`newlfm.cls`
A New Letter, Fax, Memo Document Class for LaTeX2e

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Contents

1 The newlfm.cls class

newlfm is a new letter, fax and memo class. It gives the user control over many elements of letter construction. It enables the user to construct a simple database of letter information for letter information storage. It includes commands to print labels, and issue form letters to multiple recipients. Additionally, the class includes tools to produce standard press releases.

1.1 Writing a simple letter

Here is an example of a very simple letter:

```
\documentclass[stdletter]{newlfm}
\nameto{George Bush} \addrto{\parbox{2in}{The White House \\ Washington, DC}}
\namefrom{Paul Thompson} \addrfrom{\parbox{2in}{The Pink House \\ Belleville, IL}}
\begin{document}
\closeline{Sincerely yours,} \greetto{Dear Mr. Bush,}
\begin{newlfm}
How are the azaleas?
\end{newlfm}
\end{document}
```

This produces a simple letter with very standard features. The letter produced in this way has odd-looking spacing. Additionally, the information in the "from" specification is very likely to be repeated in letter after letter. Although the user can copy this information, it is much more convenient to put this information in an address database.

1.2 Option specification

The newlfm package features a wide variety of options to specify options for letters, faxes and memos. Options may be specified in one of two ways:

1. They may be placed in the options section of the \documentclass statement. Thus, the options would be specified as follows, with several other statements to provide context:

   ```
   \documentclass[dvips,faxheaderpage,letterpaper,%
   stdmemo,dateno,memoaddrto]{newlfm}
   \lthOfficeA\setadrto{\adrMainCust}
   \leftmarginsize{.75in}\rightmarginsize{1.385in}
   \begin{document}\begin{newlfm}
   Now is the time for all good men to come to the aid of the party.
   \end{newlfm}\end{document}
   ```

   This is called the "document-header" approach. Options may be specified in the preamble area (after the documentclass specification and before the \begin{document} specification). The terms \lthOfficeA and \adrMainCust refer to specifications in the letter information database, which is described in Section 7. Note the use of the "%" to set all spaces after the comma on the first line to comments; this functions to create a single unified line.

2. Options may also be placed in a statement in the letter itself, or stored in the letter database file letrinfo.tex. Using this approach, options are specified as follows:

   ```
   \documentclass[dvips]{newlfm}
   \newlfmP{letterpaper,stdmemo,dateno,letrh=OfficeA,addrt=MainCust,memoaddrto,faxheaderpage}
   \begin{document}\begin{newlfm}
   Now is the time for all good men to come to the aid of the party.
   \end{newlfm}\end{document}
   ```

This is called the "keyed-value" approach. In previous versions, several distinct "keyed-value" specifications were used, but currently all options are placed in the `newlfmP` key specification. The terms `OfficeA` and `MainCust` refer to specifications in the letter information database, which is described in Section 7.

The approaches may be intermingled without effect. Options are applied in order of encounter, so the last option encountered over-rides earlier ones.

2 Available styles

2.1 Letter styles

`newlfm` defines several letter styles. These styles are chosen using options (in either selection method). Letters include some or all of the following components: 1) date, 2) from-address, 3) to-address, 4) opening salutation, 5) closing phrase, 6) signature, and 7) name and title of signer. Justification of the components is shown in Table 1 below.

2.2 Memo styles

Memos are headed as:

To:	J Smith	October 31, 2004
From:	P A Thom	
Re:	Gnu info	

A number of options control whether more information is printed for the memo, including printing the address, phone number and FAX number of both the "from" and "to" persons (after the name). There are two forms of the memo style, as shown in Table 1 below. The user may use their own version of the memo block.

2.3 A list of styles in `newlfm`

Table 1 shows the components of a letter, and indicates when they will be used in letters:

Table 1: Letter and memo structures

Class	Style	D	F	T	G	C	S	N	Option name
Letter	Business	L	L	L	L	L	L	L	`busletter`
	B, No from	L	O	L	L	L	L	L	`busletternofrom`
	Standard	R	R	L	L	R	R	R	`stdletter`
	S, No from	R	O	L	L	R	R	R	`stdletternofrom`
Memo	Standard	R	L	L	O	O	O	O	`stdmemo`
	Full	F	F	F	O	O	O	O	`fullmemo`
Press Release	Standard	L	L	O	O	O	O	L	`pressrelease`

Headers — `D`: Date; `F`: From-address; `T`: To-address; `G`: Greeting; `C`: Closing; `S`: Signature; `N`: Name. Body entries — `R`: Right-justified; `L`: Left-justified; `O`: Omitted; `F`: Full

2.4 FAX cover pages

A FAX cover page can be used for either the letter or the memo style. This page shows the page count, time and date of composition, and the addresses of sender and recipient. In addition, the letter can include a FAX message in a message line.

3 Letter and memo options

3.1 Use of options

In `newlfm`, the various components of the letter can be modified. This is done using options (placed in the "document-header" or "keyed-value" approaches).

The following example illustrates option placement in the document header line:

```
\documentclass[busletter,nofromaddress,dateright,dateyes]{newlfm}%
\lthMyLtr
\begin{document}
\begin{newlfm}
```

This prints a business letter, with no "from"-address, and date printed right-justified. Since some options can over-ride actions of others, the options are executed in the order encountered. Long specifications which cannot nicely fit on a single line should be terminated with the command character `%`, which omits spaces in the specification list. The list may continue as long as is necessary.

The information may also be specified using the "keyed-value" approach:

```
\documentclass{newlfm}%
\newlfmP{letrh=MyLtr,busletter,nofromaddress,dateright,dateyes}
\begin{document}
\begin{newlfm}
```

The "keyed-value" method is very flexible. Values may be specified either as above (before the `\begin{document}` specification) or within the letter database. Thus, the approach gives the user the flexibility of storing letter characteristics within the address system, so that the selection of a certain recipient defines a letter of a certain type.

3.2 Letter options

Letter options involve the inclusion of elements into "from-address" and "to-address" blocks (including email and telephone numbers) and the placement of blocks on the page. Blocks may also be omitted. Options may be defined using either options specification method:

Table 2: Letter options

Component	Option	Description	Option	Description
"From" address	`noaddrfrom`	Omit address	`printallfrom`	Print all components
	`addrfromleft`	Left-justified block	`addrfromright`	Right-justified
	`addrfromemail`	Include e-mail	`addrfromphone`	Include phone
	`addrfromfax`	Include fax		
"To" address	`printallto`	Print all components	`addrtoleft`	Left-justified block
	`addrtoright`	Right-justified	`addrtoemail`	Include e-mail
	`addrtophone`	Include phone	`addrtofax`	Include fax
Date	`dateright`	Right-justified	`dateleft`	Left-justified
	`datecenter`	Centered	`dateno`	Omit
	`dateyes`	Force date to print		
Order	`orderdatefromto`	Date, From, To	`orderfromdateto`	From, Date, To
	`orderfromtodate`	From, To, Date		
Signature	`sigright`	Right-justified	`sigleft`	Left-justified
	`sigcenter`	Centered		

3.3 Memo options

Memo options involve the inclusion of elements into "from-address" and "to-address" blocks (including email and telephone numbers) and the placement of blocks on the page. Blocks may also be omitted. These may be placed either in the "document-header" option section, or in the command `\newlfmP`.

Table 3: Memo options

Block	Option	Function	Option	Function
"From" block	`memonofrom`	Omit block	`memoaddrfrom`	Address
	`memoemailfrom`	E-mail	`memopagerfrom`	Pager #
	`memophonefrom`	Telephone #	`memofaxfrom`	FAX #
"To" block	`memonoto`	Omit block	`memoaddrto`	Address
	`memoemailto`	E-mail	`memophoneto`	Telephone #
	`memopagerto`	Pager #	`memofaxto`	FAX #
Other	`memodate`	Set date on memo	`memonore`	Omit "Re:" line
	`fullmemo`	Use all optional items		

3.4 Memo block structure

The default memo block code was shown previously. The memo style is stored internally, but as `\newlfm` is processed, it looks for a file `memosec.tex`, and reads the memo header block definition in that file if it is found. If an alternative to the default memo header block structure is desired, the user may feel free to hack the code found in `smemosec.tex` and save it in `memosec.tex`. Thus, you may alter that file to make changes in the memo block. To simplify the process, you may wish to 1) set up the main parameters for `\newlfm` successfully, and 2) alter the code in `memosec.tex` to look as you wish. Using this approach, you may find that the alteration process works in a more dependable fashion. No support for modification of code is able to be offered, unfortunately. The code for `\memosec` is presented and commented on Page 46.

3.5 Fax options

Fax options involve the selection of one of several fax block styles. `test1.tex` shows an example of the use of `faxheaderpage` (separate fax page), while `faxhba` shows an example of the use of `faxhba` (fax information in header block). The code for `\faxpage` is presented and commented on Page 48.

Table 4: FAX options

Option	FAX item	Option	FAX item
`faxheaderpage`	Print FAX page	`faxhba`	In Rheader
`faxblocka`	Block A style	`faxblockb`	Block B style

3.6 Press Release style

There is only one press release style. A press release includes the following elements, in this order:

1. The information about the contact, address, etc. of the contact person is taken from the current "from-address" information. So, to insert a person into the "Contact" line specified below, use the `addrf` specification or the other methods of indicating the "from-information."

2. On the upper left, below the letterhead, information about when the release may be used. Usually this is **FOR IMMEDIATE RELEASE**. This phrase is modified using the command `\release`.

3. Contact information, drawn from the from information used in the other styles. The option `PhrContact` allows the user to substitute another term for "Contact:".

4. Headline, usually in boldface with the first letters of words capitalized. This is specified with the `\headline` command. The press release style automatically inserts a header into the center block of

the head section for all subsequent pages. This is the same as the `headline` information, unless a different value is defined with the `\shorthead` command.

5. Dateline, usually a city. The date is appended automatically.

6. The main body of the press release.

7. The end marker, usually # # #.

Because recipients like to scribble notes on press releases, they have 1 inch margins (that is the default anyway) and double spacing; the command `dspace` will also set double spacing, while `sspace` retains single spacing. [1]

A press release should also try not to break paragraphs across pages (not yet implemented), and, if there are multiple pages, put "— more —" at the bottom and the headline (or a short form of it) at the top of subsequent pages.

If faxing a press release, remember to pick a good fax font. As this matter is not specific to press releases, and is system dependent, this press release environment does nothing special to your fonts. Usually, sans serif fonts work better when faxing, so you might want to specify `\sffamily` right after `\begin{document}`.

A press release does not have a signature or closing phrase at the end.

3.7 Press Release options

Press releases are inherently subjective in construction. What works for one person will not work for another. The style defined in `newlfm` is servicable, but not particularily elegant. For that reason, a very easy method of customization is set up. The file `sprsrls.tex` includes the default press release style. To change the style:

1. Copy the file to `prsrls.tex`;

2. Modify the style as needed;

3. Test using a press release of your choosing.

4 Spacing commands

`newlfm` has a number of commands which allow the user to define the position of items within the letter. Some of these commands control the space for structural elements of the document, and some control spacing within these structural elements.

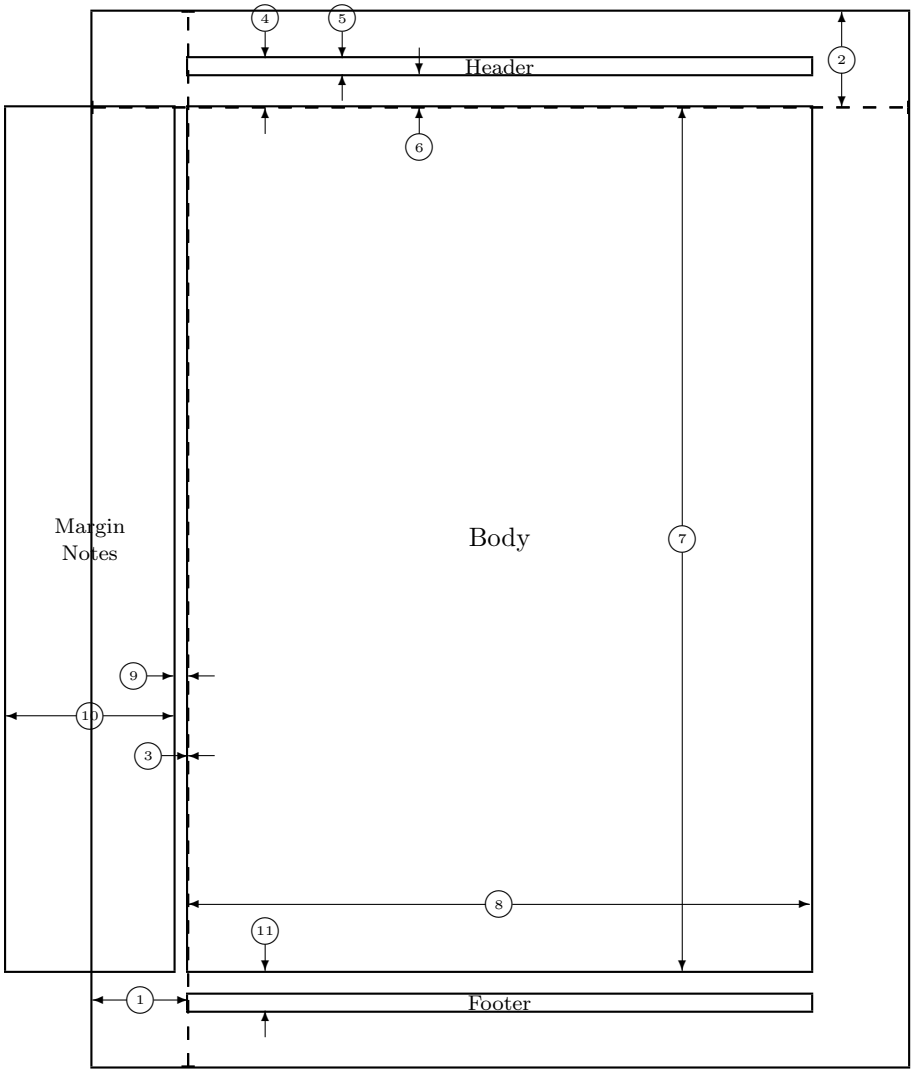
4.1 Structure of a LaTeX document

A LaTeX document has a number of structural elements, summarized in Figure 1. Examining this figure, there are three sections vertically (header, text body, footer) and three sections horizontally (left margin, text body, right margin). Each of these sections is placed in reference to the paper boundaries. Vertically, the header is offset from the top of the page, there is a separation to the text body, there is a separation from the text body to the footer, and the footer is offset from the bottom of the page.

4.2 Vertical spacing

Vertical spacing commands are shown in Table 5. This table shows the various components of the LaTeX page, along with the commands which are used to define or modify these elements in `newlfm`. Naturally, since the physical page has a physical dimension, the size of one component can be defined by the other dimensions save one. In `newlfm`, commands which give the structure of the overall document are amplified and extended by commands which give the structure of the document within the text body itself. These additional items are shown in Table 6.

[1] Do not put a `onehalfspace` environment directly inside the default `doublespace`. The former multiplies whatever spacing is in effect.



1	one inch + \hoffset	2	one inch + \voffset
3	\oddsidemargin = 0pt	4	\topmargin = -37pt
5	\headheight = 12pt	6	\headsep = 25pt
7	\textheight = 650pt	8	\textwidth = 469pt
9	\marginparsep = 11pt	10	\marginparwidth = 126pt
11	\footskip = 30pt		\marginparpush = 0pt (not shown)
	\hoffset = 0pt		\voffset = 0pt
	\paperwidth = 614pt		\paperheight = 794pt

Figure 1: Page elements. The values shown are those in effect in the current document, not the defaults.

For many of these terms, they may be used alone or within the `newlfmP` specification. If used alone, they are specified as LaTeX commands, while if used within the `newlfmP` specification, they are used without the backslash:

```
\topmarginskip{1in}
\newlfmP{topmarginskip=1in}
```

Table 5: Vertical spacing commands

Page Section	LaTeX Name	newlfm Name	Default	Included Items	Function Description
Top Margin	`\topmargin`	`unprtop`			Top unprintable area
		`topmarginskip`			Top of page to header block
Header	`\headheight`	`MinHead`		Group 1	Header section
		`headermarginsize`	72pt		Header section
Header Skip	`\headsep`	`headermarginskip`	20pt		Skip from header to text block top
Text Height	`\textheight`	`textheightsize`		Group 2	
Footer skip	`\footskip`	`bottommarginskip`	20pt		Skip from bottom of text to footer
Footer	`\footskip`	`MinFoot`	72pt	Group 3	Footer section
		`footermarginsize`			
		`unprbottom`			Bottom unprintable area

Group 1: `Cheader`, `Rheader`, `Lheader`, `cheader`, `rheader`, `lheader`. Group 2: `date`, to-address, from-address, `greetto`, `signature`. Group 3: `Cfooter`, `Rfooter`, `Lfooter`, `cfooter`, `rfooter`, `lfooter`

Table 6: Vertical spacing commands

Function Name	newlfm Structure	Section Size	Space Before	Space After
Date	`\dateset`		`dateskipbefore`	`dateskipafter`
"From" address	`\adrsetfr{XXX}`		`addrfromskipbefore`	`addrfromskipafter`
"To" address	`\adrsetto{XXX}`		`addrtoskipbefore`	`addrtoskipafter`
Greeting	`\greetto`		`greettoskipbefore`	`greettoskipafter`
Text Block		`textheight`		
Left Margin Block	`\Lmargin`		`leftmargintopdist`	
Right Margin Block	`\Rmargin`		`rightmargintopdist`	
Signature	`\signature`	`sigsize`	`sigskipbefore`	`sigskipafter`
	`\siglist`			
`Ps`, `PPs`, etc	Various		`postsigskipbefore`	`postsigskipafter`
Memo block	Various		`memoskipbefore`	`memoskipafter`

Here are several rules which are used to define the sizes of items:

- If header margin specifications (`\Cheader`, etc.) are not used, `headermarginskip` and `topmarginskip` are ignored. In this case, `topmargin` alone is sufficient to specify the size of the top margin. If `unprtop` is specified, and `unprtop` > `\topmargin`, `unprtop` is used in place of `topmargin`. If `\unprtop` is specified, and `\unprtop` > `\topmarginskip`, `\unprtop` is used in place of `\topmarginskip`.
- If any of the footer margin specifications (`\Cfooter`, `\Rfooter`, or `\Lfooter`) are used to specify a footer margin block, `\bottommarginskipbelow` and `\bottommarginskip` are both used to position the bottom- or footer-margin block relative to the text. Additionally, the overall height (including depth) of the largest of the three footer-margin placement blocks is used to specify the value of `\footermarginsize`. If `\unprbottom` is specified, and `\unprbottom` > `\bottommargin`, `\unprbottom` is used in place of `\bottommarginsize`.

- \topmarginsize and \bottommarginsize are sufficient to specify the positions of blocks vertically. If \textheight is also specified, it is used last, and over-rides the specification of text height by subtraction.
- If a left margin text block is specified using \Lmargin, \leftmargintopdist sets the space that the left margin block is placed from the top of the page. By default, the left margin is placed flush with the bottom of the header section. Any choice here sets the top of the header block a certain distance from the top of the page.
- The use of space-after commands is not recommended in the general case, as they can complicate item placement.

4.3 Horizontal spacing

Horizontal spacing commands are shown in Table 7.

Table 7: Horizontal spacing commands

Page Section	LaTeX Name	newlfm Name	Default	Included Items	Function Description
Left Margin	\oddsidemargin	unprleft			Left unprintable area
		leftmarginskipleft			Page left side to margin block
Left Print Area		MinLeft		Group 4	Left print section
		leftmarginsize	72pt		Header section
Left Margin Gap		leftmarginskipright	10pt		Dist from margin block to text
Text Width	\textwidth	textwidthsize			
Right margin	\evensidemargin	rightmarginsize		Group 5	

Group 4: Lmargin, lmargin Group 5: Rmargin, rmargin

Usage of these spacing commands:

- The size of the left margin text block is set by the width of the minimum of the \Lmargin block or by the MinLeft value.
- When \Lmargin is used for a left margin block, both leftmarginskipleft and leftmarginskipright are used to position the left-margin block relative to the text. Additionally, the width of \Lmargin is used to specify the value of \leftmarginsize. If \unprleft is specified, and \unprleft > \leftmarginskipleft, \unprleft is used in place of \leftmarginskipleft.
- If \Lmargin is not used, leftmarginskipleft and leftmarginskipright are ignored. In this case, \leftmarginsize alone is sufficient to specify the size of the left margin. If \unprleft is specified, and \unprleft > \leftmarginsize, \unprleft is used in place of \leftmarginsize.
- If \Rmargin is not used, and \unprright > \rightmarginsize, \unprright is substituted for \rightmarginsize.
- \rightmarginsize and \leftmarginsize are sufficient to specify the positions of blocks horizontally. If \textwidth is also specified, it is used last, and over-rides the specification of text width by subtraction.

4.4 Ordering of elements:

Date, from-address and to-address are generally printed in that order. Other orders are set up using options.

- orderdatefromto: date, from-address, to-address
- orderfromdateto: from-address, date, to-address
- orderfromtodate: from-address, to-address, date

5 Address components

Information about the names, addresses, telephone numbers and the other types of data is specified using these commands.

5.1 Address commands

Address information is specified using the commands in Table 8. These commands are used for both "from-address" and "to-address." However, the information stored using these commands must be converted to specific "from-address" or "to-address" information, as discussed below in Section 7 below.

Table 8: Address item commands

Command	Stores ...	Command	Stores ...	Command	Stores ...
`\addr`	Address	`\byline`	Byline	`\city`	City
`\dept`	Department	`\email`	E-mail address	`\emailb`	E-mail address b
`\emailc`	E-mail address c	`\fax`	FAX #	`\fname`	First name
`\greet`	Greeting	`\institute`	Institution	`\lname`	Last name
`\mname`	Middle name	`\name`	Name	`\pager`	Pager #
`\phone`	Telephone #	`\phonea`	Telephone # a	`\phoneb`	Telephone # b
`\phonec`	Telephone # c	`\phoned`	Telephone # d	`\phoneo`	Office #
`\phoneh`	Home #	`\position`	Position	`\regarding`	"Regarding" line
`\release`	"Immediate Release"	`\role`	Role	`\socsec`	Social Security #
`\staddr`	Street address	`\state`	State	`\subdept`	Sub-department
`\title`	Title	`\zip`	zip-code		

5.2 Phrase commands

Letters and memos have certain phrases which identify sections. These include the terms for "To" and "From" in the memo, and the phrases identifying the other sections of letters. These phrases may be modified using the commands listed here. They are used as:

```
\begin{newlfm}
....
\PhrPhone{Telephone Number}
....
```

This term will be used whenever the phrase for "Telephone Number" should be printed.

Table 9: Phrase commands

Command	Use	Command	Use	Command	Use
`\PhrFAXcovp`	FAX Cover page	`\PhrFAXpgcnt`	FAX Page Count	`\PhrPager`	Pager
`\PhrEmail`	E-mail	`\PhrDocument`	Document	`\PhrPhone`	Telephone
`\PhrRe`	re	`\PhrSubre`	re	`\PhrCc`	cc
`\PhrPs`	ps	`\PhrMessage`	Message	`\PhrPps`	pps
`\PhrPpps`	ppps	`\PhrEncl`	Encl	`\PhrPage`	page
`\PhrTo`	To	`\PhrFrom`	From	`\PhrRegard`	Regarding
`\PhrContact`	Contact	`\PhrRelease`	For Immediate Release	`\PhrMore`	— more –
`\PhrPREnd`	# # #				

6 Letterhead tools

6.1 Inclusion of logos

Logos and other information, stored as encapsulated PostScript objects (for standard LaTeX production using `latex file` and `dvips file`) or .pdf files (for LaTeX production using `pdflatex file`), can be placed in the

header and footer of letters. However, sizing the resulting letter can be challenging. `newlfm` automatically adjusts letter dimensions to accomodate the inclusion of such objects, if these objects are included as boxed text (`\sbox`, `\fbox`, `\parbox`, `minipage`, etc.). In the discussion that follows, the first page of the letter is called the "letterhead" page, while subsequent pages are the "non-letterhead" pages.

Using `fancyhdr.sty` of Piet van Oostrom, `newlfm` handles letterhead information in a simple and straightforward manner. In `newlfm`, information for the letterhead page is entered using the commands shown in Table 10.

Table 10: Marginal material commands

Page	Location	Left	Center	Right
Letterhead	Footer	`\Lfooter`	`\Cfooter`	`\Rfooter`
	Header	`\Lheader`	`\Cheader`	`\Rheader`
	Margin	`\Lmargin`		`\Rmargin`
Page	Location	Left	Center	Right
Non-letterhead	Footer	`\lfooter`	`\cfooter`	`\rfooter`
	Header	`\lheader`	`\cheader`	`\rheader`
	Margin	`\lmargin`		`\rmargin`

In order to simply use letterhead logos and other PostScript pictorial information (logos, etc.), the program automatically calculates the heights of the header and footer and optimally places them on the page. In order for this to work, ***all information for the header and footer must be included in boxed formats***. That is, to use a letterhead, logos, pictures, addresses, whatever must be placed in a LaTeX box structure. The boxed formatted items may be included in a wrapper program.

For example, if a logo is to be included from an external file, this should be inserted into an `\sbox` and used as follows:

```
\newsavebox{\Lpalmb}
\sbox{\Lpalmb}{\parbox[t]{1.75in}{\includegraphics[scale=.4,ext=.pdf,%
angle=101,trim=-50 245 125 125]{palm}}}%
\makelth{Homea}{\Lheader{\usebox{\Lpalms}}}%
```

6.2 Marginal material

The left and right margins may also contain a box of text. This is placed in `\Lmargin` or `\Rmargin`. The size of the margin is automatically calculated from the box size. The box is placed a very small distance from the edge of the paper (10pt), and the margin gap from the box to the text box of the letter is set to be 10pt as well.

In some cases, the header and footer margins may be too small when fitted to the boxed-up header and footer items. For this reason, four commands allow the headers and footers to have a given minimum size. These commands are `minhead=xxpt` (minimum size for header of non-letterhead page; xxpt is a dimensional value such as `5in` or `12pt`), `MinHead=xxpt` (minimum size for header of letterhead page), `minfoot=xxpt` (minimum size for footer of non-letterhead page) and `MinFoot=xxpt` (minimum size for footer of letterhead page). These ensure that the headers and footers have given minimum sizes.

6.3 Graphical objects

Here is a step-by-step description of the process of incorporating a graphical object:

- **Insert the object:** Insert the graphical object into the document (`\includegraphics`).
- **Check object:** Ensure that the graphical object is included correctly. Prior to attempting to use `newlfm` to print the object, ensure that `\includegraphics` has inserted the information correctly. Using the `\fbox` specification to allow the box edges to be examined carefully, print the boxed information to ensure that the object is correctly specified, and that the size is correct. If the appearance is appropriate, use the wide range of options in the `\includegraphics` command (`clip`, `view`, `bb`, `trim`, `size`, etc.) to make the object appear as you wish it.

- **Use object:** Use the resulting trimmed, clipped and selected object in one of the commands for inclusion in a `newlfm` letter or memo.
- **Usage tip:** Run LaTeX twice to ensure that dimensions are correctly interpreted.

6.4 Example use of external object:

Here is an example of the inclusion of an external object and its use in constructing a letterhead page. A `\newsavebox` is constructed and used to store the object. `\includegraphics` is used to insert the object. If commands to produce a .ps file are used (`latex file`, `dvips file`), LaTeX will search for a file with the .ps or .eps suffix. If commands to produce a .pdf file are used (`pdflatex file`), LaTeX will search for a file with the .pdf suffix. For flexibility, omit the suffix.

```
\newsavebox{\Logob}%
\sbox{\Logob}{\parbox[t]{\vdim}{\includegraphics[scale=.8]{wulogo3}}}%
\makeaddress{PAT}{%
\name{Paul A. Thompson, Ph.D.}%
\addr{\parbox[b]{2.65in}{Washington University School of Medicine \\%
at Washington University Medical Center \\ Box 8067, 660 S. Euclid \\%
St. Louis, MO    63110-1093}}%
\phone{(314) 747-3793}\fax{(314) 362-2693}\email{paul@wubios.wustl.edu}%
}
\makeaddress{GRQ}{%
\name{Roger Q. Grollier}%
\addr{\parbox[b]{2.65in}{25 N. Eastwind Rd.\\Westend, OH 43431}}%
\phone{(412) 555-2324}\fax{(412) 555-6923}\email{roger@starlik.com}%
}
\makeletterhead{WULHb}{%
\setadrfr{\adrPAT}\Lheader{\usebox{\Logob}}%
\Rheader{{\large\bf Division of Biostatistics}}\rheader{\@name@fr}%
\lheader{Page \thepage}\Lfooter{\smallform}\closeline{Sincerely yours,}%
}%
```

The two `makeaddress` specificiations set up wrapper commands (see Section 7 below) which encapsulate the relevant information. The `\setadrfr` specification in the example converts the address information in `\adrPAT` from neutral to "from-address" formats. This can also be done using the wrapper ID specification, where it would be stated as `\setadrto{\fixadr{GRQ}}`, where the `\fixadr` specification converts the wrapper ID to the wrapper internally.

In a letter, this is used as:

```
\documentclass[dvips]{newlfm}
\lthWULHb\setadrto{\adrGRQ}
\begin{document}
\begin{newlfm}
....
```

For this example, the object found in `wulogo3` was boxed up using the `\sbox` specification. It will be placed in the left section of the header block for the letterhead page. The logo was examined earlier to ensure that it is printed exactly as required.

Usage tip: Examine the example of the inclusion of the graphical object above carefully. Note that all lines are terminated with the comment character "%". All wrapper macros should be constructed in this manner, to ensure that no blank spaces are inadvertently placed in the wrapper macro **between commands**, other than those placed within a command (for instance, the `\addr` command has blanks). The wrapper macros should not have blanks around commands, either before the start of a command or after the end of one. The wrappers are "unpacked" during active text construction, and the presence of blanks can result in odd, difficult-to-trace minor justification anomalies. In many cases, the author has found it helpful to ensure that

all lines in the wrapper addresses and terms are terminated with the "%" comment character, to ensure that end-of-line characters are not translated into hard-to-detect space characters.

6.5 Blank block printing commands

In some cases, the user wishes to use the included graphical objects to size the header and footer areas (covered in Section 6 below), and then not actually print the objects *per se*. For instance, the letter may be printed on letterhead stock, using the letterhead objects included to size the letter. In that case, the options shown in Table 11 are available to blank out the various parts of the letterhead information after it is used to set margin sizes.

Table 11: Options for blanking

Option	Blanks ...	Option	Blanks ...	Option	Blanks ...
`blankheader`	`r,l,cheader`	`blankfooter`	`r,l,cfooter`	`blanklmargin`	`lmargin`
`blankrmargin`	`rmargin`	`Blankheader`	`R,L,Cheader`	`Blankfooter`	`R,L,Cfooter`
`Blanklmargin`	`Lmargin`	`Blankrmargin`	`Rmargin`	`Blankall`	All upper-case
`blankall`	All lower-case	`Blank`	All		

7 The letter database

7.1 Letter database `letrinfo.tex`

Information for letters may be stored in a file. The default name of the file is `letrinfo.tex`. This file stores information in two ways: unconditionally and conditionally. The conditional information, such as lists of addresses associated with names, is stored in "wrappers", which carry the information from the file `letrinfo.tex` to each letter. The information stored in the letter database file `letrinfo.tex` is letter information (i.e., `\name{Paul Thompson}`, `\PhrPhone{Telephone #}`).

Several types of information are stored in the file `letrinfo.tex`. These different types of information may be stored in several ways. It may be stored unconditionally, by placing it into the file `letrinfo.tex`. All information, used in the order listed, will be available for all letters.

Most information is not unconditional, however. For this reason, the information will almost always be stored in address "wrappers". This includes information about the "from" person, as this information may change based on the style of letter, etc. The information may be divided into three different types, and is thus placed into three types of wrapper commands.

7.2 Address information

Address information is stored in an address wrapper. The address wrapper has an wrapper ID and a body. The wrapper is set up using the command:

```
\makeaddress{IDENT}{stuff}.
```

The wrapper ID is `IDENT`. This makes a wrapper for addresses, `\adrIDENT`. Commands placed in the wrapper are then carried into the document when the wrapper command is placed in the letter as:

```
\begin{document}
\setadrto{\adrIDENT}
\setadrfr{\adrOTHID}
\begin{newlfm}
......
```

Note that the wrapper command is placed after `\begin{document}` and before `\begin{newlfm}`. All items entered into the `IDENT` wrapper are then activated in that particular document. This enables information to be centrally stored in the `letrinfo.tex` file, and used in each actual letter.

The wrappers may also be indicated using the `newlfmP` key-value specification:

```
\begin{document}
\newlfmP{addrt=IDENT,addrf=OTHID}
\begin{newlfm}
......
```

This also sets up `IDENT` as the "to" address and `OTHID` as the "from" address.

Wrapper commands have two parameters.

- The wrapper ID is the first parameter in the `\makeaddress` specification. The wrapper ID is used to set up a new command `\adrIDENT`, and is used in many other places by itself. In general, a simple identifier is best (i.e., addressee's initials).
- The actual items are placed in the second set of braces. The wrapper ID is case-sensitive. Whatever is placed there is used in the command, and carried along whenever it is used. The user may choose to place a wide variety of information in the wrapper. Commands usually used in address wrapper commands are shown in Table 8.

The address information for a certain individual usually does not change from letter to letter, although different persons are used in different letters. By using address info wrappers, the information can be handled and used easily with the single wrapper command. This information may be used for either the sender or the addressee for the letter.

Designating a sender: To use the address information for the sender or "from-person," use the `\setadrfr` command or the `addrf` term in the `newlfmP` command:

```
\setadrfr{\adrPAT}
\setadrfr{\fixadr{PAT}}
\newlfmP{addrf=PAT}
```

This sets up the information in the `PAT` wrapper to be placed in the "from" blanks of the letter. If the wrapper ID is used in the `\setadrfr` command, the `\fixadr` command converts the wrapper ID to the correct form.

Designating a recipient: To use the address information for the recipient, use the `\setadrto` command or the `addrt` term in the `newlfmP` command:

```
\setadrto{\adrPAT}
\newlfmP{addrt=PAT}
\setadrto{\fixadr{PAT}}
```

This would set up the information in the `PAT` wrapper to be placed in the "to" blanks of the letter.

7.3 Letterhead information

Letterhead information is stored in a letterhead wrapper. The wrapper is prepared using the command:

```
\makeletterhead{LIDENT}{stuff}
```

The wrapper usually contains informationabout the header, footer and margin objects, which are used to set up the letterhead. This wrapper is used like the `\makeaddress` command. In many cases, the return address of the letter author is set up in the letterhead wrapper, because this does not change:

```
\makeletterhead{HomeA}{%
\rheader{this}%
\setadrfr{\adrPAT}%
}%
```

7.4 Signature information

Signature information is stored in an signature wrapper. The wrapper is prepared using the command

```
\makesignature{SIDENT}{stuff}
```

This wrapper is used like the `\makeaddress` command. The information shown in Table 12 is usually included in the `\makesignature` wrapper.

Table 12: Signature Commands

Command	Use	Command	Use
`\signature`	Boxed-up signature	`\signame`	Printed name
`\closeline`	Letter closing line		

In some cases, multiple signatures are required. These are listed in a command `\siglist`:

```
\siglist{AAA,BBB,CCC}
```

In this case, three signatures are printed. By default, they are printed in a left-justified column. To print them in a row, use `\sigacross{2}` to indicate the number of signature blocks printed in each row (the maximum number is 4). Each signature is printed in a block of the height and width of the largest signature block. For this approach, the letter will look odd and unbalanced if signatures are of different sizes. The user must ensure that all signatures are of the same size, as the program cannot ensure this. Additionally, each signature wrapper is unpacked to determine closing line and printed name. Spacing between signature block columns is set by `\sigskipcolumn`, and spacing between signature block rows is set by `\sigskiprow`.

7.5 Closing information

Other closing items may be included in the letter itself, in the file `letrinfo.tex`. These include the following:

Table 13: Closing commands

Command	Usage	Command	Usage	Command	Usage
`\cclist`	Routing list	`\encllist`	Enclosures list	`\initials`	Sender initials
`\faxmssg`	FAX cover message	`\psitem`	Ps line	`\ppsitem`	Pps line
`\pppsitem`	ppps line	`\re`	re line	`\subre`	Second re line

7.6 Setting up wrapper macros

File `letrinfo.tex`**:**

```
\makesignature{PT}{\newsavebox{\Signature}
\sbox{\Sigx}{\includegraphics[bb=16 9 597 784,viewport=180 350 400
425,scale=6,%
height=.6in,width=1.375in,clip]{sigfile}%
}%
\signature{\usebox{\Sigx}}%
\signame{\raisebox{.5in}{\parbox[t]{5in}{Paul A. Thompson \\%
Associate Professor \\ Div.  Biostatistics \\%
Washington University School of Mecicine}}}%
}%
\makeaddress{JS}{\name{Joe Smith}%
\address{12 Center Street \\ Greenville, OH 55555}%
\phone{(312) 333-4444}\greet{Dear Joe,}%
}%
\makeaddress{PAT}{\name{Paul A. Thompson, Ph.D.}%
\addr{\parbox[b]{2.75in}{Washington University School of Medicine \\%
```

```
Box 8067, 660 S. Euclid \\ St. Louis, MO    63110-1093}}%
\phone{(314) 747-3793}\fax{(314) 362-2693}%
}%
\newsavebox{\Logob}%
\sbox{\Logob}{\parbox[t]{\vdim}{\includegraphics[scale=.8]{wulogo3}}}%
%
\makeletterhead{WULHa}{%
\sigPT%
\Lheader{\usebox{\Logob}}\setadrfr{\adrPAT}%
}%
```

Use in a letter:

```
\documentclass[american]{newlfm}
\newlfmP{letrh=WULHa,addrt=JS}
\begin{document}
\begin{newlfm}
...
\end{newlfm}
\end{document}
```

This letter will be addressed to Joe Smith, using the letterhead stored in `WULHa`. The signature is taken from signature wrapper `PT`, which is carried along with the letterhead wrapper `WULHa`. In this way, the letters can be addressed to Joe Smith very easily, by merely including the file `letrinfo.tex` on the LaTeX path, and including the wrapper as shown above in the file. Although initials for the recipient need not be used as the wrapper identifier tag, this is convenient and makes the wrapper designation easy to do.

The wrapper commands may be used in a nested fashion. Consider this sequence:

```
\makeaddress{Main}{\name{Paul A. Thompson}%
\addr{WU School of Medicine}}%
\makeaddress{YouA}{\adrMain \name{Love A}
\addr{Whereever you are}}%
\makeaddress{YouB}{\adrMain \name{Love B}%
\addr{The White House}}%
```

In this case, the information in `adrmain` is carried into the wrappers `adrYouA` and `adrYouB` and is available there. This is similar to the concept of inheritence in object-oriented programming.

7.7 Multiple information datasets

By default, `newlfm` looks for a file `letrinfo.tex` on the TeX path. If this file is found, it is read in during the initialization process of the `newlfm` environment. If an alternative file is needed, it may be indicated using the command `\InfoFileName{check.tex}`. This file will then be used in place of `letrinfo.tex`.

7.8 Rules for use of wrapper IDs

The wrapper IDs used to construct the letterhead database can be used in two different ways. First, the address or letterhead wrappers may be used by themselves as `\adrSETA` or `\ltrSETB`. Second, the wrapper IDs may be used in many situations without the `\adr`. Here are the general rules for usage:

1. The wrapper macro `\adrXXX` may be used at any point in a letter. To properly set up margins, it should be used as `\setadrto{\adrXXX}` and `\setadrfr{\adrXXX}` (used to convert neutral address information into to-address and from-address information) prior to the `\begin{newlfm}` command. This will ensure that proper spacing decisions are made. The `\doletter` construction also uses this form of wrapper (note: this command is now obsolete - please use `\oneletter` as described below).

2. Wrapper IDs can be used as `\setadrto{\fixadr{XXX}}` to convert neutral addresses to to-addresses and from-addresses (again, prior to `\begin{newlfm}`. Additionally, `\oneletter{XXX}` is used to send a form letter to address `XXX`, `\multletter{XXX,YYY,ZZZ}` to multiple addresses, and `\newlfmP{addrt=AAA,addrf=BBB}` are used to convert addresses using the `\newlfmP` mechanism.

8 Form letters

The use of the address wrapper commands makes it very easy to set up form letters. `newlfm` has a simple approach to form letters, using two commands:

- `\letterbody`: This command is used to set up the body of the letter. The body is the text of the letter. When you set up the body, it is very easy to further customize the letters by setting up commands within the letter.
- `\oneletter`: This is the command to print the different letters. The command has a mandatory argument of the label of the "to" address.
- `\multletter`: This command allows the use of a list of address wrapper labels that will all be used to print a form letter. The address wrapper labels must all be separated by the comma (","). When printing form letters in this manner, specific tailoring can only be done if the tailoring information is included in the address wrapper. Thus, this can be used to print any number of identical letters, or letters which have been tailored or modified using information in the address wrappers.

8.1 Example form letter

Here is an example of the use of the form-letter commands. In this example, the two wrapper commands `\adrAA` and `\adrBB` can be used to address letters which are both the same to the persons listed in these wrappers:

```
\letterbody{This is an example of a form letter. \tailor End of the letter.}%
\newcommand{\tailor}{First special version.}
\oneletter{AA}
\letterbody{This is a second example of a form letter, but this approach does not allow for
individualization.  It is being sent to \printnameto.}
\multletter{AA,BB}
\renewcommand{\tailor}

 {Second special version.}
\oneletter{BB}
```

9 Printing envelopes and labels

`newlfm` includes a set of commands which print labels. Some invoke the functionality of the `envlab` package. To use this functionality, follow these steps:

1. Ensure that `envlab` is properly installed in your TEXinstallation, and that the installation database has been properly refreshed. This will ensure that LATEX can find the files.
2. Use the option `useenvlab` on the command line:

   ```
   \documentclass[useenvlab]{newlfm}
   ```

   This will issue the `\makelabels` command at the start of the run, issue the `\startlabels` command at the end of the run, insert the "from-address" and "to-address" into appropriate structures for `envlab` and otherwise complete the printing of the envelope using internal information.
3. Options which are needed for `envlab` may also be entered into the LATEX command line, just as with any normal use of `envlab` during any LATEX.

4. Several types of Avery labels may be used. The specifications for Avery labels 5160, 5161, 5162, 5163 and 5164 are pre-set in `newlfm`. These are summarized in the table below.

Table 14: Label definitions

Option	Ht	Wt	t	l	Btw	Col	Row
Avery5160	1	2.75	.5	.19	.16	3	10
Avery5161	1	4.19	.5	.16	.19	2	10
Avery5162	1	4.19	.83	.16	.19	2	7
Avery5163	1	4.19	.5	.16	.19	2	5
Avery5164	1	4.19	.5	.16	.19	2	3

5. Several options exist for address selection during label printing. The default is `labto`, in which the "to-address" only is printed. If `labrowfrto` is selected, both "from-address" and "to-address" are printed in a row:

```
From: Paul A. Thompson     To: George W. Bush
      25 Signal Hill Blvd      1400 W. Turkey Rd.
      Belleville, IL 62223     Crawford, TX 49281
```

   If `labcolfrto` is selected, both "from-address" and "to-address" are printed in a column:

```
From: Paul A. Thompson
      25 Signal Hill Blvd
      Belleville, IL 62223
To:   George W. Bush
      1400 W. Turkey Rd.
      Crawford, TX 49281
```

   The user is responsible for ensuring that the label printing options can fit on the label selected; Avery5160 is generally suitable only for `labto`, but other choices can fit on other labels.
6. Other printing sizes may be selected during label printing using `labsize=\size`:

```
labsize=\small
```

10 Miscellaneous topics

10.1 Lines

By default, `newlfm` demarcates the header and footer sections with lines. These may be eliminated using the commands `noheadline`, `nofootline`, or `nolines`. These commands eliminate lines in both letterhead page and non-letterhead page. Line widths may be set as well, using the commands `Headlinewd` (sets head linewidth for letterhead page), `headlinewd` (sets head linewidth for non-letterhead page), `Footlinewd` (sets foot linewidth for letterhead page), and `footlinewd` (sets foot linewidth for non-letterhead page). These final four commands issued either in the command line or in the `newlfmP` commands as:

```
\newlfmP{Headlinewd=.5pt,footlinewd=.75pt}
```

If a line width is set to 0pt, the line is not printed.

10.2 Setting the date

The date for the letter is set to be the date upon which the letter is typeset. To change the date, use `\dateset{May 20, 1974}` (feel free to use other dates as needed). `\dateset{\today}` prints today's date.

10.3 Language option definitions:

These options define the language for the letter. These macros are not frequently manipulated. Basically, the strings defined here set up the printing of structural elements of a memo or letter, such as the "From" or "To" strings.

These terms are used at various points in printing letters and memos. They are American terms; your mileage may vary. Inclusion of other terms is encouraged, especially when another language group is served. This may be done as follows:

1. Change the letters "am" to either "fr" for French, "gr" for German, "en" for English, "ot" for other or "pl" for pig-Latin. If you feel that I have unfairly cast disrespect on your language, feel free to add appropriate code in the section above for your language. Change phrases in the following terms to the appropriate terms for the language in question:

```
\newcommand{\@am@phr}{%
  \renewcommand*{\@fax@cover@line}
      {FAX Cover Page}%
  \renewcommand*{\@fax@page@count}
      {FAX Page Count}%
  \renewcommand*{\@fax@phr}{FAX}%
  \renewcommand*{\@pager@phr}{Pager}%
  \renewcommand*{\@doc@phr}{Document}%
  \renewcommand*{\@phn@phr}{Phone}%
  \renewcommand*{\@email@phr}{E-mail}%
  \renewcommand*{\@re@phr}{Re}%
  \renewcommand*{\@subre@phr}
      {\ensuremath{\mathrm{Re}_2}}%
  \renewcommand*{\@cc@phr}{cc}%
  \renewcommand*{\@ps@phr}{Ps}%
  \renewcommand*{\@m@phr}{Message}%
  \renewcommand*{\@pps@phr}{Pps}%
  \renewcommand*{\@ppps@phr}{Ppps}%
  \renewcommand*{\@encl@phr}{Encl}%
  \renewcommand*{\@pager@phr}{Page}%
  \renewcommand*{\@hnto@phr}{To}%
  \renewcommand*{\@hnfr@phr}{From}%
}
```

2. Use file `extracd.tex` to store the new commands. This file should be placed in the same subdirectory as `newlfm.cls`. When the program executes, it includes the file if it is found.

3. Use the appropriate option to include the correct code.

10.4 Printing the address information

The `newlfm` package prints a variety of address information in specific ways which are appropriate and standard for letters. In some cases, you may wish to print other information from the addresses in more flexible ways. For this purpose, certain printing macros are defined. These are shown in Table 15.

Table 15: Printing address information

Select	Command	Item	Command	Item
"To"	\printnameto	Name	\printaddrto	address
	\printphoneto	phone	\printphoneato	phone A
	\printphonebto	phone B	\printphonecto	phone C
	\printphonedto	phone D	\printphoneoto	phone O
	\printphonehto	phone H	\printpagerto	pager
	\printfaxto	FAX	\printgreetto	greeting
	\printemailto	email	\printemailbto	email
	\printemailcto	email C	\printlnameto	last name
\printfnameto	first name			
"From"	\printnamefrom	name	\printaddrfrom	address
	\printphonefrom	phone	\printphoneafrom	phone A
	\printphonebfrom	phone B	\printphonecfrom	phone C
	\printphonedfrom	phone D	\printphoneofrom	phone O
	\printphonehfrom	phone H	\printpagerfrom	pager
	\printfaxfrom	FAX	\printgreetfrom	greet
ing	\printemailfrom	email	\printemailbfrom	email
	\printemailcfrom	email C	\printlnamefrom	last name
	\printfnamefrom	first name		

These commands can be issued in any letter to print the information for the particular address component.

10.5 Cellophane-window envelopes

Letters are sometimes set up to be printed for a cellophane-window envelope. Using this approach, the "to-address" must be placed into a specific orientation. In `newlfm`, this is particularily challenging, as the class attempts to grant users great flexibility.

In `newlfm`, users can specify the use of a cellophane-window envelope. The `cellowindow` option specifies this choice. The "to-address" block is positioned down from the top (using `cellodown` to specify the length down; default = 2.5 inches) and left from the side (using `celloleft` to specify the length from the left; default = 1 inch). If the user specifies the printing of a "from-address" and a date, it may not be possible to print the "to-address" in the correct location; in this case, the user should carefully examine the log and the output screen to determine if the specified locations can be used in the context of other options. The user can also specify the height and width of the "to-address" block as `cellowidth` (default = 4 inches) and `celloheight` (default = 1 inch).

10.6 Examples

`newlfm` includes a large number of examples specified as `test1.tex` through `test12.tex`. These examples all specify their options using the `newlfmP` mechanism. Each file is also set up using the `\documentclass` specification, on `test1alt.tex` through `test8alt.tex`. When preparing examples, both `pdflatex` and `latex` are both used to prepare examples.

10.7 LaTeX vs. pdfLaTeX

`pdf`LaTeX is becoming more and more common in document production in the TeX family. It is not the standard yet, and there remain tools which work only in the LaTeX system (i.e., `pstricks`).

The author uses `.eps` files, constructed to ensure that the bounding box accurately encapsulates the active text area of the `.eps` figure. Each of the figures was then converted to `.pdf` encoding using `GSview`. However, the bounding box in the `.pdf` files does not seem to act to crop the image in the same manner. Using the same code for both `pdf`LaTeX and LaTeX processing does not result in the same appearance of the output page.

For this reason, functionality of H. Oberdiek's `ifpdf.sty` file is included in `newlfm`. This tool allows one option to be performed when `pdf`LaTeXis used for processing, and another option to be executed in the LaTeX environment. Use of this tool is illustrated in the `letrinfo.tex` file included in the `newlfm` package.

Here is an example:

```
\newsavebox{\Lpalme}%
\ifpdf
\savebox{\Lpalme}{\parbox[t][1in][t]{2in}%
{\includegraphics[scale=.1,viewport=135 624 360 700]{palm}\vspace{.5in} \\
\rule{2in}{2pt} \\
25 Signal Hill Blvd}
}
\else
\savebox{\Lpalme}{\parbox[t]{2in}%
{\includegraphics[scale=.1]{palm} \\
\rule{2in}{2pt} \\
25 Signal Hill Blvd}
}
\fi
```

Note that the `\ifpdf` construction includes the entire `\savebox` specification. Although this is not the only manner in which this system will work, it is a reliable method. Problems can be found, which are very hard to diagnose, when the `\ifpdf-\fi` construction is used to control processing of portions of a specification.

10.8 Usage tips

As with any complex program, there are certain tips which can enhance the use of the program. Here are several. If you come up with new ones, please forward them to `paul@wubios.wustl.edu`; complete files demonstrating useful ideas are the most helpful.

- `geometry` is no longer used for dimension setting. Rather, all dimensions are set internally. This is done using a combination of default values, header and footer sizes and values input from the user. These include primarily the page size commands `leftmarginsize`, `textwidthsize` and `rightmarginsize`.
- When size commands are used, they will be overridden by structures. Additionally, dimensional commands are applied in order. Inconsistencies are resolved by attending to the most recent commands, and ignoring earlier inconsistent ones.

11 Command Summary

```
\documentstyle[options]{newlfm}

\topmarginsize{.25in} \addrfrom{Paul A. Thompson}
\adr{PAT}
\NewlfmP{leftmarginsize=1.25in}

\begin{document}
\begin{newlfm}
   text text text
\end{newlfm}
\end{document}
```

Letter styles: `stdletter`, `stdletternofrom`, `busletter`, `busletternofrom` (Table 2, on Page 4)

Letter options: `noaddrfrom`, `printallfrom`, `printallto`, `dateright`, `dateleft`, `datecenter`, `sigright`, `sigleft`, `sigcenter`, `addrtoemail`, `addrtophone`, `addrtofax`, `addrfromemail`, `addrfromphone`, `addrfromfax` (Table 2, on Page 4 — can be specified either in the document-header option block or in the `\newlfmP` command)

Letter date information: `\dateset`

Memo styles: `stdmemo`, `fullmemo` (Table 3, on Page 5)

Memo options: `memoaddrto`, `memoemailto`, `memophoneto`, `memofaxto`, `memoaddrfrom`, `memoemailfrom`, `memophonefrom`, `memofaxfrom`, `memopagerto`, `memopagerfrom` (Table 3, on Page 5 — can be specified either in the letter `\documentclass` option block or in the `\newlfmP` command)

FAX styles: `faxheaderpage`, `faxhba`, `faxhbb` (Table 4, on Page 5)

FAX options: `faxblocka`, `faxblockb` (Table 4, on Page 5 — can be specified either in the letter `\documentclass` option block or in the `\newlfmP` command)

Press Release Styles: `stdpressrelease`

Press Release Options: `dspace`,`sspace`

Cellophane-window envelopes: `cellowindow`

Cellophane-window options: `cellodown`,`celloleft`,`cellowidth`,`celloheight`

Address item order options: `orderdatefromto`, `orderfromdateto`, `orderfromtodate` (can be specified either in the document-header option block or in the `\newlfmP` command)

`envlab` **options:** `useenvlab`

To-Address commands: `\nameto`, `\addressto`, `\phoneto`, `\phonebto`, `\phonecto`, `\phonedto`, `\faxto`, `\emailto`, `\greetto`, `\setadrto{\adrXXX}`, `\setadrto{\fixadr{XXX}}` `\regarding`, `\fnameto`, `\lnameto`, `\addrt`,

From-Address commands: `\namefrom`, `\name`, `\address`, `\addrfrom`, `\phone`, `\phonefrom`, `\phonebfrom`, `\phonecfrom`, `\phonedfrom`, `\fax`, `\faxfrom`, `\emailfrom`, `\setadrfr{\adrXXX}`, `\setadrfr{\fixadr{XXX}}`, `\fnamefrom`, `\lnamefrom`, `\addrf`

Press Release commands: `\byline`, `\headline`, `\release`, `\shorthead`

End of letter commands: `\cclist`, `\encllist`, `\initials`, `\faxmssg`, `\psitem`, `\ppsitem`, `\pppsitem`, `\re`, `\subre` (Table 13, on Page 15)

Signature commands: \signature, \signame, \siglist, \sigacross, \closeline, \sigtr (Table 12, on Page 15)

Horizontal spacing and sizing commands: \unprleft, \leftmarginskipleft, \leftmarginsize, \leftmarginskipright, \textwidth, \rightmarginsize, \unprright, MinLeft, MinRight, minleft, minright (Table 7, on Page 9 — can be specified either in the letter itself or in the \newlfmP command; when specified in the NewlfmP statement, they are specified without the "\")

Vertical spacing and sizing commands: \unprtop, \topmarginskip, \headermarginsize, \headermarginskip, \leftmargintopdist, \rightmargintopdist, \memoskipbefore, \memoskipafter, \dateskipbefore, \dateskipafter, \addrfromskipbefore, \addrfromskipafter, \addrtoskipbefore, \addrtoskipafter, \greettoskipbefore, \greettoskipafter, \textheight, \sigskipbefore, \sigsize, \sigskipafter,\sigskipcolumn, \sigskiprow, \postsigskipbefore, \postsigskipafter, \bottommarginskip, \footermarginsize, \unprbottom, MinHead, MinFoot, minhead, minfoot (Table 5, on Page 8 — can be specified either in the letter itself or in the \newlfmP command; when specified in the NewlfmP statement, they are specified without the "\")

Wrapper commands: \makeaddress{XXX}{xxx info} creates a command \adrXXX containing the "xxx info", \makeletterhead{XXX}{stuff} creates a command \lthXXX containing "stuff" and \makesignature{XXX}{sigstuff} creates a command \sigXXX with "sigstuff" (Page 13).

Form letters: \letterbody sets the body of a form letter, while \doletter{zz} prints the letter, zz is any command to be issued before the letter, which will usually be a wrapper command name.

Letterhead commands: \Lfooter, \Cfooter, \Rfooter, \Lheader, \Cheader, \Rheader, \Lmargin, \Rmargin, \lfooter, \cfooter, \rfooter, \lheader, \cheader, \rheader, \lmargin, \rmargin, \letrh (Table 10, on Page 11)

Blanking options: blankheader, blankfooter, blankrmargin, blanklmargin, Blankheader, Blankfooter, Blankrmargin, Blanklmargin, blankall, Blankall, Blank (Table 11, on Page 13)

Printing commands: \printnameto, \printaddrto, \printphoneto, \printphoneato, \printphonebto, \printphonecto, \printphonedto, \printphoneoto, \printphonehto, \printpagerto, \printfaxto, \printgreetto, \printemailto, \printemailbto, \printemailcto, \printlnameto, \printfnameto, \printnamefrom, \printaddrfrom, \printphonefrom, \printphoneafrom, \printphonebfrom, \printphonecfrom, \printphonedfrom, \printphoneofrom, \printphonehfrom, \printpagerfrom, \printfaxfrom, \printgreetfrom, \printemailfrom, \printemailbfrom, \printemailcfrom, \printlnamefrom, \printfnamefrom (Table 15, on Page 19)

12 Code

1 ⟨*package⟩

12.1 Preliminaries

In this part we define a few commands that are used later on.

These commands are used for printing control during debugging.

```
\def\ifta{0}\def\iftb{0}%
\def\txa#1{\ifthenelse{\equal{\ifta}{1}}{\typeout{#1}}{}}%
\def\txb#1{}%\ifthenelse{\iftb=1}{\typeout{#1}}{}}%
```

A number of packages are needed by this approach to letter construction. These are entered here. These packages include the following:

- `keyval`: Read in key values from a single or multiple lines
- `ifthen`: Good control over conditional logic — this actually was included above so that the boolean constructions can be used during the class file
- `setdim`: Sets page dimensions – similar to `chngpage`
- `fancyhdr`: Control over header and footer, and several structures at one time
- `envlab`: Prints envelopes and labels in flexible ways
- `calc`: Better arithmatic in the program
- `graphicx`: External handling of graphical information

```
\RequirePackage{keyval}%
\RequirePackage{ifthen}[1997/11/02]%
\RequirePackage{ifpdf}%
\RequirePackage{setdim}%
\RequirePackage{fancyhdr}%
\RequirePackage{eso-pic}%
\RequirePackage{setspace}%
\RequirePackage{lastpage}%
\@ifundefined{ps@@empty}{%
  \ClassError{newlfm}{Version of fancyhdr.sty is not current. \MessageBreak
    Please obtain a recent copy of fancyhdr.sty (Version 1.99d or later)
    from CTAN.}  {Go to CTAN and download the current version of
    fancyhdr.sty}}{}
\RequirePackage{calc}[1997/11/11]%
\RequirePackage{graphicx}[1997/06/09]%
\RequirePackage{rotating}[1997/06/09]%
```

`newlength` **definitions:** Begin by defining all newlength commands here:

```
\newlength{\@addr@fr@sk@b}  \newlength{\@addr@fr@sk@a}      \newlength{\@addr@to@sk@b}%
\newlength{\@addr@to@sk@a}  \newlength{\@blka@b}            \newlength{\@blka@a}%
\newlength{\@blkb@b}        \newlength{\@blkb@a}            \newlength{\@blkc@b}%
\newlength{\@blkc@a}        \newlength{\@caption@skip@above}\newlength{\@caption@skip@below}%
\newlength{\@cello@h}       \newlength{\@cello@w}           \newlength{\@cello@d}%
\newlength{\@cello@l}       \newlength{\@dt@sk@b}           \newlength{\@dt@sk@a}%
\newlength{\@Dth@H@L}       \newlength{\@Dth@H@C}           \newlength{\@Dth@H@R}%
\newlength{\@Dth@F@L}       \newlength{\@Dth@F@C}           \newlength{\@Dth@F@R}%
\newlength{\@Dth@h@l}       \newlength{\@Dth@h@c}           \newlength{\@Dth@h@r}%
\newlength{\@Dth@f@l}       \newlength{\@Dth@f@c}           \newlength{\@Dth@f@r}%
\newlength{\@greet@to@sk@b} \newlength{\@greet@to@sk@a}     \newlength{\@Hgt@Head}%
\newlength{\@Hrw}           \newlength{\@hrw}               \newlength{\@extr@hor}%
\newlength{\@Frw}           \newlength{\@frw}%
\newlength{\@Hgt@Foot}      \newlength{\@Hgt@head}          \newlength{\@Hgt@foot}%
\newlength{\@Hgt@H@L}       \newlength{\@Hgt@H@C}           \newlength{\@Hgt@H@R}%
\newlength{\@Hgt@F@L}       \newlength{\@Hgt@F@C}           \newlength{\@Hgt@F@R}%
\newlength{\@Hgt@h@l}       \newlength{\@Hgt@h@c}           \newlength{\@Hgt@h@r}%
```

```
\newlength{\@Hgt@f@l}       \newlength{\@Hgt@f@c}          \newlength{\@Hgt@f@r}%
\newlength{\@lab@bl}        \newlength{\@lab@pl}           \newlength{\@lab@pw}%
\newlength{\@lab@bh}        \newlength{\@lab@bw}           \newlength{\@lab@th}%
\newlength{\@lab@lm}        \newlength{\@marg@lt}          \newlength{\@marg@rt}%
\newlength{\@marg@tp}       \newlength{\@marg@bt}          \newlength{\@marg@tp@a}%
\newlength{\@marg@bt@a}     \newlength{\@marg@tp@b}        \newlength{\@marg@tp@s}%
\newlength{\@marg@bt@b}     \newlength{\@marg@lt@r}        \newlength{\@marg@lt@l}%
\newlength{\@marg@rt@r}     \newlength{\@marg@rt@l}        \newlength{\@marg@lt@tp@d}%
\newlength{\@marg@rt@tp@d}  \newlength{\@Min@Hgt@Head}     \newlength{\@Min@Hgt@head}%
\newlength{\@Min@Hgt@Foot}  \newlength{\@Min@Hgt@foot}     \newlength{\@Min@Hgt@Right}%
\newlength{\@Min@Hgt@right} \newlength{\@Min@Hgt@Left}     \newlength{\@Min@Hgt@left}%
\newlength{\@Plg}           \newlength{\@Pwd}              \newlength{\@plg}%
\newlength{\@pwd}           \newlength{\@post@sig@sp@a}    \newlength{\@post@sig@sp@b}%
\newlength{\@pre@memo@sp}   \newlength{\@post@memo@sp}     \newlength{\@sig@sk@b}%
\newlength{\@sig@sk@a}      \newlength{\@sig@sp}           \newlength{\@text@width}%
\newlength{\@sig@sk@c}      \newlength{\@sig@sk@r}%
\newlength{\@text@height}   \newlength{\@unpr@tp}          \newlength{\@unpr@bm}%
\newlength{\@unpr@rt}       \newlength{\@unpr@lt}          \newlength{\@util}%
\newlength{\@utila}         \newlength{\@utilb}            \newlength{\@utilc}%
\newlength{\@utild}         \newlength{\@utile}%
\newlength{\@xda}           \newlength{\@xdb}              \newlength{\@xdc}%
\newlength{\@xdd}           \newlength{\@xde}              \newlength{\@xdf}%
\newlength{\@xdg}           \newlength{\@xdh}              \newlength{\@xdi}%
```

`newlength` **default values:** Begin by defining all newlength commands here:

```
\setlength{\@cello@h}{1in}   \setlength{\@cello@w}{3in}%
\setlength{\@cello@d}{2.5in} \setlength{\@cello@l}{1in}%
\setlength{\@marg@tp@s}{0in} \setlength{\@marg@bt@b}{0in}%
\setlength{\@unpr@tp}{0in}   \setlength{\@unpr@bm}{0in}%
\setlength{\@unpr@rt}{0in}   \setlength{\@unpr@lt}{0in}%
\setlength{\@marg@lt@r}{0in} \setlength{\@marg@lt@l}{0in}%
\setlength{\@marg@rt@r}{0in} \setlength{\@marg@lt}{1in}%
\setlength{\@marg@rt}{1in}   \setlength{\@marg@tp}{1in}%
\setlength{\@marg@bt}{1in}   \setlength{\@marg@tp@a}{0in}%
\setlength{\@marg@bt@a}{0in} \setlength{\@marg@tp@b}{0in}%
\setlength{\@marg@rt@l}{0in} \setlength{\@marg@lt@tp@d}{0pt}%
\setlength{\@marg@rt@tp@d}{0pt}%
\setlength{\@Hrw}{1pt}       \setlength{\@hrw}{1pt}%
\setlength{\@Frw}{1pt}       \setlength{\@frw}{1pt}%
\setlength{\@sig@sk@a}{5pt}  \setlength{\@sig@sk@b}{5pt}
\setlength{\@sig@sk@c}{5pt}  \setlength{\@sig@sk@r}{5pt}%
\setlength{\@extr@hor}{0pt}
```

`newsavebox` **definitions:** Define all newsavebox commands here:

```
\newsavebox{\@sig@box@a}\newsavebox{\b@addr@fr}\newsavebox{\b@addr@to}%
\newsavebox{\@x@c} \newsavebox{\@x@l}  \newsavebox{\@x@r}%
\newsavebox{\fba}  \newsavebox{\adrfr} \newsavebox{\adrto}%
\newsavebox{\@sig@box@b}\newsavebox{\@sig@box@c}\newsavebox{\@sig@box@d}
\newsavebox{\@sig@box@e}\newsavebox{\@sig@box@f}\newsavebox{\@sig@box@g}
\newsavebox{\@sig@box@h}\newsavebox{\@sig@box@i}\newsavebox{\@sig@box@j}
```

`newcounter` **definitions:** Define all newcounter commands here:

```
\newcounter{@c@pos}%
\newcounter{figure}%
\newcounter{table}%
\newcounter{@sig@tot}%
\newcounter{@lab@tot@row}%
```

```
\newcounter{@lab@tot@col}%
\newcounter{@lab@cnt@row}%
\newcounter{@lab@cnt@col}%
\newcount\@nlfm@addr%
\newcount\@nlfm@util%
\newcount\@nlfm@uta%
\newcount\@nlfm@utb%
```

newboolean definitions: Boolean variables are defined here. Package `ifthen` defines `\newboolean`. Booleans are a good approach for simple decision-making support. In many cases, a default value is set after the boolean is declared.

```
\newboolean{@addr@fr@l}%
\newboolean{@addr@fr@p}%
\newboolean{@addr@fr@e}     \setboolean{@addr@fr@e}{false}%
\newboolean{@addr@fr@f}     \setboolean{@addr@fr@f}{false}%
\newboolean{@addr@fr@t}     \setboolean{@addr@fr@t}{false}%
\newboolean{@addr@swtch}    \setboolean{@addr@swtch}{true}%
\newboolean{@addr@to@l}%
\newboolean{@addr@to@p}%
\newboolean{@addr@to@f}     \setboolean{@addr@to@f}{false}%
\newboolean{@addr@to@e}     \setboolean{@addr@to@e}{false}%
\newboolean{@addr@to@t}     \setboolean{@addr@to@t}{false}%
\newboolean{@b@h}           \setboolean{@b@h}{false}%
\newboolean{@b@f}           \setboolean{@b@f}{false}%
\newboolean{@b@r}           \setboolean{@b@r}{false}%
\newboolean{@b@l}           \setboolean{@b@l}{false}%
\newboolean{@B@h}           \setboolean{@B@h}{false}%
\newboolean{@B@f}           \setboolean{@B@f}{false}%
\newboolean{@B@r}           \setboolean{@B@r}{false}%
\newboolean{@B@l}           \setboolean{@B@l}{false}%
\newboolean{@bg@use}        \setboolean{@bg@use}{false}%
\newboolean{@Bg@use}        \setboolean{@Bg@use}{false}%
\newboolean{@cello@win}     \setboolean{@cello@win}{false}%
\newboolean{@cf@use}        \setboolean{@cf@use}{false}%
\newboolean{@Ch@use}        \setboolean{@Ch@use}{false}%
\newboolean{@Cf@use}        \setboolean{@Cf@use}{false}%
\newboolean{@COf@use}       \setboolean{@COf@use}{false}%
\newboolean{@CUh@use}       \setboolean{@CUh@use}{false}%
\newboolean{@ch@use}        \setboolean{@ch@use}{false}%
\newboolean{@do@any}%
\newboolean{@dt@l}          \setboolean{@dt@l}{true}%
\newboolean{@dt@c}          \setboolean{@dt@c}{false}%
\newboolean{@dt@p}%
\newboolean{@env@open}      \setboolean{@env@open}{false}%
\newboolean{@env@close}     \setboolean{@env@close}{false}%
\newboolean{@fax@m@run}     \setboolean{@fax@m@run}{false}%
\newboolean{@fax@hdr@pg}%
\newboolean{@fax@RA}%
\newboolean{@fax@RU}%
\newboolean{@fax@bla}       \setboolean{@fax@bla}{true}%
\newboolean{@fax@blb}       \setboolean{@fax@blb}{false}%
\newboolean{@fl}            \setboolean{@fl}{true}%
\newboolean{@greet@p}%
\newboolean{@greet@l}%
\newboolean{@hl}            \setboolean{@hl}{true}%
\newboolean{@in@tab}%
\newboolean{@in@makeenv}    \setboolean{@in@makeenv}{false}%
\newboolean{@l@am}          \setboolean{@l@am}{true}%
```

```
\newboolean{@l@en}          \setboolean{@l@en}{false}%
\newboolean{@l@ge}          \setboolean{@l@ge}{false}%
\newboolean{@l@fr}          \setboolean{@l@fr}{false}%
\newboolean{@l@ot}          \setboolean{@l@ot}{false}%
\newboolean{@l@pi}          \setboolean{@l@pi}{false}%
\newboolean{@lab@t}         \setboolean{@lab@t}{true}%
\newboolean{@lab@cft}       \setboolean{@lab@cft}{false}%
\newboolean{@lab@rft}       \setboolean{@lab@rft}{false}%
\newboolean{@Lf@use}        \setboolean{@Lf@use}{false}%
\newboolean{@lf@use}        \setboolean{@lf@use}{false}%
\newboolean{@Lh@use}        \setboolean{@Lh@use}{false}%
\newboolean{@lh@use}        \setboolean{@lh@use}{false}%
\newboolean{@LOf@use}       \setboolean{@LOf@use}{false}%
\newboolean{@LUh@use}       \setboolean{@LUh@use}{false}%
\newboolean{@marg@lt@fl@tp}\setboolean{@marg@lt@fl@tp}{false}%
\newboolean{@marg@rt@fl@tp}\setboolean{@marg@rt@fl@tp}{false}%
\newboolean{@marg@luse}     \setboolean{@marg@luse}{false}%
\newboolean{@marg@ruse}     \setboolean{@marg@ruse}{false}%
\newboolean{@marg@Luse}     \setboolean{@marg@Luse}{false}%
\newboolean{@marg@Ruse}     \setboolean{@marg@Ruse}{false}%
\newboolean{@memo@bl}%
\newboolean{@memo@a}%
\newboolean{@memo@b}        \setboolean{@memo@b}{false}%
\newboolean{@memo@c}        \setboolean{@memo@c}{false}%
\newboolean{@memo@d}        \setboolean{@memo@d}{false}%
\newboolean{@memo@e}        \setboolean{@memo@e}{true}%
\newboolean{@memo@f}        \setboolean{@memo@f}{true}%
\newboolean{@memo@g}        \setboolean{@memo@g}{true}%
\newboolean{@memo@h}        \setboolean{@memo@h}{false}%
\newboolean{@memo@i}        \setboolean{@memo@i}{false}%
\newboolean{@memo@j}        \setboolean{@memo@j}{false}%
\newboolean{@memo@k}        \setboolean{@memo@k}{false}%
\newboolean{@memo@l}        \setboolean{@memo@l}{false}%
\newboolean{@memo@m}        \setboolean{@memo@m}{false}%
\newboolean{@memo@n}        \setboolean{@memo@n}{false}%
\newboolean{@no@cen}        \setboolean{@no@cen}{false}%
\newboolean{@no@spc}        \setboolean{@no@spc}{false}%
\newboolean{@ROf@use}       \setboolean{@ROf@use}{false}%
\newboolean{@Rf@use}        \setboolean{@Rf@use}{false}%
\newboolean{@rf@use}        \setboolean{@rf@use}{false}%
\newboolean{@Rh@use}        \setboolean{@Rh@use}{false}%
\newboolean{@RUh@use}       \setboolean{@RUh@use}{false}%
\newboolean{@rh@use}        \setboolean{@rh@use}{false}%
\newboolean{@over@all}      \setboolean{@over@all}{true}%
\newboolean{@over@setto}    \setboolean{@over@setto}{false}%
\newboolean{@over@setfr}    \setboolean{@over@setfr}{false}%
\newboolean{@over@sigbl}    \setboolean{@over@sigbl}{false}%
\newboolean{@pt@regard}     \setboolean{@pt@regard}{false}%
\newboolean{@s@b@s}         \setboolean{@s@b@s}{false}%
\newboolean{@set@env}       \setboolean{@set@env}{false}%
\newboolean{@sig@p}%
\newboolean{@sig@mp}%
\newboolean{@sig@l}         \setboolean{@sig@l}{true}%
\newboolean{@sig@c}         \setboolean{@sig@l}{false}%
\newboolean{@space@d}       \setboolean{@space@d}{true}
\newboolean{@space@s}       \setboolean{@space@s}{false}
\newboolean{@mult@sig}      \setboolean{@mult@sig}{false}%
\newboolean{@use@sig}%
\newboolean{@use@close}%
```

```
\newboolean{@use@sig@nm}%
\newboolean{@use@all@fr}%
\newboolean{@use@all@to}%
\newboolean{@use@envlab}   \setboolean{@use@envlab}{false}%
\newboolean{@ztila}        \newboolean{@ztilb}%
\newboolean{@pr@p}         \setboolean{@pr@p}{false}%
\newboolean{@pr@by}
```

12.2 newlfm commands

Now begin defining new commands.

Ordering of date, from-address and to-address: These commands allow the ordering of date, to-block and from-block:

```
\def\@d@pos#1{\def\@intd@pos{#1}}
\def\@t@pos#1{\def\@intt@pos{#1}}
\def\@f@pos#1{\def\@intf@pos{#1}}
```

`keyval` **processing:** When using the `keyval` approach to option specification, something similar to the next code must be used. At this point, this is not 100 % correct, and so it will be altered as soon as I can figger it out.

```
\def\newlfmParam{\@ifnextchar[%]
\newlx@i{\newlx@i[]}}
\def\newlx@i[#1]{{\setkeys{ov}{#1}}}
\def\Dimens{\@ifnextchar[%]
\Dimens@i{\Dimens@i[]}}
\def\Dimens@i[#1]{{\setkeys{ov}{#1}}}
\def\Language{\@ifnextchar[%]
\Lang@i{\Lang@i[]}}
\def\Lang@i[#1]{{\setkeys{ov}{#1}}}
\def\MemoParam{\@ifnextchar[%]
\MemoP@i{\MemoP@i[]}}
\def\MemoP@i[#1]{{\setkeys{ov}{#1}}}
\def\LetterParam{\@ifnextchar[%]
\LetrP@i{\LetrP@i[]}}
\def\LetrP@i[#1]{{\setkeys{ov}{#1}}}
\def\FAZParam{\@ifnextchar[%]
\FAXP@i{\FAXP@i[]}}
\def\FAXP@i[#1]{{\setkeys{ov}{#1}}}
\def\LetterP#1{\setkeys{ov}{#1}}
\def\newlfmP#1{\setkeys{ov}{#1}}
\def\LanguageP#1{\setkeys{ov}{#1}}
\def\FAXP#1{\setkeys{ov}{#1}}
\def\DimensP#1{\setkeys{ov}{#1}}
\def\MemoP#1{\setkeys{ov}{#1}}
\def\iffixt#1#2{\ifthenelse{\equal{#1}{true}}{\setboolean{#2}{true}}{}}
\def\iffixf#1#2{\ifthenelse{\equal{#1}{true}}{\setboolean{#2}{false}}{}}
\def\iffixq#1#2{\ifthenelse{\equal{#1}{true}}{#2}{}}
```

Language option definitions: These options define the language for the letter. These macros are not frequently manipulated. Basically, the strings defined here set up the printing of structural elements of a memo or letter, such as the "From" or "To" strings. These terms are used at various points in printing letters and memos. They are American terms; your mileage may vary. Inclusion of other terms is encouraged, especially when another language group is served.

```
\def\DatePhrase#1{\def\@date@phr{#1}}%
\def\PhrFAXcovp#1{\def\@fax@cover@line{#1}}%
```

```
\def\PhrFAXpgcnt#1{\def\@fax@page@count{#1}}%
\def\PhrEmail#1{\def\@email@phr{#1}}%
\def\PhrFax#1{\def\@fax@phr{#1}}
\def\PhrPager#1{\def\@pager@phr{#1}}%
\def\PhrDocument#1{\def\@doc@phr{#1}}%
\def\PhrPhone#1{\def\@phn@phr{#1}}%
\def\PhrRe#1{\def\@re@phr{#1}}%
\def\PhrSubre#1{\def\@subre@phr{#1}}%
\def\PhrCc#1{\def\@cc@phr{#1}}%
\def\PhrPs#1{\def\@ps@phr{#1}}%
\def\PhrMessage#1{\def\@m@phr{#1}}%
\def\PhrPps#1{\def\@pps@phr{#1}}%
\def\PhrPpps#1{\def\@ppps@phr{#1}}%
\def\PhrEncl#1{\def\@encl@phr{#1}}%
\def\PhrTo#1{\def\@hnto@phr{#1}}%
\def\PhrFrom#1{\def\@hnfr@phr{#1}}%
\def\PhrRegard#1{\def\@regard@phr{#1}}%
\def\PhrContact#1{\def\@contact@phr{#1}}%
\def\PhrRelease#1{\def\@release@phr{#1}}%
\def\PhrMore#1{\def\@more@phr{#1}}%
\def\PhrPRend#1{\def\@PRend@phr{#1}}%
\def\lth{}\def\sig{}\def\adr{}%
\def\letrh#1{\def\@ltr@head{#1}}%
\define@key{ov}{letrh}{\def\@ltr@head{#1}}%
\def\@adr@to{}\def\@adr@fr{}\def\@ltr@head{}\def\@sig@blok{}%
\def\addrt#1{\def\@adr@to{#1}\setboolean{@over@setto}{true}}%
\define@key{ov}{addrt}{\def\@adr@to{#1}\setboolean{@over@setto}{true}}%
\def\addrf#1{\def\@adr@fr{#1}\setboolean{@over@setfr}{true}}%
\define@key{ov}{addrf}{\def\@adr@fr{#1}\setboolean{@over@setfr}{true}}%
\def\sigtr#1{\def\@sig@blok{#1}\setboolean{@over@sigbl}{true}}%%
\define@key{ov}{sigtr}{\def\@sig@blok{#1}\setboolean{@over@sigbl}{true}}%
\def\MinHead#1{\setlength{\@Min@Hgt@Head}{#1}}
\define@key{ov}{MinHead}{\setlength{\@Min@Hgt@Head}{#1}}%
\def\minhead#1{\setlength{\@Min@Hgt@head}{#1}}
\define@key{ov}{minhead}{\setlength{\@Min@Hgt@head}{#1}}%
\def\MinLeft#1{\setlength{\@Min@Hgt@Left}{#1}}
\define@key{ov}{MinLeft}{\setlength{\@Min@Hgt@Left}{#1}}%
\def\minleft#1{\setlength{\@Min@Hgt@left}{#1}}
\define@key{ov}{minleft}{\setlength{\@Min@Hgt@left}{#1}}%
\def\MinFoot#1{\setlength{\@Min@Hgt@Foot}{#1}}
\define@key{ov}{MinFoot}{\setlength{\@Min@Hgt@Foot}{#1}}%
\def\minfoot#1{\setlength{\@Min@Hgt@foot}{#1}}
\define@key{ov}{minfoot}{\setlength{\@Min@Hgt@foot}{#1}}%
\def\MinRight#1{\setlength{\@Min@Hgt@Right}{#1}}
\define@key{ov}{MinRight}{\setlength{\@Min@Hgt@Right}{#1}}%
\def\minright#1{\setlength{\@Min@Hgt@right}{#1}}
\define@key{ov}{minright}{\setlength{\@Min@Hgt@right}{#1}}%
\def\@def@l{american}%
\def\@am@phr{%
  \DatePhrase{Date}%
  \PhrFAXcovp{FAX Cover Page}%
  \PhrFAXpgcnt{FAX Page Count}%
  \PhrFax{FAX}%
  \PhrPager{Pager}%
  \PhrEmail{E-mail}%
  \PhrDocument{Document}%
  \PhrPhone{Telephone}%
  \PhrRe{Re}%
  \PhrSubre{\ensuremath{\mathrm{Re}_2}}%
```

```
  \PhrCc{cc}%
  \PhrPs{Ps}%
  \PhrMessage{Message}%
  \PhrPps{Pps}%
  \PhrPpps{Ppps}%
  \PhrEncl{Encl}%
  \PhrPager{Page}%
  \PhrTo{To}%
  \PhrFrom{From}%
  \PhrRegard{Regarding}%
  \PhrContact{Contact}%
  \PhrRelease{For Immediate Release}%
  \PhrMore{--- more ---}%
  \PhrPRend{\# \# \#}%
}
\InputIfFileExists{extracd.tex}%
  {\typeout{Reading alternative macro definitions from extracd.tex}}%
  {\typeout{All language information must be in newlfm.cls}}%
\DeclareOption{french}%
{\def\@def@l{french}\setboolean{@l@fr}{true} \@fr@phr}%
\define@key{ov}{french}[true]%
{\iffixq{#1}{\def\@def@l{french}\setboolean{@l@fr}{true} \@fr@phr}}%
\DeclareOption{german}{\def\@def@l{german}\setboolean{@l@ge}{true} \@gr@phr}%
\define@key{ov}{german}[true]%
{\iffixq{#1}{\def\@def@l{german}\setboolean{@l@ge}{true} \@gr@phr}}%
\DeclareOption{american}%
{\def\@def@l{american}\setboolean{@l@am}{true} \@am@phr}%
\define@key{ov}{american}[true]%
{\iffixq{#1}{\def\@def@l{american}\setboolean{@l@am}{true} \@am@phr}}%
\DeclareOption{english}%
{\def\@def@l{english}\setboolean{@l@en}{true} \@en@phr}%
\define@key{ov}{english}[true]%
{\iffixq{#1}{\def\@def@l{english}\setboolean{@l@en}{true} \@en@phr}}%
\DeclareOption{othlang}%
{\renewco@lgnd{\@def@l}{othlang}\setboolean{@l@ot}{true} \@ot@phr}%
\define@key{ov}{othlang}[true]%
{\iffixq{#1}{\def\@def@l{othlang}\setboolean{@l@ot}{true} \@ot@phr}}%
\DeclareOption{piglatin}%
{\def\@def@l{piglatin}\setboolean{@l@pi}{true} \@pl@phr}%
\define@key{ov}{piglatin}[true]%
{\iffixq{#1}{\def\@def@l{piglatin}\setboolean{@l@pi}{true} \@pl@phr}}%
```

Lengths Length definitions are set up here. This is done by setting options mostly. These commands are either internal (begin with `@`) or user-optional (do not begin with `@`). User-optional commands are defined in the text above.

```
\define@key{ov}{textwidthsize}{\setlength{\@text@width}{#1}}
\def\textwidthsize#1{\setlength{\@text@width}{#1}}%
\define@key{ov}{textheightsize}{\setlength{\@text@height}{#1}}
\def\textheightsize#1{\setlength{\@text@height}{#1}}%
\define@key{ov}{bottommarginskip}{\setlength{\@marg@bt@a}{#1}}%
\def\bottommarginskip#1{\setlength{\@marg@bt@a}{#1}}%
\define@key{ov}{bottommarginskipbelow}{\setlength{\@marg@bt@b}{#1}}%
\def\bottommarginskipbelow#1{\setlength{\@marg@bt@b}{#1}}%
\def\topmarginskip#1{\setlength{\@marg@tp@a}{#1}}%
\define@key{ov}{topmarginskip}{\setlength{\@marg@tp@a}{#1}}%
\def\topmarginsize#1{\setlength{\@marg@tp@s}{#1}}%
\define@key{ov}{topmarginsize}{\setlength{\@marg@tp@s}{#1}}%
\def\headermarginskip#1{\setlength{\@marg@tp@b}{#1}}%
\define@key{ov}{headermarginskip}{\setlength{\@marg@tp@b}{#1}}%
```

```
\def\rightmarginsize#1{\setlength{\@marg@rt}{#1}}%
\define@key{ov}{rightmarginsize}{\setlength{\@marg@rt}{#1}}%
\def\leftmarginsize#1{\setlength{\@marg@lt}{#1}}%
\define@key{ov}{leftmarginsize}{\setlength{\@marg@lt}{#1}}%
\def\headermarginsize#1{\setlength{\@marg@tp}{#1}}%
\define@key{ov}{headermarginsize}{\setlength{\@marg@tp}{#1}}%
\def\footermarginsize#1{\setlength{\@marg@bt}{#1}}%
\define@key{ov}{footermarginsize}{\setlength{\@marg@bt}{#1}}%
\def\leftmargintopdist#1%
{\setlength{\@marg@lt@tp@d}{#1}\setboolean{@marg@lt@fl@tp}{true}}%
\define@key{ov}{leftmargintopdist}%
{\setlength{\@marg@lt@tp@d}{#1}\setboolean{@marg@lt@fl@tp}{true}}%
\def\rightmargintopdist#1%
{\setlength{\@marg@rt@tp@d}{#1}\setboolean{@marg@rt@fl@tp}{true}}%
\define@key{ov}{rightmargintopdist}%
{\setlength{\@marg@rt@tp@d}{#1}\setboolean{@marg@rt@fl@tp}{true}}%
\define@key{ov}{leftmarginskipleft}%
{\setlength{\@marg@lt@l}{#1}\setboolean{@marg@lt@fl@tp}{false}}%
\def\leftmarginskipleft#1{\setlength{\@marg@lt@l}{#1}}%
\define@key{ov}{rightmarginskipleft}%
{\setlength{\@marg@rt@l}{#1}\setboolean{@marg@lt@fl@tp}{false}}%
\def\rightmarginskipleft#1{\setlength{\@marg@rt@l}{#1}}%
\def\leftmarginskipright#1{\setlength{\@marg@lt@r}{#1}}%
\define@key{ov}{leftmarginskipright}{\setlength{\@marg@lt@r}{#1}}%
\def\rightmarginskipright#1{\setlength{\@marg@rt@r}{#1}}%
\define@key{ov}{rightmarginskipright}{\setlength{\@marg@rt@r}{#1}}%
\def\dateskipbefore#1{\setlength{\@dt@sk@b}{#1}}%
\define@key{ov}{dateskipbefore}{\setlength{\@dt@sk@b}{#1}}%
\def\dateskipafter#1{\setlength{\@dt@sk@a}{#1}}%
\define@key{ov}{dateskipafter}{\setlength{\@dt@sk@a}{#1}}%
\def\addrfromskipafter#1{\setlength{\@addr@fr@sk@a}{#1}}%
\define@key{ov}{addrfromskipafter}{\setlength{\@addr@fr@sk@a}{#1}}%
\def\addrfromskipbefore#1{\setlength{\@addr@fr@sk@b}{#1}}%
\define@key{ov}{addrfromskipbefore}{\setlength{\@addr@fr@sk@b}{#1}}%
\def\addrtoskipafter#1{\setlength{\@addr@to@sk@a}{#1}}%
\define@key{ov}{addrtoskipafter}{\setlength{\@addr@to@sk@a}{#1}}%
\def\addrtoskipbefore#1{\setlength{\@addr@to@sk@b}{#1}}%
\define@key{ov}{addrtoskipbefore}{\setlength{\@addr@to@sk@b}{#1}}%
\def\greettoskipafter#1{\setlength{\@greet@to@sk@a}{#1}}%
\define@key{ov}{greettoskipafter}{\setlength{\@greet@to@sk@a}{#1}}%
\def\sigskipbefore#1{\setlength{\@sig@sk@b}{#1}}%
\define@key{ov}{sigskipbefore}{\setlength{\@sig@sk@b}{#1}}%
\def\sigskipafter#1{\setlength{\@sig@sk@a}{#1}}%
\define@key{ov}{sigskipafter}{\setlength{\@sig@sk@a}{#1}}%
\def\sigskipcolumn#1{\setlength{\@sig@sk@c}{#1}}%
\define@key{ov}{sigskipcolumn}{\setlength{\@sig@sk@c}{#1}}%
\def\sigskiprow#1{\setlength{\@sig@sk@r}{#1}}%
\define@key{ov}{sigskiprow}{\setlength{\@sig@sk@r}{#1}}%
\def\sigsize#1{\setlength{\@sig@sp}{#1}}%
\define@key{ov}{sigsize}{\setlength{\@sig@sp}{#1}}%
\def\postsigskipafter#1{\setlength{\@post@sig@sp@a}{#1}}%
\define@key{ov}{postsigskipafter}{\setlength{\@post@sig@sp@a}{#1}}% %
\def\postsigskipbefore#1{\setlength{\@post@sig@sp@b}{#1}}%
\define@key{ov}{postsigskipbefore}{\setlength{\@post@sig@sp@b}{#1}}% %
\def\memoskipafter#1{\setlength{\@post@memo@sp}{#1}}%
\define@key{ov}{memoskipafter}{\setlength{\@post@memo@sp}{#1}}%
\def\memoskipbefore#1{\setlength{\@pre@memo@sp}{#1}}%
\define@key{ov}{memoskipbefore}{\setlength{\@pre@memo@sp}{#1}}%
\def\unprtop#1{\setlength{\@unpr@tp}{#1}}
```

```
\define@key{ov}{unprtop}{\setlength{\@unpr@tp}{#1}}%
\def\unprbottom#1{\setlength{\@unpr@bm}{#1}}
\define@key{ov}{unprbottom}{\setlength{\@unpr@bm}{#1}}%
\def\unprright#1{\setlength{\@unpr@rt}{#1}}%
\define@key{ov}{unprright}{\setlength{\@unpr@rt}{#1}}%
\def\unprleft#1{\setlength{\@unpr@lt}{#1}}
\define@key{ov}{unprleft}{\setlength{\@unpr@lt}{#1}}%
```

Memos

Memo definitions are set up here. This is done by setting options (for the options block in the `\documentclass` statement) or by entering them into the `MemoParam` statement. In the current approach to `newlfm`, both keyval and class option approaches are maintained for all commands. This requires that all options be processed both using `DeclareOption` and `define@key` approaches. This, at this point, does require simply duplication of the code required to be processed.

```
\def\@opt@stm{
\setboolean{@addr@fr@p}{false}%
\setboolean{@addr@to@p}{false}%
\setboolean{@memo@bl}{true}%
\setboolean{@greet@p}{false}%
\setboolean{@dt@l}{false}%
\setboolean{@dt@c}{false}%
\setboolean{@dt@p}{false}%
\setboolean{@sig@p}{false}%
\setboolean{@sig@mp}{true}%
}%
\def\@opt@stpr{
\setboolean{@addr@fr@p}{false}%
\setboolean{@addr@to@p}{false}%
\setboolean{@memo@bl}{true}%
\setboolean{@greet@p}{false}%
\setboolean{@dt@l}{false}%
\setboolean{@dt@c}{false}%
\setboolean{@dt@p}{false}%
\setboolean{@sig@p}{false}%
\setboolean{@sig@mp}{true}%
}%
\def\@opt@flm{
\setboolean{@addr@fr@p}{false}%
\setboolean{@addr@to@p}{false}%
\setboolean{@memo@bl}{true}%
\setboolean{@greet@p}{false}%
\setboolean{@dt@l}{false}%
\setboolean{@dt@c}{false}%
\setboolean{@dt@p}{false}%
\setboolean{@sig@p}{false}%
\setboolean{@sig@mp}{false}%
\setboolean{@memo@b}{true}%
\setboolean{@memo@c}{true}%
\setboolean{@memo@d}{true}%
\setboolean{@memo@h}{true}%
\setboolean{@memo@i}{true}%
\setboolean{@memo@j}{true}%
\setboolean{@memo@k}{true}%
\setboolean{@memo@l}{true}%
\setboolean{@memo@m}{true}%
\setboolean{@memo@n}{true}%
}%
\DeclareOption{memoaddrto}{\setboolean{@memo@b}{true}}%
\define@key{ov}{memoaddrto}[true]{\iffixt{#1}{@memo@b}}%
```

```
\DeclareOption{memoemailto}{\setboolean{@memo@k}{true}}%
\define@key{ov}{memoemailto}[true]{\iffixt{#1}{@memo@k}}%
\DeclareOption{memophoneto}{\setboolean{@memo@c}{true}}%
\define@key{ov}{memophoneto}[true]{\iffixt{#1}{@memo@c}}%
\DeclareOption{memopagerto}{\setboolean{@memo@n}{true}}%
\define@key{ov}{memopagerto}[true]{\iffixt{#1}{@memo@n}}%
\DeclareOption{memofaxto}{\setboolean{@memo@d}{true}}%
\define@key{ov}{memofaxto}[true]{\iffixt{#1}{@memo@d}}%
\DeclareOption{memoaddrfrom}{\setboolean{@memo@h}{true}}%
\define@key{ov}{memoaddrfrom}[true]{\iffixt{#1}{@memo@h}}%
\DeclareOption{memoemailfrom}{\setboolean{@memo@l}{true}}%
\define@key{ov}{memoemailfrom}[true]{\iffixt{#1}{@memo@l}}%
\DeclareOption{memopagerfrom}{\setboolean{@memo@m}{true}}%
\define@key{ov}{memopagerfrom}[true]{\iffixt{#1}{@memo@m}}%
\DeclareOption{memophonefrom}{\setboolean{@memo@i}{true}}%
\define@key{ov}{memophonefrom}[true]{\iffixt{#1}{@memo@i}}%
\DeclareOption{memofaxfrom}{\setboolean{@memo@j}{true}}%
\define@key{ov}{memofaxfrom}[true]{\iffixt{#1}{@memo@j}}%
\DeclareOption{memodate}{\setboolean{@dt@p}{true}}%
\define@key{ov}{memodate}[true]{\iffixt{#1}{@dt@p}}%
\DeclareOption{memonofrom}    {\setboolean{@memo@e}{true}}%
\define@key{ov}{memonofrom}[true]{\iffixt{#1}{@memo@e}}%
\DeclareOption{memonoto}      {\setboolean{@memo@g}{true}}%
\define@key{ov}{memonoto}[true]{\iffixt{#1}{@memo@g}}%
\DeclareOption{memonore}      {\setboolean{@memo@f}{true}}%
\define@key{ov}{memonore}[true]{\iffixt{#1}{@memo@f}}%
\DeclareOption{fullmemo}{\@opt@flm}%
\define@key{ov}{fullmemo}[true]{\iffixq{#1}{\@opt@flm}}%
\DeclareOption{stdmemo}{\@opt@stm}%
\define@key{ov}{stdmemo}[true]{\iffixq{#1}{\@opt@stm}}%
```

Press Releases Press release definitions are set up here. Currently, there are no options.

```
\def\@opt@pr{
\setboolean{@addr@fr@p}{true}%
\setboolean{@addr@to@p}{false}%
\setboolean{@pr@p}{true}%
\setboolean{@greet@p}{false}%
\setboolean{@dt@l}{false}%
\setboolean{@dt@c}{false}%
\setboolean{@dt@p}{false}%
\setboolean{@sig@p}{false}%
\setboolean{@sig@mp}{false}%
}%
\DeclareOption{pressrelease}{\@opt@pr}%
\define@key{ov}{pressrelease}[true]{\iffixq{#1}{\@opt@pr}}%
\DeclareOption{stdpressrelease}{\@opt@pr}%
\define@key{ov}{stdpressrelease}[true]{\iffixq{#1}{\@opt@pr}}%
\DeclareOption{dspace}{\setboolean{@space@d}{true}\setboolean{@space@s}{false}}%
\DeclareOption{sspace}{\setboolean{@space@s}{true}\setboolean{@space@d}{false}}%
\define@key{ov}{dspace}[true]{%
\iffixq{#1}{\setboolean{@space@d}{true}\setboolean{@space@s}{false}}}%
\define@key{ov}{sspace}[true]{%
\iffixq{#1}{\setboolean{@space@s}{true}\setboolean{@space@d}{false}}}%
```

Faxes These commands define the overall structures for fax pages, fax blocks and fax choices.

```
\DeclareOption{faxhp}{\setboolean{@fax@hdr@pg}{true}\setboolean{@fax@RA}{false}}%
\DeclareOption{faxheaderpage}{\setboolean{@fax@hdr@pg}{true}\setboolean{@fax@RA}{false}}%
\define@key{ov}{faxheaderpage}[true]%
{\iffixq{#1}{\setboolean{@fax@hdr@pg}{true}\setboolean{@fax@RA}{false}}}%
```

```
\DeclareOption{faxhba}%   Print fax header block on leader in right top-margin.
  {\setboolean{@fax@RA}{true}\setboolean{@fax@hdr@pg}{false}}%
\define@key{ov}{faxhba}[true]%   Print fax header block on leader in right top-margin.
  {\iffixq{#1}{\setboolean{@fax@RA}{true}\setboolean{@fax@hdr@pg}{false}}}%
\DeclareOption{faxhbb}%   Print fax header block - leader - upper right quad letter
  {\setboolean{@fax@RU}{true}\setboolean{@fax@hdr@pg}{false}}%
\DeclareOption{faxbla}%   Print FAX block in \Rheader
  {\setboolean{@fax@bla}{true}\setboolean{@fax@blb}{false}}%
\DeclareOption{faxblb}%
  {\setboolean{@fax@blb}{true}\setboolean{@fax@bla}{false}}%
\DeclareOption{faxblocka}%Print FAX block in \Rheader
  {\setboolean{@fax@bla}{true}\setboolean{@fax@blb}{false}}%
\define@key{ov}{faxblocka}[true]%
{\iffixq{#1}{\setboolean{@fax@bla}{true}\setboolean{@fax@blb}{false}}}%
\DeclareOption{faxblockb}%
  {\setboolean{@fax@blb}{true}\setboolean{@fax@bla}{false}}%
\define@key{ov}{faxblockb}[true]%
{\iffixq{#1}{\setboolean{@fax@blb}{true}\setboolean{@fax@bla}{false}}}%
```

`Letters` Letter definitions. These commands define the overall structures for standard letters (with and without from-addresses). There are commands for blanking of sections (blankrightmargin, etc.). There are commands for ordering of sections. There are commands for inclusion of various types of information.

```
\def\@opt@slr{
\setboolean{@addr@fr@l}{false}%
\setboolean{@addr@fr@p}{true}%
\setboolean{@addr@to@p}{true}%
\setboolean{@dt@p}{true}%
\setboolean{@dt@l}{false}%
\setboolean{@dt@c}{false}%
\setboolean{@greet@p}{true}%
\setboolean{@sig@p}{true}%
\setboolean{@sig@mp}{false}%
\setboolean{@addr@to@l}{true}%
\setboolean{@memo@bl}{false}%
\setboolean{@dt@l}{false}%
\setboolean{@sig@l}{false}%
\setboolean{@sig@c}{false}%
\@d@pos{1}\@t@pos{3}\@f@pos{2}\setboolean{@s@b@s}{false}}
\DeclareOption{stdletter}{\@opt@slr}%
\define@key{ov}{stdletter}[true]{\iffixq{#1}{\@opt@slr}}%
\def\@opt@sln{\setboolean{@addr@fr@l}{false} %
\setboolean{@addr@fr@p}{false} %
\setboolean{@addr@to@p}{true} %
\setboolean{@dt@p}{true}%
\setboolean{@dt@l}{false}%
\setboolean{@dt@c}{false}%
\setboolean{@greet@p}{true}%
\setboolean{@sig@p}{true}%
\setboolean{@sig@mp}{false}%
\setboolean{@addr@to@l}{true} %
\setboolean{@memo@bl}{false}%
\setboolean{@dt@l}{false}%
\setboolean{@sig@l}{false}%
\setboolean{@sig@c}{false}%
\@d@pos{1}\@t@pos{3}\@f@pos{2}\setboolean{@s@b@s}{false}}
\DeclareOption{stdletternofrom} {\@opt@sln}%
\define@key{ov}{stdletternofrom}[true]{\iffixq{#1}{\@opt@sln}}%
\def\@opt@blr{\setboolean{@addr@fr@l}{true}%
\setboolean{@addr@fr@p}{true}%
```

```
\setboolean{@memo@bl}{false}%
\setboolean{@addr@to@l}{true}%
\setboolean{@dt@l}{true}%
\setboolean{@dt@c}{false}%
\setboolean{@sig@l}{true}%
\setboolean{@sig@c}{false}%
\setboolean{@sig@p}{true}%
\setboolean{@sig@mp}{false}%
\@d@pos{1}\@t@pos{3}\@f@pos{2}\setboolean{@s@b@s}{false}}
\DeclareOption{busletter} {\@opt@blr}%
\define@key{ov}{busletter}[true]{\iffixq{#1}{\@opt@blr}}%
\def\@opt@bln{\setboolean{@addr@fr@l}{true}%
\setboolean{@addr@fr@p}{false}%
\setboolean{@memo@bl}{false}%
\setboolean{@addr@to@l}{true}%
\setboolean{@dt@l}{true}%
\setboolean{@dt@c}{false}%
\setboolean{@sig@l}{true}%
\setboolean{@sig@p}{true}%
\setboolean{@sig@mp}{false}%
\setboolean{@sig@c}{false}%
\@d@pos{1}\@t@pos{3}\@f@pos{2}\setboolean{@s@b@s}{false}}
\DeclareOption{busletternofrom} {\@opt@bln}%
\newboolean{@test@opt}\setboolean{@test@opt}{false}
\define@key{ov}{busletternofrom}[true]{\iffixq{#1}{\@opt@bln}}%
\DeclareOption{addrfromleft} {\setboolean{@addr@fr@l}{true}}%
\define@key{ov}{addrfromleft}[true]{\iffixt{#1}{@addr@fr@l}}%
\DeclareOption{addrfromright}{\setboolean{@addr@fr@l}{false}}%
\define@key{ov}{addrfromright}[true]{\iffixf{#1}{@addr@fr@l}}%
\DeclareOption{addrtoleft}   {\setboolean{@addr@to@l}{true}}%
\define@key{ov}{addrtoleft}[true]{\iffixt{#1}{@addr@to@l}}%
\DeclareOption{addrtoright}  {\setboolean{@addr@to@l}{false}}%
\define@key{ov}{addrtoright}[true]{\iffixf{#1}{@addr@to@l}}%
\DeclareOption{addrtoemail}  {\setboolean{@addr@to@e}{true}}%
\define@key{ov}{addrtoemail}[true]{\iffixt{#1}{@addr@to@e}}%
\DeclareOption{addrtophone}  {\setboolean{@addr@to@t}{true}}%
\define@key{ov}{addrtophone}[true]{\iffixt{#1}{@addr@to@t}}%
\DeclareOption{addrtofax}    {\setboolean{@addr@to@f}{true}}%
\DeclareOption{addrfromemail}{\setboolean{@addr@fr@e}{true}}%
\define@key{ov}{addrfromemail}[true]{\iffixt{#1}{@addr@fr@e}}%
\DeclareOption{addrfromphone}{\setboolean{@addr@fr@t}{true}}%
\define@key{ov}{addrfromphone}[true]{\iffixt{#1}{@addr@fr@t}}%
\DeclareOption{addrfromfax}  {\setboolean{@addr@fr@f}{true}}%
\define@key{ov}{addrfromfax}[true]{\iffixt{#1}{@addr@fr@f}}%
\providecommand{\boxht}{}  \providecommand{\boxwd}{} \providecommand{\btwlb}{}%
\providecommand{\topht}{}  \providecommand{\lftwd}{}%
\def\labpl#1{\setlength{\@lab@pl}{#1}}
\def\boxht#1{\setlength{\@lab@bh}{#1}}
\def\boxwd#1{\setlength{\@lab@bw}{#1}}
\def\topht#1{\setlength{\@lab@th}{#1}}
\def\lftwd#1{\setlength{\@lab@lm}{#1}}
\def\btwlb#1{\setlength{\@lab@bl}{#1}}
\def\@labname{nolines,dateno}%
\def\Alaba{\def\@labname{Avery5160,nolines,dateno}%
  \setboolean{@set@env}{true}\setboolean{@use@envlab}{false} \def\@tab@just{rrr}\labpl{10.125in}%
  \setcounter{@lab@tot@row}{10} \setcounter{@lab@tot@col}{3} \btwlb{5pt}%
  \boxht{67pt} \boxwd{174pt} \topht{38pt} \lftwd{-77pt} \setlength{\@Hgt@Foot}{0pt}}%
\def\Alabb{\def\@labname{Avery5161,nolines,dateno}%
  \setboolean{@set@env}{true}\setboolean{@use@envlab}{false} \def\@tab@just{rr}\labpl{10.125in}%
```

```
  \setcounter{@lab@tot@row}{10} \setcounter{@lab@tot@col}{2} \btwlb{8pt}%
  \boxht{67pt} \boxwd{274pt} \topht{37pt} \lftwd{-80pt} \setlength{\@Hgt@Foot}{0pt}}%
\def\Alabc{\def\@labname{Avery5162,nolines,dateno}%
  \setboolean{@set@env}{true}\setboolean{@use@envlab}{false} \def\@tab@just{rr}\labpl{9.5in}%
  \setcounter{@lab@tot@row}{7} \setcounter{@lab@tot@col}{2} \btwlb{8pt}%
  \boxht{93pt} \boxwd{274pt} \topht{62pt} \lftwd{-80pt} \setlength{\@Hgt@Foot}{0pt}}%
\def\Alabd{\def\@labname{Avery5163,nolines,dateno}%
  \setboolean{@set@env}{true}\setboolean{@use@envlab}{false} \def\@tab@just{rr}\labpl{10.125in}%
  \setcounter{@lab@tot@row}{5} \setcounter{@lab@tot@col}{2} \btwlb{8pt}%
  \boxht{139pt} \boxwd{274pt} \topht{38pt} \lftwd{-80pt} \setlength{\@Hgt@Foot}{0pt}}%
\def\Alabe{\def\@labname{Avery5164,nolines,dateno}%
  \setboolean{@set@env}{true}\setboolean{@use@envlab}{false} \def\@tab@just{rr}\labpl{10.125in}%
  \setcounter{@lab@tot@row}{3} \setcounter{@lab@tot@col}{2} \btwlb{8pt}%
  \boxht{232pt} \boxwd{274pt} \topht{38pt} \lftwd{-80pt} \setlength{\@Hgt@Foot}{0pt}}%
\DeclareOption{Avery5160}{\Alaba}%
\DeclareOption{Avery5161}{\Alabb}%
\DeclareOption{Avery5261}{\Alabb}%
\DeclareOption{Avery5162}{\Alabc}%
\DeclareOption{Avery5163}{\Alabd}%
\DeclareOption{Avery5164}{\Alabe}%
\DeclareOption{Avery5264}{\Alabe}%
\DeclareOption{labto}{\setboolean{@lab@t}{true}}%
\DeclareOption{labrowfrto}{\setboolean{@lab@rft}{true}\setboolean{@lab@t}{false}}%
\DeclareOption{labcolfrto}{\setboolean{@lab@cft}{true}\setboolean{@lab@t}{false}}%
\def\labsize#1{\def\@lab@size{#1}}
\define@key{ov}{Avery5160}[true]{\iffixq{#1}{\Alaba}}%
\define@key{ov}{Avery5161}[true]{\iffixq{#1}{\Alabb}}%
\define@key{ov}{Avery5261}[true]{\iffixq{#1}{\Alabb}}%
\define@key{ov}{Avery5162}[true]{\iffixq{#1}{\Alabc}}%
\define@key{ov}{Avery5163}[true]{\iffixq{#1}{\Alabd}}%
\define@key{ov}{Avery5164}[true]{\iffixq{#1}{\Alabe}}%
\define@key{ov}{Avery5264}[true]{\iffixq{#1}{\Alabe}}%
\define@key{ov}{labto}[true]{\iffixq{#1}{\setboolean{@lab@t}{true}}}%
\define@key{ov}{labrowfrto}[true]{\iffixq{#1}%
{\setboolean{@lab@rft}{true}\setboolean{@lab@t}{false}}}%
\define@key{ov}{labsize}{\def\@lab@size{#1}}
\define@key{ov}{labcolfrto}[true]{\iffixq{#1}%
{\setboolean{@lab@cft}{true}\setboolean{@lab@t}{false}}}%
\DeclareOption{setuplabel}{\setboolean{@set@env}{true}\setboolean{@use@envlab}{false}}%
\define@key{ov}{setuplabel}[true]{
\iffixq{#1}{\setboolean{@set@env}{true}\setboolean{@use@envlab}{false}}}%
\def\@dodtf{\@d@pos{1}\@t@pos{3}\@f@pos{2}\setboolean{@s@b@s}{false}}%
\def\@dofdt{\@d@pos{2}\@t@pos{3}\@f@pos{1}\setboolean{@s@b@s}{false}}%
\def\@doftd{\@d@pos{3}\@t@pos{2}\@f@pos{1}\setboolean{@s@b@s}{false}}%
\def\@dosbs{\@d@pos{1}\@t@pos{0}\@f@pos{0}\setboolean{@s@b@s}{true}}%
\DeclareOption{orderdatefromto}{\@dodtf}%
\define@key{ov}{orderdatefromto}[true]{\iffixq{#1}{\@dodtf}}%
\DeclareOption{orderfromdateto}{\@dofdt}%
\define@key{ov}{orderfromdateto}[true]{\iffixq{#1}{\@dofdt}}%
\DeclareOption{orderfromtodate}{\@doftd}%
\define@key{ov}{orderfromtodate}[true]{\iffixq{#1}{\@doftd}}%
\DeclareOption{sidebyside}{\@dosbs}%
\define@key{ov}{sidebyside}[true]{\iffixq{#1}{\@dosbs}}%
% Set right block flush top page
\DeclareOption{margflush}{\setboolean{@marg@lt@fl@tp}{true}}%
\define@key{ov}{margflush}[true]{\iffixt{#1}{@marg@lt@fl@tp}}%
% Set the marginal gap 20p
\DeclareOption{biggap}{\setboolean{@gap@small}{false}}%
% Do not print from-address.
```

```
\DeclareOption{addrfromno}{\setboolean{@addr@fr@p}{false}}%
\DeclareOption{noaddrfr}{\setboolean{@addr@fr@p}{false}}%
\DeclareOption{noaddrfrom}{\setboolean{@addr@fr@p}{false}}%
\define@key{ov}{noaddrfrom}[true]{\iffixf{#1}{@addr@fr@p}}%
% Do not print to-address.
\DeclareOption{addrtono}{\setboolean{@addr@to@p}{false}}%
\DeclareOption{noaddrto}{\setboolean{@addr@to@p}{false}}%
\define@key{ov}{noaddrto}[true]{\iffixf{#1}{@addr@to@p}}%
% Do not print greeting
\DeclareOption{greetno}{\setboolean{@greet@p}{false}}%
\define@key{ov}{nogreet}[true]{\iffixf{#1}{@greet@p}}%
% Use cello envelope
\DeclareOption{cellowindow}{\setboolean{@cello@win}{true}}%
\define@key{ov}{cellowindow}[true]{\iffixt{#1}{@cello@win}}%
% Cello dimensions
\def\celloheight#1{\setlength{\@cello@h}{#1}}%
\def\cellowidth#1{\setlength{\@cello@w}{#1}}%
\define@key{ov}{celloheight}{\celloheight{#1}}%
\define@key{ov}{cellowidth}{\cellowidth{#1}}%
% Cello placement
\def\cellodown#1{\setlength{\@cello@d}{#1}}%
\def\celloleft#1{\setlength{\@cello@l}{#1}}%
\define@key{ov}{cellodown}{\cellodown{#1}}%
\define@key{ov}{celloleft}{\celloleft{#1}}%
% Print date right-justified
\DeclareOption{dateright}{\setboolean{@dt@l}{false}\setboolean{@dt@c}{false}}%
\define@key{ov}{dateright}[true]%
{\iffixq{#1}{\setboolean{@dt@l}{false}\setboolean{@dt@c}{false}}}%
% Print date left-justified
\DeclareOption{dateleft}{\setboolean{@dt@l}{true}\setboolean{@dt@c}{false}}%
\define@key{ov}{dateleft}[true]%
{\iffixq{#1}{\setboolean{@dt@l}{true}\setboolean{@dt@c}{false}}}%
% Print date centered
\DeclareOption{datecenter}{\setboolean{@dt@l}{false}\setboolean{@dt@c}{true}}%
\define@key{ov}{datecenter}[true]%
{\iffixq{#1}{\setboolean{@dt@l}{false}\setboolean{@dt@c}{true}}}%
% Do not print date
\DeclareOption{dateno}{\setboolean{@dt@p}{false}}%
\define@key{ov}{dateno}[true]{\iffixf{#1}{@dt@p}}%
% Print date
\DeclareOption{dateyes}{\setboolean{@dt@p}{true}}%
% Print signature left-justified
\DeclareOption{signatureleft}{\setboolean{@sig@l}{true}\setboolean{@sig@c}{false}}%
\define@key{ov}{signatureleft}[true]%
{\iffixq{#1}{\setboolean{@sig@l}{true}\setboolean{@sig@c}{false}}}%
\DeclareOption{signleft}{\setboolean{@sig@l}{true}\setboolean{@sig@c}{false}}%
\define@key{ov}{sigleft}[true]%
{\iffixq{#1}{\setboolean{@sig@l}{true}\setboolean{@sig@c}{false}}}%
% Print signature centered
\DeclareOption{signaturecenter}{\setboolean{@sig@l}{false}\setboolean{@sig@c}{true}}%
\define@key{ov}{signaturecenter}[true]%
{\iffixq{#1}{\setboolean{@sig@l}{false}\setboolean{@sig@c}{true}}}%
\DeclareOption{sigcenter}{\setboolean{@sig@l}{false}\setboolean{@sig@c}{true}}%
\define@key{ov}{sigcenter}[true]%
{\iffixq{#1}{\setboolean{@sig@l}{false}\setboolean{@sig@c}{true}}}%
% Print signature right-justified
\DeclareOption{signatureright}{\setboolean{@sig@l}{false}\setboolean{@sig@c}{false}}%
\define@key{ov}{signatureright}[true]%
{\iffixq{#1}{\setboolean{@sig@l}{false}\setboolean{@sig@c}{false}}}%
```

```
\DeclareOption{sigright}{\setboolean{@sig@l}{false}\setboolean{@sig@c}{false}}%
\define@key{ov}{sigright}[true]%
{\iffixq{#1}{\setboolean{@sig@l}{false}\setboolean{@sig@c}{false}}}%
% No signature
\DeclareOption{signatureno}{\setboolean{@sig@p}{false}}%
\define@key{ov}{signatureno}[true]{\iffixf{#1}{@sig@p}}%
% Print all fr \info.
\def\@fix@all@fr{\setboolean{@use@all@fr}{true}
\setboolean{@addr@fr@p}{true}%
\setboolean{@addr@fr@l}{true}%
\setboolean{@addr@fr@f}{true}%
\setboolean{@addr@fr@e}{true}%
\setboolean{@addr@fr@t}{true}}%
% Print all fr \info.
\DeclareOption{printallfrom}{\@fix@all@fr}%
\define@key{ov}{printallfrom}[true]{\iffixq{#1}{\@fix@all@fr}}%
% Print all to \info.
\def\@fix@all@to{\setboolean{@use@all@to}{true}
\setboolean{@addr@to@p}{true}%
\setboolean{@addr@to@l}{true}%
\setboolean{@addr@to@f}{true}%
\setboolean{@addr@to@e}{true}%
\setboolean{@addr@to@t}{true}}%
\DeclareOption{printallto}{\@fix@all@to}%
\define@key{ov}{printallto}[true]{\iffixq{#1}{\@fix@all@to}}%
% Set header components to blank
\DeclareOption{blankheader}{\setboolean{@b@h}{true}}%
\define@key{ov}{blankheader}[true]{\iffixt{#1}{@b@h}}%
\DeclareOption{Blankheader}{\setboolean{@B@h}{true}}%
\define@key{ov}{Blankheader}[true]{\iffixt{#1}{@B@h}}%
% Set footer components to blank
\DeclareOption{blankfooter}{\setboolean{@b@f}{true}}%
\define@key{ov}{blankfooter}[true]{\iffixt{#1}{@b@f}}%
\DeclareOption{Blankfooter}{\setboolean{@B@f}{true}}%
\define@key{ov}{Blankfooter}[true]{\iffixt{#1}{@B@f}}%
% Set left margin components to blank
\DeclareOption{blanklmargin}{\setboolean{@b@l}{true}}%
\DeclareOption{blankleftmargin}{\setboolean{@b@l}{true}}%
\define@key{ov}{blankleftmargin}[true]{\iffixt{#1}{@b@l}}%
\DeclareOption{Blankleftmargin}{\setboolean{@B@l}{true}}%
\define@key{ov}{Blankleftmargin}[true]{\iffixt{#1}{@B@l}}%
% Set right margin components to blank
\DeclareOption{blankrmargin}{\setboolean{@b@r}{true}}%
\DeclareOption{blankrightmargin}{\setboolean{@b@r}{true}}%
\define@key{ov}{blankrightmargin}[true]{\iffixt{#1}{@b@r}}%
\DeclareOption{Blankrightmargin}{\setboolean{@B@r}{true}}%
\define@key{ov}{Blankrightmargin}[true]{\iffixt{#1}{@B@r}}%
% Set all components to blank
\DeclareOption{Blankall}{\setboolean{@B@f}{true}\setboolean{@B@l}{true}
\setboolean{@B@h}{true}\setboolean{@B@r}{true}}%
\define@key{ov}{Blankall}[true]%
{\iffixq{#1}{\setboolean{@B@f}{true}\setboolean{@B@l}{true}
\setboolean{@B@h}{true}\setboolean{@B@r}{true}}}%
\DeclareOption{blankall}{\setboolean{@b@f}{true}\setboolean{@b@l}{true}
\setboolean{@b@h}{true}\setboolean{@b@r}{true}}%
\define@key{ov}{blankall}[true]%
{\iffixq{#1}{\setboolean{@b@f}{true}\setboolean{@b@l}{true}
\setboolean{@b@h}{true}\setboolean{@b@r}{true}}}%
\DeclareOption{BlankTotal}% Fixed
```

```
{\setboolean{@B@f}{true}\setboolean{@B@l}{true}%
\setboolean{@B@h}{true}\setboolean{@B@r}{true}%
\setboolean{@b@f}{true}\setboolean{@b@l}{true}%
\setboolean{@b@h}{true}\setboolean{@b@r}{true}}%
\define@key{ov}{BlankTotal}[true]%
{\iffixq{#1}{\setboolean{@B@f}{true}\setboolean{@B@l}{true}%
\setboolean{@B@h}{true}\setboolean{@B@r}{true}%
\setboolean{@b@f}{true}\setboolean{@b@l}{true}%
\setboolean{@b@h}{true}\setboolean{@b@r}{true}}}%
\DeclareOption{useenvlab}{\setboolean{@set@env}{false}\setboolean{@use@envlab}{true}}%
\define@key{ov}{useenvlab}[true]{
\iffixq{#1}{\setboolean{@use@envlab}{true}\setboolean{@set@env}{false}}}%
\def\@paper@type{letterpaper}%
\DeclareOption{letterpaper}{\def\@paper@type{letterpaper}}%
\define@key{ov}{letterpaper}[true]{\iffixq{#1}{\def\@paper@type{letterpaper}}}%
\DeclareOption{legalpaper}{\def\@paper@type{legalpaper}}
\define@key{ov}{legalpaper}[true]{\iffixq{#1}{\def\@paper@type{legalpaper}}}%
\DeclareOption{a4paper}{\def\@paper@type{a4paper}}
\define@key{ov}{a4paper}[true]{\iffixq{#1}{\def\@paper@type{a4paper}}}%
\DeclareOption{a3paper}{\def\@paper@type{a3paper}}
\define@key{ov}{a3paper}[true]{\iffixq{#1}{\def\@paper@type{a3paper}}}%
\setkeys{ov}{textwidthsize=-1pt,textheightsize=-1pt,bottommarginskip=5pt,%
headermarginskip=0pt,rightmarginsize=72pt,leftmarginsize=72pt,bottommarginskipbelow=5pt,%
leftmargintopdist=-1pt,addrtoskipafter=18pt,unprright=-1pt,labsize=\normalsize,%
leftmarginskipleft=10pt,leftmarginskipright=10pt,dateskipbefore=20pt,%
dateskipafter=36pt,addrfromskipafter=36pt,addrfromskipbefore=0pt,%
greettoskipafter=18pt,sigskipbefore=12pt,sigskipafter=12pt,sigsize=72pt,%
postsigskipafter=10pt,memoskipafter=15pt,memoskipbefore=35pt,unprtop=-1pt,unprbottom=-1pt,%
unprleft=-1pt}%
```

12.3 Executing Options

Here we execute the default options to initialize certain variables.

```
\ExecuteOptions{\@paper@type,stdletter,american}%
```

The `\ProcessOptions` command causes the execution of the code for every option foo which is declared and for which the user typed the foo option in his `\documentclass` command. For every option bar he typed, which is not declared, the option is assumed to be a global option. All options will be passed as document options to any `\usepackage` command in the document preamble.

```
\DeclareOption*{\PassOptionsToClass{\CurrentOption}{letter}}
\ProcessOptions
```

showdim This is here for debugging only.

```
\def\showdim#1{%
\txa{ * * * }
\txa{**************************************************************************}
\txa{Dimensions: #1}%
% \printinunitsof{in}\pagevalues
\txa{\string\headheight:     \the\headheight,  \string\headsep:        \the\headsep}%
\txa{\string\paperheight:    \the\paperheight, \string\paperwidth:    \the\paperwidth}%
\txa{\string\textheight:     \the\textheight,  \string\textwidth:      \the\textwidth}
\txa{\string\@colht:         \the\@colht,      \string\@colroom:       \the\@colroom}%
\txa{\string\vsize:          \the\vsize,   \string\columnwidth: \the\columnwidth}%
\txa{\string\hsize: \the\hsize, \string\linewidth: \the\linewidth}%
\txa{\string\evensidemargin: \the\evensidemargin, \string\footskip:       \the\footskip}%
\txa{\string\oddsidemargin:  \the\oddsidemargin, \string\columnsep:      \the\columnsep}%
\txa{\string\topmargin:      \the\topmargin}%
\txa{\string\marginparpush: \the\marginparpush, \string\marginparsep: \the\marginparsep}%
```

```
\txa{*****************************************************************************}
\txa{ * * * }
}%
```

Now that all the options have been executed we can load the existing copy of letter.cls. This will ensure that the various constructions which work in letters (`\begin{letter}`, etc.) will continue to work in the class. The `newlfm.cls` class adds the environment `newlfm`, which adds a number of new commands to the `letter` class, but does not remove any `letter` class commands.

```
\showdim{Before LoadClass}%
\PassOptionsToClass{\@paper@type,oneside,final}{letter}%
\LoadClass{letter}%
\showdim{Before addrset}%
\RequirePackage{addrset}%
\IfFileExists{afterpage.sty}{\RequirePackage{afterpage}}{}%
\IfFileExists{envlab.sty}{\RequirePackage{envlab}}{}%
\showdim{After LoadClass}
```

Some of the page layout parameters are defined here. Many of the values for the page layout parameters are set in geometry below. In setting the values here, we expect that geometry will override a large number of the values. However, the values must be assigned *a prior*.

```
%
\setlength{\voffset}{0in}%
\setlength{\itemsep}{.2em}%
\setlength{\topsep}{.2em}%
\setlength{\partopsep}{0\p@}%
\setlength{\arraycolsep}{5\p@}%
\setlength{\tabcolsep}{6\p@}%
\setlength{\arrayrulewidth}{.4\p@}%
\setlength{\doublerulesep}{2\p@}%
\setlength{\tabbingsep}{\labelsep}%
\skip\@mpfootins = \skip\footins%
\setlength{\fboxsep}{3\p@}%
\setlength{\fboxrule}{.4\p@}%
\providecommand{\geometry}{ }%
\def\geometry#1{\typeout{Command \string\geometry{items} no longer supported.}%
\typeout{newlfm supports several dimensional commands.  Please check the manual for detail.}%
}%
\renewcommand{\theequation}{\@arabic\c@equation}%
\renewcommand{\footnoterule}{%
  \kern-\p@%
  \hrule \@width .4\columnwidth%
  \kern .6\p@}%
  \long\def\@makefntext#1{%
    \noindent \hangindent 5\p@%
    \hb@xt@5\p@{\hss\@makefnmark}#1}%
```

table,figure Standard LaTeX constructions `table` and `figure` are not defined in `letter`. They are added here.

```
\renewcommand{\thefigure}{\@arabic\c@figure}%
\providecommand{\figurename}{}\renewcommand{\figurename}{Figure}%
\providecommand{\tablename}{} \renewcommand{\tablename}{Table}%
\newcommand{\fps@figure}{tbp}\newcommand{\ftype@figure}{1}\newcommand{\ext@figure}{lof}%
\newcommand{\fnum@figure}{\figurename~\thefigure}%
\newenvironment{figure}{\@float{figure}}{\end@float}%
\newenvironment{figure*}{\@dblfloat{figure}}{\end@dblfloat}%
\renewcommand\thetable{\@arabic\c@table}%
\newcommand{\fps@table}{tbp}\newcommand{\ftype@table}{2}%
\newcommand{\ext@table}{lot}%
\newcommand{\fnum@table}{\tablename~\thetable}%
\newenvironment{table}{\@float{table}}{\end@float}%
```

```
\newenvironment{table*}{\@dblfloat{table}}{\end@dblfloat}%
\setlength\@caption@skip@above{10\p@}\setlength\@caption@skip@below{0\p@}%
\long\def\@makecaption#1#2{%
  \vskip\@caption@skip@above\sbox\@tempboxa{#1: #2}%
  \ifdim \wd\@tempboxa >\hsize%
    #1: #2\par%
  \else\global \@minipagefalse%
    \hb@xt@\hsize{\hfil\box\@tempboxa\hfil}%
  \fi\vskip\@caption@skip@below}%
\newcommand{\section}[1]{{\Large {\bfseries #1}}}%
```

d time macros These functions all use various system indicators of time and date to furnish a time or date value to go on faxes and letters.

```
\def\monthname{% timestamp function
  \ifcase\month%
    \or January\or February\or March\or April \or May\or June%
    \or July\or August\or September\or October \or November\or December%
  \fi%
}%
\def\timestring{%
  \begingroup%
    \count0 = \time \divide\count0 by 60%
    \count2 = \count0 % the hour%
    \count4 = \time \multiply\count0 by 60%
    \advance\count4 by -\count0 % the minute%
    \ifnum\count4<10 \toks1 = {0}    \else \toks1 = {}\fi%
    \ifnum\count2<12 \toks0 = {A.M.} %
      \else \toks0 = {P.M.}\advance\count2 by -12\fi%
    \ifnum\count2=0 \count2 = 12 \fi % make midnight 12%
    {\number\count2:\the\toks1 \number\count4%
    \thinspace \the\toks0}%
  \endgroup%
}%
\def\timestamp{\number\day\space\monthname\space\number\year,\space\timestring}%
\def\datestamp{\monthname\space\number\day,\space\number\year}%
```

Rules These macros set up the width of rules. They also determine whether they are printed.

```
%
\def\noheadline{\setboolean{@hl}{false}}%
\define@key{ov}{noheadline}[true]{\iffixq{#1}{\setboolean{@hl}{false}}}%
\def\nofootline{\setboolean{@fl}{false}}%
\define@key{ov}{nofootline}[true]{\iffixq{#1}{\setboolean{@fl}{false}}}%
\def\nolines{\setboolean{@fl}{false}\setboolean{@hl}{false}}%
\define@key{ov}{nolines}[true]{\iffixq{#1}{\setboolean{@fl}{false}\setboolean{@hl}{false}}}%
\def\@plhl{1}\def\nopheadline{\def\@plhl{0}}%
\def\@plfl{1}\def\nopfootline{\def\@plfl{0}}%
\def\Headlinewd#1{\setlength{\@Hrw}{#1}}%
\def\headlinewd#1{\setlength{\@hrw}{#1}}%
\def\Footlinewd#1{\setlength{\@Frw}{#1}}%
\def\footlinewd#1{\setlength{\@frw}{#1}}%
\define@key{ov}{Headlinewd}{\setlength{\@Hrw}{#1}}%
\define@key{ov}{headlinewd}{\setlength{\@hrw}{#1}}%
\define@key{ov}{Footlinewd}{\setlength{\@Frw}{#1}}%
\define@key{ov}{footlinewd}{\setlength{\@frw}{#1}}%
```

12.4 fancyhdr in newlfm

Using fancyhdr (version 1.2v or later), the `ltrhead` and `othhead` environments are set up. The user actually does not control the information using the standard macros, but rather uses Lfooter for the left footer on

the letterhead and lfooter for the left footer on remaining pages. Thus, the information is transfered around in a simple manner.

ltrhead

```
%
\fancypagestyle{ltrhead}{%
  \def\ifta{0}%
  \txa{Before setting up letterhead}%
  \showdim{Letterhead}%
  \fancyhf{}%
  \txa{Current stored info: \string\@ltr@head:\@ltr@head}%
  \fancyfoot[L]{\@Lfooter}%
  \fancyfoot[C]{\@Cfooter}%
  \fancyfoot[R]{\@Rfooter}%
  \fancyhead[L]{\@Lheader \vspace*{\the\@marg@tp@a}}%
  \fancyhead[C]{\@Cheader \vspace*{\the\@marg@tp@a}}%
  \fancyhead[R]{\@Rheader \vspace*{\the\@marg@tp@a}}%
  \showdim{Letterhead}%
  \def\@lodd{\relax}%
  \def\@rodd{\relax}%
%   \ifempty{\@LUheader}{}{\vspace*{-.5in}\@LUheader \vspace*{.5in}}%
%  }%   % section 2 goes here if we go to plan b%
%   \ifempty{\@RUheader}{}{}%
%  }%
% \@set@em@up%
% \settoheight{\@utila}{\@Rheader}\settodepth{\@utilb}{\@Rheader}\addtolength{\@utila}{\@utilb}%
% \txa{Right: \the\@utila}%
% \settoheight{\@utila}{\@Lheader}\settodepth{\@utilb}{\@Lheader}\addtolength{\@utila}{\@utilb}%
% \txa{Left: \the\@utila}%
% \settoheight{\@utila}{\@Cheader}\settodepth{\@utilb}{\@Cheader}\addtolength{\@utila}{\@utilb}%
% \txa{Center: \the\@utila}%
  \txa{After setting up letterhead}%
  \def\ifta{0}%
}%
```

othhead

```
%
\fancypagestyle{othhead}{%
  \def\ifta{0}%
  \fancyhf{}%
  \fancyfoot[L]{\@lfooter}%
  \fancyfoot[C]{\@cfooter}%
  \fancyfoot[R]{\@rfooter}%
  \fancyhead[L]{\@lheader \vspace*{\the\@marg@tp@a}}%
  \fancyhead[R]{\@rheader \vspace*{\the\@marg@tp@a}}%
  \fancyhead[C]{\@cheader \vspace*{\the\@marg@tp@a}}%
  \def\@lodd{\relax}%
  \def\@rodd{\relax}%
}%
```

12.5 Wrapper code

makelth In order to use the program more efficiently, it is possible to set up a database with addresses, letterhead setups and signature setups in it. Rather than address placing information about each letter in the letter in the letter itself, information is placed in the letter database file and inserted into a letter using the wrapper.

1. The file is called `letrinfo.tex`.
2. The file is placed somewhere on the TEX path.

3. In this file, place all addresses, letterhead setups and signature setups as follows:

   (a) In file `letrinfo.tex`, set up a command `\makelthXXX` stuff for the letter head

   (b) This makes a macro out of the stuff, with the name `\lthXXX`

   (c) Issue the command `\lthXXX` prior to the start of the environment

   (d) The letterhead structure will then be used in the letter in which it is called

   (e) The following commands are generally included in a letterhead environment: lfooter, cfooter, rfooter, lheader, cheader, rheader, Lfooter, Cfooter, Rfooter, Lheader, Cheader, Rheader, lmargin, rmargin, Lmargin, Rmargin

```
⟨/package⟩
⟨*setdim⟩
\def\ifta{0}\def\iftb{0}%
\def\txa#1{\ifthenelse{\equal{\ifta}{1}}{\typeout{#1}}{}}%%
\def\settext#1#2#3#4#5{%
  \txa{\string\textheight: #1}\txa{\string\textwidth: #2}%
  \global\setlength{\textheight}{#1}%
  \global\setlength{\textwidth}{#2}%
  \global\setlength{\evensidemargin}{#3}%
  \global\setlength{\oddsidemargin}{#4}%
  \global\setlength{\columnsep}{#5}%
  \@change@text%
}
\def\lsettext#1#2#3#4#5{%
  \txa{\string\textheight: #1}\txa{\string\textwidth: #2}%
  \setlength{\textheight}{#1}%
  \setlength{\textwidth}{#2}%
  \setlength{\evensidemargin}{#3}%
  \setlength{\oddsidemargin}{#4}%
  \setlength{\columnsep}{#5}%
  \@lchange@text%
}
\def\@change@text{%
  \global\setlength{\@colht}{\textheight}%
  \txa{\string\@colht:\the\@colht}%
  \global\setlength{\@colroom}{\textheight}%
  \global\setlength{\vsize}{\textheight}%
  \global\setlength{\columnwidth}{\textwidth}%
  \if@twocolumn%
    \advance\columnwidth-\columnsep \divide\columnwidth\tw@%
    \@firstcolumntrue%
  \fi%
  \global\setlength{\hsize}{\columnwidth}%
  \global\setlength{\linewidth}{\hsize}%
}%
\def\@lchange@text{%
  \setlength{\@colht}{\textheight}%
  \txa{\string\@colht:\the\@colht}%
  \setlength{\@colroom}{\textheight}%
  \setlength{\vsize}{\textheight}%
  \setlength{\columnwidth}{\textwidth}%
  \if@twocolumn%
    \advance\columnwidth-\columnsep \divide\columnwidth\tw@%
    \@firstcolumntrue%
  \fi%
  \setlength{\hsize}{\columnwidth}%
  \setlength{\linewidth}{\hsize}%
}%
```

```
\def\retdims{%
  \showdim{Setpage A}%
  \txa{In setpage: \npind}%
  \global\setlength{\@xda}{\textheight}%
  \global\setlength{\@xdb}{\textwidth}%
  \global\setlength{\@xdc}{\evensidemargin}%
  \global\setlength{\@xdd}{\oddsidemargin}%
  \global\setlength{\@xde}{\columnsep}%
  \global\setlength{\@xdf}{\topmargin}%
  \global\setlength{\@xdg}{\headheight}%
  \global\setlength{\@xdh}{\headsep}%
  \global\setlength{\@xdi}{\footskip}%
}
\def\rstdims{%
  \showdim{Setpage A}%
  \txa{In setpage: \npind}%
  \global\setlength{\textheight}{\@xda}%
  \global\setlength{\textwidth}{\@xdb}%
  \global\setlength{\evensidemargin}{\@xdc}%
  \global\setlength{\oddsidemargin}{\@xdd}%
  \global\setlength{\columnsep}{\@xde}%
  \global\setlength{\topmargin}{\@xdf}%
  \global\setlength{\headheight}{\@xdg}%
  \global\setlength{\headsep}{\@xdh}%
  \global\setlength{\footskip}{\@xdi}%
  \@change@text%
}
\def\setpage#1#2#3#4#5#6#7#8#9{%
  \showdim{Setpage A}%
  \txa{In setpage: \npind}%
  \settext{#1}{#2}{#3}{#4}{#5}%
  \global\setlength{\topmargin}{#6}%
  \global\setlength{\headheight}{#7}%
  \global\setlength{\headsep}{#8}%
  \global\setlength{\footskip}{#9}%
  \@change@text%
  \showdim{Setpage B}%
}
\def\lsetpage#1#2#3#4#5#6#7#8#9{%
  \showdim{Setpage A}%
  \txa{In setpage: \npind}%
  \lsettext{#1}{#2}{#3}{#4}{#5}%
  \setlength{\topmargin}{#6}%
  \setlength{\headheight}{#7}%
  \setlength{\headsep}{#8}%
  \setlength{\footskip}{#9}%
  \@lchange@text%
  \showdim{Setpage B}%
}
\def\changetext#1#2#3#4#5{%
  \addtolength{\textheight}{#1}%
  \addtolength{\textwidth}{#2}%
  \addtolength{\evensidemargin}{#3}%
  \addtolength{\oddsidemargin}{#4}%
  \addtolength{\columnsep}{#5}%
  \@change@text%
}%
\def\changepage#1#2#3#4#5#6#7#8#9{%
  \changetext{#1}{#2}{#3}{#4}{#5}%
```

```
  \addtolength{\topmargin}{#6}%
  \addtolength{\headheight}{#7}%
  \addtolength{\headsep}{#8}%
  \addtolength{\footskip}{#9}%
  \@change@text%
}%
⟨/setdim⟩
⟨*addrset⟩
\def\makeletterhead#1#2{\expandafter\newcommand\csname lth#1\endcsname{#2}}%
\def\makelth#1#2{\expandafter\newcommand\csname lth#1\endcsname{#2}}%
```

`\makesig` In this wrapper macro, signature information is associated with a name, just as described above in the makelth macro.

```
\def\makesignature#1#2{\expandafter\newcommand\csname sig#1\endcsname{#2}}%
\def\makesig#1#2{\expandafter\newcommand\csname sig#1\endcsname{#2}}%
```

`\makeadr` In this wrapper macro, address information is associated with a name, just as described above in the makelth macro. This includes macros such as nameto, phoneto, faxto and other information associated with a particular addressee.

```
\def\makeadr#1#2{\expandafter\newcommand\csname adr#1\endcsname{#2}}%
\def\makeaddress#1#2{\expandafter\newcommand\csname adr#1\endcsname{#2}}%

⟨/addrset⟩
⟨*package⟩
```

12.6 Text placement

`Letterhead` This suite of macro inserts text into a specified place for the `fancyhdr` to use. This is then later transfered into the footer of the letterhead page, right side. The remaining macros also do this, as follows. r, c, l: right, center, left. Header: top of page. Footer: bottom of page. Capitalized: on letterhead page. Non-capitalized: on remaining pages.

In placing information on the letterhead page, special constructions allow placement *under* the top margin and *over* the footer area. These are the macros `\LOfooter`, `\COfooter`, `\ROfooter`, `\LUheader`, `\CUheader` and `\RUheader`. In the case of `\LOfooter`, `\COfooter` and `\ROfooter`, the boxed information is placed over the related footer section, which includes lying over the footer line (if printed). In the case of `\LUheader`, `\CUheader` and `\RUheader`, the boxed information is placed under the related header section, which includes lying under the header line (if printed). When any of these special purpose sections are used, text length is adjusted as needed. (**NOTE:** Although this is under development, these commands are not yet functional.

```
\providecommand{\@Backgrd}{}    \providecommand{\@backgrd}{}%
\providecommand{\@Lfooter}{}    \providecommand{\@Cfooter}{}%
\providecommand{\@Rfooter}{}    \providecommand{\@lfooter}{}%
\providecommand{\@cfooter}{}    \providecommand{\@rfooter}{}%
\providecommand{\@LOfooter}{}   \providecommand{\@COfooter}{}%
\providecommand{\@ROfooter}{}   \providecommand{\@Lheader}{}%
\providecommand{\@Cheader}{}    \providecommand{\@Rheader}{}%
\providecommand{\@lheader}{}    \providecommand{\@cheader}{}%
\providecommand{\@rheader}{}    \providecommand{\@LUheader}{}%
\providecommand{\@CUheader}{}   \providecommand{\@RUheader}{}%
\providecommand{\@Rmarg}{}      \providecommand{\@Lmarg}{}%
\providecommand{\@rmarg}{}      \providecommand{\@lmarg}{}%
\def\Backgrd#1{\setboolean{@Bg@use}{true}\def\@Backgrd{#1}}%
\def\backgrd#1{\setboolean{@bg@use}{true}\def\@backgrd{#1}}%
\def\Lfooter#1{\setboolean{@Lf@use}{true}\def\@Lfooter{#1}}%
\def\Cfooter#1{\setboolean{@Cf@use}{true}\def\@Cfooter{#1}}%
\def\Rfooter#1{\setboolean{@Rf@use}{true}\def\@Rfooter{#1}}%
\def\LOfooter#1{\setboolean{@LOf@use}{true}\def\@LOfooter{#1}}%
```

```
\def\COfooter#1{\setboolean{@COf@use}{true}\def\@COfooter{#1}}%
\def\ROfooter#1{\setboolean{@ROf@use}{true}\def\@ROfooter{#1}}%
\def\lfooter#1{\setboolean{@lf@use}{true}\def\@lfooter{#1}}%
\def\cfooter#1{\setboolean{@cf@use}{true}\def\@cfooter{#1}}%
\def\rfooter#1{\setboolean{@rf@use}{true}\def\@rfooter{#1}}%
\def\Lheader#1{\setboolean{@Lh@use}{true}\def\@Lheader{#1}}%
\def\Cheader#1{\setboolean{@Ch@use}{true}\def\@Cheader{#1}}%
\def\Rheader#1{\setboolean{@Rh@use}{true}\def\@Rheader{#1}}%
\def\LUheader#1{\setboolean{@LUh@use}{true}\def\@LUheader{#1}}%
\def\CUheader#1{\setboolean{@CUh@use}{true}\def\@CUheader{#1}}%
\def\RUheader#1{\setboolean{@RUh@use}{true}\def\@RUheader{#1}}%
\def\lheader#1{\setboolean{@lh@use}{true}\def\@lheader{#1}}%
\def\cheader#1{\setboolean{@ch@use}{true}\def\@cheader{#1}}%
\def\rheader#1{\setboolean{@rh@use}{true}\def\@rheader{#1}}%
\def\Rmargin#1{\def\@Rmarg{#1}\setboolean{@marg@Ruse}{true}}%
\def\Lmargin#1{\def\@Lmarg{#1}\setboolean{@marg@Luse}{true}}%
\def\rmargin#1{\def\@rmarg{#1}\setboolean{@marg@ruse}{true}}%
\def\lmargin#1{\def\@lmarg{#1}\setboolean{@marg@luse}{true}}%
```

12.7 Memo blocks

`\Prnt@Chk` This is a conditional printing macro. The arguments are

1. true: print the remainder of this item.
2. true: print to the left.
3. true: print centered. If 2) and 3) false, print to the right.
4. material to print.
5. material or other tokens to evaluate after the previous item is aligned.
6. vertical space above the item.
7. vertical space after the item.

```
\newcommand{\Prnt@Chk}[7]{%
  \ifthenelse{\boolean{#1}}{\ifempty{#6}{}{%
    \vspace*{-2\parskip}\vspace*{#6}}}{}%
  \ifthenelse{\boolean{#1}}%
    {\ifthenelse{\boolean{#2}}{\begin{flushleft}{#4}\end{flushleft}}%
    {\ifthenelse{\boolean{#3}}%
      {\begin{center}{#4}\end{center}}%
      {\begin{flushright}{#4}\end{flushright}}}%
    }{}%
  \ifthenelse{\boolean{#1}}{#5}{}%
  \ifthenelse{\boolean{#1}}{\ifempty{#7}{}%
    {\vspace*{-2\parskip}\vspace*{#7}}}{}%
}%
```

`\memosec` This section defines the text used in printing a normal memo. This will go at the top of the text block.

If the user intends to modify the `\memosec` code to provide their own memo, the code in `smemosec.tex` should be modified. Save this as file `memosec.tex`, with any desired modification.

```
\newcommand{\fixphr}[2]{\strut & \parbox[t]{\the\@utilc}{#1} #2 \\}%
\def\ifta{0}%
\def\memosec{%
  \def\ifta{0}\txa{Start of memosec}%
  \noindent\ignorespaces%
  \settowidth{\@utila}{{\bf \@hnfr@phr:\hspace*{1.25em}}}%
```

```
  \setlength{\@utilb}{\textwidth-\@utila-.1em}%
  \addtolength{\@utilb}{-5pt}%
  \settowidth{\@utilc}{\@phn@phr:\hspace*{2em}}%
  \settowidth{\@utild}{\@fax@phr:\hspace*{2em}}%
  \ifthenelse{\lengthtest{\@utilc<\@utild}}{\setlength{\@utilc}{\the\@utild}}{}%
  \settowidth{\@utild}{\@pager@phr:\hspace*{2em}}
  \ifthenelse{\lengthtest{\@utilc<\@utild}}{\setlength{\@utilc}{\the\@utild}}{}%
  \settowidth{\@utild}{\@email@phr:\hspace*{2em}}
  \ifthenelse{\lengthtest{\@utilc<\@utild}}{\setlength{\@utilc}{\the\@utild}}{}%
\txa{After length tests}
{\vspace*{-1em}\setlength{\tabcolsep}{0pt}%
\setboolean{@memo@a}{false}%
\vspace*{\@pre@memo@sp}\noindent\par%
\begin{flushleft}%
\begin{tabular}{p{\the\@utila}l}%
\ifthenelse{\boolean{@memo@g}}%
{\setboolean{@memo@a}{true}%
\strut {\bf \@hnto@phr:} & \@name@to \strut \\%
\ifthenelse{\boolean{@memo@b}}{\strut &%
\parbox[t]{\the\@utilb}{\@addr@to\strut}\strut\\}{}%
\ifthenelse{\boolean{@memo@c}}{\fixphr{\@phn@phr:}{\@phn@to}}{}%
\ifthenelse{\boolean{@memo@d}}{\fixphr{\@fax@phr:}{\@fax@to}}{}%
\ifthenelse{\boolean{@memo@n}}{\fixphr{\@pager@phr:}{\@pager@to}}{}%
\ifthenelse{\boolean{@memo@k}}{\fixphr{\@email@phr:}{\@email@to}}{}%
}{}%
\ifthenelse{\boolean{@memo@e}}%
{\setboolean{@memo@a}{true}%
\strut {\bf \@hnfr@phr:} &{\@name@fr} \strut \\%
\ifthenelse{\boolean{@memo@h}}{\strut &%
\parbox[t]{\the\@utilb}{\@addr@fr \strut} \strut \\}{}%
\ifthenelse{\boolean{@memo@i}}{\fixphr{\@phn@phr:}{\@phn@fr}}{}%
\ifthenelse{\boolean{@memo@j}}{\fixphr{\@fax@phr:}{\@fax@fr}}{}%
\ifthenelse{\boolean{@memo@m}}{\fixphr{\@pager@phr:}{\@pager@fr}}{}%
\ifthenelse{\boolean{@memo@l}}{\fixphr{\@email@phr:}{\@email@fr}}{}%
}{}%
\ifthenelse{\boolean{@memo@f}}{\setboolean{@memo@a}{true}%
\strut {\bf \@re@phr:}   &  {\@re@line} \\%
}{}%
\ifthenelse{\boolean{@dt@p}}{\strut {\bf \@date@phr:} & \@xdate \\}{}%
\ifthenelse{\boolean{@memo@a}}{\hline}{}%
\end{tabular}%
\end{flushleft}%
}%
\vspace*{\@post@memo@sp}\noindent\par%
\txa{End of memosec}
}%
\InputIfFileExists{memosec.tex}%
{\typeout{Reading {\tt memosec.tex}}}%
{\typeout{The default definition for memosec is used.  File memosec.tex doesn't exist.}}%
```

12.8 Press Release blocks

\pressbegin This section defines the text used in printing a normal press release. This will go at the top of the text block. It also sets up appropriate page headers and turns off header and footer lines.

\nolines seemingly should disable header and footer lines, but it only takes effect via \@set@em@up, which is only used if @over@all is true. It's not in this case. That might be a problem with the implementation of \nolines. It would be good if the redefinition of the line width only persisted within a give lfmp environment. It's not clear that is the case.

We want `\@more@phr` (usually "– more –") to appear on the bottom of every page but the last. Because the output routine may be triggered when we're already into the next page, the best way to handle this is with the marking mechanism. The left mark gets the *last* such mark given, while the right mark uses the first right mark on the page. So we use the left mark to set the footer.

In principle, we might use the right mark for the short header used on later pages, but the existing distinction between the first and other pages already handles that.

There are a lot of hard-coded distances here; eventually they should perhaps be generalized.

```
\newcommand{\pressbegin}{%maybe set dimensions, esp 1 inch margins, here
\settowidth{\@utila}{\@addr@fr}%
\def\ifta{0}%
\txa{Setup beginning of press release}%
\renewcommand{\headrulewidth}{0pt}\renewcommand{\footrulewidth}{0pt}%
\begin{flushleft}%
\rule{\textwidth}{1pt} \par \noindent%
\centerline{\LARGE \@pr@release \strut} \par\noindent%
\rule{\textwidth}{1pt} \par \noindent
\txa{After first block}
\setlength{\tabcolsep}{0pt}%
\begin{tabular}{l@{\hspace{1em}}l}%
\textbf{\@contact@phr:} & \@name@fr \strut \\%
& \parbox[t]{\@utila}{\@addr@fr  \strut } \strut \\ %%
\ifempty{\@phn@fr}{}{\textbf{\@phn@phr:} & \@phn@fr \strut \\}%
\ifempty{\@phnb@fr}{}{\textbf{\@phn@phr:} & \@phnb@fr \strut \\}%
\ifempty{\@phnc@fr}{}{\textbf{\@phn@phr:} & \@phnc@fr \strut \\}%
\ifempty{\@phnd@fr}{}{\textbf{\@phn@phr:} & \@phnd@fr \strut \\}%
\ifempty{\@fax@fr}{}{\textbf{\@fax@phr:} & \@fax@fr \strut \\}%    % maybe email, web site?
\textbf{Date:} & \@xdate%
\end{tabular}%
\end{flushleft}%
\txa{After endflushleft}
\rule{\textwidth}{1pt} \par \noindent
\centerline{\textbf{\Large \@pr@headline}} \par \noindent
\rule{\textwidth}{1pt} \par \noindent
\ifthenelse{\boolean{@space@d}}{\begin{doublespace}}{\begin{singlespace}}%
\ifthenelse{\boolean{@pr@by}}{\noindent \@pr@byline \\}{}
\noindent
\txa{end of pressbegin}
}%
\InputIfFileExists{prsrls.tex}%
  {\typeout{Reading press release page setup from prsrls.tex}}%
  {\typeout{Press release definitions stored in newlfm.cls}}%
```

12.9 Fax blocks

`\faxpage` Here we define a FAX page. This separate stand-along page includes:

1. the term fax@cover@line in Huge text, boxed
2. From-name
3. Optional from-information
4. To-name
5. Optional to-information
6. Re-line
7. Additional information specified in `\faxmssg`

```
\txa{Next part}
\newcommand*{\faxpage}{{%
\def\ifta{0}\showdim{Before setpage inside faxpage}%
\lsetpage{722pt}{6.5in}{1in}{0in}{.25in}{1in}{.75in}{.25in}{.25in}%
\showdim{After setpage}%
{\def\ifta{0}\showdim{Before fax page setup A}%
\setlength{\@utila}{\paperheight}\addtolength{\@utila}{-1in}%
\setlength{\@utilb}{\paperwidth}\addtolength{\@utilb}{-2in}%
\global\setlength{\textwidth}{\paperwidth-2in}%
\txa{\string\paperheight:\paperheight,\string\@utila:\the\@utila}%
\txa{\string\paperwidth:\paperwidth,\string\@utilb:\the\@utilb}\gdef\npind{A1}%
\@clear@box%
\def\ifta{0}%
\txa{\string\paperheight:\the\paperheight,\string\@utila:\the\@utila}%
\txa{\string\paperwidth:\the\paperwidth,\string\@utilb:\the\@utilb}%
\txa{\string\textheight:\the\textheight,\string\textwidth:\the\textwidth}%
\newpage\c@page\@ne\interlinepenalty=200%
\showdim{Before fax page setup B}%
\thispagestyle{empty}%
\vspace*{-\the\@Hgt@Head}\vspace*{.5in}%
\showdim{Inside fax page specification}%
\begin{center}%
\framebox{\Huge{\@fax@cover@line}} \\%
\vspace*{.5in} \Large{\@fax@page@count: \ref{totpage}} \\%
\vspace*{.5in} \Large{\timestamp} \\%
\end{center}%
\settowidth{\@utila}{\LARGE{\@hnto@phr:}}%
\settowidth{\@utilb}{\LARGE{\@hnfr@phr:}}%
\ifthenelse{\lengthtest{\@utila<\@utilb}}{\setlength{\@utila}{\@utilb}}{}%
\settowidth{\@utilb}{\LARGE{\@m@phr:}}%
\ifthenelse{\lengthtest{\@utila<\@utilb}}{\setlength{\@utila}{\@utilb}}{}%
\setlength{\tabcolsep}{0pt}%
\setlength{\@utilb}{\the\textwidth-\the\@utila}%
\txa{Lengths:\the\textwidth, \the\@utila, \the\@utilb}%
\begin{tabular}{p{\the\@utila}p{\the\@utilb}} \hline \\%
\LARGE{\@hnto@phr:} & \parbox[t]{\@utilb}{\@name@to \strut \\ \@addr@to \strut%
\ifempty{\@phn@to}{}{\\ \@phn@phr:\space\@phn@to \strut}%
\ifempty{\@phnb@to}{}{\\ \@phn@phr:\space\@phnb@to \strut}%
\ifempty{\@phnc@to}{}{\\ \@phn@phr:\space\@phnc@to \strut}%
\ifempty{\@phnd@to}{}{\\ \@phn@phr:\space\@phnd@to \strut}%
\ifempty{\@fax@to}{}{\\ \@fax@phr:\space\@fax@to \strut}} \vspace*{5pt} \\ \hline \vspace*{5pt}%
\LARGE{\@hnfr@phr:} & \vspace*{5pt}%
\parbox[t]{\@utilb}{\@name@fr \strut \\ \@addr@fr \strut %%
\ifempty{\@phn@fr}{}{\\ \@phn@phr:\space\@phn@fr \strut}%
\ifempty{\@phnb@fr}{}{\\ \@phn@phr:\space\@phnb@fr \strut}%
\ifempty{\@phnc@fr}{}{\\ \@phn@phr:\space\@phnc@fr \strut}%
\ifempty{\@phnd@fr}{}{\\ \@phn@phr:\space\@phnd@fr \strut}%
\ifempty{\@fax@fr}{}{\\ \@fax@phr:\space\@fax@fr \strut}} \vspace*{5pt} \\  \hline%
\vspace*{5pt}%
\strut \LARGE{\@re@phr:} & \strut%
\ifthenelse{\equal{\@re@line}{---BLANK---}}{}{\@re@line}\strut \\%
\ifempty{\@fax@mssg}{}{ \strut%
\LARGE{\@m@phr:} \strut &%
\parbox[t]{\@utilb}{\strut \@fax@mssg} \strut \\ \hline}%
\end{tabular}}%
\def\ifta{0}\showdim{End of fax page setup }%
\@dim@resetfalse%
\txa{After dimreset}%
\gdef\npind{F}%
```

```
\txa{Before newpage}%
\newpage%
\txa{After newpage}%
}}%
\InputIfFileExists{faxpage.tex}%
  {\typeout{Reading FAX page definitions from faxpage.tex}}%
  {\typeout{faxpage definitions stored in newlfm.cls}}%
```

faxblocka Here we define FAX block a. This block is inserted in several places in the letter, by chosing several letter styles. It can also be inserted in several blocks by user choice. Fax Block A includes 1.) name-from, 2.) fax-from, 3.) name-to, 4.) fax-to, and 5.) re-line. FAX Block A is boxed in a frame.

```
\newcommand{\faxblocka}{%
  \sbox{\fba}{%
    \framebox[3.0in]{\parbox[b]{3.0in}{\setlength{\tabcolsep}{0pt}
    \begin{tabular}{p{1.0in}p{2in}}
    \multicolumn{2}{l}{\Large \hspace*{.25in}
      \@fax@phr{} \@doc@phr} \\ \hline
      \@hnfr@phr:\space & \@name@fr \\
      \@fax@phr:\space & \@fax@fr \\ \hline
      \@hnto@phr:\space & \@name@to \\
      \@fax@phr:\space & \@fax@to \\ \hline
      \@re@phr: & \@re@line
    \end{tabular}}}}}
```

faxblockb Here we define FAX block b. This block is inserted in several places in the letter, by chosing several letter styles. It can also be inserted in several blocks by user choice. Fax Block B includes 1.) name-from, 2.) fax-from, 3.) phone-from, 4.) name-to, 5.) fax-to, 6.) phone to, and 7.) re-line. FAX Block B is boxed in a frame.

```
\newcommand{\faxblockb}{%
  {\parbox[t]{\textwidth}{\fbox{%
    \begin{tabular}{llll}%
    \@hnfr@phr:\space & \@name@fr & \@hnto@phr:\space & \@name@to \\%
    \@fax@phr:\space & \@fax@fr & \@fax@phr:\space & \@fax@to \\%
    \@phn@phr:\space & \@phn@fr & \@phn@phr:\space & \@phn@to \\%
    \@re@phr: & \multicolumn{3}{l}{\parbox[t]{2in}{\@re@line}} \\%
    \end{tabular}%
}}}}%
```

12.10 Start of letter document

\openlfm Begin letter here. First check for left margin boxes; if one has been specified, set it into the margin, and change the margin spacing accordingly. After that, the left, right and center under-margin boxes are checked. If this is a memo, this information is printed next. Finally, we print (optionally) date, from-address, to-address and opening salutation.

```
\newcommand{\ifempty}[3]{\ifthenelse{\equal{#1}{}}{#2}{#3}}%
\newcommand{\ifpempty}[3]{\ifthenelse{\equal{\protect#1}{}}{#2}{#3}}%
\newcommand{\@prnt@sec}[1]{%  Actual printing of addresses here
\ifthenelse{#1=\@intd@pos}%
{\Prnt@Chk{@dt@p}{@dt@l}{@dt@c}{\@xdate}{}{\@dt@sk@b}{\@dt@sk@a}}{}%
\ifthenelse{#1=\@intf@pos}%
{\Prnt@Chk{@addr@fr@p}{@addr@fr@l}{@no@cen}%
{\usebox{\b@addr@fr}}{}{\@addr@fr@sk@b}{\@addr@fr@sk@a}}{}%
\ifthenelse{#1=\@intt@pos}%
{\Prnt@Chk{@addr@to@p}{@addr@to@l}{@no@cen}%
{\usebox{\b@addr@to}}{}{\@addr@to@sk@b}{\@addr@to@sk@a}}{}%
}%
```

This is the actual section for openlfm.

```
\newcommand*{\openlfm}{%
\def\ifta{0}%
\ifthenelse{\boolean{@marg@Ruse}}%             Here we set up right-side marginal notes
{\setlength{\@utile}{-\@Hgt@Head+\@marg@rt@tp@d}% Adjust column top to leftmargintopdist
\normalmarginpar%
\marginpar{\vspace*{\the\@utile} \hspace*{\@marg@rt@l}\hspace*{-\marginparsep} \@Rmarg}}{}
\ifthenelse{\boolean{@marg@Luse}}%             Here we set up left-side marginal notes
{\setlength{\@utile}{-\@Hgt@Head+\@marg@lt@tp@d}% Adjust column top to leftmargintopdist
\reversemarginpar\txa{Left margin}%
\marginpar{\vspace*{\the\@utile} \hspace*{\@marg@lt@l} \@Lmarg}}{}%
\ifpempty{\@LUheader}{}{\@LUheader \hfill}%
\ifpempty{\@CUheader}{}{\hfill \@CUheader \hfill}%
\ifpempty{\@RUheader}{}{\hfill \@RUheader}%
\txa{Running memosec}%                         Memo processing
\ifthenelse{\boolean{@memo@bl}}%
{{\memosec}\setboolean{@dt@p}{false}%
\setboolean{@no@spc}{true}}% %Memo
{}%
\txa{Running pressbegin}%
\ifthenelse{\boolean{@pr@p}}%
{\pressbegin%                                  Press release processing
\txa{here we go again - out of pressbegin}
\setboolean{@no@spc}{true}} {}% % Press Release
\sbox{\b@addr@fr}{\noindent\setlength{\tabcolsep}{0pt}% Address-from into a box
\raggedleft\begin{tabular}{l@{}}%
\noindent\ignorespaces\@addr@fr%
\ifthenelse{\boolean{@addr@fr@t}}{\\ \@phn@phr: \@phn@fr}{}%
\ifthenelse{\boolean{@addr@fr@f}}{\\ \@fax@phr: \@fax@fr}{}%
\ifthenelse{\boolean{@addr@fr@e}}{\\ \@email@phr: \@email@fr}{}%
\end{tabular}}%
\settowidth{\@utilc}{\usebox{\b@addr@fr}}%
\sbox{\b@addr@fr}{\noindent\setlength{\tabcolsep}{0pt}%
\parbox[t]{\@utilc}{\noindent%
\begin{tabular}{l@{}}%
\ignorespaces\@addr@fr%
\ifthenelse{\boolean{@addr@fr@t}}{\\ \@phn@phr: \@phn@fr}{}%
\ifthenelse{\boolean{@addr@fr@f}}{\\ \@fax@phr: \@fax@fr}{}%
\ifthenelse{\boolean{@addr@fr@e}}{\\ \@email@phr: \@email@fr}{}%
\end{tabular}}}%
\sbox{\b@addr@to}{\noindent\setlength{\tabcolsep}{0pt}%Address-to into a box
\raggedleft\begin{tabular}{l@{}}%
\noindent\ignorespaces\@name@to \strut \\ \@addr@to%
\ifthenelse{\boolean{@addr@to@t}}{\\ \@phn@phr: \@phn@to}{}%
\ifthenelse{\boolean{@addr@to@f}}{\\ \@fax@phr: \@fax@to}{}%
\ifthenelse{\boolean{@addr@to@e}}{\\ \@email@phr: \@email@to}{}%
\end{tabular}}%
\settowidth{\@utild}{\usebox{\b@addr@to}}%
\sbox{\b@addr@to}{\noindent\setlength{\tabcolsep}{0pt}%
\parbox[t]{\@utild}{\noindent%
\begin{tabular}{l@{}}%
\ignorespaces\@name@to \strut \\ \@addr@to%
\ifthenelse{\boolean{@addr@to@t}}{\\ \@phn@phr: \@phn@to}{}%
\ifthenelse{\boolean{@addr@to@f}}{\\ \@fax@phr: \@fax@to}{}%
\ifthenelse{\boolean{@addr@to@e}}{\\ \@email@phr: \@email@to}{}%
\end{tabular}}}%
\ifthenelse{\boolean{@no@spc}}{}{%
\ifthenelse{\boolean{@s@b@s}}{\par\noindent{\usebox{\b@addr@to} \hfill \usebox{\b@addr@fr}}}{}%
\setcounter{@c@pos}{1} \@prnt@sec{\the@c@pos}%  Print from and to addresses and date
\setcounter{@c@pos}{2} \@prnt@sec{\the@c@pos}%
```

```
\setcounter{@c@pos}{3} \@prnt@sec{\the@c@pos}%
\setboolean{@greet@l}{true}%
\ifthenelse{\boolean{@pt@regard}}{\@regard@phr: \@regard@line}{}%
\Prnt@Chk{@greet@p}{@greet@l}{@no@cen}%
{\par\@greet@to\par\nobreak}{}{}{\@greet@to@sk@a}%
}%
\txa{End of openlfm}%
}%
```

12.11 Close of document section

closlfm In this section, the letter is terminated. Several things happen here:

1. If signature block is to be printed, it is printed
2. If signature itself is to be printed, it is printed; otherwise, just skip a reasonable amount of vertical space, to allow document to be signed
3. If sender name is to be printed, it is printed
4. For press releases, output `\PhrPRend` and blank the —more— in the footer. The marking mechanism is the proper way to do this, avoiding the unlikely case where we might blank the footer and then have the previous page output.

```
\def\@fix@one@box{%
\sbox{\@sig@box@b}{\begin{tabular}{l}%
\ifthenelse{\boolean{@use@close}}{{\@closeline}\\}{}%
\ifthenelse{\boolean{@use@sig}}%
{{\@sig@fr}\\}{\parbox[t][\the\@sig@sp][t]{.1pt}{\vspace*{\@sig@sp}}\\}%
\ifthenelse{\boolean{@use@sig@nm}}{\@sig@nm\\}{\@name@fr\\}%
\end{tabular}}}%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\def\closlfm{\def\ifta{0}\txa{In closlfm}%
\setlength{\@utila}{\@sig@sk@b}\addtolength{\@utila}{-1.5\baselineskip}%
\vspace*{\the\@utila}\noindent\setlength{\tabcolsep}{0pt}%
\ifthenelse{\boolean{@pr@p}}%
{\medskip\begin{center}\@PRend@phr\end{center}%
 \markboth{}{}
}% markboth mechanism resets center footer
{}% note require {} to finish ifthenelse
%%%%%
\ifthenelse{\boolean{@mult@sig}}%
{\begin{flushleft}%
\ifthenelse{\equal{\the@sig@tot}{1}}{\def\@sig@tab{l}}{}% Set multiple columns
\ifthenelse{\equal{\the@sig@tot}{2}}{\def\@sig@tab{ll}}{}%
\ifthenelse{\equal{\the@sig@tot}{3}}{\def\@sig@tab{lll}}{}%
\ifthenelse{\equal{\the@sig@tot}{4}}{\def\@sig@tab{llll}}{}%
\setlength{\@utilb}{0pt}\setlength{\@utila}{0pt}% Reset counters to 0
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Loop thru signature abbreviations
% Set flags
% Set one signature, make box, measure
% Find max heights and widths
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\@for\@one@sig:=\@sig@list\do%
{\setboolean{@use@sig}{false}\setboolean{@use@close}{false}%
\setboolean{@use@sig@nm}{false}%
\expandafter\csname sig\@one@sig\endcsname%
\@fix@one@box\settowidth{\@utild}{\usebox{\@sig@box@b}}%
\ifthenelse{\lengthtest{\@utila<\@utild}}{\setlength{\@utila}{\@utild}}{}%
```

```
\settoheight{\@utilc}{\usebox{\@sig@box@b}}\settodepth{\@utild}{\usebox{\@sig@box@b}}%
\addtolength{\@utilc}{\@utild}% Find total depth
\ifthenelse{\lengthtest{\@utilb<\@utilc}}{\setlength{\@utilb}{\@utilc}}{}%
\setcounter{@lab@cnt@col}{0}%
\setlength{\@utile}{0pt}% Set up for number signatures across
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Loop thru signature abbreviations
% Open new signature wrapper
% Set flags
% Set one signature, make box, measure
% If number of sigs across at max, skip line
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\@for\@one@sig:=\@sig@list\do% Loop thru signature abbreviations
{\setboolean{@use@sig}{false}\setboolean{@use@close}{false}%
\setboolean{@use@sig@nm}{false}%
\txa{\the\@utile}
\ifthenelse{\equal{\the@lab@cnt@col}{0}}{~\vspace*{\the\@utile}\\\noindent}{}%
\expandafter\csname sig\@one@sig\endcsname%
\ignorespaces \@fix@one@box\settoheight{\@utilc}{\usebox{\@sig@box@b}}%
\settodepth{\@utild}{\usebox{\@sig@box@b}}\addtolength{\@utilc}{\@utild}%
\ifthenelse{\equal{\the@sig@tot}{1}}{\setlength{\@utilb}{\@utilc}}{}%
\addtolength{\@utilc}{-\@utilb}%
\raisebox{-\the\@utilc/2}{\parbox[t]{\the\@utila}{\usebox{\@sig@box@b}}}%
\addtocounter{@lab@cnt@col}{1}%
\ifthenelse{\equal{\the@lab@cnt@col}{\the@sig@tot}}%
{\txa{else condition}
\setcounter{@lab@cnt@col}{0}\setlength{\@utile}{\@sig@sk@r}}{\hspace*{\the\@sig@sk@c}}}%
\vspace*{\the\@sig@sk@a}\end{flushleft}}%
{% Print normal signature
\@fix@one@box\settowidth{\@utila}{\usebox{\@sig@box@b}}% Set up box, measure
\Prnt@Chk{@sig@p}{@sig@l}{@sig@c}%
{\parbox{\@utila}{\usebox{\@sig@box@b}}}{}{\@sig@sk@b}{\@sig@sk@a}}%
}%
```

12.12 Address information

`@post@sig@bl` This is an internal macro which prints blocks of text after the signature in a hanging block fashion.

```
\def\@post@sig@bl#1#2#3{%
\setlength{\@utilb}{\textwidth}%
\settowidth{\@utila}{{\small\normalfont #1: }}%
\addtolength{\@utilb}{-\@utila}%
\ifthenelse{\equal{#2}{#3}}{}{%
\vspace*{\the\@post@sig@sp@b} \hspace*{.01pt} \\ \noindent%
\parbox[t]{\textwidth}{\@hangfrom{{\small\normalfont #1: }}%
\ignorespaces \parbox[t]{\@utilb}{{\small#2}}\strut}\par%
\vspace*{\the\@post@sig@sp@a}%
}}%
```

⟨/package⟩
⟨*addrset⟩

`Commands` These commands are either internal (begin with `@`) or user-optional (do not begin with `@`). User-optional commands are defined in the text above.

```
\def\addr#1{\protect\def\@addrxx{#1}}           \addr{}%
\def\addrfr#1{\protect\def\@addr@fr{#1}}        \addrfr{}%
\def\addrfrom#1{\protect\def\@addr@fr{#1}}      \addrfrom{}%
\def\addrto#1{\protect\def\@addr@to{#1}}        \addrto{}%
\def\cclist#1{\protect\def\@cc@item{#1}}        \cclist{---BLANK---}%  cc list
```

```
\def\city#1{\protect\def\@city{#1}}              \city{}%
\def\closeln#1{\protect\def\@closeline{#1}\setboolean{@use@close}{true}}%   Letter closing line
\def\closeline#1{\protect\def\@closeline{#1}\setboolean{@use@close}{true}}%
\def\dateset#1{\protect\def\@xdate{#1}}          \dateset{\today}% Letter date
\def\dept#1{\protect\def\@dept{#1}}              \dept{}%
\def\degree#1{\protect\def\@degree{#1}}          \degree{}%
\def\email#1{\protect\def\@email{#1}}            \email{}%
\def\emailb#1{\protect\def\@emailb{#1}}          \emailb{}%
\def\emailc#1{\protect\def\@emailc{#1}}          \emailc{}%
\def\emailbto#1{\protect\def\@emailb@to{#1}}     \emailbto{}%
\def\emailcto#1{\protect\def\@emailc@to{#1}}     \emailcto{}%
\def\emailbfr#1{\protect\def\@emailb@fr{#1}}     \emailbfr{}%
\def\emailcfr#1{\protect\def\@emailc@fr{#1}}     \emailcfr{}%
\def\emailfr#1{\protect\def\@email@fr{#1}}       \emailfr{}%
\def\emailfrom#1{\protect\def\@email@fr{#1}}     \emailfrom{}%
\def\emailto#1{\protect\def\@email@to{#1}}       \emailto{}%
\def\encllist#1{\protect\def\@encl@item{#1}}     \encllist{---BLANK---}%
\def\fax#1{\protect\def\@fax{#1}}                \fax{}%
\def\faxto#1{\protect\def\@fax@to{#1}}           \faxto{}%
\def\faxfr#1{\protect\def\@fax@fr{#1}}           \faxfr{}%
\def\faxfrom#1{\protect\def\@fax@fr{#1}}         \faxfrom{}%
\def\faxmssg#1{\protect\def\@fax@mssg{#1}}       \faxmssg{}%
\def\fname#1{\protect\def\@f@name{#1}}           \fname{}%
\def\fnameto#1{\protect\def\@f@name@to{#1}}      \fnameto{}%
\def\fnamefr#1{\protect\def\@f@name@fr{#1}}      \fnamefr{}%
\def\greet#1{\protect\def\@greet{#1}}            \greet{}%
\def\greetto#1{\protect\def\@greet@to{#1}}       \greetto{}%
\def\greetfr#1{\protect\def\@greet@fr{#1}}       \greetfr{}%
\def\initials#1{\protect\def\@init@item{#1}}     \initials{}%
\def\institute#1{\protect\def\@institute{#1}}    \institute{}%
\def\jtitle#1{\protect\def\@jtitle{#1}}          \jtitle{}%
\def\lname#1{\protect\def\@l@name{#1}}           \lname{}%
\def\lnameto#1{\protect\def\@l@name@to{#1}}      \lnameto{}%
\def\lnamefr#1{\protect\def\@l@name@fr{#1}}      \lnamefr{}%
\def\mname#1{\protect\def\@m@name{#1}}           \mname{}%
\def\mnameto#1{\protect\def\@m@name@to{#1}}      \mnameto{}%
\def\mnamefr#1{\protect\def\@m@name@fr{#1}}      \mnamefr{}%
\def\name#1{\protect\def\@namev{#1}}             \name{}%
\def\namefr#1{\protect\def\@name@fr{#1}}         \namefr{}%
\def\namefrom#1{\protect\def\@name@fr{#1}}       \namefrom{}%
\def\nameto#1{\protect\def\@name@to{#1}}         \nameto{}%
\def\organization#1{\protect\def\@org{#1}}       \organization{}%
\def\pager#1{\protect\def\@pager{#1}}            \pager{}%
\def\pagerto#1{\protect\def\@pager@to{#1}}       \pagerto{}%
\def\pagerfrom#1{\protect\def\@pager@fr{#1}}     \pagerfrom{}%
\def\pagerfr#1{\protect\def\@pager@fr{#1}}       \pagerfr{}%
\def\phone#1{\protect\def\@phn{#1}}              \phone{}%               Phone
\def\phonea#1{\protect\def\@phna{#1}}            \phonea{}%              Phone
\def\phoneb#1{\protect\def\@phnb{#1}}            \phoneb{}%              Phone
\def\phonec#1{\protect\def\@phnc{#1}}            \phonec{}%              Phone
\def\phoned#1{\protect\def\@phnd{#1}}            \phoned{}%              Phone
\def\phoneo#1{\protect\def\@phno{#1}}            \phoneo{}%              Phone
\def\phoneh#1{\protect\def\@phnh{#1}}            \phoneh{}%              Phone
\def\phonefr#1{\protect\def\@phn@fr{#1}}         \phonefr{}%           Phone from
\def\phonefrom#1{\protect\def\@phn@fr{#1}}       \phonefrom{}%         Phone from
\def\phoneafrom#1{\protect\def\@phn@fr{#1}}      \phoneafrom{}%        Phone from
\def\phoneafr#1{\protect\def\@phn@fr{#1}}        \phoneafrom{}%        Phone from
\def\phonebfrom#1{\protect\def\@phnb@fr{#1}}     \phonebfrom{}%        Phone from
\def\phonecfrom#1{\protect\def\@phnc@fr{#1}}     \phonecfrom{}%        Phone from
```

```
\def\phonedfrom#1{\protect\def\@phnd@fr{#1}}    \phonedfrom{}%         Phone from
\def\phonebfr#1{\protect\def\@phnb@fr{#1}}      \phonebfrom{}%         Phone from
\def\phonecfr#1{\protect\def\@phnc@fr{#1}}      \phonecfrom{}%         Phone from
\def\phonedfr#1{\protect\def\@phnd@fr{#1}}      \phonedfrom{}%         Phone from
\def\phoneto#1{\protect\def\@phn@to{#1}}        \phoneto{}%            Phone to
\def\phoneoto#1{\protect\def\@phno@to{#1}}      \phoneoto{}%            Phone to
\def\phonehfr#1{\protect\def\@phnh@fr{#1}}      \phonehfr{}%            Phone to
\def\phoneofr#1{\protect\def\@phno@fr{#1}}      \phoneofr{}%            Phone to
\def\phonehto#1{\protect\def\@phnh@to{#1}}      \phonehto{}%            Phone to
\def\phoneato#1{\protect\def\@phn@to{#1}}       \phoneto{}%           Phone to
\def\phonebto#1{\protect\def\@phnb@to{#1}}      \phonebto{}%           Phone to
\def\phonecto#1{\protect\def\@phnc@to{#1}}      \phonecto{}%           Phone to
\def\phonedto#1{\protect\def\@phnd@to{#1}}      \phonedto{}%           Phone to
\def\plngadj#1{\protect\def\@f@f{#1}}           \plngadj{0in}%
\def\position#1{\protect\def\@position{#1}}     \position{}%
\def\ppsitem#1{\protect\def\@pps@item{#1}}      \ppsitem{---BLANK---}%
\def\pppsitem#1{\protect\def\@ppps@item{#1}}    \pppsitem{---BLANK---}%
\def\psitem#1{\protect\def\@ps@item{#1}}        \psitem{---BLANK---}%
\def\re#1{\protect\def\@re@line{#1}}            \re{---BLANK---}%
\def\regarding#1{\setboolean{@pt@regard}{true}\protect\def\@regard@line{#1}}%
\def\role#1{\protect\def\@role{#1}}             \role{}%
\def\sender#1{\protect\def\@sender{#1}}         \sender{}%
\def\signature#1{\protect\def\@sig@fr{#1}\setboolean{@use@sig}{true}}%
\def\sigacross#1{\setcounter{@sig@tot}{#1}}%
\def\siglist#1{\protect\def\@sig@list{#1}\setboolean{@mult@sig}{true}%
\setboolean{@sig@l}{true}\setboolean{@sig@c}{false}}%
\def\signame#1{\protect\def\@sig@nm{#1}\setboolean{@use@sig@nm}{true}}%
\def\socsec#1{\protect\def\@socsec{#1}}         \socsec{}%
\def\SSnumto#1{\protect\def\@SS@num@to{#1}}     \SSnumto{}%
\def\state#1{\protect\def\@state{#1}}           \state{}%
\def\staddr#1{\protect\def\@staddr{#1}}         \staddr{}%
\def\subre#1{\protect\def\@sub@re@line{#1}}     \subre{}%
\def\subdept#1{\protect\def\@subdept{#1}}       \subdept{}%
\def\zip#1{\protect\def\@zip{#1}}               \zip{}%
\def\byline#1{\setboolean{@pr@by}{true}\protect\def\@pr@byline{#1}}%
\byline{}\setboolean{@pr@by}{false}%
\def\headline#1{\protect\def\@pr@headline{#1}%
                \protect\def\@pr@shorthead{#1}}  \headline{---BLANK---}%
\def\release#1{\protect\def\@pr@release{#1}}     \release{\@release@phr}%
\def\shorthead#1{\protect\def\@pr@shorthead{#1}}  % set by headline
\regarding{---BLANK---} \setboolean{@pt@regard}{false}%
\siglist{}%
\signature{}%
\sigacross{1}%
\closeline{}%
\setboolean{@use@sig}{false}%
\setboolean{@use@close}{false}%
\setboolean{@mult@sig}{false}%
\signame{}%
\setboolean{@use@sig@nm}{false}%
% \end{macro}
%    \begin{macrocode}
```

`Commands` These commands are either internal (begin with `@`) or user-optional (do not begin with `@`). User-optional commands are defined in the text above.

```
\def\fixadr#1{\expandafter\csname adr#1\endcsname}%
\def\setadrto#1{\global\protect\let\@addrxx\@empty%
\global\protect\let\@namev\@empty      \global\protect\let\@phn\@empty%
\global\protect\let\@phna\@empty       \global\protect\let\@phnb\@empty%
```

```
\global\protect\let\@phnc\@empty       \global\protect\let\@phnd\@empty%
\global\protect\let\@phno\@empty       \global\protect\let\@phnh\@empty%
\global\protect\let\@pager\@empty      \global\protect\let\@fax\@empty%
\global\protect\let\@greet\@empty      \global\protect\let\@email\@empty%
\global\protect\let\@emailb\@empty     \global\protect\let\@emailc\@empty%
\global\protect\let\@l@name\@empty     \global\protect\let\@f@name\@empty%
#1\txa{In setadrto - }\txa{Second}
\txa{\@addrxx}
\global\protect\let\@addr@to\@addrxx \txa{Z}  \global\protect\let\@name@to\@namev%
\txa{A1}
\global\protect\let\@phn@to\@phn       \global\protect\let\@phna@to\@phna%
\global\protect\let\@phnb@to\@phnb     \global\protect\let\@phnc@to\@phnc%
\txa{A2}
\global\protect\let\@phnd@to\@phnd     \global\protect\let\@phno@to\@phno%
\global\protect\let\@phnh@to\@phnh     \global\protect\let\@pager@to\@pager%
\txa{A3}
\global\protect\let\@fax@to\@fax       \global\protect\let\@greet@to\@greet%
\global\protect\let\@email@to\@email   \global\protect\let\@emailb@to\@emailb%
\txa{A4}
\global\protect\let\@emailc@to\@emailc \global\protect\let\@l@name@to\@l@name%
\global\protect\let\@f@name@to\@f@name%
\txa{End of setadrto}
}%
\def\setadrfr#1{\global\protect\let\@addrxx\@empty%
\global\protect\let\@namev\@empty      \global\protect\let\@phn\@empty%
\global\protect\let\@phna\@empty       \global\protect\let\@phnb\@empty%
\global\protect\let\@phnc\@empty       \global\protect\let\@phnd\@empty%
\global\protect\let\@phno\@empty       \global\protect\let\@phnh\@empty%
\global\protect\let\@pager\@empty      \global\protect\let\@fax\@empty%
\global\protect\let\@greet\@empty      \global\protect\let\@email\@empty%
\global\protect\let\@emailb\@empty     \global\protect\let\@emailc\@empty%
\global\protect\let\@l@name\@empty     \global\protect\let\@f@name\@empty%
#1\txa{In setadrfr}%
\global\protect\let\@addr@fr\@addrxx   \global\protect\let\@name@fr\@namev%
\global\protect\let\@phn@fr\@phn       \global\protect\let\@phna@fr\@phna%
\global\protect\let\@phnb@fr\@phnb     \global\protect\let\@phnc@fr\@phnc%
\global\protect\let\@phnd@fr\@phnd     \global\protect\let\@phno@fr\@phno%
\global\protect\let\@phnh@fr\@phnh     \global\protect\let\@pager@fr\@pager%
\global\protect\let\@fax@fr\@fax       \global\protect\let\@greet@fr\@greet%
\global\protect\let\@email@fr\@email   \global\protect\let\@emailb@fr\@emailb%
\global\protect\let\@emailc@fr\@emailc \global\protect\let\@l@name@fr\@l@name%
\global\protect\let\@f@name@fr\@f@name%
\txa{End of setadrfr}
}%
\DeclareRobustCommand*{\printnameto}{\@name@to}%
\DeclareRobustCommand*{\printaddrto}{\@addr@to}%
\DeclareRobustCommand*{\printphoneto}{\@phn@to}%
\DeclareRobustCommand*{\printphoneato}{\@phna@to}%
\DeclareRobustCommand*{\printphonebto}{\@phnb@to}%
\DeclareRobustCommand*{\printphonecto}{\@phnc@to}%
\DeclareRobustCommand*{\printphonedto}{\@phnd@to}%
\DeclareRobustCommand*{\printphoneoto}{\@phno@to}%
\DeclareRobustCommand*{\printphonehto}{\@phnh@to}%
\DeclareRobustCommand*{\printpagerto}{\@pager@to}%
\DeclareRobustCommand*{\printfaxto}{\@fax@to}%
\DeclareRobustCommand*{\printgreetto}{\@greet@to}%
\DeclareRobustCommand*{\printemailto}{\@email@to}%
\DeclareRobustCommand*{\printemailbto}{\@emailb@to}%
\DeclareRobustCommand*{\printemailcto}{\@emailc@to}%
```

```
\DeclareRobustCommand*{\printlnameto}{\@l@name@to}%
\DeclareRobustCommand*{\printfnameto}{\@f@name@to}%
\DeclareRobustCommand*{\printnamefrom}{\@name@fr}%
\DeclareRobustCommand*{\printaddrfrom}{\@addr@fr}%
\DeclareRobustCommand*{\printphonefrom}{\@phn@fr}%
\DeclareRobustCommand*{\printphoneafrom}{\@phna@fr}%
\DeclareRobustCommand*{\printphonebfrom}{\@phnb@fr}%
\DeclareRobustCommand*{\printphonecfrom}{\@phnc@fr}%
\DeclareRobustCommand*{\printphonedfrom}{\@phnd@fr}%
\DeclareRobustCommand*{\printphoneofrom}{\@phno@fr}%
\DeclareRobustCommand*{\printphonehfrom}{\@phnh@fr}%
\DeclareRobustCommand*{\printpagerfrom}{\@pager@fr}%
\DeclareRobustCommand*{\printfaxfrom}{\@fax@fr}%
\DeclareRobustCommand*{\printgreetfrom}{\@greet@fr}%
\DeclareRobustCommand*{\printemailfrom}{\@email@fr}%
\DeclareRobustCommand*{\printemailbfrom}{\@emailb@fr}%
\DeclareRobustCommand*{\printemailcfrom}{\@emailc@fr}%
\DeclareRobustCommand*{\printlnamefrom}{\@l@name@fr}%
\DeclareRobustCommand*{\printfnamefrom}{\@f@name@fr}%
```

⟨/addrset⟩
⟨*package⟩

12.13 Address book handling

`newlfm` stores information in a file `letrinfo.tex`. This information is stored in a series of wrapper macros. This are the macros `\makelth`, `\makesig` and `\makeadr`. These are used in letters and memos by issuing the commands `\adrXXX`, `\lthXXX` and `\sigXXX` *before* the `\begin{newlfm}` statement:

```
\begin{document}
\ltrTST \sigABC \setadrto{\adrDEF} \setadrfr{\adrPWW}
\begin{newlfm}
```

Alternatively, the wrapper macros may be included in the document using the `letrh`, `addrt`, `addrf`, and `sigtr` commands in the `\newlfmP` command as:

```
\begin{document}
\newlfmP{letrh=TST,sigtr=ABC,addrt=DEF,addrf=PWW}
\begin{newlfm}
```

The wrapper macros function as a very generalized hash table for addresses, letterheads and signature information. Each type of information is keyed by the use of the appropriate value of XXX. When `newlfm` starts up, the program reads in standard declarations of names, addresses, signatures, header blocks, etc., stored in file `letrinfo.tex`. This file will contain information which is normally included in a letter. That way, it need not be entered separately into each different letter.

```
\newif \if@read@one \@read@onetrue
\def\@ltr@info@name{letrinfo.tex}
%\DeclareOption{InfoFileName}[1]{\renewcommand{\@ltr@info@name}{#1}}
\define@key{ov}{InfoFileName}{\def\@ltr@info@name{#1}}
\InputIfFileExists{\@ltr@info@name}%
{\typeout{Reading default letter definitions from \@ltr@info@name}}%
{\typeout{\@ltr@info@name not found.  All letter definitions must be in newlfm.cls}}%
```

12.14 Form letters

doletter In this section, we set up the environment to prepare form letters. This is done by:

1. Defining the body of the letter using the command `\letterbody`. The body may include macro items. The body *should not* include the `newlfm` command, which is invoked by the macro `\doletter` itself. Thus, do not include the `\begin{newlfm}` or `\end{newlfm}` statements.

2. For each letter, use the construction `\doletter{}`. The required argument includes a specification of the address information, usually. The required argument is used directly before the `newlfm` environment is specified, and the form letter specified. Thus, the address for the several letters can easily be listed.

3. `\doltr` and `\ltrbody` are previous forms of the form letter commands, but are no longer supported.

```
\gdef\npind{0}
\def\ltrbody#1{\protect\def\@ltr@body{#1}}%
\DeclareRobustCommand{\letterbody}[1]{\def\@ltr@body{#1}}%
\DeclareRobustCommand*{\doltr}[1]%
{#1 \begin{newlfm} \@ltr@body \end{newlfm} \gdef\npind{B} % \newpage%
\ifthenelse{\boolean{@env@open}}{}{}}%
\DeclareRobustCommand*{\@env@label}[1]{#1\parbox[t][\@lab@bh][t]{\@lab@bw}%
{{\@name@to \\ \@addr@to} \hfill}}%
\DeclareRobustCommand*{\@env@oth}[2]{%
\txa{box height:\the\@lab@bh, box width:\the\@lab@bw, between: \the\tabcolsep}
\parbox[t][\@lab@bh][t]{\@lab@bw}{\@lab@size \strut #1 \\ #2 \strut}}%
\DeclareRobustCommand*{\@env@row}[4]{\settowidth{\@utila}{\@hnfr@phr:}
\setlength{\tabcolsep}{0pt}
\fbox{\parbox[t][\@lab@bh][t]{\@lab@bw}{
\@lab@size \begin{tabular}{ll}{\Large\@hnfr@phr:}&{\Large\@hnto@phr:}\\
\parbox[t]{2.0in}{#3\\#4}&\parbox[t]{2.0in}{#1\\#2}
\end{tabular}\hfill}}}%
\DeclareRobustCommand*{\@env@col}[4]{\parbox[t][\@lab@bh][t]{\@lab@bw}{%
{\@lab@size{\Large\@hnfr@phr:}\\#3\\#4\\{\Large\@hnto@phr:}\\#1\\#2}}}%
\DeclareRobustCommand*{\x@env@col}[4]{\parbox[t][\@lab@bh][t]{\@lab@bw}{%
{\@lab@size\begin{tabular}{p{.5in}p{3.25in}}{\Large\@hnfr@phr:}&#3\\&\parbox[t]{3.25in}{#4}
\vspace*{10pt}\\{\Large\@hnto@phr:}&#1\\&\parbox[t]{3.25in}{#2}\\\end{tabular}}}}%
\def\multletter#1{\@for\@addr@x:=#1\do{{\oneletter{\@addr@x}}}}
\def\doletter#1{\setadrto{#1}\txa{ZA}%
\begin{newlfm}\@ltr@body\end{newlfm}\gdef\npind{D}\newpage}%
\def\oneletter#1{\txa{In oneletter}\setadrto{\csname adr#1\endcsname}\txa{ZB}\addrt{#1}%
\begin{newlfm}\@ltr@body\end{newlfm}\gdef\npind{E}}%
\DeclareRobustCommand*{\@env@ext}[1]{\txa{#1:1}%
\setadrto{\csname adr#1\endcsname}\txa{ZC}\txa{#1:2}%
\@env@oth{\@name@to}{\@addr@to}\txa{#1:3}}%
\def\clearall{\def\@ltr@head{}\def\@adr@to{}\def\@adr@fr{}\def\@sig@blok{}%
\setboolean{@over@setto}{false}\setboolean{@over@setfr}{false}}%
\def\makeenvst{}%
\def\makeenvfn{%
  \def\ifta{0}%
  \nolines\dateset{}\clearall\noheadline\@dim@resetfalse\def\headrulewidth{0pt}%
  \@clear@box\def\footrulewidth{0pt}%
  \setboolean{@over@all}{false}\setboolean{@fax@RA}{false}%
  \setboolean{@fax@RU}{false}\setboolean{@fax@hdr@pg}{false}%
  \setboolean{@no@spc}{true}\setboolean{@B@f}{false}%
  \setboolean{@B@h}{false}\setboolean{@B@l}{false}%
  \setboolean{@B@r}{false}\setboolean{@b@f}{false}%
  \setboolean{@b@h}{false}\setboolean{@b@l}{false}%
  \setboolean{@b@r}{false}\setboolean{@sig@p}{false}%
  \setboolean{@sig@mp}{false}\setboolean{@env@open}{false}%
  \ifthenelse{\lengthtest{\@lab@th<12pt}}{\setlength{\@lab@th}{12.1pt}}{}%
  \ifthenelse{\boolean{@use@envlab}}{%
    \def\ifta{0}%
    \setpage{11in}{8.5in}{-1in}{72pt}{0in}{-1in}{120pt}{0in}{20pt}%
```

```
  \txa{use@envlab true}%
  }%
  {%
  \gdef\npind{A3}%
  \setpage{\@lab@pl}{8.5in}{-1in}{\@lab@lm}{0in}{-1in}{\@lab@th}{0in}{20pt}%
  \txa{use@envlab false}%
  \txa{headheight:\the\@lab@th}%
}%
\setboolean{@in@makeenv}{true}%
\begin{newlfm}\pagestyle{empty}\thispagestyle{empty}%
\def\ifta{0}%
\showdim{Start of makeenvfn}%
\@nlfm@util=0%
\setcounter{@lab@cnt@col}{0} \setcounter{@lab@cnt@row}{0}%
\setboolean{@env@open}{true} \setboolean{@env@close}{true}%
\setboolean{@ztila}{false}%
\def\ifta{0}%
\txa{Count:\number\@nlfm@addr,Test:\number\@nlfm@util}%
\setboolean{@do@any}{false}%
\loop \ifnum\number\@nlfm@util<\number\@nlfm@addr%
  \global\advance\@nlfm@util by1%
  \txa{Loop S Count: \number\@nlfm@util}%
  \setboolean{@do@any}{true}%
  \def\@onet{\csname @aadr@t\number\@nlfm@util\endcsname}%
  \def\@onef{\csname @aadr@f\number\@nlfm@util\endcsname}%
  \txa{\string\@onet:\@onet -- \string\@onef:\@onef}
  \protect\setadrto{\csname adr\@onet\endcsname}\txa{ZD}%
  \protect\setadrfr{\csname adr\@onef\endcsname}%
  \def\ifta{0}%
  \txa{To: adr\@onet,\@name@to --- From: \@name@fr,adr\@onef --- Just:\@tab@just}%
  \txa{@aadr@t\number\@nlfm@util: \csname @aadr@t\number\@nlfm@util\endcsname}%
  \ifthenelse{\boolean{@env@open}}%
    {\setcounter{@lab@cnt@row}{0}\txa{New page}%
     \setboolean{@env@open}{false} \setboolean{@env@close}{true}%
     \def\ifta{0}%
     \showdim{Checking values before newpage}%
     \gdef\npind{C}%
     \ifthenelse{\boolean{@ztila}}{\newpage}{}%
     \setboolean{@ztila}{true}%
     \showdim{Checking values after newpage}%
     \def\ifta{0}%
     \setlength{\tabcolsep}{\@lab@bl} \begin{table}[t] \begin{tabular}{\@tab@just}%
     \txa{Starting table}%
    }%
    {}%
  \ifthenelse{\boolean{@lab@t}}%
    {\txa{Label to only}\@env@oth{\@name@to}{\@addr@to}}{}%
  \ifthenelse{\boolean{@lab@rft}}%
    {\txa{Label row from to}\@env@row{\@name@to}{\@addr@to}{\@name@fr}{\@addr@fr}}{}%
  \ifthenelse{\boolean{@lab@cft}}%
    {\txa{Label col from to}\@env@col{\@name@to}{\@addr@to}{\@name@fr}{\@addr@fr}}{}%
  \addtocounter{@lab@cnt@col}{1}%
  \ifthenelse{\equal{\the@lab@cnt@col}{\the@lab@tot@col}}%
    {\addtocounter{@lab@cnt@row}{1}\setcounter{@lab@cnt@col}{0}%
     \txa{Ending row}\\}%
    {\txa{Ending column}&}%
  \ifthenelse{\equal{\the@lab@cnt@row}{\the@lab@tot@row}}%
    {\setcounter{@lab@cnt@row}{0}\setcounter{@lab@cnt@col}{0}%
     \txa{Ending table}\\ \end{tabular}\end{table}%
```

```
      \setboolean{@env@close}{false} \setboolean{@env@open}{true}%
     }%
     {}%
   \def\ifta{0}%
   \txa{Loop E Count: \number\@nlfm@util}%
  \repeat%
  \txa{Ending table}%
  \txa{Out of big loop: \arabic{@lab@cnt@col}}%
  \def\ifta{0}%
  \global\@nlfm@uta=\value{@lab@cnt@row}%
  \sbox{\@x@l}{\phantom{A}}
  \ifthenelse{\boolean{@env@close} \and \boolean{@do@any}}
    {\txa{\the@lab@cnt@col, \the@lab@cnt@row, \the@lab@tot@row}
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Finish off current row first
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
      \ifthenelse{\equal{\arabic{@lab@cnt@col}}{0}}{}%
        {\whiledo{\the@lab@cnt@col<\the@lab@tot@col}%
          {\@env@oth{\usebox{\@x@l}}{\usebox{\@x@l}}%
           \addtocounter{@lab@cnt@col}{1}%
           \ifthenelse{\the@lab@cnt@col<\the@lab@tot@col}{&}{}} \\%
         \addtocounter{@lab@cnt@row}{1}
        }%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Add remaining rows, each with all columns
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
      \whiledo{\the@lab@cnt@row<\the@lab@tot@row}%
        {\setcounter{@lab@cnt@col}{0}
         \whiledo{\the@lab@cnt@col<\the@lab@tot@col}%
          {\@env@oth{\usebox{\@x@l}}{\usebox{\@x@l}}%
           \addtocounter{@lab@cnt@col}{1}%
           \ifthenelse{\the@lab@cnt@col<\the@lab@tot@col}{&}{\\}
          }
         \addtocounter{@lab@cnt@row}{1}%
         \ifthenelse{\the@lab@cnt@row<\the@lab@tot@row}
           {}
           {\\ \end{tabular}\end{table} \newpage
      \showdim{At the end of the table}}
      \setboolean{@env@close}{false}%
      \setboolean{@env@open}{true}
      }%
    }%
    {}%
  \setboolean{@use@envlab}{false}
  \end{newlfm}%
  \def\ifta{0}%
}%
```

12.15 Main section

`newlfm` This is the main section. In this section, we actually print a letter. Here is how it is done:

1. Insert information into environment
2. Determine sizes of header and footer largest pieces
3. Set all lengths to the height of the appropriate box
4. Set paperlength:

(a) Begin with paperheight

(b) Subtract `\@Hgt@Head`

(c) Subtract `\footskip`, which includes `\@Hgt@Foot`

(d) Take into account `voffset`, and 1 inch, which are designed to offset one another

(e) Subtract `headsep` and `headheight`

```
\newenvironment{newlfm}{% Start of fax environment, in fax class%
  \if@read@one \global\@read@onefalse \fi%
  \def\ifta{0}\txa{Start of newlfm startup}
  \txa{nameto: \@name@to}
  \ifthenelse{\boolean{@over@all}}{\txa{overall: true}}{\txa{overall: false}}
  \ifthenelse{\boolean{@over@setto}}{\txa{oversetto: true}}{\txa{oversetto: false}}
  \txa{namefrom: \@name@fr}
  \ifthenelse{\boolean{@over@setfr}}{\txa{oversetfr: true}}{\txa{oversetfr: false}}
  \ifthenelse{\boolean{@over@all}}{%
    \expandafter\csname lth\@ltr@head \endcsname%
    \ifthenelse{\boolean{@over@setto}}{%
      \setadrto{\expandafter\csname adr\@adr@to \endcsname}}{}\txa{ZE}%
\txa{\@adr@fr}
    \ifthenelse{\boolean{@over@setfr}}{\txa{True}%
      \setadrfr{\expandafter\csname adr\@adr@fr \endcsname}}{\txa{false}}%
\txa{\@sig@blok}
    \ifthenelse{\boolean{@over@sigbl}}{\txa{True}%
      \expandafter\csname sig\@sig@blok \endcsname}{\txa{false}}%
\txa{Zea}
    \@set@em@up
  }{}
  \ifthenelse{\boolean{@over@all}}{%
    \faxblocka%
  }{}
  \ifthenelse{\boolean{@fax@RA}}%
    {\ifthenelse{\boolean{@fax@bla}}{\Rheader{\usebox{\fba}}}{}%
  \ifthenelse{\boolean{@fax@blb}}{\Rheader{\faxblockb}}{}}{}%
  \ifthenelse{\boolean{@fax@RU}}%
    {\txa{setting up ruh}%
  \ifthenelse{\boolean{@fax@bla}}{\RUheader{\faxblocka}}{}%
  \ifthenelse{\boolean{@fax@blb}}{\RUheader{\faxblockb}}{}}{}%
  \txa{setting up ruh}%
  \def\ifta{0}%
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
  \txa{name@to:\@name@to}
  \ifthenelse{\boolean{@over@setto}}{\txa{oversetto:true}}{\txa{oversetto:false}}
  \txa{name@fr:\@name@fr}
  \ifthenelse{\boolean{@over@setfr}}{\txa{oversetfr:true}}{\txa{oversetfr:false}}
  \retdims%
  \ifthenelse{\boolean{@fax@hdr@pg}}%
    {{\txa{FAX Page Setup}%
    \def\ifta{0}%
    \showdim{Before resetting dimensions for fax}%
    \faxpage%
    \def\ifta{0}%
    \showdim{After resetting dimensions for fax}%
    \showdim{After restoring dimensions for fax}%
    \txa{Before newpage issued}%
    \txa{After newpage issued}%
    \showdim{After fax page setup}%
  }}{}%
  \rstdims%
```

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
  \def\ifta{0}\showdim{After fax page section closes}\gdef\npind{G}
  \if@twoside \ifodd\c@page%
  \else\thispagestyle{empty}\null\newpage\fi  \fi%
  \c@page\@ne%
  \interlinepenalty=200 % smaller than the TeXbook value%
  \setlength{\headwidth}{\textwidth}%
  \txa{Before Rfooter}\ifthenelse{\boolean{@B@f}}%
    {\Cfooter{\phantom{\Cfooter}} \Rfooter{\phantom{\Rfooter}} \Lfooter{\phantom{\Lfooter}}} {}%
  \txa{Before Rheader}\ifthenelse{\boolean{@B@h}}%
    {\Rheader{\phantom{\Rheader}} \Lheader{\phantom{\Lheader}} \Cheader{\phantom{\Cheader}}} {}%
  \txa{Before Lmargin}\ifthenelse{\boolean{@B@l}}%
    {\ifempty{\@Lmarg}{}{\Lmargin{\phantom{\Lmargin}}}}{}%
  \txa{Before Rmargin}\ifthenelse{\boolean{@B@r}}%
    {\ifempty{\@Rmarg}{}{\Rmargin{\phantom{\Rmargin}}}}{}%
  \txa{Before rfooter}\ifthenelse{\boolean{@b@f}}%
    {\rfooter{\phantom{\rfooter}} \lfooter{\phantom{\lfooter}} \cfooter{\phantom{\cfooter}}} {}%
  \txa{Before rheader}\ifthenelse{\boolean{@b@h}}%
    {\rheader{\phantom{\rheader}} \lheader{\phantom{\lheader}} \cheader{\phantom{\cheader}}} {}%
  \txa{Before lmargin}\ifthenelse{\boolean{@b@l}}%
    {\lmargin{\phantom{\lmargin}}} {}%
  \txa{Before rmargin}\ifthenelse{\boolean{@b@r}}%
    {\rmargin{\phantom{\rmargin}}} {}%
  \setlength{\textwidth}{\paperwidth-\@marg@rt-\@marg@lt-1pt}%
  \txa{Before opening}%
  \txa{\string\@marg@rt: \the\@marg@rt, \string\@marg@rt: \the\@marg@rt}%
  \txa{\string\textwidth: \the\textwidth, \string\paperwidth: \the\paperwidth}%
%  \ifthenelse{\boolean{@over@all}}{%
  \openlfm%
%  }{}
  \def\ifta{0}%
  \txa{nameto:\@name@to}
  \txa{namefr:\@name@fr}
  \txa{\string\@marg@rt: \the\@marg@rt, \string\@marg@rt: \the\@marg@rt}%
  \txa{\string\textwidth: \the\textwidth, \string\paperwidth: \the\paperwidth}%
  \txa{After opening}%
  \def\ifta{0}%
  \txa{\string\@marg@rt: \the\@marg@rt, \string\@marg@rt: \the\@marg@rt}%
  \txa{\string\textwidth: \the\textwidth, \string\paperwidth: \the\paperwidth}%
  \txa{Before pagestyle}%
  \pagestyle{othhead}\thispagestyle{ltrhead}%
  \def\ifta{0}%
  \txa{After pagestyle}%
  \ifthenelse{\boolean{@in@makeenv}}{\txa{makeenv true}}{\txa{makeenv false}%
    \global\advance \@nlfm@addr by1%
    \txa{Count: \number\@nlfm@addr -- To: \@adr@to -- From: \@adr@fr}
    \expandafter\xdef\csname @aadr@t\number\@nlfm@addr\endcsname{\@adr@to}%
    \expandafter\xdef\csname @aadr@f\number\@nlfm@addr\endcsname{\@adr@fr}%
    \txa{Count: \number\@nlfm@addr -- To: \@adr@to -- From: \@adr@fr}
    \txa{@aadr@t\number\@nlfm@addr: \csname @aadr@t\number\@nlfm@addr\endcsname}%
    \txa{To:  \csname @aadr@t\number\@nlfm@addr\endcsname,\@adr@to}%
  }%
  \showdim{Dimensions at end of newlfm startup section}\def\ifta{0}%
}%
```

The next block of code defines the operation at the close of the environment. This is a bit odd, since `closlfmp` seemingly already catered to that case. As you will see below, there is quite a bit more to do.

Currently, press release and all others are handled quite differently, raising the possibility that they should use different macros. Currently, `closlfmp` does both. Close study is warranted, as well as consideration of

whether a press release might want to repeat contact information at the bottom, or be combined with a fax, letter, form letter/fax. There may be additional things the regular code path does as well.

```
{% Here we are at the processing of the close of the newlfm env
  \def\ifta{0}\txa{At the start of the close of newlfm env}%
  \ifthenelse{\boolean{@pr@p}}{\closlfm}{}%
  \ifthenelse{\boolean{@sig@p}}%
   {\txa{Before closing}
    \ifthenelse{\boolean{@pr@p}}{}{\closlfm}%
    \txa{After closing}%
    \showdim{Current Dimensions}%
    \@post@sig@bl{\@ps@phr}{\@ps@item}{---BLANK---}%
    \@post@sig@bl{\@pps@phr}{\@pps@item}{---BLANK---}%
    \@post@sig@bl{\@ppps@phr}{\@ppps@item}{---BLANK---}%
    \@post@sig@bl{\@encl@phr}{\@encl@item}{---BLANK---}%
    \@post@sig@bl{\@cc@phr}{\@cc@item}{---BLANK---}}{}%
  \ifthenelse{\boolean{@sig@mp}}{
    \@post@sig@bl{\@ps@phr}{\@ps@item}{---BLANK---}%
    \@post@sig@bl{\@pps@phr}{\@pps@item}{---BLANK---}%
    \@post@sig@bl{\@ppps@phr}{\@ppps@item}{---BLANK---}%
    \@post@sig@bl{\@encl@phr}{\@encl@item}{---BLANK---}%
    \@post@sig@bl{\@cc@phr}{\@cc@item}{---BLANK---}}{}%
  \ifthenelse{\boolean{@env@open}}{}{}%
  \ifthenelse{\boolean{@use@envlab}}%
   {\@nlfm@util=0%
    \txa{In use@envlab}
    \txa{Count: \number\@nlfm@addr}
    \txa{ZI}
    \txa{@aadr@t\number\@nlfm@addr: \csname @aadr@t\number\@nlfm@addr\endcsname}
    \txa{To:  \csname @aadr@t\number\@nlfm@addr\endcsname,\@adr@to}
    \loop \ifnum\@nlfm@util < \@nlfm@addr%
    \advance\@nlfm@util by1%
    \def\@onet{\expandafter\csname @aadr@t\number\@nlfm@util\endcsname}%
    \def\@onef{\expandafter\csname @aadr@f\number\@nlfm@util\endcsname}%
    \setadrto{\expandafter\csname adr\@onet\endcsname}\txa{ZF}%
    \setadrfr{\expandafter\csname adr\@onef\endcsname}%
    \gdef\npind{I}
    \newpage%
    \def\ifta{0}%
    \gdef\npind{A4}
    \setpage{11in}{8.5in}{1in}{1in}{0pt}{0in}{120in}{0in}{0in}%
    \txa{Actually using the makeenvelope...}%
    \startlabels%
    \@capitalizeaddressfalse%
    \txa{From: \@name@fr}
    \txa{To: \@name@to}
    \mlabel{\@name@fr \hspace*{.1pt} \\ \@addr@fr \hspace*{.1pt}}{\@name@to \hspace*{.1pt} \\ \@addr@to \hspace*{
    \txa{From: \@name@fr}
    \txa{To: \@name@to}
    \repeat%
   }{}%
  \txa{Before the pagebreak}
  \gdef\npind{J}
  \stopletter\@@par\pagebreak\@@par%
  \immediate\write\@auxout{\string\newlabel{totpage}{{\thepage}{0}}}%
  \@clear@box%
  \global\@read@onetrue%
  \setboolean{@s@b@s}{false}
```

The end of the doublespace environment also destroys the settings for the page headers (except for the the first page, which, being global, persists and is not wanted). For that reason, one *must* close the spacing environment here, after the \pagebreak, rather than earlier.

Only the press release uses that environment.

```
\ifthenelse{\boolean{@pr@p}}{
\ifthenelse{\boolean{@space@d}}{\end{doublespace}}{\end{singlespace}}%
}{}%
}%
\def\@clear@box{
\Backgrd{} \backgrd{} \Lfooter{} \Cfooter{} \Rfooter{} \LOfooter{}%
\COfooter{}\ROfooter{}\lfooter{} \cfooter{} \rfooter{} \Lheader{}%
\Cheader{} \Rheader{} \LUheader{}\CUheader{}\RUheader{}\lheader{}%
\cheader{} \rheader{} \Rmargin{} \Lmargin{} \rmargin{} \lmargin{}%
}%

\newcommand{\pgrph}[1]{{\bf #1}}%
\pagestyle{ltrhead}%
\pagenumbering{arabic}%
\raggedbottom%
\providecommand{\@texttop}{}%
\DeclareRobustCommand*{\@texttop}
  {\ifnum\c@page=1\vskip \z@ plus.00006fil\relax\fi}%
\onecolumn%
\def\@set@em@up{%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Here we put some information about the pressrelease stuff
% Much of this is in contravention of the philosophy of newlfm - since
% it displaces information that might have been placed into the blocks
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\txa{Real start}
\ifthenelse{\boolean{@pr@p}}{%
\PhrMore{\thepage\ of \pageref{LastPage}}
\Cfooter{\@more@phr}\cfooter{\@more@phr}%
}{}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Continue with the stuff for the @set@em@up
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\def\ifta{0}\txa{Start of @set@em@up}%
\ifthenelse{\boolean{@set@env}}{\makeenvst\txa{Making envelope}}{}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% First, set the header and footer widths
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\ifthenelse{\boolean{@hl}}{\def\headrulewidth{\the\@Hrw}}{\def\headrulewidth{0pt}}%
\ifthenelse{\boolean{@fl}}{\def\footrulewidth{\the\@Frw}}{\def\footrulewidth{0pt}}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Now, set the contents of the header and footer sections into boxes
% Boxes can be measured
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\def\ifta{0}\txa{Here in the middle}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Check the heights and depths of boxes
% Letterhead header section
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\sbox{\@x@c}{\@Cheader}\sbox{\@x@l}{\@Lheader}\sbox{\@x@r}{\@Rheader}%
\ifthenelse{\boolean{@Ch@use}}%
{\settoheight{\@Hgt@H@C}{\usebox{\@x@c}}%
\settodepth{\@Dth@H@C}{\usebox{\@x@c}}%
\addtolength{\@Hgt@H@C}{\@Dth@H@C}}{\setlength{\@Hgt@H@C}{0pt}}%
\ifthenelse{\boolean{@Rh@use}}%
```

```
{\settoheight{\@Hgt@H@R}{\usebox{\@x@r}}%
\settodepth{\@Dth@H@R}{\usebox{\@x@r}}%
\addtolength{\@Hgt@H@R}{\@Dth@H@R}}{\setlength{\@Hgt@H@R}{0pt}}%
\ifthenelse{\boolean{@Lh@use}}%
{\settoheight{\@Hgt@H@L}{\usebox{\@x@l}}%
\settodepth{\@Dth@H@L}{\usebox{\@x@l}}%
\addtolength{\@Hgt@H@L}{\@Dth@H@L}}{\setlength{\@Hgt@H@L}{0pt}}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Check the heights and depths of boxes
% Non-letterhead header section
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\sbox{\@x@c}{\@cheader}\sbox{\@x@l}{\@lheader}\sbox{\@x@r}{\@rheader}%
\ifthenelse{\boolean{@ch@use}}%
{\settoheight{\@Hgt@h@c}{\usebox{\@x@c}}%
\settodepth{\@Dth@h@c}{\usebox{\@x@c}}%
\addtolength{\@Hgt@h@c}{\@Dth@h@c}}{\setlength{\@Hgt@h@c}{0pt}}%
\ifthenelse{\boolean{@rh@use}}%
{\settoheight{\@Hgt@h@r}{\usebox{\@x@r}}%
\settodepth{\@Dth@h@r}{\usebox{\@x@r}}%
\addtolength{\@Hgt@h@r}{\@Dth@h@r}}{\setlength{\@Hgt@h@r}{0pt}}%
\ifthenelse{\boolean{@lh@use}}%
{\settoheight{\@Hgt@h@l}{\usebox{\@x@l}}%
\settodepth{\@Dth@h@l}{\usebox{\@x@l}}%
\addtolength{\@Hgt@h@l}{\@Dth@h@l}}{\setlength{\@Hgt@h@l}{0pt}}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Check the heights and depths of boxes
% Letterhead footer section
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\sbox{\@x@c}{\@Cfooter}\sbox{\@x@l}{\@Lfooter}\sbox{\@x@r}{\@Rfooter}%
\ifthenelse{\boolean{@Cf@use}}%
{\settoheight{\@Hgt@F@C}{\usebox{\@x@c}}%
\settodepth{\@Dth@F@C}{\usebox{\@x@c}}%
\addtolength{\@Hgt@F@C}{\@Dth@F@C}}{\setlength{\@Hgt@F@C}{0pt}}%
\ifthenelse{\boolean{@Rf@use}}%
{\settoheight{\@Hgt@F@R}{\usebox{\@x@r}}%
\settodepth{\@Dth@F@R}{\usebox{\@x@r}}%
\addtolength{\@Hgt@F@R}{\@Dth@F@R}}{\setlength{\@Hgt@F@R}{0pt}}%
\ifthenelse{\boolean{@Lf@use}}%
{\settoheight{\@Hgt@F@L}{\usebox{\@x@l}}%
\settodepth{\@Dth@F@L}{\usebox{\@x@l}}%
\addtolength{\@Hgt@F@L}{\@Dth@F@L}}{\setlength{\@Hgt@F@L}{0pt}}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Check the heights and depths of boxes
% Non-letterhead footer section
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\sbox{\@x@c}{\@cfooter}\sbox{\@x@l}{\@lfooter}\sbox{\@x@r}{\@rfooter}%
\ifthenelse{\boolean{@ch@use}}%
{\settoheight{\@Hgt@f@c}{\usebox{\@x@c}}%
\settodepth{\@Dth@f@c}{\usebox{\@x@c}}%
\addtolength{\@Hgt@f@c}{\@Dth@f@c}}{\setlength{\@Hgt@f@c}{0pt}}%
\ifthenelse{\boolean{@rh@use}}%
{\settoheight{\@Hgt@f@r}{\usebox{\@x@r}}%
\settodepth{\@Dth@f@r}{\usebox{\@x@r}}%
\addtolength{\@Hgt@f@r}{\@Dth@f@r}}{\setlength{\@Hgt@f@r}{0pt}}%
\ifthenelse{\boolean{@lh@use}}%
{\settoheight{\@Hgt@f@l}{\usebox{\@x@l}}%
\settodepth{\@Dth@f@l}{\usebox{\@x@l}}%
\addtolength{\@Hgt@f@l}{\@Dth@f@l}}{\setlength{\@Hgt@f@l}{0pt}}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
% Determine the height of the letterhead header
% Note: the minheight will be used to set up the cello window stuff
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\txa{Height of letterhead header}%
\ifthenelse{\lengthtest{\@Hgt@H@L<\@Hgt@H@C}}%
{\setlength{\@Hgt@Head}{\@Hgt@H@C}}{\setlength{\@Hgt@Head}{\@Hgt@H@L}}%
\ifthenelse{\lengthtest{\@Hgt@Head<\@Hgt@H@R}}%
{\setlength{\@Hgt@Head}{\@Hgt@H@R}}{}%
\ifthenelse{\lengthtest{\@Hgt@Head<\@Min@Hgt@Head}}%
{\setlength{\@Hgt@Head}{\@Min@Hgt@Head}}{}%
\addtolength{\@Hgt@Head}{1pt}% This solves a persistent odd problem
\ifthenelse{\lengthtest{\@Hgt@Head<1pt}}%
{\setlength{\@Hgt@Head}{\@marg@tp}}%
{%\ifthenelse{\lengthtest{\@marg@tp@a<\@unpr@tp}}%
%{\setlength{\@marg@tp@a}{\@unpr@tp}}{}%
\addtolength{\@Hgt@Head}{\@unpr@tp}%
\addtolength{\@Hgt@Head}{\@marg@tp@a}%
\addtolength{\@Hgt@Head}{\the\@Hrw+6pt}}%
\txa{Left: \the\@Hgt@H@L, Center: \the\@Hgt@H@C, Right: \the\@Hgt@H@R}%
\txa{Min: \the\@Min@Hgt@Head, Total: \the\@Hgt@Head}%
\txa{Marg: \the\@marg@tp, Marga: \the\@marg@tp@a, Unpr: \the\@unpr@tp}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Determine the height of the non-letterhead header
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\txa{Height of non-letterhead header}%
\ifthenelse{\lengthtest{\@Hgt@h@l<\@Hgt@h@c}}%
{\setlength{\@Hgt@head}{\@Hgt@h@c}}%
{\setlength{\@Hgt@head}{\@Hgt@h@l}}%
\ifthenelse{\lengthtest{\@Hgt@head<\@Hgt@h@r}}%
{\setlength{\@Hgt@head}{\@Hgt@h@r}}{}%
\ifthenelse{\lengthtest{\@Hgt@head<\@Min@Hgt@head}}%
{\setlength{\@Hgt@head}{\@Min@Hgt@head}}{}%
%  \addtolength{\@Hgt@head}{8pt}
\ifthenelse{\lengthtest{\@Hgt@head<1pt}}%
{\setlength{\@Hgt@head}{\@marg@tp}}%
{%\ifthenelse{\lengthtest{\@marg@tp@a<\@unpr@tp}}%
%{\setlength{\@marg@tp@a}{\@unpr@tp}}{}%
\addtolength{\@Hgt@head}{\@marg@tp@a}%
\addtolength{\@Hgt@head}{\the\@hrw+6pt}}%
\txa{Left: \the\@Hgt@h@l, Center: \the\@Hgt@h@c, Right: \the\@Hgt@h@r}%
\txa{Min: \the\@Min@Hgt@head, Total: \the\@Hgt@head}%
\txa{Marg: \the\@marg@tp, Marga: \the\@marg@tp@a, Unpr: \the\@unpr@tp}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Determine the height of the letterhead footer
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\txa{Height of letterhead footer}%
\ifthenelse{\lengthtest{\@Hgt@F@L<\@Hgt@F@C}}%
{\setlength{\@Hgt@Foot}{\@Hgt@F@C}}{\setlength{\@Hgt@Foot}{\@Hgt@F@L}}%
\ifthenelse{\lengthtest{\@Hgt@Foot<\@Hgt@F@R}}%
{\setlength{\@Hgt@Foot}{\@Hgt@F@R}}{}%
\ifthenelse{\lengthtest{\@Hgt@Foot<\@Min@Hgt@Foot}}%
{\setlength{\@Hgt@Foot}{\@Min@Hgt@Foot}}{}%
\ifthenelse{\lengthtest{\@Hgt@Foot<1pt}}%
{\setlength{\@Hgt@Foot}{\@marg@bt}}%
{\ifthenelse{\lengthtest{\@marg@bt@b<\@unpr@bm}}%
{\setlength{\@marg@bt@b}{\@unpr@bm}}{}%
\addtolength{\@Hgt@Foot}{\@marg@bt@a}}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Determine the height of the non-letterhead footer
```

```
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\txa{Height of non-letterhead footer}%
\ifthenelse{\lengthtest{\@Hgt@f@l<\@Hgt@f@c}}%
{\setlength{\@Hgt@foot}{\@Hgt@f@c}} {\setlength{\@Hgt@foot}{\@Hgt@f@l}}%
\ifthenelse{\lengthtest{\@Hgt@foot<\@Hgt@f@r}}%
{\setlength{\@Hgt@foot}{\@Hgt@f@r}}{}%
\ifthenelse{\lengthtest{\@Hgt@foot<\@Min@Hgt@foot}}%
{\setlength{\@Hgt@foot}{\@Min@Hgt@foot}}{}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Set the printable length as the difference of all those others
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\ifthenelse{\lengthtest{\@marg@lt@tp@d<1pt}}%
{\setlength{\@marg@lt@tp@d}{\@Hgt@Head+\@marg@tp@a}}{}%
\addtolength{\@Hgt@Head}{1pt}%
\addtolength{\@Hgt@head}{1pt}%
\setlength{\@Plg}{\paperheight-\@Hgt@Head-\@Hgt@Foot-\@marg@tp@b-\@marg@tp@a-%
\@marg@bt@a-\@marg@bt@b-\@f@f-\footrulewidth-\headrulewidth}%
\setlength{\@plg}{\paperheight-\@Hgt@head-\@Hgt@foot-\@marg@tp@b-\@marg@tp@a-%
\@marg@bt@a-\@marg@bt@b-\@f@f-\footrulewidth-\headrulewidth}%
\ifthenelse{\lengthtest{\@text@height>.1pt}}{\setlength{\@Plg}{\@text@height}}{}%
\ifthenelse{\boolean{@Bg@use}}{\AddToShipoutPicture*{\@Backgrd}}{}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Print feedback if requested
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\def\ifta{0}%
\txa{\string\@Hgt@H@C: \the\@Hgt@H@C, \string\@Hgt@H@R: \the\@Hgt@H@R}%
\txa{\string\@Hgt@H@L: \the\@Hgt@H@L, \string\@Hgt@Head: \the\@Hgt@Head}%
\txa{\string\@Hgt@h@c: \the\@Hgt@h@c, \string\@Hgt@h@r: \the\@Hgt@h@r}%
\txa{\string\@Hgt@h@l: \the\@Hgt@h@l, \string\@Hgt@head: \the\@Hgt@head}%
\txa{\string\@Hgt@F@C: \the\@Hgt@F@C, \string\@Hgt@F@R: \the\@Hgt@F@R}%
\txa{\string\@Hgt@F@L: \the\@Hgt@F@L, \string\@Hgt@Foot: \the\@Hgt@Foot}%
\txa{\string\@Hgt@f@c: \the\@Hgt@f@c, \string\@Hgt@f@r: \the\@Hgt@f@r}%
\txa{\string\@Hgt@f@l: \the\@Hgt@f@l, \string\@Hgt@foot: \the\@Hgt@foot}%
\txa{\string\@Plg:\the\@Plg, \string\paperheight:\the\paperheight}%
\txa{\string\@Hgt@Head:\the\@Hgt@Head, \string\@Hgt@head:\the\@Hgt@head}%
\txa{\string\@f@f:\@f@f,\string\footskip:\the\footskip}%
\txa{\string\@Hgt@foot:\the\@Hgt@Foot, \string\baselineskip:\the\baselineskip}%
\txa{\string\@plg:\the\@plg, \string\paperheight:\the\paperheight}%
\txa{\string\@Hgt@foot:\the\@Hgt@Foot, \string\baselineskip:\the\baselineskip}%
\txa{\string\@Hgt@foot:\the\@Hgt@Foot}%
\txa{\string\voffset:\the\voffset, \string\headsep:\the\headsep}%
\txa{\string\footruleskip:\footruleskip, \string\footrulewidth:\footrulewidth}%
\def\ifta{0}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Now set widths
% Set margins to defaults, or to set values
% If there marginal notes, set margins to 0in
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\ifthenelse{\boolean{@marg@Luse}}%
{\txa{Setting up left column...}%
\settowidth{\@utile}{\@Lmarg}%
\txa{Lt column width:\the\@utile}
\ifthenelse{\lengthtest{\@unpr@lt>\@marg@lt@l}}{\setlength{\@marg@lt@l}{\@unpr@lt}}%
{\addtolength{\@marg@lt@l}{\@unpr@lt}}%
\addtolength{\@utile}{\@marg@lt@l}%
\setlength{\marginparwidth}{\@utile}%
\setlength{\marginparsep}{\@marg@lt@r}%
\setlength{\@marg@lt}{\@utile}%
%   \addtolength{\@marg@lt}{\@marg@lt@r}%
```

```
\txa{Lt Column width+edge:\the\@util,\the\@marg@lt@l}%
\txa{\string\@util:\the\@util, width:\the\marginparwidth,sep:\the\marginparsep}%
\ifthenelse{\lengthtest{\@marg@lt@tp@d<1pt}}{\setlength{\@marg@lt@tp@d}{\@Hgt@Head}}{}%
\txa{Done!}
}%
{%
\setlength{\marginparsep}{0in}%
\setlength{\marginparwidth}{0in}%
\ifthenelse{\lengthtest{\@unpr@lt>\@marg@lt}}{\setlength{\@marg@lt}{\@unpr@lt}}{}%
}%
\ifthenelse{\boolean{@marg@Ruse}}%
{%
\txa{Setting up right column...}%
\settowidth{\@utile}{\@Rmarg}%
\txa{Rt Column width:\the\@utile}%
\ifthenelse{\lengthtest{\@marg@rt@l<.01pt}}{\setlength{\@marg@rt@l}{\@marg@lt@r}}{}%
\ifthenelse{\lengthtest{\@marg@rt@r<.01pt}}{\setlength{\@marg@rt@r}{\@marg@lt@l}}{}%
\txa{Unpr Rt:\the\@unpr@rt,Marg Rt R:\the\@marg@rt@r}
\ifthenelse{\lengthtest{\@unpr@rt>\@marg@rt@r}}{\setlength{\@marg@rt@r}{\@unpr@rt}}{}%
\txa{Unpr Rt:\the\@unpr@rt,Marg Rt R:\the\@marg@rt@r}%
\addtolength{\@utile}{\@marg@rt@r}%
\txa{Rt Column width+gutter:\the\@utile}%
\addtolength{\@utile}{\@marg@rt@l}%
\txa{Rt Column width+edge:\the\@utile}%
%setlength{\marginparwidth}{\@utile}%
%setlength{\marginparsep}{\@marg@rt@l}%
\setlength{\@marg@rt}{\@utile}%
\txa{\string\@util:\the\@util, \string\marginparwidth:\the\marginparwidth}%
\ifthenelse{\lengthtest{\@marg@rt@tp@d<1pt}}%
  {\setlength{\@marg@rt@tp@d}{\@Hgt@Head}}{}%
\txa{Done!}%
}%
{%
\txa{No right column}%
\ifthenelse{\lengthtest{\@unpr@rt>\@marg@rt}}{\setlength{\@marg@rt}{\@unpr@rt}}{}%
\ifthenelse{\lengthtest{\@unpr@rt>\@marg@rt}}{\setlength{\@marg@rt}{\@unpr@rt}}{}%
}%
% \ifthenelse{\lengthtest{\@unpr@rt>\@marg@rt}}{\setlength{\@marg@rt}{\@unpr@rt}}{}%
\setlength{\@Pwd}{\paperwidth-\@marg@lt-\@marg@rt}%
\txa{Page width:\the\@Pwd,paper:\the\paperwidth}%
\txa{\string\@Hgt@H@C:\the\@Hgt@H@C, width:\the\marginparwidth,sep:\the\marginparsep}%
\ifthenelse{\lengthtest{\@text@width>.1pt}}{\setlength{\@Pwd}{\@text@width}}{}%
\showdim{At raggedbottom}%
\raggedbottom%
\def\ifta{0}%
\showdim{Before setpage}%
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Now set dimensions of all page lengths
% %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
\txa{\string\@marg@tp@a:\the\@marg@tp@a,\string\@Hgt@Head:\the\@Hgt@Head}%
\txa{\string\@marg@tp@b:\the\@marg@tp@b,\string\@Hgt@Foot:\the\@Hgt@Foot}%
\txa{\string\@marg@bt@a:\the\@marg@bt@a,\string\@Hgt@Head:\the\@Hgt@Head}%
\txa{\string\@marg@bt@b:\the\@marg@bt@b,\string\@Hgt@Foot:\the\@Hgt@Foot}%
\txa{\string\@unpr@bm:\the\@unpr@bm,\string\@unpr@tp:\the\@Hgt@Foot}%
\txa{Before Setting page 1}%
\settoheight{\@utile}{\@Rheader}%
\settodepth{\@utilb}{\@Rheader}%
\addtolength{\@utile}{\@utilb}%
\txa{Right: \the\@utile}%
```

```
\settoheight{\@utile}{\@Cheader}%
\settodepth{\@utilb}{\@Cheader}%
\addtolength{\@utile}{\@utilb}%
\txa{Center: \the\@utile}%
\settoheight{\@utile}{\@Lheader}%
\settodepth{\@utilb}{\@Lheader}%
\addtolength{\@utile}{\@utilb}%
\txa{Left: \the\@utile}%
\gdef\npind{A5}%
\setpage{\@Plg}{\@Pwd}{\@marg@rt-1in}{\@marg@lt-1in}{10pt}%
{\@marg@tp@a-1in}{\@Hgt@Head}{\@marg@tp@b}{\@Hgt@Foot}%
\ifthenelse{\lengthtest{\@Hgt@head<10pt}}{\setlength{\@Hgt@head}{13pt}}{}%
\txa{After Setting page 1}%
\fixhh{\@Hgt@head}%
\fixth{\@plg}%
\showdim{After setpage}%
\setlength{\headwidth}{\textwidth}%
\def\ifta{0}%
\ifthenelse{\boolean{@cello@win}} {
\setlength{\@utila}{\@cello@d}%
\txa{1. \the\@utila}
\addtolength{\@utila}{-\@Hgt@Head}%
\txa{2. \the\@utila,\the\@Hgt@Head}%
\addtolength{\@utila}{-\@marg@tp@a}%
\txa{3. \the\@utila,\the\@marg@tp@a}
\addtolength{\@utila}{-\@marg@tp@b}%
\txa{4. \the\@utila,\the\@marg@tp@b}
\ifthenelse{\boolean{@dt@p}}{\txa{Fixing date}
\ifthenelse{\@intd@pos<\@intt@pos}{%
\addtolength{\@utila}{-\@dt@sk@b}%
\txa{5. \the\@utila,\the\@dt@sk@b}
\addtolength{\@utila}{-\@dt@sk@a}%
\txa{6. \the\@utila,\the\@dt@sk@a}
\settoheight{\@utile}{\@xdate}
\addtolength{\@utila}{-\@utile}%
\txa{7. \the\@utila,\the\@utile}
}{}}{}%
\ifthenelse{\boolean{@addr@fr@p}}{\txa{Fixing from address}
\ifthenelse{\@intf@pos<\@intt@pos}{%
\addtolength{\@utila}{-\@addr@fr@sk@b}%
\addtolength{\@utila}{-\@addr@fr@sk@a}%
\sbox{\b@addr@fr}{\noindent\setlength{\tabcolsep}{0pt}% Address-from into a box
\raggedleft\begin{tabular}{l@{}}%
\noindent\ignorespaces\@addr@fr%
\ifthenelse{\boolean{@addr@fr@t}}{\\ \@phn@phr: \@phn@fr}{}%
\ifthenelse{\boolean{@addr@fr@f}}{\\ \@fax@phr: \@fax@fr}{}%
\ifthenelse{\boolean{@addr@fr@e}}{\\ \@email@phr: \@email@fr}{}%
\end{tabular}}%
\settoheight{\@utile}{\usebox{\b@addr@fr}}%
\addtolength{\@utila}{-\@utile}%
\txa{8. \the\@utila,\the\@utile}
}{}}{}%
\txa{9. \the\@utila}
\setlength{\@utilb}{\@cello@l}%
\txa{10. Horizontal position}
\txa{11. Start: \the\@utilb}
\addtolength{\@utilb}{-\@marg@lt}%
\txa{12. \the\@utilb,\the\@marg@lt}
\txa{13. \the\@utilb}
```

```
\ifthenelse{\lengthtest{\@utila > 0pt}}{\setboolean{@ztila}{true}}
{\typeout{Cello window requested, but cannot be used.}
 \typeout{'To-address' cannot be placed vertically.  Suggestions:}
 \typeout{1. Make letterhead components smaller.}
 \typeout{2. Eliminate date or 'from-address' from letter.}
 \typeout{3. Move date or 'from-address' below 'to-address'.}
 \setboolean{@ztila}{false}%
}
\ifthenelse{\lengthtest{\@utilb > 0pt}}{\setboolean{@ztilb}{true}}
{\typeout{Cello window requested, but cannot be used.}
 \typeout{'To-address' cannot be placed horizontally.  Suggestions:}
 \typeout{1. Make left-margin width smaller.}
 \typeout{2. Eliminate margin components.}
 \setboolean{@ztilb}{false}%
}
\ifthenelse{\boolean{@ztila} \and \boolean{@ztilb}}{
\setlength{\@addr@to@sk@b}{\@utila}
\setlength{\@extr@hor}{\@utila}}{}
}{\setboolean{@cello@win}{false}\setlength{\@extr@hor}{0pt}}%
\def\ifta{0}%
\txa{End of @set@em@up}%
}%
\newif \if@dim@reset \@dim@resettrue%
\newif \if@repth \@repthfalse%
\newcommand{\@rep@th}{}%
\newcommand{\fixth}[1]{\renewcommand{\@rep@th}{#1} \global\@repthtrue}%
\newdimen \@rep@th%
\newif \if@reptw \@reptwfalse%
\newcommand{\@rep@tw}{}%
\newcommand{\fixtw}[1]{\renewcommand{\@rep@tw}{#1} \global\@reptwtrue}%
\newdimen \@rep@tw%
\newif \if@repom \@repomfalse%
\newcommand{\@rep@om}{}%
\newcommand{\fixom}[1]{\renewcommand{\@rep@om}{#1} \global\@repomtrue}%
\newdimen \@rep@om%
\newif \if@repem \@repemfalse%
\newcommand{\@rep@em}{}%
\newcommand{\fixem}[1]{\renewcommand{\@rep@em}{#1} \global\@repemtrue}%
\newdimen \@rep@em%
\newif \if@repcs \@repcsfalse%
\newcommand{\@rep@cs}{}%
\newcommand{\fixcs}[1]{\renewcommand{\@rep@cs}{#1} \global\@repcstrue}%
\newdimen \@rep@cs%
\newif \if@reptm \@reptmfalse%
\newcommand{\@rep@tm}{}%
\newcommand{\fixtm}[1]{\renewcommand{\@rep@tm}{#1} \global\@reptmtrue}%
\newdimen \@rep@tm%
\newif \if@rephh \@rephhfalse%
\newcommand{\@rep@hh}{}%
\newcommand{\fixhh}[1]{\renewcommand{\@rep@hh}{#1} \global\@rephhtrue}%
\newdimen \@rep@hh%
\newif \if@rephs \@rephsfalse%
\newcommand{\@rep@hs}{}%
\newcommand{\fixhs}[1]{\renewcommand{\@rep@hs}{#1} \global\@rephstrue}%
\newdimen \@rep@hs%
\newif \if@repfs \@repfsfalse%
\newcommand{\@rep@fs}{}%
\newcommand{\fixfs}[1]{\renewcommand{\@rep@fs}{#1} \global\@repfstrue}%
\newdimen \@rep@fs%
```

```
%
\def\@outputpage{%
  \def\ifta{0}%
  \txa{npind:\npind}%
  \showdim{New page - before shipout}%
  \begingroup%           % the \endgroup is put in by \aftergroup
    \let \protect \noexpand
    \@resetactivechars
    \global\let\@@if@newlist\if@newlist
    \global\@newlistfalse
    \@parboxrestore
\txa{topmargin:\the\topmargin}
\txa{Before shipout...}
  \showdim{New page - immediately before shipout}
    \shipout \vbox{%
      \set@typeset@protect
      \aftergroup \endgroup
      \aftergroup \set@typeset@protect% correct? or just restore by ending the group
      \if@specialpage
        \global\@specialpagefalse\@nameuse{ps@\@specialstyle}%
      \fi
      \if@twoside
        \ifodd\count\z@ \let\@thehead\@oddhead \let\@thefoot\@oddfoot
          \let\@themargin\oddsidemargin
        \else \let\@thehead\@evenhead
          \let\@thefoot\@evenfoot \let\@themargin\evensidemargin
        \fi
      \fi
      \reset@font
      \normalsize
\txa{Before normalsfcodes}
      \normalsfcodes
      \let\label\@gobble
      \let\index\@gobble
      \let\glossary\@gobble
      \baselineskip\z@skip \lineskip\z@skip \lineskiplimit\z@
      \@begindvi
      \vskip \topmargin
    \moveright\@themargin \vbox {%
      \setbox\@tempboxa \vbox to\headheight{%
        \vfil
        \color@hbox
          \normalcolor
          \hb@xt@\textwidth{\@thehead}%
        \color@endbox
        }%                        %% 22 Feb 87
      \dp\@tempboxa \z@
      \box\@tempboxa
      \vskip \headsep
      \box\@outputbox
      \baselineskip \footskip
      \color@hbox
        \normalcolor
        \hb@xt@\textwidth{\@thefoot}%
      \color@endbox
      }%
    }%
\txa{After shipout}
\global\let\if@newlist\@@if@newlist
```

```
\showdim{New page - before reset}
\if@dim@reset
\if@repth \global\textheight \@rep@th \global\@repthfalse \fi
\fi
\global \@colht \textheight
\stepcounter{page}%
\let\firstmark\botmark
\if@dim@reset
\if@repth \global\textheight \@rep@th     \global\@repthfalse \fi
\if@reptw \global\textwidth \@rep@tw      \global\@reptwfalse \fi
\if@repom \global\oddsidemargin \@rep@om  \global\@repomfalse \fi
\if@repem \global\evensidemargin \@rep@em \global\@repemfalse \fi
\if@repcs \global\columnsep \@rep@cs      \global\@repcsfalse \fi
\if@reptm \global\topmargin \@rep@tm      \global\@reptmfalse
\txa{Fixing tm} \fi
\if@rephh \global\headheight \@rep@hh     \global\@rephhfalse \fi
\if@rephs \global\headsep \@rep@hs        \global\@rephsfalse \fi
\if@repfs \global\footskip \@rep@fs       \global\@repfsfalse \fi
\fi
\showdim{New page - after reset}
\def\ifta{0}%
\renewcommand{\headrulewidth}{\the\@hrw}
\renewcommand{\footrulewidth}{\the\@frw}
}
\AtEndDocument{
\ifthenelse{\boolean{@set@env}}
{\@clear@box
\pagestyle{empty}\thispagestyle{empty}
\def\ifta{0}%
\showdim{Before changeing dimensions}
\gdef\npind{A6}
\setpage{11in}{8.5in}{-1in}{-1in}{0in}{-1in}{0in}{0in}{0in}%
\txa{Starting the call to makeenvfn}
\makeenvfn%
\txa{After return from the call to makeenvfn}
}{}%
}
\AtBeginDocument{
\def\ifta{0}%
\txa{AtBeginDocument...}
\@nlfm@addr=0
\ifthenelse{\boolean{@use@envlab}}
{
\IfFileExists{envlab.sty}
{\makelabels}
{\typeout{The option <useenvlab> was issued.}
\typeout{File <envlab.sty> cannot be found.}
\typeout{Option <useenvlab> is disabled}
\typeout{Please install envlab system.}
\setboolean{@use@envlab}{false}}}{}
{}
\txa{At the very very end...}
}
\endinput%
```

⟨/package⟩

Local Variables: mode: latex TeX-master: t End: