

How to Use the **HSSCorrespondence** L^AT_EX Class

KCB

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1 The **HSSCorrespondence** document class

The **HSSCorrespondence** class defines two environments, `letter` and `memo`. It replaces the 25+-year old **hssletter** and **hssmemo** classes, and uses the new Caltech logo. Figures 1 and 2 show the layouts, which are loosely modeled after the [templates](#) being pushed by the [Caltech Identity Project](#).

Also, by default the class uses the **fontspec** package, which implicitly requires **xelatex**. If you use MacTeX, this is not a problem. See Section 5 for other possibilities.

I think Federico and I have tested everything, but I still consider the current release to be a beta version, and I am open to suggestions for modifications.

1.1 Ancillary files

I have taken the official Caltech logo files and shortened their names. You can find the renamed files in my web site's [LaTeX section](#). At a minimum, you need [CaltechLogoOrangePMS165.pdf](#) and [watermark.pdf](#), and you might as well get [CaltechLogoBlackRGB.pdf](#).

You must put these files (and any graphic signature files) in a location in **tex**'s search path. With MacTeX that would typically be somewhere under `/Users/<username>/Library/texmf/`. For linux, try `/home/<username>/texmf/`. Or use the following command to find a location: `kpsewhich --var-value TEXMFHOME`.

Caltech Division of the Humanities
and Social Sciences

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May 15, 2015

Federico Echenique
311 Baxter Hall
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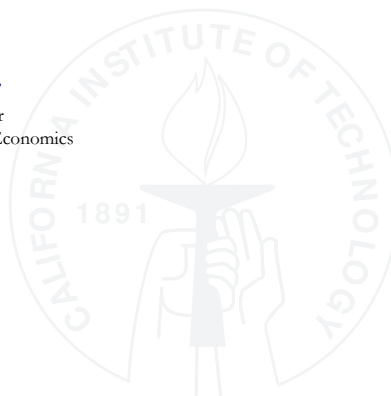
El Jefe:

Do you say "El que se quema con leche, ve una vaca y llora," or "Cuando te quemas
con leche ves una vaca y lloras?"

Sincerely,



Kim C. Border
Professor of Economics



1200 E. California Blvd. ♦ MC 228-77 ♦ Pasadena, CA 91125

Figure 1: Sample letter (60% scale).

Caltech Division of the Humanities
and Social Sciences

TO	Faculty Staff Grads	DATE	2015-05-15
FROM	Victoria Cruz KC Border <i>KCB</i>	E-MAIL	kcb@caltech.edu
		MAIL CODE	228-77
		EXT	4218
SUBJECT	New HSSCorrespondence class for L ^A T _E X		

As you know, `identity.caltech.edu` has guidelines for the appearance of Caltech documents. The new HSSCorrespondence class for L^AT_EX reflects the new style.

Figure 2: Sample memo (60% scale).

2 The interface

All the commands to enter data (addressee, sender, etc.) begin with an uppercase letter. They should come **before** the `\begin{letter}` or `\begin{memo}` commands. Here is the list:

Command	Argument	Memo	Letter
<code>\From</code>	Sender(s)	yes	yes
<code>\Title</code>	Sender's job title	no	yes
<code>\Email</code>	Sender's email address	yes	yes
<code>\Telephone</code>	Sender's phone number	ok	yes
<code>\Ext</code>	Sender's phone extension	yes	ok
<code>\SignatureFile</code>	Signature graphic file	no	yes
<code>\ESign</code>	Signature/initials graphic	yes	no
<code>\Salutation</code>	Dear ...,	no	yes
<code>\Closing</code>	Sincerely,	no	yes
<code>\Subject</code>	Memo subject	yes	no

3 Sample sources

Here are the input files that produced Figures 1 and 2:

3.1 Letter

```
\documentclass{HSSCorrespondence}

\From{Kim C. Border\\205 Baxter Hall}
\Title{Professor of Economics}
\Email{kcb@caltech.edu}
\Telephone{(626) 395-4218}
\SignatureFile{KimCBorderSignature.png}

\To{Federico Echenique\\311 Baxter Hall\\Caltech}
\Salutation{El Jefe:}
\Closing{Sincerely,}

\begin{document}
\begin{letter}
Do you say ``El que se quema con leche, ve una vaca y llora,''
or ``Cuando te quemas con leche ves una vaca y lloras?''
\end{letter}
\end{document}
```

3.2 Memo

```
\documentclass{HSSCorrespondence}
\isodate

\From{Victoria Cruz\\
KC Border\ESign[up=-6pt,right=-15pt]{KCBInitials.png}}
\Email{kcb@caltech.edu}
\Ext{4218}
```

```

\To{Faculty\Staff\Grads}
\Subject{New HSSCorrespondence class for \LaTeX}

\begin{document}
\begin{memo}

As you know, \texttt{identity.caltech.edu} has guidelines
for the appearance of Caltech documents.
The new HSSCorrespondence class for \LaTeX{} reflects the new style.
\end{memo}
\end{document}

```

4 A few details

- `\To` typically takes a multiline argument (no blank lines) to set the addressee. The first line of the `\To` argument is used in the page header on pages after the first page.
- The `\From` argument is typically just the name of the sender. Lines after the first will be ignored by the `letter` environment, but used by the `memo` environment.
- `\Title` sets the sender's (job) title. It is used only for letters, in the closing.
- The sender's `\Email` and `\Telephone` are used in the header of a memo, and in the return address of a letter.
- For letters, `\Salutation` and `\Closing` do what you expect them to. Remember to use them *before* `\begin{letter}`. The obsolete `\opening` and `\closing` commands are disabled.
- Note that `\begin{letter}` does not take an argument.
- The optional `\SignatureFile` and `\ESign` commands are described in Section 7. Their argument is the name of a file with the sender's signature graphic. `\SignatureFile` is used for letters, but if it is missing, space is left for a signature. The `\ESign` command is typically used in the `\From` command of a memo. If you don't have a graphic signature file, just omit these commands.

Ideally, the signature graphic should be actual size and have a transparent background.

- A memo requires `\Subject` to set the subject.
- The `\Ext` command is a synonym for `\Telephone`, but it reminds you that in a memo header it is labeled EXT.

5 xetex, fontspec, and fonts

By default we use the **fontspec** package, which allows access to all your computer's fonts, but probably requires you to use **xelatex** or **lualatex**. The program **xetex** is a mature extension of Knuth's **tex** that has built-in support for Unicode, Open-type fonts, and right-to-left and vertical languages. You should probably switch anyhow. Every modern TeX distribution includes it.

The default fonts are Garamond for letter text, Times for memo text, and Helvetica for headers and footers. If you use a Mac, you probably have these. If you do not have these fonts, maybe because you use **linux**, the **texfonts** documentclass option will use the standard Latin Modern fonts. If this does not work, you may need to install them in the proper location. A Google search can probably tell you how.

The `nofontspec` documentclass option bypasses **fontspec** altogether, and uses the **lmodern** package.

6 Customization

Here, in no particular order, are a handful of documentclass options and control sequences that change the defaults. For other changes, feel free to modify the source code.

Mail codes: The mail code is used in the header for memos, and the first page footer for letters. The default mail code is 228–77. The `dabney` documentclass option sets it to 101–40. A `\MailCode` command will set it to whatever you want.

Black and white: By default the class uses Caltech Identity Orange (Pantone 165) for the logo and a couple of decorations. A black and white printer renders this as gray, so you may prefer the black logo. To do so, use the `bw` option.

Font size: By default both the `letter` and `memo` environments use 12pt text fonts. You can change this with the standard `10pt` and `11pt` documentclass options. (This will not affect the header, footer, or return address.)

Margins: If you prefer narrow margins (longer, less readable text lines), use the `widetext` option.

Watermark: The `letter` environment puts a faux watermark of the Caltech seal under the first-page text. The `nowatermark` documentclass option suppresses it.

Second page header: By default, if a letter or memo is more than one page, the subsequent page headers show the addressee (the first line of the `\To` argument) and the page number. The `noheader` documentclass option suppresses the header.

Letter return address: By default the return address is constructed from `\To`, `\Title`, `\Ext` or `\Telephone`, and `\Email`. Omissions do not leave blank lines. You can override this with the `\ReturnAddress` command. Its argument is a multiline entry with lines separated by `\\`.

Stretchy space: By default, the vertical space between the return address and the date is mildly stretchy, so a short letter sits lower on the page. The `nostretch` option suppresses this.

Auxiliary files: By default, the `\nofiles` declaration is specified, so no auxiliary file is produced. The `files` option omits the declaration.

`\signatureheight`: This a length, and it reserves vertical space for a signature in a letter with no `\SignatureFile` command. Default is `\setlength{\signatureheight}{36bp}` (half an inch).

`\isodate`: The `\isodate` declaration is intended for memos. It sets the format for the current date to the **ISO 8601 standard**, e.g., 2015-05-15. Dates in this format are easily sorted.

Division: The `\Division` command sets the header text that appears to the right of the Caltech logo. The default is `\Division{Division of the Humanities\\and Social Sciences}`. It will look best as two lines.

Letter footer: The default letter footer (first page only) is

1200 E. California Blvd. ♦ MC 228–77 ♦ Pasadena, CA 91125

(You can change the mail code as described above.) The `\Footer` command resets the footer to whatever you want (including empty).

Standard document options: e.g., `a4paper`, `legalpaper`, `draft`, etc., are recognized.

7 Graphic signatures

Since most of these documents will be sent as email attachments I have tried to make it straightforward to use graphic signatures. These are optional commands, and if you don't have a graphic signature, the outcome should be satisfactory without them.

For letters, you should use the `\SignatureFile` command to enter the name of the graphic file. It will be automatically inserted after the closing, and above your name and title. Ideally you should use an actual-sized graphic with a transparent background. But if your graphic seems poorly placed, or is just the wrong size, the `\SignatureFile` command takes an optional argument to scale it and adjust its position. This argument is described below.

For memos, a different mechanism seems appropriate. In my experience, memos are often from committees with many members, so it seems impossible to tell in advance where to put the signature graphic(s). The `\ESign` command inserts the graphic at the current point, without using any space. The graphic will overlay any other text, just as a signature with a real pen would, so a transparent background is a must. Typically you will put the command inside the memo's `\From` argument. You can use more than one command if you have multiple signees with their own signature files. The `\ESign` command also takes an optional argument to adjust its scale and position.

7.1 Optional scale and position argument

Both `\SignatureFile` and `\ESign` can take a bracketed optional argument to move the graphic up and/or to the right a specified distance, and to rescale it. (Negative distances are allowed and move the graphic down and/or left.) You may supply any or all of these adjustments, separated by commas. Extraneous spaces are ignored. For instance,

```
\ESign[ up=-3pt,right = -15pt , scale=0.8]{KCBInitials.png}  
\ESign[up=-3pt,right=-15pt,scale=0.8]{KCBInitials.png}
```

both shift the graphic 3pt down and 15pt to the left from its normal position, and scale it by a factor of 0.8.

With `\ESign` this should have no effect on the surrounding text. With `\SignatureFile` the height of the graphic determines the location of the following text. Let me know if this is not what you get.

7.2 How do I get a transparent background?

If you have a UNIX-like OS (such as OS X), you can use [ImageMagick](#), an open-source set of command line tools. I scanned a signature on white paper into a `jpeg` and converted it to a transparent-background `png` like this:

```
convert KCBSig.jpg -fuzz 10% -transparent white KCBSig.png
```

The `convert` program can also crop and rescale. I'm told Adobe Illustrator or Photoshop can also be used, but don't ask me how.