaenvelope{8.125in}{5.5in}%
401 }%

```

```

402 \def\yanaaixenvelope{%
403 \global\yaenvrethskip=2
404 \global\yaenvretvskip=1
405 \global\yaenvtohskip=38
406 \global\yaenvtovskip=28
407 \yaenvelope{8.75in}{5.75in}%
408 }%
409 \def\yanaaxenvelope{%
410 \global\yaenvrethskip=2
411 \global\yaenvretvskip=1
412 \global\yaenvtohskip=42
413 \global\yaenvtovskip=28
414 \yaenvelope{9.5in}{6.00in}%
415 }%
416 \def\yananovienvelope{%
417 \global\yaenvrethskip=2
418 \global\yaenvretvskip=1
419 \global\yaenvtohskip=26
420 \global\yaenvtovskip=14
421 \yaenvelope{6.5in}{3.625in}%
422 }%
423 \def\yananoviienvelope{%
424 \global\yaenvrethskip=2
425 \global\yaenvretvskip=1
426 \global\yaenvtohskip=32
427 \global\yaenvtovskip=16
428 \yaenvelope{7.5in}{3.875in}%
429 }%
430 \def\yananoixenvelope{%
431 \global\yaenvrethskip=2
432 \global\yaenvretvskip=1
433 \global\yaenvtohskip=36
434 \global\yaenvtovskip=16
435 \yaenvelope{8.875in}{3.875in}%
436 }%
437 \def\yananoxienvelope{%
438 \global\yaenvrethskip=2
439 \global\yaenvretvskip=1
440 \global\yaenvtohskip=48
441 \global\yaenvtovskip=20
442 \yaenvelope{10.375in}{4.5in}%
443 }%
444 \def\yananoxiienvelope{%
445 \global\yaenvrethskip=2
446 \global\yaenvretvskip=1
447 \global\yaenvtohskip=48
448 \global\yaenvtovskip=22

```

```

449 \yaenvelope{11in}{4.75in}%
450 }%
451 \def\yananoxivenvelope{%
452 \global\yaenvrethskip=2
453 \global\yaenvretvskip=1
454 \global\yaenvtohskip=52
455 \global\yaenvtovskip=22
456 \yaenvelope{11.5in}{5in}%
457 }%

```

Lastly, we write the label code. This code allows us to print arbitrary pages of labels.

First, we must define a little macro to allow nested loops. This is taken wholesale from the accepted StackExchange answer to question 58049, written by David Carlisle. As is usual with David Carlisle's code, it's remarkable in its simplicity and elegance.

```

458 \def\nloop#1{%
459 \def\nl@@p##1##2\repeat#1{%
460 \def##1{##2\relax\expandafter##1\fi}%
461 ##1\let##1\relax}%
462 \expandafter\nl@@p\cscname nl@@p-\string#1\endcsname
463 }%

```

Now we can actually define the label code. First we need some lengths and counts.

```

464 \newdimen\ya@labwidth
465 \newdimen\ya@labheight
466 \newdimen\ya@tempboxh\newdimen\ya@tempboxv
467 \newcount\ya@loopi
468 \newcount\ya@loopj
469 \newcount\ya@numacross
470 \newcount\ya@numdown
471 \newdimen\yalabelmarg\yalabelmarg=0.1in

```

Now comes the main macro, `\yalabelsheet`, which takes eight arguments: the width and height of the page itself, the width and height of each label, the vertical and horizontal distance between each label, how many labels are across the width of the page, and how many labels are down the height of the page.

This is a bit convoluted due to length limitations in `textpos`; so we have to define the lengths as half their real value, then multiply them again by 2 later on.

```

472 \def\yalabeltext{}
473 \newdimen\yalableftmarg\yalableftmarg=0pt
474 \newdimen\yalabrightmarg\yalabrightmarg=0pt
475 \newdimen\yalabtopmarg\yalabtopmarg=0pt
476 \newdimen\yalabbotmarg\yalabbotmarg=0pt
477 \def\yalabelsheet#1#2#3#4#5#6#7#8{%
478 \clearpage%
479 \eject\pdfpagewidth=#1 \pdfpageheight=#2%
480 \ifdim\yalableftmarg=0pt \yalableftmarg=#5\fi
481 \ifdim\yalabrightmarg=0pt \yalabrightmarg=#5\fi
482 \ifdim\yalabtopmarg=0pt \yalabtopmarg=#6\fi
483 \ifdim\yalabbotmarg=0pt \yalabbotmarg=#6\fi

```

```

484 \newgeometry{left=\the\yalableftmarg,right=\the\yalabrightmarg,
485 top=\the\yalabtopmarg,bottom=\the\yalabbotmarg}
486 \thispagestyle{empty}
487 \ya@numacross=#7 \ya@numdown=#8
488 \ya@labwidth=#3 \ya@labheight=#4
489 \ya@tempboxh=#3 \ya@tempboxv=#4
490 \advance\ya@labwidth by#5
491 \advance\ya@labheight by#6
492 \divide\ya@labwidth by2%
493 \divide\ya@labheight by2%
494 \newcount\ya@acthfact\newcount\ya@actvfact
495 \setlength{\TPHorizModule}{\the\ya@labwidth}%
496 \setlength{\TPVertModule}{\the\ya@labheight}%
497 \ya@loopi=0 \ya@loopj=0
498 \nloop1\ifnum\ya@loopi<\ya@numdown
499 \ya@actvfact=\ya@loopi\multiply\ya@actvfact by2
500 \ya@loopj=0
501 \nloop2\ifnum\ya@loopj<\ya@numacross
502 \ya@acthfact=\ya@loopj\multiply\ya@acthfact by2
503 \begin{textblock}{100}(\ya@acthfact,\ya@actvfact)
504 \hbox to#3{%
505 \hskip\yalabelmarg%
506 \vbox to#4{%
507 \parskip=0pt\parindent=0pt%
508 \vfil%
509 \yalabeltext%
510 \vfil%
511 }%
512 }%
513 \end{textblock}
514 \advance\ya@loopj by1%
515 \repeat2
516 \advance\ya@loopi by1%
517 \repeat1
518 }%

```

Now we define a macro allowing text to be placed in an arbitrary label. Three arguments: the text to be placed; the numbers of columns across; and the number of rows down.

```

519 \def\yaplacelabel#1#2#3{%
520 \newcount\ya@numacrossii\ya@numacrossii=#2
521 \newcount\ya@numdownii\ya@numdownii=#3
522 \multiply\ya@numacrossii by2%
523 \multiply\ya@numdownii by2%
524 \begin{textblock}{100}(\ya@numacrossii,\ya@numdownii)
525 \hbox to\ya@tempboxh{%
526 \hskip\yalabelmarg%
527 \vbox to\ya@tempboxv{%
528 \parskip=0pt\parindent=0pt%

```

```

529 \vfil%
530 #1%
531 \vfil%
532 }%
533 }%
534 \end{textblock}
535 }%

```

Define a couple of preset options for certain sheets of labels; namely, for the two types of sheets that I happened to have near me at the time of writing this class. (Also the only ones I've ever really used.) Individual ones are prefixed with `\avery` and then the number put afterwards; you call these by issuing `\yaavery` with the single argument of the serial number of the label sheet you want.

```

536 \expandafter\def\csname avery8663\endcsname{%
537 \yalabtopmarg=0.5in
538 \yalabbotmarg=0.5in
539 \yalableftmarg=0.15625in
540 \yalabrightmarg=0.15625in
541 \yalabelsheet{8.5in}{11in}{4in}{1.95in}{0.15625in}{0in}{2}{5}%
542 }%
543 \expandafter\def\csname avery8660\endcsname{%
544 \yalabtopmarg=0.5in
545 \yalabbotmarg=0.5in
546 \yalableftmarg=0.1875in
547 \yalabrightmarg=0.1875in
548 \yalabelsheet{8.5in}{11in}{2.625in}{25mm}{0.125in}{0in}{3}{10}%
549 }%
550 \def\yaavery#1{%
551 \csname avery#1\endcsname%
552 }%

```

Finally, we put in some code to run at the `\begin{document}` command, just to get the ball rolling.

```

553 \AtBeginDocument{%
554 \pagestyle{yaotherpage}%
555 \thispagestyle{yafirstpage}%
556 \ifnum\ya@lettertype=0
557 \yaletterblock
558 \fi\ifnum\ya@lettertype=1
559 \yalettermodblock
560 \fi\ifnum\ya@lettertype=2
561 \yaletternormal
562 \fi
563 }

```

Happy T_EXing!

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