

# A Babel language definition file for French

**frenchb.dtx v3.1f, 2015/05/31**

Daniel Flipo  
daniel.flipo@free.fr

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# 1 The French language

The file `frenchb.dtx`<sup>1</sup>, defines all the language definition macros for the French language.

Customisation for the French language is achieved following the book “Lexique des règles typographiques en usage à l’Imprimerie Nationale” troisième édition (1994), ISBN-2-11-081075-0.

First version released: 1.1 (May 1996) as part of babel-3.6beta. Version 2.0a was released in February 2007 and version 3.0a in February 2014.

`frenchb` has been improved using helpful suggestions from many people, mainly from Jacques André, Michel Bovani, Thierry Bouche, Vincent Jalby and Denis Bitouzé. Thanks to all of them!

$\text{\LaTeX}$ -2.09 is no longer supported. This new version (3.x) has been designed to be used only with  $\text{\LaTeX} 2_{\varepsilon}$  and Plain formats based on TeX, pdfTeX, LuaTeX or XeTeX engines.

Changes between version 2.0 and v3.1f are listed in subsection 1.4 p. 9.

An extensive documentation is available in French here:

<http://daniel.flipo.free.fr/frenchb>

## 1.1 Basic interface

In a multilingual document, some typographic rules are language dependent, i.e. spaces before ‘high punctuation’ ( : ; ! ? ) in French, others modify the general layout (i.e. layout of lists, footnotes, indentation of first paragraphs of sections) and should apply to the whole document.

`frenchb` takes account of babel’s *main language* defined as the *last* option at babel’s loading. When French is not babel’s main language, `frenchb` does not alter the general layout of the document (even in parts where French is the current language): the layout of lists, footnotes, indentation of first paragraphs of sections are not customised by `frenchb`.

When French is loaded as the last option of babel, `frenchb` makes the following changes to the global layout, *both in French and in all other languages*<sup>2</sup>:

1. the first paragraph of each section is indented ( $\text{\LaTeX}$  only);
2. the default items in itemize environment are set to ‘—’ instead of ‘•’, and all vertical spacing and glue is deleted; it is possible to change ‘—’ to something else (‘–’ for instance) using `\frenchbsetup{}` (see section 1.2 p. 4);
3. vertical spacing in general  $\text{\LaTeX}$  lists is shortened;
4. footnotes are displayed “à la française”.
5. the separator following the table or figure number in captions is printed as ‘ – ’ instead of ‘ : ’; for changing this see 1.2.2 p. 8.

Regarding local typography, the command `\selectlanguage{french}` switches to the French language<sup>3</sup>, with the following effects:

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<sup>1</sup>The file described in this section has version number v3.1f and was last revised on 2015/05/31.

<sup>2</sup>For each item, hooks are provided to reset standard  $\text{\LaTeX}$  settings or to emulate the behavior of former versions of `frenchb` (see command `\frenchbsetup{}`, section 1.2 p. 4).

<sup>3</sup>`\selectlanguage{francais}` and `\selectlanguage{frenchb}` are no longer supported.

1. French hyphenation patterns are made active;
2. ‘high punctuation’ characters (: ; ! ?) automatically add correct spacing in French; this is achieved using callbacks in Lua(La)TeX or ‘XeTeXinterchar’ mechanism in Xe(La)TeX; with TeX’82 and pdf(La)TeX these four characters are made active in the whole document;
3. \today prints the date in French;
4. the caption names are translated into French ( $\text{\LaTeX}$  only). For customisation of caption names see section 1.2.2 p. 8.
5. the space after \dots is removed in French.

Some commands are provided by frenchb to make typesetting easier:

1. French quotation marks can be entered using the commands \og and \fg which work in  $\text{\LaTeX} 2\epsilon$  and PlainTeX, their appearance depending on what is available to draw them; even if you use  $\text{\LaTeX} 2\epsilon$  and T1-encoding, you should refrain from entering them as <<French quotation>>: \og and \fg provide better horizontal spacing (controlled by \FBguillspace). If French quote characters are available on your keyboard, you can use them, to get proper spacing in  $\text{\LaTeX} 2\epsilon$  see option `og=<>, fg=<>` p. 8.

\og and \fg can be used outside French, they typeset then English quotes “ and ”.

A new command \frquote{} has been added in version 3.1 to enter French quotations. \frquote{texte} is equivalent to \og texte \fg{} for short quotations. For quotations spreading over more than one paragraph, \frquote will add at the beginning of every paragraph of the quotation either an opening French guillemet («), or a closing one (») depending on option `EveryParGuill=open` or `=close`, see p. 7.

\frquote is recommended to enter embedded quotations “à la française”, several variants are provided through options:

- with LuaTeX based engines, every line of the inner quotation will start with a French opening or closing guillemet (« or ») depending on option `EveryLineGuill=open` (default) or `=close` unless you explicitly set `EveryLineGuill=none`, then \frquote{} will behave as with non-LuaTeX engines;
- with all other engines, the inner quotation is surrounded by double quotes (“texte”) unless option `InnerGuillSingle=true`, then a) the inner quotation is printed as < texte > and b) if the inner quotation spreads over more than one paragraph, every paragraph included in the inner quotation starts with a < or a >, depending on option `EveryParGuill=open` or `close`.

A starred variant \frquote\* is meant for inner quotations which end together with the outer one: using \frquote\* for the inner quotation will print only one closing quote character (the outer one) as recommended by the French ‘Imprimerie Nationale’.

2. A command `\up` is provided to typeset superscripts like `M\up{me}` (abbreviation for “Madame”), `1\up{er}` (for “premier”). Other commands are also provided for ordinals: `\ier`, `\iere`, `\iers`, `\ieres`, `\ieme`, `\iemes` (`3\iemes` prints `3es`). All these commands take advantage of real superscript letters when they are available in the current font.
3. Family names should be typeset in small capitals and never be hyphenated, the macro `\bsc` (boxed small caps) does this, e.g., `L.\~\bsc{Lamport}` will print the same as `L.\~\mbox{\textsc{Lamport}}`. Note that composed names (such as Dupont-Durant) may now be hyphenated on explicit hyphens, this differs from `frenchb` v. 1.x.
4. Commands `\primo`, `\secundo`, `\tertio` and `\quarto` print `1o`, `2o`, `3o`, `4o`. `\FrenchEnumerate{6}` prints `6o`.
5. Abbreviations for “Numéro(s)” and “numéro(s)” (`No` `Nos` `no` and `nos`) are obtained via the commands `\No`, `\Nos`, `\no`, `\nos`.
6. Two commands are provided to typeset the symbol for “degré”: `\degre` prints the raw character and `\degrees` should be used to typeset temperatures (e.g., “20\~\degrees C” with an nobreak space), or for alcohols’ strengths (e.g., “45\degrees” with no space in French).
7. In math mode the comma has to be surrounded with braces to avoid a spurious space being inserted after it, in decimal numbers for instance (see the `TExbook` p. 134). The command `\DecimalMathComma` makes the comma be an ordinary character *in French only* (no space added); as a counterpart, if `\DecimalMathComma` is active, an explicit space has to be added in lists and intervals: `[$[0,\ 1]$]`, `[$(x,\ y)$]`. `\StandardMathComma` switches back to the standard behaviour of the comma.
8. A command `\nombre` was provided in 1.x versions to easily format numbers in slices of three digits separated either by a comma in English or with a space in French; `\nombre` is now mapped to `\numprint` from `numprint.sty`, see `numprint.pdf` for more information.
9. `frenchb` has been designed to take advantage of the `xspace` package if present: adding `\usepackage{xspace}` in the preamble will force macros like `\fg`, `\ier`, `\ieme`, `\dots`, to respect the spaces you type after them, for instance typing ‘`1\ier juin`’ will print ‘`1er juin`’ (no need for a forced space after `1\ier`).

## 1.2 Customisation

Customisation of `frenchb` relies on command `\frenchbsetup{}`, options are entered using the `keyval` syntax. The command `\frenchbsetup{}` is to appear in the preamble only (after loading `babel`).

### 1.2.1 `\frenchbsetup{options}`

`\frenchbsetup{ShowOptions}` prints all available options to the `.log` file, it is just meant as a remainder of the list of offered options. As usual with `keyval`

syntax, boolean options (as `ShowOptions`) can be entered as `ShowOptions=true` or just `ShowOptions`, the `=true` part can be omitted.

The other options are listed below. Their default value is shown between braces, sometimes followed by a ‘\*’. The ‘\*’ means that the default shown applies when frenchb is loaded as the *last* option of babel —babel’s *main language*—, and is toggled otherwise.

`StandardLayout=true (false*)` forces frenchb not to interfere with the layout:

no action on any kind of lists, first paragraphs of sections are not indented (as in English), no action on footnotes. This option can be used to avoid conflicts with classes or packages which customise lists or footnotes.

`GlobalLayoutFrench=false (true*)` should no longer be used; it was intended to emulate, when French is the main language, what prior versions of frenchb (pre-2.2) did: lists, and first paragraphs of sections would be displayed the standard way in other languages than French, and “à la française” in French. Note that the layout of footnotes is language independent anyway (see below `FrenchFootnotes` and `AutoSpaceFootnotes`).

`ReduceListSpacing=false (true*)`; frenchb reduces the values of the vertical spaces used in the *all* list environments in French (this includes itemize, enumerate, description, but also abstract, quote, quotation and verse and possibly others). Setting this option to `false` reverts to the standard settings of the list environment.

`ListOldLayout=true (false)`; starting with version 2.6a, the layout of lists has changed regarding leftmargins’ sizes and default itemize label (‘—’ instead of ‘–’ up to 2.5k). This option, provided for backward compatibility, displays lists as they were up to version 2.5k.

`CompactItemize=false (true*)`; should no longer be used (kept only for backward compatibility), it is replaced by the next two options.

`StandardItemizeEnv=true (false*)`; frenchb redefines the itemize environment to suppress any vertical space between items of itemize lists in French and customises left margins. Setting this option to `false` reverts to the standard definition of itemize.

`StandardEnumerateEnv=true (false*)`; starting with version 2.6 frenchb redefines the enumerate and description environments to make left margins match those of the French version of itemize lists. Setting this option to `false` reverts to the standard definition of enumerate and description.

`StandardItemLabels=true (false*)` when set to `true` this option prevents frenchb from changing the labels in itemize lists in French.

`ItemLabels=\textbullet, \textendash, \ding{43}, ...(\textemdash*)`; when `StandardItemLabels=false` (the default), this option enables to choose the label used in French itemize lists for all levels. The next four options do the same but each one for a specific level only. Note that the example `\ding{43}` requires `\usepackage{pifont}`.

`ItemLabeli=\textbullet, \textendash, \ding{43},...(\textemdash*)`  
`ItemLabelii=\textbullet, \textendash, \ding{43},...(\textemdash*)`  
`ItemLabeliii=\textbullet, \textendash, \ding{43},...(\textemdash*)`  
`ItemLabeliv=\textbullet, \textendash, \ding{43},...(\textemdash*)`

`StandardLists=true (false*)` forbids frenchb to customise any kind of list.  
Try the option `StandardLists` in case of conflicts with classes or packages that customise lists too. This option is just a shorthand setting all four options `ReduceListSpacing=false`, `StandardItemizeEnv=true`, `StandardEnumerateEnv=true` and `StandardItemLabels=true`.

`IndentFirst=false (true*)` ; set this option to `false` if you do not want frenchb to force indentation of the first paragraph of sections. When French is the main language, this option applies to all languages.

`FrenchFootnotes=false (true*)` reverts to the standard layout of footnotes.  
By default frenchb typesets leading numbers as '1.' instead of '1', but has no effect on footnotes numbered with symbols (as in the `\thanks` command). Two commands `\StandardFootnotes` and `\FrenchFootnotes` are available to change the layout of footnotes locally; `\StandardFootnotes` can help when some footnotes are numbered with letters (inside minipages for instance).

`AutoSpaceFootnotes=false (true*)` ; by default frenchb adds a thin space in the running text before the number or symbol calling the footnote. Making this option `false` reverts to the standard setting (no space added).

`FrenchSuperscripts=false (true)` ; then `\up=\textsuperscript`. (option added in version 2.1). Should only be made `false` to recompile documents written before 2008 without changes: by default `\up` now relies on `\fup` designed to produce better looking superscripts.

`AutoSpacePunctuation=false (true)` ; in French, the user *should* input a space before the four characters ': ; ! ?' but as many people forget about it (even among native French writers!), the default behaviour of frenchb is to automatically typeset nobreak spaces the width of which is either `\FBthinspace` (defaults to thin space) before ';' '!' '?' or `\FBcolonspace` (defaults to `\space`) before ':' ; the defaults follow the French 'l'Imprimerie Nationale's recommendations. This is convenient in most cases but can lead to addition of spurious spaces in URLs, in MS-DOS paths or in timetables (10:55), except if they are typed in `\texttt` or verbatim mode. When the current font is a monospaced (typewriter) font, `AutoSpacePunctuation` is locally switched to `false`, no spurious space is added in that case, so the default behaviour of frenchb in that area should be fine in most circumstances.

Choosing `AutoSpacePunctuation=false` will ensure that a proper space will be added before ': ; ! ?' *if and only if* a (normal) space has been typed in. Those who are unsure about their typing in this area should

stick to the default option and use the provided `\NoAutoSpacing` command inside a group in case an unwanted space is added by `frenchb` (i.e. `{\NoAutoSpacing 10:55}`).

`ThinColonSpace=true (false)` changes the inter-word unbreakable space added before the colon ‘:’ to a thin space, so that the same amount of space is added before any of the four ‘high punctuation’ characters. The default setting is supported by the French ‘Imprimerie Nationale’.

`LowercaseSuperscripts=false (true)` ; by default `frenchb` inhibits the upper-casing of superscripts (for instance when they are moved to page headers). Making this option `false` will disable this behaviour (not recommended).

`PartNameFull=false (true)` ; when true, `frenchb` numbers the title of `\part{}` commands as “Première partie”, “Deuxième partie” and so on. With some classes which change the `\part{}` command (AMS classes do so), you could get “Première partie 1”, “Deuxième partie 2” in the toc; when this occurs, this option should be set to `false`, part titles will then be printed as “Partie I”, “Partie II”.

`CustomiseFigTabCaptions=false (true*)` ; when `false` the default separator (colon) is used instead of `\CaptionSeparator`. Anyway, `frenchb` makes sure that the colon will be typeset with proper preceding space in French.

`OldFigTabCaptions=true (false)` is to be used when figures’ and tables’ captions must be typeset as with pre 3.0 versions of `frenchb` (with `\CaptionSeparator` in French and colon otherwise). Intended for standard `LATeX` classes only.

`SmallCapsFigTabCaptions=false (true*)` ; when set to `false`, `\figurename` and `\tablename` will be printed in French captions as “Figure” and “Table” instead of being printed in small caps (the default).

`SuppressWarning=true (false)` ; can be turned to `true` if you are bored with `frenchb`’s warnings.

`INGuillSpace=true (false)` resets the dimensions of spaces after opening French quotes and before closing French quotes to the French ‘Imprimerie Nationale’ standards (inter-word space). `frenchb`’s default setting produces slightly narrower spaces with lesser stretchability.

`EveryParGuill=open, close, none (open)` ; sets whether an opening quote («) or a closing one (») or nothing should be printed by `\frquote{}` at the beginning of every paragraph in case of a level 1 (outer) quotation spreading over more than one paragraph. This option is also considered for level 2 (inner) quotations to decide between < and > when `InnerGuillSingle=true` (see below).

`EveryLineGuill=open, close, none (open in LuaTeX, none otherwise)` ; with engines other than `LuaTeX` this option is set to `none` which means that nothing will be printed at the beginning of every line of inner quotations, trying to set this option will issue a warning in the `.log` file.

With LuaTeX based engines, this option is set to `open` by default, it ensures that a « followed by proper kern will be repeated at the beginning of every line in case an embedded (inner) quotation spreads over more than one line (provided that both outer and inner quotations are entered with `\frquote{}`). Set this option to `close` if you want a » instead of a «.

`InnerGuillSingle=true (false)` ; if `InnerGuillSingle=false` (default), inner quotations entered with `\frquote{}` start with “ and end with ”. If `InnerGuillSingle=true`, < and > are used instead of British double quotes. Please note that this option only makes sense when `EveryLineGuill=none`.

`og=<, fg=>` ; when guillemets characters are available on the keyboard (through a compose key for instance), it is nice to use them instead of typing `\og` and `\fg`. This option tells frenchb which characters are opening and closing French guillemets (they depend on the input encoding), then you can type either « guillemets » or «guillemets» (with or without spaces) to get properly typeset French quotes. This option works with LuaLaTeX and XeLaTeX; with pdfLaTeX it requires `inputenc` to be loaded with a proper encoding: 8-bits encoding (`latin1`, `latin9`, `ansinew`, `applemac`,...) or multi-byte encoding (`utf8`, `utf8x`).

**Options' order** – Please remember that options are read in the order they appear in the `\frenchbsetup{}` command. Someone wishing that frenchb leaves the layout of lists and footnotes untouched but caring for indentation of first paragraph of sections should choose

`\frenchbsetup{StandardLayout,IndentFirst}` to get the expected layout. The reverse order `\frenchbsetup{IndentFirst,StandardLayout}` would lead to option `IndentFirst` being overwritten by `StandardLayout`.

### 1.2.2 Captions

Caption names can be customised in French using the simplified syntax introduced by babel 3.9, for instance: `\def\frenchproofname{Preuve}`. The older syntax `\addto\captionsfrench{\def\proofname{Preuve}}` still works. Keep in mind that *only* french can be used to redefine captions, even if babel's option was entered as `francais` or `frenchb`.

When French is the main language, by default (see below) frenchb changes the separator (colon) used in figures' and tables' captions for *all languages* to `\CaptionSeparator` which defaults to ‘ – ’ and can be redefined in the preamble with `\renewcommand*\{\CaptionSeparator\}{...}`.

When French is not the main language, the colon is preserved for all languages but frenchb makes sure that a proper space is typeset before it.

Three new options are provided: if `CustomiseFigTabCaptions` is set to `false` the colon will be used as separator in all languages, with a proper space before the colon in French. The second option, `OldFigTabCaptions`, can be set to `true` to print figures' and tables' captions as they were with versions pre 3.0 of frenchb (using `\CaptionSeparator` in French and colon in other languages); this option only makes sense with the standard L<sup>A</sup>T<sub>E</sub>X classes `article`, `report` and `book`. The last option, `SmallCapsFigTabCaptions`, can be set to `false` to typeset `\figurename` and `\tablename` in French as “Figure” and “Table” rather than in small caps (the default).

### 1.3 Hyphenation checks

Once you have built your format, a good precaution would be to perform some basic tests about hyphenation in French. For L<sup>A</sup>T<sub>E</sub>X 2<sub>&</sub> I suggest this:

- run pdfLaTeX on the following file, with the encoding suitable for your machine (*my-encoding* will be latin1 for Unix machines, ansinew for PCs running Windows, applemac or latin1 for Macintoshs, or utf8...)

```
%%% Test file for French hyphenation.  
\documentclass{article}  
\usepackage[my-encoding]{inputenc}  
\usepackage[T1]{fontenc} % Use LM fonts  
\usepackage{lmodern} % for French  
\usepackage[frenchb]{babel}  
\begin{document}  
\showhyphens{signal container \'ev\'ement alg\'ebre}  
\showhyphens{signal container \'evenement alg\`ebre}  
\end{document}
```

- check the hyphenations proposed by T<sub>E</sub>X in your log-file; in French you should get with both 7-bit and 8-bit encodings  
si-gnal contai-ner \'eve-ne-ment al-gebre.  
Do not care about how accented characters are displayed in the log-file, what matters is the position of the '-' hyphen signs *only*.

If they are all correct, your installation (probably) works fine, if one (or more) is (are) wrong, ask a local wizard to see what's going wrong and perform the test again (or e-mail me about what happens).

Frequent mismatches:

- you get sig-nal con-tainer, this probably means that the hyphenation patterns you are using are for US-English, not for French;
- you get no hyphen at all in \'eve-ne-ment, this probably means that you are using CM fonts and the macro \accent to produce accented characters. Using 8-bits fonts with built-in accented characters avoids this kind of mismatch.

### 1.4 Changes

#### What's new in version 3.1?

New command \frquote{} meant to enter French quotations, especially long ones (spreading over several paragraphs) and/or embedded ones. see p. 3 for details.

#### What's new in version 3.0?

Many deep changes lead me to step frenchb's version number to 3.0a:

- babel 3.9 is required now to process frenchb.ldf, this change allows for cleaner definitions of dates and captions for the Unicode engines LuaTeX and XeTeX and also provides a simpler syntax for end-users, see section 1.2.2 p.8.
- \frenchbsetup{} options management has been completely reworked; two new options added.
- Canadian French didn't work as a normal babel's dialect, it should now; btw. the French language should now be loaded as french, *not* as frenchb or francais and preferably as a *global* option of \documentclass. Some tolerance still exists in v3.0, but do not rely on it.
- frenchb no longer loads frenchb.cfg: customisation should definitely be done using \frenchbsetup{} options.
- Description lists labels are now indented; set \listindentFB=0pt to get the former layout.
- The last but not least change affects the (recent) LuaTeX-based engines, (this means version 0.76 as included in TL2013 and up): active characters are no longer used in French for 'high punctuation'. Functionalities and user interface are unchanged.

Many thanks to Paul Isambert who provided the basis for the lua code (see his presentation at GUT'2010) and kindly reviewed my first drafts suggesting significant improvements.

Please note that this code, still experimental, is likely to change until LuaTeX itself has reached version 1.0.

Starting with version 3.0c, frenchb no longer customises lists with the beamer class and offers a new option ([INGuillSpace](#)) to follow French 'Imprimerie Nationale' recommendations regarding quotes' spacing.

### **What's new in version 2.6?**

The way frenchb handles list environments has been completely redesigned in version 2.6 due to a long standing bug affecting enumerate lists inside itemize lists. Horizontal indentation of itemize, enumerate and description lists differs now from previous versions, an option for backward compatibility is provided: \frenchbsetup{[ListOldLayout](#)}.

frenchb is now compatible with the paralist package.

Regarding the layout of figures' and tables' captions, version 2.6c is now fully compatible with AMS and koma-script classes and with caption and floatrow packages. Starting with version 2.6c, the frenchb.cfg file is no longer generated from frenchb.dtx, but it is still loaded (if found) for backward compatibility.

### **What's new in version 2.5?**

The main change is that active characters are no longer used in French with (recent) XeTeX-based engines (they still are with TeX-based engines). All the

functionalities (automatic insertion of missing spaces before : ; !? or bare replacement of typed spaces with suitable unbreable ones, tuning of the spaces width) remain available and the user interface is unchanged. The use of active characters is replaced by the \XeTeXinterchartoks mechanism (adapted from the polyglossia package).

A new command \NoAutoSpacing has been added. It should be used *inside a group* instead of \shorthandoff{;:!?} whenever active characters or automatic spacing of French punctuation or quote characters conflict with other packages; it is designed to work with TeX-, LuaTeX- and XeTeX-based engines.

Bug corrections: \frenchspacing and \nonfrenchspacing are no longer messed up by frenchb.ldf.

### **What's new in version 2.4?**

A new option `SuppressWarning` has been added (desactivated by default) to suppress warnings if \@makecaption has been redefined or if the bigfoot package is in use.

French hyphenation patterns are now coded in Unicode, see file `hyph-fr.tex`. Extra code has been added to deal with hyphenation of the French “apostrophe” with XeTeX and LuaTeX engines.

Better compatibility with the enumitem package.

When typewriter fonts are in use (hence in verbatim mode) no space is added after ‘‘ and before ‘’ when they are entered as characters (see \frenchbsetup{}).

### **What's new in version 2.3?**

Starting with version 2.3a, frenchb no longer inserts spaces automatically before ‘: ; !?’ when a typewriter font is in use; this was suggested by Yannis Haralambous to prevent spurious spaces in computer source code or expressions like C:/foo, http://foo.bar, etc. An option (`OriginalTypewriter`) is provided to get back to the former behaviour of frenchb.

Another probably invisible change: lowercase conversion in \up{} is now achieved by the `\LaTeX` command \MakeLowercase instead of `\TeX`'s \lowercase command. This prevents error messages when diacritics are used inside \up{} (diacritics should *never* be used in superscripts though!).

### **What's new in version 2.2?**

Starting with version 2.2a, frenchb alters the layout of lists, footnotes, and the indentation of first paragraphs of sections) *only if* French is the “main language” (i.e. babel’s last language option). The layout is global for the whole document: lists, etc. look the same in French and in other languages, everything is typeset “à la française” if French is the “main language”, otherwise frenchb doesn’t change anything regarding lists, footnotes, and indentation of paragraphs.

### **What's new in version 2.1?**

A new command \fup is provided to typeset better looking superscripts; it was designed using ideas from Jacques André, Thierry Bouche and René Fritz,

thanks to all of them! Former command `\up` is now defined as `\fup`, an option `FrenchSuperscripts=false` is provided for backward compatibility.

## What's new in version 2.0?

Here is the list of all changes:

- Support for  $\text{\LaTeX}$ -2.09 and for  $\text{\LaTeX}_2\epsilon$  in compatibility mode has been dropped. This version is meant for  $\text{\LaTeX}_2\epsilon$  and Plain based formats (like `bplain`).  $\text{\LaTeX}_2\epsilon$  formats based on `mLTEx` are no longer supported either (plenty of good 8-bits fonts are available now, so T1 encoding should be preferred for typesetting in French). A warning is issued when OT1 encoding is in use at the `\begin{document}`.
- Customisation should now be handled only by command `\frenchbsetup{}`, `frenchb.cfg` (kept for compatibility) should no longer be used. See section 1.2 for the list of available options.
- Captions in figures and tables have changed in French: former abbreviations “Fig.” and “Tab.” have been replaced by full names “Figure” and “Table”. If this leads to formatting problems in captions, you can add the following two commands to your preamble (after loading `babel`) to get the former captions  
`\addto\captionsfrench{\def\figurename{{\scshape Fig.}}}`  
`\addto\captionsfrench{\def\tablename{{\scshape Tab.}}}`.
- The `\nombre` command is now provided by the `numprint` package which has to be loaded *after* `babel` with the option `autolanguage` if number formatting should depend on the current language.
- The `\bsc` command no longer uses an `\hbox` to stop hyphenation of names but a `\kern0pt` instead. This change enables `microtype` to fine tune the length of the argument of `\bsc`; as a side-effect, compound names like Dupont-Durand can now be hyphenated on explicit hyphens. You can get back to the former behaviour of `\bsc` by adding  
`\renewcommand*{\bsc}[1]{\leavevmode\hbox{\scshape #1}}` to the preamble of your document.
- Footnotes are now displayed “à la française” for the whole document, except with an explicit  
`\frenchbsetup{AutoSpaceFootnotes=false, FrenchFootnotes=false}`. Add this command if you want standard footnotes. It is still possible to revert locally to the standard layout of footnotes by adding `\StandardFootnotes` (inside a `minipage` environment for instance).

## 2 The code

### 2.1 Initial setup

If `frenchb.lfd` was loaded with `babel`'s options `francais` or `frenchb`, we make it behave as if `french` was specified. In Plain formats, `@` catcode is not 'letter'.

```
1 \chardef\atcatcode=\catcode`\@
2 \catcode`\@=11\relax
3 \def\bbl@tempa{francais}
4 \ifx\CurrentOption\bbl@tempa
5   \let\l@francais\l@french
6   \def\captionsfrancais{\captionsfrench}
7   \def\datefrancais{\datefrench}
8   \def\extrasfrancais{\extrasfrench}
9   \def\noextrasfrancais{\noextrasfrench}
10  \def\CurrentOption{french}
11 \fi
12 \def\bbl@tempa{frenchb}
13 \ifx\CurrentOption\bbl@tempa
14   \let\l@frenchb\l@french
15   \def\captionsfrenchb{\captionsfrench}
16   \def\datefrenchb{\datefrench}
17   \def\extrasfrenchb{\extrasfrench}
18   \def\noextrasfrenchb{\noextrasfrench}
19   \def\CurrentOption{french}
20 \fi
21 \catcode`\@=\atcatcode \let\atcatcode\relax
```

The macro `\LdfInit` takes care of preventing that this file is loaded more than once, checking the category code of the `@` sign, etc.

```
22 \LdfInit\CurrentOption\captionsfrench
```

Make sure that `\l@french` is defined (possibly as 0). `babel.def` now (3.9i) defines `\l@<languagename>` also for eTeX, LuaTeX and XeTeX formats which set `\lang@<languagename>`.

```
23 \def\FB@nopatterns{%
24   \ifx\l@nohyphenation@undefined
25     \edef\bbl@nulllanguage{\string\language=0}%
26     \adddialect\l@french0
27   \else
28     \adddialect\l@french\l@nohyphenation
29     \edef\bbl@nulllanguage{\string\language=nohyphenation}%
30   \fi
31   \nopatterns{French}}
32 \ifx\l@french@undefined
33   \FB@nopatterns
34 \fi
```

**\ifLaTeXe** No support is provided for late L<sup>A</sup>T<sub>E</sub>X-2.09: issue a warning and exit if L<sup>A</sup>T<sub>E</sub>X-2.09 is in use. Plain is still supported.

```

35 \newif\ifLaTeXe
36 \let\bb@tempa\relax
37 \ifx\magnification@\undefined
38   \ifx\@compatibilitytrue@\undefined
39     \PackageError{frenchb.ldf}
40       {LaTeX-2.09 format is no longer supported.\MessageBreak
41         Aborting here}
42       {Please upgrade to LaTeX2e!}
43     \let\bb@tempa\endinput
44   \else
45     \LaTeXetru
46   \fi
47 \fi
48 \bb@tempa

```

Let's provide a substitute for \PackageError, \PackageWarning and \PackageInfo not defined in Plain:

```

49 \def\fb@error#1#2{%
50   \begingroup
51     \newlinechar='^J
52     \def\\{^J(frenchb.ldf) }%
53     \errhelp{#2}\errmessage{\#1}%
54   \endgroup
55 \def\fb@warning#1{%
56   \begingroup
57     \newlinechar='^J
58     \def\\{^J(frenchb.ldf) }%
59     \message{\#1}%
60   \endgroup
61 \def\fb@info#1{%
62   \begingroup
63     \newlinechar='^J
64     \def\\{^J}%
65     \wlog{\#1}%
66   \endgroup
67 \let\bb@tempa\relax
68 \ifx\babeltags@\undefined
69   \let\bb@tempa\endinput
70   \ifLaTeXe
71     \PackageError{frenchb.ldf}
72       {frenchb requires babel v.3.9i.\MessageBreak
73         Aborting here}
74       {Please upgrade Babel!}
75   \else
76     \fb@error{frenchb requires babel v.3.9i.\\
77               Aborting here}
78               {Please upgrade Babel!}
79   \fi
80 \fi

```

```

81 \bbl@tempa
frenchb.ldf can be loaded with options canadien or acadian, which both stand
for Canadian French. Internally, acadian will be the name of the corresponding
babel's dialect, so we set \CurrentOption to acadian in both cases. If no specific
hyphenation patterns are available, Canadian French will use the French ones.
TODO: Canadian French hyphenation doesn't work with LuaTeX.

82 \ifx\l@acadian\@undefined
83   \ifx\l@canadien\@undefined
84     \addialect\l@acadian\l@french
85     \addialect\l@canadien\l@french
86   \else
87     \addialect\l@acadian\l@canadien
88   \fi
89 \else
90   \addialect\l@canadien\l@acadian
91 \fi
92 \def\bbl@tempa{canadien}
93 \ifx\CurrentOption\bbl@tempa
94   \def\captionscanadien{\captionsacadian}
95   \def\datecanadien{\dateacadian}
96   \def\extrascanadien{\extrasacadian}
97   \def\noextrascanadien{\extrasacadian}
98   \def\CurrentOption{acadian}
99 \fi
French uses the standard values of \lefthyphenmin (2) and \righthyphenmin (3);
let's provide their values though, as required by babel.

100 \expandafter\providehyphenmins\expandafter{\CurrentOption}{\tw@\thr@@}

```

**\iffBunicode** French hyphenation patterns are now coded in Unicode, see file `hyph-fr.tex`. XeTeX  
**\ifFBLuaTeX** and LuaTeX engines require some extra code to deal with the French “apostrophe”.  
**\ifFBXeTeX** Let's define three new ‘if’: `\ifFBLuaTeX`, `\ifFBXeTeX` and `\iffBunicode` which will  
be true for XeTeX and LuaTeX engines and false for 8-bits engines.  
We cannot rely on  $\varepsilon$ -TeX's `\ifdefined` at this stage, as it is not defined in Plain T<sub>E</sub>X  
format.

```

101 \newif\iffBunicode
102 \newif\ifFBLuaTeX
103 \newif\ifFBXeTeX
104 \begingroup\expandafter\expandafter\expandafter\endgroup
105 \expandafter\ifx\csname luatexversion\endcsname\relax
106 \else
107   \FBunicodetrue \FBLuaTeXtrue
108 \fi
109 \begingroup\expandafter\expandafter\expandafter\endgroup
110 \expandafter\ifx\csname XeTeXrevision\endcsname\relax
111 \else
112   \FBunicodetrue \FBXeTeXtrue
113 \fi

```

`\extrasfrench` The macro `\extrasfrench` will perform all the extra definitions needed for the `\noextrasfrench` French language. The macro `\noextrasfrench` is used to cancel the actions of `\extrasfrench`.

In French, character “apostrophe” is a letter in expressions like l’ambulance (French hyphenation patterns provide entries for this kind of words). This means that the `\lccode` of “apostrophe” has to be non null in French for proper hyphenation of those expressions, and has to be reset to null when exiting French.

The following code ensures correct hyphenation of words like d’aventure, l’utopie, with all TeX engines (XeTeX, LuaTeX, pdfTeX) using `hyph-fr.tex` patterns.

```

114 \@namedef{extras\CurrentOption}{%
115     \babel@savevariable{\lccode'`}%
116     \ifFBunicode
117         \babel@savevariable{\lccode"2019}%
118         \lccode`'=2019\lccode"2019=2019
119     \else
120         \lccode`'=`
121     \fi
122 }
123 \@namedef{noextras\CurrentOption}{}

```

Let’s define a handy command for adding stuff to `\extras\CurrentOption`, `\noextras\CurrentOption` or `\captions\CurrentOption` but first let’s save the value of `\CurrentOption` for later use in `\frenchbsetup{}` (‘`AfterEndOfPackage`’, `\CurrentOption` will be lost).

```

124 \let\FB@CurOpt\CurrentOption
125 \newcommand*\FB@addto[2]{%
126     \expandafter\addto\csname #1\FB@CurOpt\endcsname{#2}}

```

One more thing `\extrasfrench` needs to do is to make sure that “Frenchspacing” is in effect. `\noextrasfrench` will switch “Frenchspacing” off again if necessary.

```

127 \FB@addto{extras}{\bbl@frenchspacing}
128 \FB@addto{noextras}{\bbl@nonfrenchspacing}

```

## 2.2 Punctuation

As long as no better solution is available, the ‘high punctuation’ characters ( ; ! ? and : ) have to be made `\active` for an automatic control of the amount of space to be inserted before them. Both XeTeX and LuaTeX provide an alternative to active characters (‘XeTeXinterchar’ mechanism and LuaTeX’s callbacks).

With LuaTeX and XeTeX engines, `frenchb` handles French quotes together with ‘high punctuation’, a new conditional will be needed:

```
129 \newif\ifFBAutoSpaceGuill \FBAutoSpaceGuilltrue
```

`\ifFB@active@punct` Three internal flags are needed for the three different techniques used for ‘high punctuation’ management.

`\ifFB@xetex@punct` With LuaTeX, starting with version 0.76, callbacks are used to get rid of active punctuation. With previous versions, ‘high punctuation’ characters remain active (see below).

```

130 \newif\iffB@active@punct \FB@active@puncttrue
131 \newif\iffB@luatex@punct
132 \iffBLuaTeX
133   \ifnum\luatexversion>75
134     \FB@luatex@puncttrue\FB@active@punctfalse
135   \fi
136 \fi

```

For XeTeX, the availability of \XeTeXinterchartokenstate decides whether the ‘high punctuation’ characters (; ! ? and :) have to be made \active or not.

```

137 \newif\iffB@xetex@punct
138 \begingroup\expandafter\expandafter\expandafter\endgroup
139 \expandafter\ifx\csname XeTeXinterchartokenstate\endcsname\relax
140 \else
141   \FB@xetex@puncttrue\FB@active@punctfalse
142 \fi

```

\FBcolonspace According to the I.N. specifications, the ‘:’ requires an inter-word space before it, the \FBthinspace other three require just a \thinspace. We define \FBcolonspace as \space (inter-\FBcolonskip word space) and \FBthinspace as \thinspace (both are user customisable). LuaTeX \FBthinspacekip requires skips instead of commands, so we define \FBcolonskip and \FBthinspacekip to hold the specifications (width/stretch/shrink) of \space and \thinspace for the lmr10 font; these parameters will be scaled for the current font by the frenchb.lua script (see how p. 19). \FBcolonskip and \FBthinspacekip are also user customisable.

```

143 \newcommand*\{\FBcolonspace}{\space}
144 \newcommand*\{\FBthinspace}{\hskip .16667em \relax}
145 \newskip\FBcolonskip
146 \FBcolonskip=3.33pt plus 1.665pt minus 1.11pt \relax
147 \newskip\FBthinspacekip
148 \FBthinspacekip=1.66672pt \relax

```

### 2.2.1 Punctuation with LuaTeX

The following part holds specific code for punctuation with modern LuaTeX engines (version  $\geq 0.76$ ).

We define two LuaTeX attributes to control spacing in French for ‘high punctuation’ and quotes, making sure that \newluatexattribute is defined.

```

149 \iffB@luatex@punct
150   \ifLaTeXe
151     \AtEndOfPackage{%
152       \RequirePackage{luatexbase}%
153       \newluatexattribute\FB@addDPSpace \FB@addDPSpace=1 \relax
154       \newluatexattribute\FB@addGUILSpace \FB@addGUILSpace=0 \relax
155     }
156     \PackageInfo{frenchb.ldf}{No need for active punctuation characters%
157                           \MessageBreak with this version of LuaTeX!%
158                           \MessageBreak reported}
159   \else
160     \begingroup\expandafter\expandafter\expandafter\endgroup
161     \expandafter\ifx\csname newluatexattribute\endcsname\relax

```

```

162      \input luatexbase.sty
163      \fi
164      \newluatexattribute{FB@addDPSpace} \FB@addDPSpace=1 \relax
165      \newluatexattribute{FB@addGUILspace} \FB@addGUILspace=0 \relax
166      \fb@info{No need for active punctuation characters\\
167          with this version of LuaTeX!}
168  \fi
169 \fi

```

frenchb.lua holds Lua code to deal with ‘high punctuation’ and quotes. This code is based on suggestions from Paul Isambert.

First we define two flags to control spacing before French ‘high punctuation’ (thin space or inter-word space).

```

170 local FB_punct_thin =
171   {[string.byte("!")] = true,
172   [string.byte("?")] = true,
173   [string.byte(";")] = true}
174 local FB_punct_thick =
175   {[string.byte(":")] = true}

```

Managing spacing after ‘«’ (U+00AB) and before ‘»’ (U+00BB) can be done by the way; we define two flags, FB\_punct\_left for characters requiring some space before them and FB\_punct\_right for ‘«’ which must be followed by some space. In case LuaTeX is used to output T1-encoded fonts instead of OpenType fonts, codes 0x13 and 0x14 have to be added for ‘«’ and ‘»’.

```

176 local FB_punct_left =
177   {[string.byte("!")] = true,
178   [string.byte("?")] = true,
179   [string.byte(";")] = true,
180   [string.byte(":")] = true,
181   [0x14]           = true,
182   [0xBB]           = true}
183 local FB_punct_right =
184   {[0x13]           = true,
185   [0xAB]           = true}

```

Two more flags will be needed to avoid spurious spaces in strings like !! ?? or (?)

```

186 local FB_punct_null =
187   {[string.byte("!")] = true,
188   [string.byte("?")] = true,
189   [string.byte("[")] = true,
190   [string.byte("(")] = true,

```

or if the user has typed a nobreak space U+00A0 or a nobreak thin space U+202F before a ‘high punctuation’ character: no space should be added by frenchb. Same is true inside French quotes.

```

191   [0xA0]           = true,
192   [0x202F]          = true}
193 local FB_guil_null =
194   {[0xA0]           = true,
195   [0x202F]          = true}

```

Local definitions for nodes:

```
196 local new_node      = node.new
197 local copy_node     = node.copy
198 local node_id       = node.id
199 local KERN          = node_id("kern")
200 local GLUE          = node_id("glue")
201 local GSPEC          = node_id("glue_spec")
202 local GLYPH          = node_id("glyph")
203 local PENALTY        = node_id("penalty")
204 local nobreak        = new_node(PENALTY)
205 nobreak.penalty     = 10000
206 local insert_node_before = node.insert_before
207 local insert_node_after  = node.insert_after
208 local remove_node    = node.remove
```

Some variables to store \FBthinspace, \FBcolonskip and \FBguillskip (given for lmr10); width/stretch/shrink are stored as fractions of \fontdimen2, \fontdimen3 and \fontdimen4 of lmr10 font respectively...

```
209 local thin10 = tex.skip['FBthinspace']
210 local thinwd = thin10.width/65536/3.33
211 local thinst = thin10.stretch/65536/1.665
212 local thinsh = thin10.shrink/655.36/1.11
213 local coln10 = tex.skip['FBcolonskip']
214 local colnwd = coln10.width/65536/3.33
215 local colnst = coln10.stretch/65536/1.665
216 local colnsh = coln10.shrink/65536/1.11
217 local guil10 = tex.skip['FBguillskip']
218 local guilwd = guil10.width/65536/3.33
219 local guilst = guil10.stretch/65536/1.665
220 local guilsh = guil10.shrink/65536/1.11
```

and a function to scale them for the current font (beware of null values for fid, see \nullfont in TikZ):

```
221 local font_table = {}
222 local function new_glue_scaled (fid,width/stretch/shrink)
223   if fid > 0 then
224     local fp = font_table[fid]
225     if not fp then
226       font_table[fid] = font.getfont(fid).parameters
227       fp = font_table[fid]
228     end
229     local gl = new_node(GLUE,0)
230     local gl_spec = new_node(GSPEC)
231     gl_spec.width = width * fp.space
232     gl_spec.stretch = stretch * fp.space_stretch
233     gl_spec.shrink = shrink * fp.space_shrink
234     gl.spec = gl_spec
235     return gl
236   else
237     return nil
238   end
```

```
239 end
```

Let's catch LuaTeX attributes `\FB@addDPspace` and `\FB@addGUILspace`. Constant `FR=lang.id(french)` will be defined by command `\activate@luatexpunct`.

```
240 local addDPspace = luatexbase.attributes['FB@addDPspace']
241 local addGUILspace = luatexbase.attributes['FB@addGUILspace']
242 local has_attribute = node.has_attribute
```

The following function will be added to `pre_linebreak_filter` and `hpack_filter` callbacks. It catches all nodes of type `GLYPH` in the list starting at `head` and checks the language attributes of the current glyph: nothing is done if the current language is not French and only specific punctuation characters (those for which `FB_punct_left` or `FB_punct_right` is true) need a special treatment. In French, local variables are defined to hold the properties of the current glyph (`item`) and of the previous one (`prev`) or the next one (`next`).

```
243 local function french_punctuation (head)
244   for item in node.traverse_id(GLYPH, head) do
245     local lang = item.lang
246     local char = item.char
247     local fid = item.font
248     local SIG = has_attribute(item, addGUILspace)
249     if lang == FR and FB_punct_left[char] and fid > 0 then
250       local prev = item.prev
251       local prev_id, prev_subtype, prev_char
252       if prev then
253         prev_id = prev.id
254         prev_subtype = prev.subtype
255         if prev_id == GLYPH then
256           prev_char = prev.char
257         end
258       end
```

If the previous item is a glue, check its natural width, only positive glues (actually `glues > 1 sp`, for tabular "l" columns) are to be replaced by a `nobreakspace`.

```
259     local glue = prev_id == GLUE and prev_subtype == 0
260     local glue_wd
261     if glue then
262       glue_spec = prev.spec
263       glue_wd = glue_spec.width
264     end
265     local realglue = glue and glue_wd > 1
```

For characters for which `FB_punct_thin` or `FB_punct_thick` is *true*, the amount of spacing to be typeset before them is controlled by `\FBthinspace` (`thinwd`, `thinst`, `thinsh`) or `\FBcolonskip` (`colnwd`, `colnst`, `colnsh`) respectively. Two options: if a space has been typed in before (turned to `glue` in the node list), we remove the `glue` and add a `nobreak` penalty and the required `glue`. Otherwise (auto option), the penalty and the required `glue` are inserted if attribute `\FB@addDPspace` is set, unless one of these three condition is met: a) the previous character is part of type `FB_punct_null` (this avoids spurious spaces in strings like `( ! )` or `??`), b) a null glue

(actually glues  $\leq 1$  sp for tabulars) precedes the punctuation character, c) the punctuation character starts a paragraph.

```

266      if FB_punct_thin[char] or FB_punct_thick[char] then
267          local SBDP = has_attribute(item, addDPSpace)
268          local auto = SBDP and SBDP > 0
269          if auto then
270              if (prev_char and FB_punct_null[prev_char]) or
271                  (glue and glue_wd <= 1) or
272                  (prev_id == 0 and prev_subtype == 3) then
273                  auto = false
274          end
275      end
276      local fbglue
277      if FB_punct_thick[char] then
278          fbglue = new_glue_scaled(fid,colwd,colnst,colnsh)
279      else
280          fbglue = new_glue_scaled(fid,thinwd,thinst,thinsh)
281      end
282      if realglue or auto then
283          if realglue then
284              head = remove_node(head,prev,true)
285          end
286          insert_node_before(head, item, copy_node(nobreak))
287          insert_node_before(head, item, copy_node(fbglue))
288      end

```

Let's consider '»' now (the only remaining glyph of FB\_punct\_left class): we just have to remove any *glue* possibly preceding '», then insert the nobreak penalty and the proper *glue* (controlled by \FBguillskip). This is done only if French quotes have been 'activated' by options `og=<`, `fg=>` in \frenchbsetup{} and can be denied locally with \NoAutoSpacing (this is controlled by the SIG flag).

```

289      elseif SIG and SIG > 0 then
290          local addgl = (prev_char and not FB_guil_null[prev_char]) or
291                  (not prev_char)
292          if glue or addgl then
293              if glue then
294                  head = remove_node(head,prev,true)
295              end
296              local fbglue = new_glue_scaled(fid,guilwd,guilst,guilsh)
297              insert_node_before(head, item, copy_node(nobreak))
298              insert_node_before(head, item, copy_node(fbglue))
299          end
300      end
301  end

```

Similarly, for '<' (unique member of the FB\_punct\_right class), we check the following node looking for *glue* or FB\_guil\_null character, in order to remove any *glue* possibly following it and to insert the proper *glue* and nobreak penalty in this order if necessary.

```
302      if lang == FR and FB_punct_right[char] and fid > 0
```

```

303                                     and SIG and SIG > 0 then
304     local next = item.next
305     local next_id, next_subtype, next_char, kern_wd, nextnext
306     if next then
307         next_id = next.id
308         next_subtype = next.subtype
309         if next_id == GLYPH then
310             next_char = next.char

A kern0 might hide a glue, so look ahead if next is a kern (this occurs with
« \texttt{\{a\}} »):
311         elseif next_id == KERN then
312             kern_wd = next.kern
313             if kern_wd == 0 then
314                 nextnext = next.next
315                 if nextnext then
316                     next = nextnext
317                     next_id = nextnext.id
318                     next_subtype = nextnext.subtype
319                     next_char = nextnext.char
320                 end
321             end
322         end
323     end
324     local glue = next_id == GLUE and next_subtype == 0
325     if glue then
326         glue_spec = next.spec
327         glue_wd = glue_spec.width
328     end
329     glue = glue and glue_wd > 0
330     local addgl = (next_char and not FB_guil_null[next_char]) or
331         (not next_char)
332     if glue or addgl then
333         if glue then
334             head = remove_node(head,next,true)
335         end
336         local fid = item.font
337         local fbglue = new_glue_scaled(fid,guilwd,guilst,guilsh)
338         insert_node_after(head, item, copy_node(fbglue))
339         insert_node_after(head, item, copy_node(nobreak))
340     end
341   end
342 end
343 return head
344 end
345 return french_punctuation

```

As a language tag is part of glyph nodes in LuaTeX, nothing needs to be added to \extrasfrench and \noextrasfrench; we will just redefine \shorthandoff and \shorthandon in French to issue a warning reminding the user that active characters are no longer used in French with recent LuaTeX engines.

```
346 \iffB@luatex@punct
```

```

347 \newcommand*{\FB@luatex@punct@french}{%
348   \ifx\shorthandoff@RI\@undefined
349     \let\shorthandon@RI\shorthandon
350     \let\shorthandoff@RI\shorthandoff
351   \fi
352   \def\shorthandoff##1{%
353     \ifx\PackageWarning@\undefined
354       \fb@warning{\noexpand\shorthandoff{;!:?} is helpless with
355         LaTeX,\` use \noexpand\NoAutoSpacing
356         *inside a group* instead.}%
357     \else
358       \PackageWarning{frenchb.ldf}{\protect\shorthandoff{;!:?} is
359         helpless with LaTeX,\MessageBreak use \protect\NoAutoSpacing
360         \space *inside a group* instead;\MessageBreak reported}%
361     \fi}%
362   \def\shorthandon##1{}%
363 }
364 \newcommand*{\FB@luatex@punct@nonfrench}{%
365   \ifx\shorthandoff@RI\@undefined
366   \else
367     \let\shorthandon\shorthandon@RI
368     \let\shorthandoff\shorthandoff@RI
369   \fi
370 }
371 \FB@addto{extras}{\FB@luatex@punct@french}
372 \FB@addto{noextras}{\FB@luatex@punct@nonfrench}

```

In  $\text{\LaTeX} 2\varepsilon$ , file frenchb.lua will be loaded ‘AtBeginDocument’ after processing options ([ThinColonSpace](#) needs to be taken into account). The next definition will be used to activate Lua punctuation: it sets the language number for French, loads frenchb.lua and adds function french\_punctuation to both callbacks pre\_linebreak\_filter (paragraph building) and hpack\_filter (\hbox building).

```

373 \def\activate@luatexpunct{%
374   \directlua{%
375     FR = \the\l@french
376     local path = kpse.find_file("frenchb.lua", "lua")
377     if path then
378       local f = dofile(path)
379       luatexbase.add_to_callback("pre_linebreak_filter",
380         f, "frenchb.french_punctuation",1)
381       luatexbase.add_to_callback("hpack_filter",
382         f, "frenchb.french_punctuation",1)
383     else
384       texio.write_nl('')
385       texio.write_nl('*****')
386       texio.write_nl('Error: frenchb.lua not found.')
387       texio.write_nl('*****')
388       texio.write_nl('')
389     end
390   }%
391 }

```

```

392 \fi
End of specific code for punctuation with LuaTeX engines.

```

### 2.2.2 Punctuation with XeTeX

If `\XeTeXinterchartokenstate` is available, we use the “inter char” mechanism to provide correct spacing in French before the four characters ; ! ? and :. The basis of the following code was borrowed from the `polyglossia` package, see `gloss-french. ldf`. We use the same mechanism for French quotes (« and »), when automatic spacing for quotes is required by options `og=` and `fg=` in `\frenchbsetup{}` (see section 2.10).

For every character used in French text-mode (except spaces), `\XeTeXcharclass` value must be 0. `\XeTeXcharclass` value for spaces is assumed to be 255. Otherwise, the spacing before the ‘high punctuation’ characters and inside quotes might not be correct.

We switch `\XeTeXinterchartokenstate` to 1 and change the `\XeTeXcharclass` values of ; ! ? : ( ] « and » when entering French. Special care is taken to restore them to their initial values when leaving French.

The following part holds specific code for punctuation with XeTeX engines.

```

393 \newcount\FB@interchartokenstate0RI
394 \ifFB@xetex@punct
395   \ifLaTeXe
396     \PackageInfo{frenchb. ldf}{No need for active punctuation characters%
397                               \MessageBreak with this version of XeTeX!%
398                               \MessageBreak reported}
399   \else
400     \fb@info{No need for active punctuation characters\\
401               with this version of XeTeX!}
402   \fi

```

The following code is borrowed from `ltcntrl.dtx` (LaTeX base) for loops (`\@for` undefined in Plain):

```

403   \ifx\@for\@undefined
404     \def\@nnil{\@nil}%
405     \def\@empty{}%
406     \def\@foroop#1\@@#2#3{}%
407     \long\def\@for#1:=#2\do#3{%
408       \expandafter\def\expandafter\@fortmp\expandafter{#2}%
409       \ifx\@fortmp\@empty \else
410         \expandafter\@forloop#2,\@nil,\@nil\@@#1{#3}\fi}%
411     \long\def\@forloop#1,#2,#3\@@#4#5{\def#4{#1}\ifx #4\@nnil \else
412       #5\def#4{#2}\ifx #4\@nnil \else\#5\@iforloop #3\@@#4{#5}\fi\fi}%
413     \long\def\@iforloop#1,#2\@@#3#4{\def#3{#1}\ifx #3\@nnil
414       \expandafter\@foroop \else
415         #4\relax\expandafter\@iforloop\fi#2\@@#3{#4}}%
416     \def\@tfor#1:={\@tf@r#1 }%
417     \long\def\@tf@r#1\#2\do#3{\def\@fortmp{#2}\ifx\@fortmp\space\else
418       \@tforloop#2\@nil\@nil\@@#1{#3}\fi}%
419     \long\def\@tforloop#1\#2\@@#3#4{\def#3{#1}\ifx #3\@nnil

```

```

420           \expandafter\@for\noop \else
421             #4\relax\expandafter\@tfor\loop\fi#2@@#3{#4}%
422       \fi

```

Six new character classes are defined for frenchb.

```

423   \newXeTeXintercharclass\FB@punctthick
424   \newXeTeXintercharclass\FB@punctthin
425   \newXeTeXintercharclass\FB@punctnul
426   \newXeTeXintercharclass\FB@guilo
427   \newXeTeXintercharclass\FB@guilf
428   \newXeTeXintercharclass\FB@guilnul

```

We define a command to store the \XeTeXcharclass values which will be modified for French (as a comma separated list) and a command to retrieve them.

```

429   \def\FB@charclasses0RI{}
430   \def\empty(){}
431   \def\FB@parse#1,#2\endparse{\def\FB@class{#1}%
432     \def\FB@charclasses0RI{#2}%

```

**\FB@xetex@punct@french** The following command will be executed when entering French, it first saves the values to be modified, then fits them to our needs. It also redefines \shorthandoff and \shorthandon (locally) to avoid error messages with XeTeX-based engines.

```
433   \newcommand*\FB@xetex@punct@french{%
```

Saving must not be repeated if saved values are already in.

```

434   \ifx\FB@charclasses0RI\empty
435     \FB@interchartokenstate0RI=\XeTeXinterchartokenstate
436     @for\FB@char:={':,';,'!',,'?',,"AB,"BB,%
437       '\(,'\[,'{,'},,'.,,'-,,''),,'],,'}\%,%
438       '\%,,"22,"27,"60,"2019,"A0,"202F}\do
439     {\edef\FB@charclasses0RI{\FB@charclasses0RI%
440       \the\XeTeXcharclass\FB@char,}}%
441     \let\shorthandon0RI\shorthandon
442     \let\shorthandoff0RI\shorthandoff
443   \fi

```

Set the classes and interactions between classes.

```

444   \XeTeXinterchartokenstate=1
445   \XeTeXcharclass '=: =\FB@punctthick
446   \XeTeXinterchartoks \z@\FB@punctthick = {%
447     \ifhmode\FDP@colonspace\fi}%
448   \XeTeXinterchartoks \FB@guilf \FB@punctthick = {%
449     \FDP@colonspace}%
450   \XeTeXinterchartoks 255 \FB@punctthick = {%
451     \ifhmode\unskip\penalty@M\FB@colonspace\fi}%
452   @for\FB@char:={':,';,'!',,'?'}\do
453     {\XeTeXcharclass\FB@char=\FB@punctthin}%
454   \XeTeXinterchartoks \z@\FB@punctthin = {%
455     \ifhmode\FDP@thinspace\fi}%
456   \XeTeXinterchartoks \FB@guilf \FB@punctthin = {%
457     \FDP@thinspace}%
458   \XeTeXinterchartoks 255 \FB@punctthin = {%

```

```

459           \ifhmode\unskip\penalty@\M\FBthinspace\fi}%
460           \XeTeXinterchartoks \FB@guilo \z@ = {%
461               \iffBAutoSpaceGuill\FBguillspace\fi}%
462           \XeTeXinterchartoks \FB@guilo 255 = {%
463               \iffBAutoSpaceGuill\FBguillspace\ignorespaces\fi}%
464           \XeTeXinterchartoks \z@ \FB@guilf = {%
465               \iffBAutoSpaceGuill\FBguillspace\fi}%
466           \XeTeXinterchartoks \FB@punctthin \FB@guilf = {%
467               \iffBAutoSpaceGuill\FBguillspace\fi}%
468           \XeTeXinterchartoks 255 \FB@guilf = {%
469               \iffBAutoSpaceGuill\unskip\FBguillspace\fi}%

```

This will avoid spurious spaces in (!), [?] and with Unicode nobreakspaces (U+00A0, U+202F):

```

470     \@for\FB@char:={'\[,'\\,,"A0,"202F}\do
471         {\XeTeXcharclass\FB@char=\FB@punctnul}%

```

These characters have their class changed by xCJK.sty, let's reset them to 0 in French.

```

472     \@for\FB@char:={'\{,'\\,,'\.,,'\\-,,'\\),,'\\],,'\\},,'\\%,%
473             "22,"27,"60,"2019}\do
474         {\XeTeXcharclass\FB@char=\z@}%

```

With Xe(La)TeX, French defines no active shorthands.

```

475     \def\shorthandoff##1{%
476         \ifx\PackageWarning\@undefined
477             \fb@warning{\noexpand\shorthandoff{;:!?} is helpless with
478                 XeTeX,\`{ } use \noexpand\NoAutoSpacing
479                 *inside a group* instead.}%
480         \else
481             \PackageWarning{frenchb.lfd}{\protect\shorthandoff{;:!?} is
482                 helpless with XeTeX,\MessageBreak use \protect\NoAutoSpacing
483                 \space *inside a group* instead;\MessageBreak reported}%
484         \fi}%
485     \def\shorthandon##1{%
486 }

```

**\FB@xetex@punct@nonfrench** The following command will be executed when leaving French for restoring classes and commands modified in French. When French is not the main language, \noextrasfrench is executed 'AtBeginDocument', the test on \FB@charclasses0RI is mandatory.

```

487     \newcommand*\FB@xetex@punct@nonfrench{%
488         \ifx\FB@charclasses0RI\empty
489         \else
490             \@for\FB@char:={'\:,,'\\,,'\\!,,'\\?,,"AB,"BB,%
491                     '\\,,'\\[,,'\\{,'\\,,,'\\.,,'\\-,,'\\),,'\\],,'\\},,'\\%,%
492                     '\\%,,"22,"27,"60,"2019,"A0,"202F}\do
493                 {\expandafter\FB@parse\FB@charclasses0RI\endparse
494                  \XeTeXcharclass\FB@char=\FB@class}%
495         \def\FB@charclasses0RI{}%
496         \XeTeXinterchartokenstate=\FB@interchartokenstate0RI
497         \let\shorthandon\shorthandon0RI

```

```

498      \let\shorthandoff\shorthandoffORI
499      \fi
500  }
501 \FB@addto{extras}{\FB@xetex@punct@french}
502 \FB@addto{noextras}{\FB@xetex@punct@nonfrench}

End of specific code for punctuation with modern XeTeX engines.

503 \fi

```

### 2.2.3 Punctuation with standard (pdf)TeX

In standard (pdf)TeX we need to make the four characters ; ! ? and : ‘active’ and provide their definitions.

```

504 \ifFB@active@punct
505  \initiate@active@char{::}%
506  \initiate@active@char{;:}%
507  \initiate@active@char{!:}%
508  \initiate@active@char{?:}%

```

We first tune the amount of space before ; ! ? and :. This should only happen in horizontal mode, hence the test \ifhmode.

In horizontal mode, if a space has been typed before ‘;’ we remove it and put an unbreakable \FBthinspace instead. If no space has been typed, we add \FDP@thinspace which will be defined, up to the user’s wishes, as \FBthinspace, or as \@empty.

```

509 \declare@shorthand{french}{;}{%
510   \ifhmode
511     \ifdim\lastskip>\z@
512       \unskip\penalty\@M\FBthinspace
513     \else
514       \FDP@thinspace
515     \fi
516   \fi

```

Now we can insert a ; character.

```

517   \string;}

The next three definitions are very similar.

518 \declare@shorthand{french}{!}{%
519   \ifhmode
520     \ifdim\lastskip>\z@
521       \unskip\penalty\@M\FBthinspace
522     \else
523       \FDP@thinspace
524     \fi
525   \fi
526   \string!
527 \declare@shorthand{french}{?}{%
528   \ifhmode
529     \ifdim\lastskip>\z@
530       \unskip\penalty\@M\FBthinspace

```

```

531      \else
532          \FDP@thinspace
533      \fi
534      \fi
535      \string?
536 \declare@shorthand{french}{:}{%
537     \ifhmode
538         \ifdim\lastskip>\z@
539             \unskip\penalty\@M\FBcolonspace
540         \else
541             \FDP@colonspace
542         \fi
543     \fi
544     \string:}

```

When the active characters appear in an environment where their French behaviour is not wanted they should give an ‘expected’ result. Therefore we define shorthands at system level as well.

```

545 \declare@shorthand{system}{:}{\string:}
546 \declare@shorthand{system}{!}{\string!}
547 \declare@shorthand{system}{?}{\string?}
548 \declare@shorthand{system}{;}{\string;}
549 %}

```

We specify that the French group of shorthands should be used when switching to French.

```
550 \FB@addto{extras}{\languageshorthands{french}%

```

These characters are ‘turned on’ once, later their definition may vary. Don’t misunderstand the following code: they keep being active all along the document, even when leaving French.

```

551     \bbl@activate{:}\bbl@activate{;}%
552     \bbl@activate{!}\bbl@activate{?}%
553 }
554 \FB@addto{noextras}{%
555     \bbl@deactivate{:}\bbl@deactivate{;}%
556     \bbl@deactivate{!}\bbl@deactivate{?}%
557 }
558 \fi

```

#### 2.2.4 Punctuation switches common to all engines

A new ‘if’ \iffFBAutoSpacePunctuation needs to be defined now to control the two possible ways of dealing with ‘high punctuation’. its default value is true, but it can be set to false by \frenchbsetup{AutoSpacePunctuation=false} for finer control.

```
559 \newif\iffFBAutoSpacePunctuation \FBAutoSpacePunctuationtrue
```

\AutoSpaceBeforeFDP \autospace@beforeFDP and \noautospace@beforeFDP are internal commands. \NoAutoSpaceBeforeFDP \autospace@beforeFDP defines \FDP@thinspace and \FDP@colonspace as unbreakable spaces and sets LuaTeX attribute \FB@addDPSpace to 1 (true), while \noautospace@beforeFDP lets these spaces empty and sets flag \FB@addDPSpace

to 0 (false). User commands `\AutoSpaceBeforeFDP` and `\NoAutoSpaceBeforeFDP` do the same and take care of the flag `\ifFBAutoSpacePunctuation` in  $\text{\LaTeX}$ . Set the default now for Plain (done later for  $\text{\LaTeX}$ ).

```

560 \def\autospace@beforeFDP{%
561     \ifFB@luatex@punct\FB@addDPSpace=1 \fi
562     \def\FDP@thinspace{\penalty\@M\FBthinspace}%
563     \def\FDP@colonspace{\penalty\@M\FBcolonspace}%
564 \def\noautospace@beforeFDP{%
565     \ifFB@luatex@punct\FB@addDPSpace=0 \fi
566     \let\FDP@thinspace\@empty
567     \let\FDP@colonspace\@empty}
568 \ifLaTeXe
569     \def\AutoSpaceBeforeFDP{\autospace@beforeFDP
570             \FBAutoSpacePunctuationtrue}%
571     \def\NoAutoSpaceBeforeFDP{\noautospace@beforeFDP
572             \FBAutoSpacePunctuationfalse}%
573     \AtEndOfPackage{\AutoSpaceBeforeFDP}
574 \else
575     \let\AutoSpaceBeforeFDP\autospace@beforeFDP
576     \let\NoAutoSpaceBeforeFDP\noautospace@beforeFDP
577     \AutoSpaceBeforeFDP
578 \fi

```

In  $\text{\LaTeX}_2\epsilon$  `\ttfamily` (and hence `\textttt`) will be redefined ‘`AtBeginDocument`’ as `\ttfamilyFB` so that no space is added before the four ; : ! ? characters, even if `AutoSpacePunctuation` is `true`. `\rmfamily` and `\sffamily` need to be redefined also (`\ttfamily` is not always used inside a group, its effect can be cancelled by `\rmfamily` or `\sffamily`).

These redefinitions can be canceled if necessary, for instance to recompile older documents, see option `OriginalTypewriter` below.

To be consistent with what is done for the ; : ! ? characters, `\ttfamilyFB` also switches off insertion of spaces inside French guillemets *when they are typed in as characters* with the ‘og’/‘fg’ options in `\frenchbsetup{}`. This is also a workaround for the weird behaviour of these characters in verbatim mode.

```

579 \ifLaTeXe
580     \DeclareRobustCommand\ttfamilyFB{%
581         \FBAutoSpaceGuillfalse
582         \ifFB@luatex@punct\FB@addGUILspace=0 \fi
583         \noautospace@beforeFDP\ttfamilyORI}%
584     \DeclareRobustCommand\rmfamilyFB{%
585         \FBAutoSpaceGuilltrue
586         \ifFB@luatex@punct\FB@addGUILspace=1 \fi
587         \ifFBAutoSpacePunctuation
588             \autospace@beforeFDP
589         \else
590             \noautospace@beforeFDP
591         \fi
592         \rmfamilyORI}%
593     \DeclareRobustCommand\sffamilyFB{%
594         \FBAutoSpaceGuilltrue

```

```

595      \ifFB@luatex@punct\FB@addGUILspace=1 \fi
596      \ifFB@AutoSpacePunctuation
597          \autospace@beforeFDP
598      \else
599          \noautospace@beforeFDP
600      \fi
601      \sffamilyORI}%
602 \fi

```

**\NoAutoSpacing** The following command will switch off active punctuation characters (if any) and disable automatic spacing for French quote characters. It is engine independent (works for TeX, LuaTeX and XeTeX based engines) and is meant to be used inside a group.

```

603 \newcommand*{\NoAutoSpacing}{\FB@AutoSpaceGuillfalse
604   \ifFB@active@punct\shorthandoff{;!:!?\!}\fi
605   \ifFB@xetex@punct\XeTeXinterchartokenstate=0 \fi
606   \ifFB@luatex@punct\FB@addDPspace=0 \FB@addGUILspace=0 \fi
607 }

```

## 2.3 Commands for French quotation marks

**\og** The top macros for quotation marks will be called \og (“ouvrez guillemets”) and \fg (“fermez guillemets”). Another option for typesetting quotes in French is to use the command \frquote (see below). Dummy definition of \og and \fg just to ensure that these commands are not yet defined. The default definition of \og and \fg will be set later (for English) by \bbl@nonfrenchguillemets.

```

608 \newcommand*{\og}{\emptyset}
609 \newcommand*{\fg}{\emptyset}

```

**\guillemotleft** LATEX users are supposed to use 8-bit output encodings (T1, LY1, ...) to typeset French, **\guillemotright** those who still stick to OT1 should call aeguill or a similar package. In both cases **\textquotedblleft** the commands \guillemotleft and \guillemotright will print the French opening **\textquotedblright** and closing quote characters from the output font. For XeLaTeX and LuaLaTeX, \guillemotleft and \guillemotright are defined by package xunicode loaded by fontspec.

We provide the following definitions for non-LaTeX users only as fall-back, they are welcome to change them for anything better.

```

610 \ifLaTeXe
611 \else
612   \ifFBunicode
613     \def\guillemotleft{{\char"00AB}}
614     \def\guillemotright{{\char"00BB}}
615     \def\textquotedblleft{{\char"201C}}
616     \def\textquotedblright{{\char"201D}}
617   \else
618     \def\guillemotleft{\leavevmode\raise0.25ex
619                           \hbox{$\scriptscriptstyle\ll$}}
620     \def\guillemotright{\raise0.25ex

```

```

621          \hbox{\$scriptstyle\gg\$}
622  \def\textquotedblleft{'}
623  \def\textquotedblright{'}
624  \fi
625  \let\xspace\relax
626 \fi

```

The next step is to provide correct spacing after `\guillemotleft` and before `\guillemotright`: a space precedes and follows quotation marks but no line break is allowed neither *after* the opening one, nor *before* the closing one. `\FBguillspace` which does the spacing, has been fine tuned by Thierry Bouche to 80% of an interword space but with reduced stretchability. French quotes (including spacing) are printed by `\FB@og` and `\FB@fg`, the expansion of the top level commands `\og` and `\og` is different in and outside French. We'll try to be smart to users of David Carlisle's `xspace` package: if this package is loaded there will be no need for {} or \ to get a space after `\fg`, otherwise `\xspace` will be defined as `\relax` (done at the end of this file).

`LuaTeX` which requires skips; `\FBguillskip` is computed from `\FBguillspace` for the `lmr10` font, its dimensions will be scaled by `frenchb.lua` for the current font.

```

627 \newskip\FBguillskip
628 \FBguillskip=2.664pt plus 0.500pt minus 0.888pt \relax
629 \newcommand*{\FBguillspace}{\penalty@M\hskip.8\fontdimen2\font
630                                plus.3\fontdimen3\font
631                                minus.8\fontdimen4\font}

```

`\FBguillspace` is not used with `LuaTeX`.

```

632 \ifFB@luatex@punct
633   \DeclareRobustCommand*{\FB@og}{\leavevmode
634     \bgroup\FB@addGUILspace=1 \guillemotleft\egroup}
635   \DeclareRobustCommand*{\FB@fg}{\ifdim\lastskip>\z@\unskip\fi
636     \bgroup\FB@addGUILspace=1 \guillemotright\egroup\xspace}
637 \fi

```

With `XeTeX`, `\FBAutoSpaceGuill` is set to `false` locally to prevent the quotes characters from adding space when option `og=<`, `fg=>` is set. characters.

```

638 \ifFB@xetex@punct
639   \DeclareRobustCommand*{\FB@og}{\leavevmode
640     \bgroup\FBAutoSpaceGuillfalse\guillemotleft\egroup
641     \FBguillspace}
642   \DeclareRobustCommand*{\FB@fg}{\ifdim\lastskip>\z@\unskip\fi
643     \FBguillspace
644     \bgroup\FBAutoSpaceGuillfalse\guillemotright\egroup\xspace}
645 \fi
646 \ifFB@active@punct
647   \DeclareRobustCommand*{\FB@og}{\leavevmode
648     \guillemotleft
649     \FBguillspace}
650   \DeclareRobustCommand*{\FB@fg}{\ifdim\lastskip>\z@\unskip\fi
651     \FBguillspace
652     \guillemotright\xspace}
653 \fi

```

The top level definitions for French quotation marks are switched on and off through the `\extrasfrench \noextrasfrench` mechanism. Outside French, `\og` and `\fg` will typeset standard English opening and closing double quotes.

```

654 \ifLaTeXe
655   \def\bbl@frenchguillemets{\renewcommand*{\og}{\FB@og}%
656                           \renewcommand*{\fg}{\FB@fg}}
657   \renewcommand*{\og}{\textquotedblleft}
658   \renewcommand*{\fg}{\ifdim\lastskip>\z@\unskip\fi \textquotedblright}
659 \else
660   \def\bbl@frenchguillemets{\let\og\FB@og
661                           \let\fg\FB@fg}
662   \def\og{\textquotedblleft}
663   \def\fg{\ifdim\lastskip>\z@\unskip\fi\textquotedblright}
664 \fi
665 \FB@addto{extras}{\babel@save\og \babel@save\fg \bbl@frenchguillemets}
```

**\frquote** Maximum two levels are supported by `\frquote{}`. Let's define the default quote characters to be used for level one or two of quotes...

```

666 \newcommand*{\ogi}{\FB@og}
667 \newcommand*{\fgi}{\FB@fg}
668 \newcommand*{\ogii}{\textquotedblleft}
669 \newcommand*{\fgii}{\textquotedblright}
```

and the needed technical stuff to handle options:

```

670 \newcount\FBguill@level
671 \newif\ifFBcloseguill \FBcloseguilltrue
672 \newif\ifFBInnerGuillSingle
673 \def\FBguillopen{\bgroup\NoAutoSpacing\guillemtleft\egroup}
674 \def\FBguillclose{\bgroup\NoAutoSpacing\guillemtright\egroup}
675 \let\FBguillnone\relax
676 \let\FBveryparguill\FBguillopen
677 \ifFB@luatex@punct
678   \let\FBverylineguill\FBguillopen
679 \else
680   \let\FBverylineguill\FBguillnone
681 \fi
```

The main command `\frquote` accepts (in  $\text{\LaTeX}\text{\_2}_\varepsilon$  only) a starred version which suppresses the closing quote; it is meant to be used for inner quotations which end together with the outer one, then only one closing guillemet (the outer one) should be printed.

```

682 \ifLaTeXe
683   \DeclareRobustCommand\frquote{%
684     \@ifstar{\FBcloseguillfalse\fr@quote}{%
685       {\FBcloseguilltrue\fr@quote}}}
686 \else
687   \newcommand\frquote[1]{\fr@quote{#1}}
688 \fi
```

The internal command `\fr@quote` takes one (long) argument: the quotation text.

```
689 \newcommand{\fr@quote}[1]{%
```

```

690  \bgroup
691   \ifnum\FBguill@level=2
692     \PackageWarning{frenchb.ldf}{%
693       \protect\frquote\space accepts no more than two levels
694       \MessageBreak of quotations. Reported}
695   \else
696     \advance\FBguill@level by \@ne
697   \fi
698   \ifnum\FBguill@level=1
699     Set \FBeverypar@quote for level 1 quotations:
700     \ifx\FBeveryparguill\relax
701       \let\FBeverypar@quote\relax
702     \else
703       \def\FBeverypar@quote{\FBeveryparguill
704         \kern.8\fontdimen2\font}%
705     \fi
706     \og
707     \everypar \expandafter{\the\everypar \FBeverypar@quote}%
708     #1\fg
709   \else
710     This for level 2 (inner) quotations: Omega's command \localleftbox (included in
711     LuaTeX, renamed \luatexlocalleftbox in LuaLaTeX) is convenient for repeating
712     guillemets at the beginning of every line.
713     \ifx\FBeverylineguill\FBguillopen
714       \luatexlocalleftbox{\guillemotleft\kern.8\fontdimen2\font}%
715       \let\FBeverypar@quote\relax
716       \FB@og #1\ifFBcloseguill\FB@fg\fi
717     \else
718       \ifx\FBeverylineguill\FBguillclose
719       \luatexlocalleftbox{\guillemotright\kern.8\fontdimen2\font}%
720       \let\FBeverypar@quote\relax
721       \FB@og #1\ifFBcloseguill\FB@fg\fi
722     \else
723       otherwise we need to redefine \FBeverypar@quote (and eventually \ogii, \fgii)
724       for level 2 quotations:
725       \let\FBeverypar@quote\relax
726       \iffBInnerGuillSingle
727         \def\ogii{\leavevmode
728           \guilsinglleft\FBguillspace}%
729         \def\fgii{\ifdim\lastskip>\z@\unskip\fi
730           \FBguillspace\guilsinglright}%
731         \ifx\FBeveryparguill\FBguillopen
732           \def\FBeverypar@quote{\guilsinglleft
733             \kern.8\fontdimen2\font}%
734           \fi
735         \ifx\FBeveryparguill\FBguillclose
736           \def\FBeverypar@quote{\guilsinglright
737             \kern.8\fontdimen2\font}%
738           \fi
739         \fi
740       \fi
741     \fi
742   \fi

```

```

733           \fi
734           \ogii #1\ifFBcloseguill \fgii \fi
735       \fi
736   \fi
737 \fi
738 \egroup
739 }

```

## 2.4 Date in French

**\datefrench** The macro `\datefrench` redefines the command `\today` to produce French dates. This new implementation requires babel 3.9i or newer but, as of 3.9k, doesn't work with Plain based formats, so `\date\CurrentOption` is defined the old way for these formats.

```

740 \ifLaTeXe
741   \def\BabelLanguages{french,acadian}
742   \StartBabelCommands*\{\BabelLanguages\}{date}
743     [unicode, fontenc=EU1 EU2, charset=utf8]
744     \SetString\monthiiname{février}
745     \SetString\monthviiiname{août}
746     \SetString\monthxiiname{décembre}
747   \StartBabelCommands*\{\BabelLanguages\}{date}
748     \SetStringLoop{month#1name}{%
749       janvier,f\'evrier,mars,avril,mai,juin,juillet,%
750       ao\^ut,septembre,octobre,novembre,d\'ecembre}
751     \SetString\today{{\number\day}\ifnum1=\day {\ier}\fi\space
752       \csname month\romannumeral\month name\endcsname \space
753       \number\year
754     }
755   \EndBabelCommands
756 \else
757   \ifFBunicode
758     \namedef{date\CurrentOption}{%
759       \def\today{{\number\day}\ifnum1=\day {\ier}\fi \space
760         \ifcase\month
761           \or janvier\or février\or mars\or avril\or mai\or
762           juin\or juillet\or août\or septembre\or
763           octobre\or novembre\or décembre\fi
764         \space \number\year}}
765   \else
766     \namedef{date\CurrentOption}{%
767       \def\today{{\number\day}\ifnum1=\day {\ier}\fi \space
768         \ifcase\month
769           \or janvier\or f\'evrier\or mars\or avril\or mai\or
770           juin\or juillet\or ao\^ut\or septembre\or
771           octobre\or novembre\or d\'ecembre\fi
772         \space \number\year}}
773   \fi
774 \fi

```

## 2.5 Extra utilities

Let's provide the French user with some extra utilities.

\up \up eases the typesetting of superscripts like '1<sup>er</sup>'. Up to version 2.0 of frenchb \up \fup was just a shortcut for \textsupscript in L<sup>A</sup>T<sub>E</sub>X 2<sub>E</sub>, but several users complained that \textsupscript typesets superscripts too high and too big, so we now define \fup as an attempt to produce better looking superscripts. \up is defined as \fup but \frenchbsetup{FrenchSuperscripts=false} redefines \up as \textsupscript for compatibility with previous versions.

When a font has built-in superscripts, the best thing to do is to just use them, otherwise \fup has to simulate superscripts by scaling and raising ordinary letters. Scaling is done using package scalefnt which will be loaded at the end of babel's loading (frenchb being an option of babel, it cannot load a package while being read).

```
775 \newif\iffB@poorman
776 \newdimen\FB@Mht
777 \ifLaTeXe
778   \AtEndOfPackage{\RequirePackage{scalefnt}}
```

\FB@up@fake holds the definition of fake superscripts. The scaling ratio is 0.65, raising is computed to put the top of lower case letters (like 'm') just under the top of upper case letters (like 'M'), precisely 12% down. The chosen settings look correct for most fonts, but can be tuned by the end-user if necessary by changing \FBsupR and \FBsupS commands.

\FB@lc is defined as \MakeLowercase to inhibit the uppercasing of superscripts (this may happen in page headers with the standard classes but is wrong); \FB@lc can be redefined to do nothing by option LowercaseSuperscripts=false of \frenchbsetup{}.

```
779 \newcommand*\FBsupR{-0.12}
780 \newcommand*\FBsupS{0.65}
781 \newcommand*\FB@lc[1]{\MakeLowercase{#1}}
782 \DeclareRobustCommand*\FB@up@fake[1]{%
783   \settoheight{\FB@Mht}{M}%
784   \addtolength{\FB@Mht}{\FBsupR \FB@Mht}%
785   \addtolength{\FB@Mht}{-\FBsupS ex}%
786   \raisebox{\FB@Mht}{\scalefont{\FBsupS}{\FB@lc{#1}}}}%
787 }
```

The only packages I currently know to take advantage of real superscripts are a) realscripts used in conjunction with XeLaTeX or LuaLaTeX and OpenType fonts having the font feature 'VerticalPosition=Superior' and b) fourier (from version 1.6) when Expert Utopia fonts are available.

\FB@up checks whether the current font is a Type1 'Expert' (or 'Pro') font with real superscripts or not (the code works currently only with fourier-1.6 but could work with any Expert Type1 font with built-in superscripts, see below), and decides to use real or fake superscripts. It works as follows: the content of \f@family (family name of the current font) is split by \FB@split into two pieces, the first three characters ('fut' for Fourier, 'ppl' for Adobe's Palatino, ...) stored in \FB@firstthree and the rest stored in \FB@suffix which is expected to be 'x' or 'j' for expert fonts.

```

788 \def\FB@split#1#2#3#4@nil{\def\FB@firstthree{#1#2#3}%
789                               \def\FB@suffix{#4}}
790 \def\FB@x{x}
791 \def\FB@j{j}
792 \DeclareRobustCommand*\FB@up[1]{%
793   \bgroup \FB@poormantrue
794   \expandafter\FB@split\f@family@nil

```

Then `\FB@up` looks for a `.fd` file named `t1fut-sup.fd` (Fourier) or `t1ppl-sup.fd` (Palatino), etc. supposed to define the subfamily (fut-sup or ppl-sup, etc.) giving access to the built-in superscripts. If the `.fd` file is not found by `\IfFileExists`, `\FB@up` falls back on fake superscripts, otherwise `\FB@suffix` is checked to decide whether to use fake or real superscripts.

```

795 \edef\reserved@a{\lowercase{%
796   \noexpand\IfFileExists{\f@encoding\FB@firstthree -sup.fd}}}{%
797 \reserved@a
798   {\ifx\FB@suffix\FB@x \FB@poormanfalse\fi
799   \ifx\FB@suffix\FB@j \FB@poormanfalse\fi
800   \ifFB@poorman \FB@up@fake{#1}%
801   \else \FB@up@real{#1}%
802   \fi}%
803   {\FB@up@fake{#1}}%
804 \egroup}

```

`\FB@up@real` just picks up the superscripts from the subfamily (and forces lowercase).

```

805 \newcommand*\FB@up@real[1]{\bgroup
806   \fontfamily{\FB@firstthree -sup}\selectfont \FB@lc{#1}\egroup}

```

`\fup` is defined as `\FB@up` unless `\realsuperscript` is defined by `realscripts.sty`.

```

807 \DeclareRobustCommand*\fup[1]{%
808   \ifx\realsuperscript\undefined
809   \FB@up{#1}%
810   \else
811   \bgroup\let\fakesuperscript\FB@up@fake
812     \realsuperscript{\FB@lc{#1}}\egroup
813   \fi}

```

Let's provide a temporary definition for `\up` (redefined 'AtBeginDocument' as `\fup` or `\textsuperscript` according to `\frenchbsetup{}` options).

```

814 \providecommand*\up{\relax}
Poor man's definition of \up for Plain.
815 \else
816 \providecommand*\up[1]{\leavevmode\raise1ex\hbox{\sevenrm #1}}
817 \fi

```

`\ieme` Some handy macros for those who don't know how to abbreviate ordinals:

```

\ier 818 \def\ieme{\up{e}\xspace}
\iere 819 \def\iemes{\up{es}\xspace}
\iemes 820 \def\ier{\up{er}\xspace}
\iers 821 \def\iers{\up{ers}\xspace}
\ieres

```

```

822 \def\iere{\up{re}\xspace}
823 \def\ieres{\up{res}\xspace}

```

**\No** And some more macros relying on `\up` for numbering, first two support macros.

```

\No 824 \newcommand*{\FrenchEnumerate}[1]{%
\Nos 825           #1\up{o}\kern+.3em}
\nos 826 \newcommand*{\FrenchPopularEnumerate}[1]{%
\primo 827           #1\up{o})\kern+.3em}

```

**\fprimo** Typing `\primo` should result in ‘ $1^{\circ}$ ’,

```

828 \def\primo{\FrenchEnumerate1}
829 \def\secundo{\FrenchEnumerate2}
830 \def\tertio{\FrenchEnumerate3}
831 \def\quarto{\FrenchEnumerate4}
while typing \fprimo) gives ‘ $1^{\circ}$ ’.
832 \def\fprimo{\FrenchPopularEnumerate1}
833 \def\fsecundo{\FrenchPopularEnumerate2}
834 \def\ftertio{\FrenchPopularEnumerate3}
835 \def\fquarto{\FrenchPopularEnumerate4}

```

Let’s provide four macros for the common abbreviations of “Numéro”.

```

836 \DeclareRobustCommand*{\No}{N\up{o}\kern+.2em}
837 \DeclareRobustCommand*{\no}{n\up{o}\kern+.2em}
838 \DeclareRobustCommand*{\Nos}{N\up{os}\kern+.2em}
839 \DeclareRobustCommand*{\nos}{n\up{os}\kern+.2em}

```

**\bsc** As family names should be written in small capitals and never be hyphenated, we provide a command (its name comes from Boxed Small Caps) to input them easily. Note that this command has changed with version 2 of frenchb: a `\kern0pt` is used instead of `\hbox` because `\hbox` would break microtype’s font expansion; as a (positive?) side effect, composed names (such as Dupont-Durand) can now be hyphenated on explicit hyphens. Usage: `Jean-\bsc{Duchemin}`.

```

840 \DeclareRobustCommand*{\bsc}[1]{\leavevmode\begingroup\kern0pt
841                                         \scshape #1\endgroup}
842 \ifLaTeXe\else\let\scshape\relax\fi

```

Some definitions for special characters. We won’t define `\tilde` as a Text Symbol not to conflict with the macro `\tilde` for math mode and use the name `\tild` instead. Note that `\boi` may *not* be used in math mode, its name in math mode is `\backslash`. `\degre` can be accessed by the command `\r{}{}` for ring accent.

```

843 \iffBunicode
844     \newcommand*{\at}{{\char"0040}}
845     \newcommand*{\circonflexe}{{\char"005E}}
846     \newcommand*{\tild}{{\char"007E}}
847     \newcommand*{\boi}{\textbackslash}
848     \newcommand*{\degre}{{\char"00B0}}
849 \else
850   \ifLaTeXe
851     \DeclareTextSymbol{\at}{T1}{64}

```

```

852 \DeclareTextSymbol{\circonflexe}{T1}{94}
853 \DeclareTextSymbol{\tild}{T1}{126}
854 \DeclareTextSymbolDefault{\at}{T1}
855 \DeclareTextSymbolDefault{\circonflexe}{T1}
856 \DeclareTextSymbolDefault{\tild}{T1}
857 \DeclareRobustCommand*\boi{\textbackslash}
858 \DeclareRobustCommand*\degre{\r{}}
859 \else
860   \def\T@one{T1}
861   \ifx\f@encoding\T@one
862     \newcommand*\degre{{\char6}}
863   \else
864     \newcommand*\degre{{\char23}}
865   \fi
866   \newcommand*\at{{\char64}}
867   \newcommand*\circonflexe{{\char94}}
868   \newcommand*\tild{{\char126}}
869   \newcommand*\boi{$\backslash$}
870 \fi
871 \fi

```

**\degrees** We now define a macro `\degrees` for typesetting the abbreviation for ‘degrees’ (as in ‘degrees Celsius’). As the bounding box of the character ‘degree’ has very different widths in CM/EC and PostScript fonts, we fix the width of the bounding box of `\degrees` to 0.3 em, this lets the symbol ‘degree’ stick to the preceding (e.g., `45\degrees`) or following character (e.g., `20~\degrees C`).

If T<sub>E</sub>X Companion fonts are available (`textcomp.sty`), we pick up `\textdegree` from them instead of emulating ‘degrees’ from the `\r{}` accent. Otherwise we advise the user (once only) to use TS1-encoding.

```

872 \ifLaTeXe
873   \newcommand*\degrees{\degre}
874   \ifFBunicode
875     \DeclareRobustCommand*\degrees{\degre}
876   \else
877     \def\Warning@degree@TSone{%
878       \PackageWarning{frenchb.ldf}{%
879         Degrees would look better in TS1-encoding:%
880         \MessageBreak add \protect
881         \usepackage{textcomp} to the preamble.%
882         \MessageBreak Degrees used}}
883     \AtBeginDocument{\ifx\DeclareEncodingSubset@\undefined
884       \DeclareRobustCommand*\degrees{%
885         \leavevmode\hbox to 0.3em{\hss\degre\hss}%
886         \Warning@degree@TSone
887         \global\let\Warning@degree@TSone\relax}%
888     \else
889       \DeclareRobustCommand*\degrees{%
890         \hbox{\UseTextSymbol{TS1}{\textdegree}}}%
891     \fi
892   }

```

```

893 \fi
894 \else
895 \newcommand*{\degres}{%
896   \leavevmode\hbox to 0.3em{\hss\degre\hss}}
897 \fi

```

## 2.6 Formatting numbers

**\DecimalMathComma** As mentioned in the *TeXbook* p. 134, the comma is of type `\mathpunct` in math mode: **\StandardMathComma** it is automatically followed by a space. This is convenient in lists and intervals but unpleasant when the comma is used as a decimal separator in French: it has to be entered as `{,}`. `\DecimalMathComma` makes the comma be an ordinary character (of type `\mathord`) in French *only* (no space added); `\StandardMathComma` switches back to the standard behaviour of the comma.

```

898 \newcount\std@mcc
899 \newcount\dec@mcc
900 \std@mcc=\mathcode``,
901 \dec@mcc=\std@mcc
902 \@tempcnta=\std@mcc
903 \divide@tempcnta by "1000
904 \multiply@tempcnta by "1000
905 \advance\dec@mcc by -\@tempcnta
906 \newcommand*{\DecimalMathComma}{\iflanguage{french}%
907   {\mathcode`.,=\dec@mcc}{}%
908   \FB@addto{extras}{\mathcode`.,=\dec@mcc}%
909 }%
910 \newcommand*{\StandardMathComma}{\mathcode`.,=\std@mcc
911   \FB@addto{extras}{\mathcode`.,=\std@mcc}%
912 }%
913 \FB@addto{noextras}{\mathcode`.,=\std@mcc}

```

**\nombre** The command `\nombre` is now borrowed from `numprint.sty` for  $\text{\LaTeX} 2_{\varepsilon}$ . There is no point to maintain the former tricky code when a package is dedicated to do the same job and more. For Plain based formats, `\nombre` no longer formats numbers, it prints them as is and issues a warning about the change.

Fake command `\nombre` for Plain based formats, warning users of `frenchb v. 1.x.` of the change.

```

914 \newcommand*{\nombre}[1]{\#1}\fb@warning{*** \noexpand\nombre
915   no longer formats numbers\string! ***}

```

The next definitions only make sense for  $\text{\LaTeX} 2_{\varepsilon}$ . For Plain based formats, let's activate LuaTeX punctuation if necessary, then cleanup and exit. Temporary fix: `\l@french` is not properly set by `babel 3.9h` with Plain LuaTeX format.

```

916 \let\FBstop@here\relax
917 \def\FBclean@on@exit{\let\ifLaTeXe\undefined
918   \let\LaTeXetrue\undefined
919   \let\LaTeXefalse\undefined}
920 \ifx\magnification@\undefined
921 \else

```

```

922     \def\FBstop@here{\ifFB@luatex@punct
923         \activate@luatexpunct
924     \fi
925     \FBclean@on@exit
926     \ldf@quit\CurrentOption\endinput}
927 \fi
928 \FBstop@here

```

What follows is for  $\text{\LaTeX} 2_{\varepsilon}$  only; as all  $\text{\LaTeX} 2_{\varepsilon}$  based formats include  $\varepsilon\text{-}\text{\TeX}$ , we can use `\ifdefined` now. We redefine `\nombre` for  $\text{\LaTeX} 2_{\varepsilon}$ . A warning is issued at the first call of `\nombre` if `\numprint` is not defined, suggesting what to do. The package `numprint` is *not* loaded automatically by `frenchb` because of possible options conflict.

```

929 \renewcommand*{\nombre}[1]{\Warning@nombre\numprint{#1}}
930 \newcommand*{\Warning@nombre}{%
931   \ifdefined\numprint
932   \else
933     \PackageWarning{frenchb.ldf}{%
934       \protect\nombre\space now relies on package numprint.sty,%
935       \MessageBreak add \protect
936       \usepackage[autolanguage]{numprint}\MessageBreak
937       to your preamble *after* loading babel,\MessageBreak
938       see file numprint.pdf for more options.\MessageBreak
939       \protect\nombre\space called}%
940     \global\let\Warning@nombre\relax
941   \fi
942 }

```

## 2.7 Caption names

The next step consists in defining the French equivalents for the  $\text{\LaTeX}$  caption names.

**\captionsfrench** Let's first define `\captionsfrench` which sets all strings used in the four standard document classes provided with  $\text{\LaTeX}$ .

Let's give a chance to a class or a package read before `frenchb` to define `\FBfigtabshape` as `\relax`, otherwise `\FBfigtabshape` will be defined as `\scshape` (can be changed with `\frenchbsetup{SmallCapsFigTabCaptions=false}`).

```
943 \ifx\FBfigtabshape\undefined \let\FBfigtabshape\scshape \fi
```

New implementation for caption names (requires babel's 3.9 or up).

```

944 \StartBabelCommands*{\BabelLanguages}{captions}
945   [unicode, fontenc=EU1 EU2, charset=utf8]
946   \SetString{\refname}{Références}
947   \SetString{\abstractname}{Résumé}
948   \SetString{\prefacename}{Préface}
949   \SetString{\contentsname}{Table des matières}
950   \SetString{\ccname}{Copie à }
951   \SetString{\proofname}{Démonstration}
952   \SetStringLoop{ordinal#1}{%
953     Première,Deuxième,Troisième,Quatrième,Cinquième,%
954     Sixième,Septième,Huitième,Neuvième,Dixième,Onzième,%

```

```

955      Douzième,Treizième,Quatorzième,Quinzième,Seizième,%
956      Dix-septième,Dix-huitième,Dix-neuvième,Vingtième}
957 \StartBabelCommands*\{BabelLanguages\}{captions}
958   \SetString{\refname}{R\'ef\'erences}
959   \SetString{\abstractname}{R\'esum\'e}
960   \SetString{\bibname}{Bibliographie}
961   \SetString{\prefacename}{Pr\'eface}
962   \SetString{\chaptername}{Chapitre}
963   \SetString{\appendixname}{Annexe}
964   \SetString{\contentsname}{Table des mati\'eres}
965   \SetString{\listfigurename}{Table des figures}
966   \SetString{\listtablename}{Liste des tableaux}
967   \SetString{\indexname}{Index}
968   \SetString{\figurename}{{\FBfigtabshape Figure}}
969   \SetString{\tablename}{{\FBfigtabshape Table}}
970   \SetString{\pagename}{page}
971   \SetString{\seename}{voir}
972   \SetString{\alsoname}{voir aussi}
973   \SetString{\enclname}{P.\sim J. }
974   \SetString{\ccname}{Copie \'a }
975   \SetString{\headtoname}{}
976   \SetString{\proofname}{D\'emonstration}
977   \SetString{\glossaryname}{Glossaire}

“Première partie” instead of “Part I”.
978   \SetStringLoop{ordinal#1}{%
979     Premi\`ere,Deuxi\`eme,Troisi\`eme,Quatri\`eme,Cinqui\`eme,%
980     Sixi\`eme,Septi\`eme,Huiti\`eme,Neudi\`eme,Dixi\`eme,Onzi\`eme,%
981     Douzi\`eme,Treizi\`eme,Quatorzi\`eme,Quinzi\`eme,Seizi\`eme,%
982     Dix-septi\`eme,Dix-huiti\`eme,Dix-neuvi\`eme,Vingti\`eme}
983 \AfterBabelCommands{%
984   \DeclareRobustCommand*{\FB@emptypart}{\def\thepart{}}
985   \DeclareRobustCommand*{\FB@Rpart}{\def\thepart{\Roman{part}}}
986 }
987   \SetString{\partname}{%
988     \csname ordinal\romannumeral\value{part}\endcsname\space
989     partie\FB@emptypart}
990 \EndBabelCommands

```

Up to v2.6h `frenchb` used to merge `\captionsfrenchb` and `\captionsfrancais` into `\captionsfrench` at `\begin{document}`. This is deprecated in favor of the new (much simpler!) syntax introduced in babel 3.9. No need to define `\captionscanadien` and `\captionsacadian` either.

**\CaptionSeparator** Let's consider now captions in figures and tables. In French, captions in figures and tables should never be printed as ‘Figure 1’ which is the default in standard  $\text{\LaTeX} 2_{\varepsilon}$  classes; the ‘:’ is made active too late, no space is added before it. With LuaLaTeX and XeLaTeX, this glitch doesn't occur, you get ‘Figure 1 :’ which is correct in French. With pdfLaTeX `frenchb` provides the following workaround.  
The standard definition of `\@makecaption` (e.g., the one provided in `article.cls`, `report.cls`, `book.cls` which is frozen for  $\text{\LaTeX} 2_{\varepsilon}$  according to Frank Mittelbach), is saved

in `\STD@makecaption`. ‘`AtBeginDocument`’ we compare it to its current definition (some classes like `memoir`, `koma-script` classes, `AMS` classes, `ua-thesis.cls`... change it). If they are identical, `frenchb` just adds a hook called `\FBCaption@Separator` to `\@makecaption`; `\FBCaption@Separator` defaults to ‘`:`’ as in the standard `\@makecaption` and will be changed to ‘`:`’ in French ‘`AtBeginDocument`’; it can be also set to `\CaptionSeparator` (‘`-`’) using `CustomiseFigTabCaptions`.

While saving the standard definition of `\@makecaption` we have to make sure that characters ‘`:`’ and ‘`>`’ have `\catcode` 12 (`frenchb` makes ‘`:`’ active and `spanish.ldf` makes ‘`>`’ active).

```

991 \bgroup
992   \catcode`:=12 \catcode`>=12 \relax
993   \long\gdef\STD@makecaption#1#2{%
994     \vskip\abovecaptionskip
995     \sbox{\@tempboxa{#1: #2}%
996     \ifdim \wd\@tempboxa >\hsize
997       #1: #2\par
998     \else
999       \global \minipagetrue
1000      \hb@xt@\hsize{\hfil\box\@tempboxa\hfil}%
1001    \fi
1002    \vskip\belowcaptionskip}
1003 \egroup

```

The `caption` and `floatrow` packages are compatible with `frenchb` if they are loaded after `babel` (a warning is printed in the `.log` file when they are loaded too early).

No warning is issued for `SMF` and `AMS` classes as their layout of captions is compatible with French typographic standards.

With `memoir` and `koma-script` classes, `frenchb` customises `\captiondelim` or `\captionformat` in French (unless option `CustomiseFigTabCaptions` is set to `false`) and issues no warning.

When `\@makecaption` has been changed by another class or package, a warning is printed in the `.log` file.

```

1004 \newif\if@FBwarning@capsep
1005 \@FBwarning@capseptrue
1006 \newcommand{\FBWarning}[2]{\PackageWarning{#1}{#2}}
1007 \newcommand*{\CaptionSeparator}{\space\textendash\space}
1008 \def\FBCaption@Separator{:}
1009 \long\def\FB@makecaption#1#2{%
1010   \vskip\abovecaptionskip
1011   \sbox{\@tempboxa{#1}\FBCaption@Separator #2}%
1012   \ifdim \wd\@tempboxa >\hsize
1013     #1\FBCaption@Separator #2\par
1014   \else
1015     \global \minipagetrue
1016     \hb@xt@\hsize{\hfil\box\@tempboxa\hfil}%
1017   \fi
1018   \vskip\belowcaptionskip}

```

Disable the standard warning with `AMS` and `SMF` classes.

```

1019 \@ifclassloaded{amsart}{\@FBwarning@capsepfalse}{}  

1020 \@ifclassloaded{amsbook}{\@FBwarning@capsepfalse}{}  

1021 \@ifclassloaded{amsdtx}{\@FBwarning@capsepfalse}{}  

1022 \@ifclassloaded{amsldoc}{\@FBwarning@capsepfalse}{}  

1023 \@ifclassloaded{amproc}{\@FBwarning@capsepfalse}{}  

1024 \@ifclassloaded{smfart}{\@FBwarning@capsepfalse}{}  

1025 \@ifclassloaded{smfbook}{\@FBwarning@capsepfalse}{}  

    Disable the standard warning unless high punctuation is active.  

1026 \iffB@active@punct\else\@FBwarning@capsepfalse\fi  

    No warning with memoir or koma-script classes: they change \makecaption but  

    we will manage to customise them in French later on (see below after executing  

    \FBprocess@options).  

1027 \newif\iffB@koma  

1028 \@ifclassloaded{memoir}{\@FBwarning@capsepfalse}{}  

1029 \@ifclassloaded{scrartcl}{\@FBwarning@capsepfalse\FB@komatrue}{}  

1030 \@ifclassloaded{scrbook}{\@FBwarning@capsepfalse\FB@komatrue}{}  

1031 \@ifclassloaded{scrreprt}{\@FBwarning@capsepfalse\FB@komatrue}{}  

    No warning with the beamer class which defines \beamer@makecaption (customised  

    below) instead of \makecaption. No warning either if \makecaption is undefined  

    (i.e. letter).  

1032 \@ifclassloaded{beamer}{\@FBwarning@capsepfalse}{}  

1033 \ifdefined\@makecaption\else\@FBwarning@capsepfalse\fi  

    Check if package caption is loaded now (before babel/frenchb), then issue a warning  

    advising to load it after babel/frenchb and disable the standard warning.  

1034 \@ifpackageloaded{caption}  

1035     {\FBWarning{frenchb.ldf}}%  

1036         {Please load the "caption" package\MessageBreak  

1037             AFTER babel/frenchb; reported}%">  

1038     \FBwarning@capsepfalse}%"  

1039     {}  

    Same for package floatrow.  

1040 \@ifpackageloaded{floatrow}  

1041     {\FBWarning{frenchb.ldf}}%  

1042         {Please load the "floatrow" package\MessageBreak  

1043             AFTER babel/frenchb; reported}%">  

1044     \FBwarning@capsepfalse}%"  

1045     {}  

    First check the definition of \makecaption, change it or issue a warning in case it  

    has been changed by a class or package not (yet) compatible with frenchb; then  

    change the definition of \FCaption@Separator, taking care that the colon is typeset  

    correctly in French (not 'Figure 1: légende').  

1046 \AtBeginDocument{  

1047     \ifx\@makecaption\STD@makecaption  

1048         \global\let\@makecaption\FB@makecaption  

    Do not overwrite \FCaption@Separator if already saved as ':' for other languages  

    and set to \CaptionSeparator by \extrasfrench when French is the main lan-  

    guage.

```

```

1049      \ifFBOldFigTabCaptions
1050      \else
1051          \def\FCaption@Separator{{\autospace@beforeFDP : }}%
1052      \fi
1053      \ifFBCustomiseFigTabCaptions
1054          \ifx\bb@main@language\FB@french
1055              \def\FCaption@Separator{\CaptionSeparator}%
1056          \fi
1057      \fi
1058      \@FBwarning@capsepfalse
1059  \fi
1060  \if@FBwarning@capsep
1061      \FBWarning{frenchb.ldf}%
1062      {Figures' and tables' captions might look like\MessageBreak
1063      'Figure 1:' which is wrong in French.\MessageBreak
1064      Check your class or packages to change this;\MessageBreak
1065      reported}%
1066  \fi
1067  \let\FB@makecaption\relax
1068  \let\STD@makecaption\relax
1069 }

```

## 2.8 Dots...

**\FBtextellipsis**  $\text{\LaTeX}_2\epsilon$ 's standard definition of \dots in text-mode is \textellipsis which includes a \kern at the end; this space is not wanted in some cases (before a closing brace for instance) and \kern breaks hyphenation of the next word. We define \FBtextellipsis for French (in  $\text{\LaTeX}_2\epsilon$  only).

The \if construction in the  $\text{\LaTeX}_2\epsilon$  definition of \dots doesn't allow the use of xspace (xspace is always followed by a \fi), so we use the AMS-\mathcal{L}\text{\TeX} construction of \dots; this has to be done 'AtBeginDocument' not to be overwritten when amsmath.sty is loaded after babel.

LY1 has a ready made character for \textellipsis, it should be used in French too. The same is true for Unicode fonts in use with XeTeX and LuaTeX.

```

1070 \ifFBunicode
1071   \let\FBtextellipsis\textellipsis
1072 \else
1073   \DeclareTextSymbol{\FBtextellipsis}{LY1}{133}
1074   \DeclareTextCommandDefault{\FBtextellipsis}{%
1075     .\kern\fontdimen3\font.\kern\fontdimen3\font.\xspace}
1076 \fi

```

\Mdots@ and \Tdots@ hold the definitions of \dots in Math and Text mode. They default to those of amsmath-2.0, and will revert to standard \mathcal{L}\text{\TeX} definitions 'AtBeginDocument', if amsmath has not been loaded. \Mdots@ doesn't change when switching from/to French, while \Tdots@ is \FBtextellipsis in French and \Tdots@ORI otherwise.

```

1077 \newcommand*{\Tdots@}{\@xp\textellipsis}
1078 \newcommand*{\Mdots@}{\@xp\mdots@}

```

```

1079 \AtBeginDocument{\DeclareRobustCommand*{\dots}{\relax
1080         \csname\ifmmode M\else T\fi dots@\endcsname}%
1081         \ifdefined\@xp\else\let\@xp\relax\fi
1082         \ifdefined\mdots@\else\let\MDots@\mathellipsis\fi
1083     }
1084 \def\bbl@frenchdots{\babel@save{Tdots@ \let\Tdots@\FBtextellipsis}}
1085 \FB@addto{extras}{\bbl@frenchdots}

```

## 2.9 More checks about packages' loading order

Like packages captions and floatrow (see section 2.7), package listings should be loaded after babel/frenchb due to active characters issues (pdfLaTeX only).

```

1086 \iffB@active@punct
1087   \@ifpackageloaded{listings}
1088   {\FBWarning{frenchb.ldf}%
1089    {Please load the "listings" package\MessageBreak
1090     AFTER babel/frenchb; reported}%
1091   }{}}
1092 \fi

```

Package natbib should be loaded before babel/frenchb due to active characters issues (pdfLaTeX only).

```

1093 \newif\if@FBwarning@natbib
1094 \iffB@active@punct
1095   \@ifpackageloaded{natbib}{}{\@FBwarning@natbibtrue}
1096 \fi
1097 \AtBeginDocument{%
1098   \if@FBwarning@natbib
1099     \@ifpackageloaded{natbib}{}{\@FBwarning@natbibfalse}%
1100   \fi
1101   \if@FBwarning@natbib
1102     \FBWarning{frenchb.ldf}%
1103     {Please load the "natbib" package\MessageBreak
1104      BEFORE babel/frenchb; reported}%
1105   \fi
1106 }

```

Package numprint with option autolanguage should be loaded after babel/frenchb (all engines).

```

1107 \@ifpackageloaded{numprint}
1108   {\ifnprt@autolanguage
1109     \FBWarning{frenchb.ldf}%
1110     {Please load the "numprint" package\MessageBreak
1111       AFTER babel/frenchb; reported}%
1112   \fi
1113 }{}

```

## 2.10 Setup options: keyval stuff

All setup options are handled by command `\frenchbsetup{}` using the keyval syntax. A list of flags is defined and set to a default value which will possibly be changed ‘AtEndOfPackage’ if French is the main language. After this, `\frenchbsetup{}` eventually modifies the preset values of these flags.

Option processing can occur either in `\frenchbsetup{}`, but *only for options explicitly set* by `\frenchbsetup{}`, or ‘AtBeginDocument’; any option affecting `\extrasfrench{}` *must* be processed by `\frenchbsetup{}`: when French is the main language, `\extrasfrench{}` is executed by babel when it switches the main language and this occurs *before* reading the stuff postponed by frenchb ‘AtBeginDocument’. Reexecuting `\extrasfrench{}` is a possibility which was used up to v2.6h, it has been dropped in v3.0a because of its side-effects (f.i. `\babel@save` and `\babel@savevariable` no longer work).

**\frenchbsetup** Let’s now define this command which reads and sets the options to be processed either immediately (i.e. just after setting the key) or later (at `\begin{document}`) by `\FBprocess@options`. `\frenchbsetup{}` can only be called in the preamble.

```
1114 \newcommand*\frenchbsetup[1]{%
1115   \setkeys{FB}{#1}%
1116 }%
1117 @onlypreamble\frenchbsetup
```

We define a collection of conditionals with their defaults (true or false).

1118 \newif\iffBShowOptions	\FBShowOptionsfalse
1119 \newif\iffBStandardLayout	\FBStandardLayouttrue
1120 \newif\iffBGlobalLayoutFrench	\FBGlobalLayoutFrenchtrue
1121 \newif\iffBReduceListSpacing	\FBReduceListSpacingfalse
1122 \newif\iffBListOldLayout	\FBListOldLayoutfalse
1123 \newif\iffBCompactItemize	\FBCompactItemizefalse
1124 \newif\iffBStandardItemizeEnv	\FBStandardItemizeEnvtrue
1125 \newif\iffBStandardItemEnumerateEnv	\FBStandardItemEnumerateEnvtrue
1126 \newif\iffBStandardItemLabels	\FBStandardItemLabelstrue
1127 \newif\iffBStandardItemLists	\FBStandardItemListstrue
1128 \newif\iffBIndentFirst	\FBIndentFirstfalse
1129 \newif\iffBFrenchFootnotes	\FBFrenchFootnotesfalse
1130 \newif\iffBAutoSpaceFootnotes	\FBAutoSpaceFootnotesfalse
1131 \newif\iffBOriginalTypewriter	\FBOriginalTypewriterfalse
1132 \newif\iffBThinColonSpace	\FBThinColonSpacefalse
1133 \newif\iffBThinSpaceInFrenchNumbers	\FBThinSpaceInFrenchNumbersfalse
1134 \newif\iffBFrenchSuperscripts	\FBFrenchSuperscriptstrue
1135 \newif\iffBLowercaseSuperscripts	\FBLowercaseSuperscriptstrue
1136 \newif\iffBPartNameFull	\FBPartNameFulltrue
1137 \newif\iffBCustomiseFigTabCaptions	\FCustomiseFigTabCaptionsfalse
1138 \newif\iffBOldFigTabCaptions	\FBOldFigTabCaptionsfalse
1139 \newif\iffBSmallCapsFigTabCaptions	\FBSmallCapsFigTabCaptionstrue
1140 \newif\iffBSuppressWarning	\FBSuppressWarningfalse
1141 \newif\iffBINGuillSpace	\FBINGuillSpacefalse

The defaults values of these flags have been chosen so that frenchb does not change anything regarding the global layout. `\bbl@main@language`, set by the last

option of babel, controls the global layout of the document. ‘AtEndOfPackage’ we check the main language in `\bbbl@main@language`; if it is French, the values of some flags have to be changed to ensure a French looking layout for the whole document (even in parts written in languages other than French); the end-user will then be able to customise the values of all these flags with `\frenchbsetup{}`. When the beamer is loaded, lists are not customised at all to ensure compatibility.

```

1142 \edef\FB@french{\CurrentOption}
1143 \AtEndOfPackage{%
1144   \ifx\bbbl@main@language\FB@french
1145     \FBGlobalLayoutFrenchtrue
1146     \@ifclassloaded{beamer}{%
1147       {\PackageInfo{frenchb.lfd}{%
1148         No list customisation for the beamer class,%
1149         \MessageBreak reported}}{%
1150           \FBReduceListSpacingtrue
1151           \FBStandardItemizeEnvfalse
1152           \FBStandardEnumerateEnvfalse
1153           \FBStandardItemLabelsfalse}%
1154         \FBIndentFirsttrue
1155         \FBFrenchFootnotestrue
1156         \FBAutoSpaceFootnotestrue
1157         \FBCustomiseFigTabCaptionstrue
1158     }%
1159   \FBGlobalLayoutFrenchfalse
1160 }

```

`frenchb` being an option of `babel`, it cannot load a package (`keyval`) while `frenchb.lfd` is read, so we defer the loading of `keyval` and the options setup at the end of `babel`’s loading.

```

1161 \RequirePackage{keyval}%
1162 \define@key{FB}{ShowOptions}[true]{%
1163   \csname FBShowOptions#1\endcsname}%
1164 \define@key{FB}{StandardLayout}[true]{%
1165   \csname FBStandardLayout#1\endcsname
1166   \ifFBStandardLayout
1167     \FBReduceListSpacingfalse
1168     \FBStandardItemizeEnvtrue
1169     \FBStandardItemLabelstrue
1170     \FBStandardEnumerateEnvtrue
1171     \FBIndentFirstfalse
1172     \FBFrenchFootnotesfalse
1173     \FBAutoSpaceFootnotesfalse
1174     \FBGlobalLayoutFrenchfalse
1175   }%
1176   \FBReduceListSpacingtrue
1177   \FBStandardItemizeEnvfalse
1178   \FBStandardItemLabelsfalse
1179   \FBStandardEnumerateEnvfalse
1180   \FBIndentFirsttrue
1181   \FBFrenchFootnotestrue

```

```

1182                      \FBAutoSpaceFootnotestrue
1183                      \fi}%
1184 \define@key{FB}{GlobalLayoutFrench}[true]%
1185                         {\csname FBGlobalLayoutFrench#1\endcsname
If this key is set to true when French is the main language, nothing to do: all flags
keep their default value. If this key is set to false, nothing to do either: \babel@save
will do the job.

1186                         \ifFBGlobalLayoutFrench
1187                             \ifx\bbbl@main@language\FB@french
1188                             \else
1189                                 \PackageWarning{frenchb.ldf}%
1190                                     {Option 'GlobalLayoutFrench' skipped:%
1191                                         \MessageBreak French is *not*
1192                                         babel's last option.\MessageBreak}%
1193                                 \fi
1194                                 \fi}%
1195 \define@key{FB}{ReduceListSpacing}[true]%
1196                         {\csname FBReduceListSpacing#1\endcsname}%
1197 \define@key{FB}{ListOldLayout}[true]%
1198                         {\csname FBListOldLayout#1\endcsname
1199                         \iffBListOldLayout
1200                             \FBStandardEnumerateEnvtrue
1201                             \renewcommand*\{\FrenchLabelItem\}{\textendash}%
1202                         \fi}%
1203 \define@key{FB}{CompactItemize}[true]%
1204                         {\csname FBCompactItemize#1\endcsname
1205                         \iffBCompactItemize
1206                             \FBStandardItemEnvfalse
1207                             \FBStandardItemEnvfalse
1208                         \else
1209                             \FBStandardItemEnvtrue
1210                             \FBStandardItemEnvtrue
1211                         \fi}%
1212 \define@key{FB}{StandardItemEnv}[true]%
1213                         {\csname FBStandardItemEnv#1\endcsname}%
1214 \define@key{FB}{StandardEnumerateEnv}[true]%
1215                         {\csname FBStandardItemEnv#1\endcsname}%
1216 \define@key{FB}{StandardItemLabels}[true]%
1217                         {\csname FBStandardItemLabels#1\endcsname}%
1218 \define@key{FB}{ItemLabels}{%
1219     \renewcommand*\{\FrenchLabelItem\}{#1}}%
1220 \define@key{FB}{ItemLabeli}{%
1221     \renewcommand*\{\Frlabelitemi\}{#1}}%
1222 \define@key{FB}{ItemLabelii}{%
1223     \renewcommand*\{\Frlabelitemii\}{#1}}%
1224 \define@key{FB}{ItemLabeliii}{%
1225     \renewcommand*\{\Frlabelitemiii\}{#1}}%
1226 \define@key{FB}{ItemLabeliv}{%
1227     \renewcommand*\{\Frlabelitemiv\}{#1}}%
1228 \define@key{FB}{StandardLists}[true]%

```

```

1229          {\csname FBStandardLists#1\endcsname
1230          \ifFBStandardLists
1231              \FBReduceListSpacingfalse
1232              \FBCompactItemizefalse
1233              \FBStandardItemizeEnvtrue
1234              \FBStandardEnumerateEnvtrue
1235              \FBStandardItemLabelstrue
1236          \else
1237              \FBReduceListSpacingtrue
1238              \FBCompactItemizetrue
1239              \FBStandardItemizeEnvfalse
1240              \FBStandardEnumerateEnvfalse
1241              \FBStandardItemLabelsfalse
1242          \fi}%
1243 \define@key{FB}{IndentFirst}[true]%
1244     {\csname FBIndentFirst#1\endcsname}%
1245 \define@key{FB}{FrenchFootnotes}[true]%
1246     {\csname FBFrenchFootnotes#1\endcsname}%
1247 \define@key{FB}{AutoSpaceFootnotes}[true]%
1248     {\csname FBAutoSpaceFootnotes#1\endcsname}%
1249 \define@key{FB}{AutoSpacePunctuation}[true]%
1250     {\csname FBAutoSpacePunctuation#1\endcsname}%
1251 \define@key{FB}{OriginalTypewriter}[true]%
1252     {\csname FBOriginalTypewriter#1\endcsname}%
1253 \define@key{FB}{ThinColonSpace}[true]%
1254     {\csname FBThinColonSpace#1\endcsname}%
1255 \define@key{FB}{ThinSpaceInFrenchNumbers}[true]%
1256     {\csname FBThinSpaceInFrenchNumbers#1\endcsname}%
1257 \define@key{FB}{FrenchSuperscripts}[true]%
1258     {\csname FBFrenchSuperscripts#1\endcsname}
1259 \define@key{FB}{LowercaseSuperscripts}[true]%
1260     {\csname FBLowercaseSuperscripts#1\endcsname}
1261 \define@key{FB}{PartNameFull}[true]%
1262     {\csname FBPartNameFull#1\endcsname
1263     \ifFBPartNameFull
1264     \else
1265         \FB@addto{captions}{%
1266             \def\partname{Partie}\protect\FB@Rpart}}%
1267     \fi}%
1268 \define@key{FB}{CustomiseFigTabCaptions}[true]%
1269     {\csname FBCustomiseFigTabCaptions#1\endcsname}%
1270 \define@key{FB}{OldFigTabCaptions}[true]%
1271     {\csname FBOldFigTabCaptions#1\endcsname
1272         \ifFBOldFigTabCaptions
1273             \FB@addto{extras}{\babel@save\FBCaption@Separator
1274                 \def\FBCaption@Separator{\CaptionSeparator}}%
1275         \fi}%
1276 \define@key{FB}{SmallCapsFigTabCaptions}[true]%

```

```

1277      {\csname FBSmallCapsFigTabCaptions#1\endcsname
1278      \ifFBSmallCapsFigTabCaptions
1279          \let\FBfigtabshape\scshape
1280      \else
1281          \let\FBfigtabshape\relax
1282      \fi}%
1283 \define@key{FB}{SuppressWarning}[true]%
1284     {\csname FBSuppressWarning#1\endcsname
1285     \ifFBSuppressWarning
1286         \renewcommand{\FBWarning}[2]{\relax}%
1287     \fi}%

```

Here are the options controlling French guillemets spacing and the output of `\frquote{}`.

```

1288 \define@key{FB}{INGuillSpace}[true]%
1289     {\csname FBINGuillSpace#1\endcsname}%
1290 \define@key{FB}{InnerGuillSingle}[true]%
1291     {\csname FBInnerGuillSingle#1\endcsname}%
1292 \define@key{FB}{EveryParGuill}{\expandafter\let\expandafter
1293     \FBeveryparguill\csname FBguill#1\endcsname}%
1294 \define@key{FB}{EveryLineGuill}{\expandafter\let\expandafter
1295     \FBeverylineguill\csname FBguill#1\endcsname
1296     \ifFB@luatex@punct
1297     \else
1298         \let\FBeverylineguill\FBguillnone
1299         \PackageWarning{frenchb.ldf}%
1300         {Option 'EveryLineGuill' skipped:%
1301             \MessageBreak this option is for
1302             LuaTeX *only*. \MessageBreak Reported}%
1303     \fi}%

```

Inputting French quotes as *single characters* when they are available on the keyboard (through a compose key for instance) is more comfortable than typing `\og` and `\fg`. With pdfTeX (or old LuaTeX and XeTeX engines), quote characters are made active and expand to `\og\ignorespaces` and `{\fg}` respectively if the current language is French, and to `\guillemotleft` and `\guillemotright` otherwise (think of German quotes), this is done by `\FB@og` and `\FB@fg`; thus correct unbreakable spaces will be added automatically to French quotes. The quote characters typed in depend on the input encoding, it can be single-byte (latin1, latin9, applemac,...) or multi-bytes (utf-8, utf8x); the `inputenc` package has to be loaded before the `\begin{document}` with the proper coding option, so we check if `\DeclareInputText` is defined.

Life is much simpler here with modern LuaTeX or XeTeX engines: we just have to activate the `\FB@addGUILspace` attribute for LuaTeX or set `\XeTeXcharclass` of quotes to the proper value for XeTeX.

```

1304 \define@key{FB}{og}{%
1305     \ifFBunicode
        LuaTeX or XeTeX in use, first try modern LuaTeX: we just need to set LuaTeX's attribute
        \FB@addGUILspace to 1,
1306     \ifFB@luatex@punct
1307         \FB@addGUILspace=1 \relax

```

```

1308          \fi
then with XeTeX it is a bit more tricky:
1309          \iffB@xetex@punct
\XeTeXinterchartokenstate is defined, we just need to set \XeTeXcharclass to
\FB@guilo for the French opening quote in T1 and Unicode encoding (see subsection 2.2).
1310          \XeTeXcharclass"13    = \FB@guilo
1311          \XeTeXcharclass"AB   = \FB@guilo
1312          \XeTeXcharclass"A0   = \FB@guilnul
1313          \XeTeXcharclass"202F = \FB@guilnul
1314          \fi
1315      \else
This is for conventional TeX engines:
1316          \newcommand*\{\FB@@og}{%
1317              \iflanguage{french}{%
1318                  {\iffBAutoSpaceGuill\FB@og\ignorespaces
1319                      \else\guillemotleft
1320                      \fi}%
1321                  {\guillemotleft}}%
1322          \AtBeginDocument{%
1323              \ifdef\DeclareInputText
1324                  \ifdef\uc@dclc
Package inputenc with utf8x encoding loaded, use \uc@dclc,
1325                  \uc@dclc{171}{default}\{\FB@@og}%
1326                  \else
if encoding is not utf8x, try utf8...
1327                  \ifdef\DeclareUnicodeCharacter
utf8 loaded, use \DeclareUnicodeCharacter,
1328                  \DeclareUnicodeCharacter{00AB}\{\FB@@og}%
1329                  \else
if utf8 is not loaded either, we assume 8-bit character input encoding. Package
MULEenc (from CJK) defines \mule@def to map characters to control sequences.
1330                  \atempcnda'#1\relax
1331                  \ifdef\mule@def
1332                      \mule@def{11}\{\FB@@og}%
1333                  \else
1334                      \DeclareInputText{\the\atempcnda}\{\FB@@og}%
1335                  \fi
1336                  \fi
1337                  \fi
1338              \else
Package inputenc not loaded, no way...
1339                  \PackageWarning{frenchb.ldf}%
1340                  {Option 'og' requires package inputenc.\MessageBreak}%
1341                  \fi
1342              }%

```

```

1343      \fi
1344  }%
Same code for the closing quote.

1345  \define@key{FB}{fg}{%
1346    \ifFBunicode
1347      \ifFB@luatex@punct
1348        \FB@addGUILspace=1 \relax
1349      \fi
1350      \ifFB@xetex@punct
1351        \XeTeXcharclass"14 = \FB@guilf
1352        \XeTeXcharclass"BB = \FB@guilf
1353        \XeTeXcharclass"A0 = \FB@guilnul
1354        \XeTeXcharclass"202F = \FB@guilnul
1355      \fi
1356    \else
1357      \newcommand*\FB@@fg{%
1358        \iflanguage{french}{%
1359          \ifFBAutoSpaceGuill\FB@fg
1360            \else\guillemotright
1361            \fi}%
1362          {\guillemotright}}%
1363        \AtBeginDocument{%
1364          \ifdefined\DeclareInputText
1365            \ifdefined\uc@dclc
1366              \uc@dclc{187}{default}\FB@@fg}%
1367            \else
1368              \ifdefined\DeclareUnicodeCharacter
1369                \DeclareUnicodeCharacter{00BB}\FB@@fg}%
1370              \else
1371                \@tempcnta‘#1\relax
1372                \ifdefined\mule@def
1373                  \mule@def{27}{{\FB@@fg}}%
1374                \else
1375                  \DeclareInputText{\the\@tempcnta}\FB@@fg}%
1376                \fi
1377              \fi
1378            \fi
1379          \else
1380            \PackageWarning{frenchb.ldf}%
1381            {Option ‘fg’ requires package inputenc.\MessageBreak}%
1382          \fi
1383        }%
1384      \fi
1385    }%
1386  }%

```

**\FBprocess@options** **\FBprocess@options** will be executed at **\begin{document}**: it first checks about packages loaded in the preamble (possibly after babel) which customise lists: currently **enumitem**, **paralist** and **enumerate**; then it processes the options as set by **\frenchbsetup{}** or forced for compatibility with packages loaded in the preamble.

When French is the main language, \extrasfrench and \captionsfrench have already been processed by babel at \begin{document} before \FBprocess@options.

1387 \newcommand\*\{\FBprocess@options}{%

Update flags if a package customising lists has been loaded, currently: enumitem, paralist, enumerate.

```
1388  \@ifpackageloaded{enumitem}{%
1389    \ifFBStandardItemizeEnv
1390    \else
1391      \FBStandardItemizeEnvtrue
1392      \PackageInfo{frenchb.ldf}{%
1393        {Setting StandardItemizeEnv=true for\MessageBreak
1394         compatibility with enumitem package,\MessageBreak}%
1395      \fi
1396      \ifFBStandardEnumerateEnv
1397      \else
1398        \FBStandardEnumerateEnvtrue
1399        \PackageInfo{frenchb.ldf}{%
1400          {Setting StandardEnumerateEnv=true for\MessageBreak
1401           compatibility with enumitem package,\MessageBreak}%
1402        \fi}{}%
1403      \@ifpackageloaded{paralist}{%
1404        \ifFBStandardItemizeEnv
1405        \else
1406          \FBStandardItemizeEnvtrue
1407          \PackageInfo{frenchb.ldf}{%
1408            {Setting StandardItemizeEnv=true for\MessageBreak
1409             compatibility with paralist package,\MessageBreak}%
1410          \fi
1411          \ifFBStandardEnumerateEnv
1412          \else
1413            \FBStandardEnumerateEnvtrue
1414            \PackageInfo{frenchb.ldf}{%
1415              {Setting StandardEnumerateEnv=true for\MessageBreak
1416               compatibility with paralist package,\MessageBreak}%
1417            \fi}{}%
1418      \@ifpackageloaded{enumerate}{%
1419        \ifFBStandardEnumerateEnv
1420        \else
1421          \FBStandardEnumerateEnvtrue
1422          \PackageInfo{frenchb.ldf}{%
1423            {Setting StandardEnumerateEnv=true for\MessageBreak
1424             compatibility with enumerate package,\MessageBreak}%
1425          \fi}{}%
```

Reset \FB@ufl's normal meaning and update lists' settings in case French is the main language:

```
1426  \def\FB@ufl{\update@frenchlists}
1427  \ifx\bbl@main@language\FB@french
1428    \update@frenchlists
1429  \fi
```

The layout of footnotes is handled at the `\begin{document}` depending on the values of flags `FrenchFootnotes` and `AutoSpaceFootnotes` (see section 2.13), nothing has to be done here for footnotes.

`AutoSpacePunctuation` adds an unbreakable space (in French only) before the four active characters (::!?) even if none has been typed before them.

```
1430  \ifFBAutoSpacePunctuation
1431      \autospace@beforeFDP
1432  \else
1433      \noautospace@beforeFDP
1434  \fi
```

When `OriginalTypewriter` is set to `false` (the default), `\ttfamily`, `\rmfamily` and `\sffamily` are redefined as `\ttfamilyFB`, `\rmfamilyFB` and `\sffamilyFB` respectively to prevent addition of automatic spaces before the four active characters in computer code.

```
1435  \ifFBOriginalTypewriter
1436  \else
1437      \let\ttfamily\ORIttfamily
1438      \let\rmfamily\ORIrmfamily
1439      \let\sffamily\ORIsffamily
1440      \let\ttfamily\ttfamilyFB
1441      \let\rmfamily\rmfamilyFB
1442      \let\sffamily\sffamilyFB
1443  \fi
```

`ThinColonSpace` changes the normal unbreakable space typeset in French before ‘:’ to a thin space.

```
1444  \ifFBThinColonSpace
1445  \ifFB@luatex@punct
1446      \FBcolonskip=\FBthinspace\relax
1447  \else
1448      \renewcommand*\FBcolonspace{\FBthinspace}%
1449  \fi
1450  \fi
```

When `true`, `INGuillSpace` resets the dimensions of skips after opening French quotes and before closing French quotes to I.N. standards.

```
1451  \ifFBINGuillSpace
1452  \ifFB@luatex@punct
1453      \FBguillskip=3.33pt plus 1.665pt minus 1.11pt \relax
1454  \else
1455      \renewcommand*\FBguillspace{\space}%
1456  \fi
1457  \fi
```

When package `numprint` is loaded with option `autolanguage`, `numprint`'s command `\npstylefrench` has to be redefined differently according to the value of flag `ThinSpaceInFrenchNumbers`. As `\npstylefrench` was undefined in old versions of `numprint`, we have to provide this command.

```
1458  \@ifpackageloaded{numprint}%
1459  {\ifnprt@autolanguage}
```

```

1460      \providecommand*\npstylefrench{}%
1461      \ifFBThinSpaceInFrenchNumbers
1462          \renewcommand*\npstylefrench{%
1463              \nptousandsep{\,}%
1464              \npdecimalsign{,}%
1465              \npproductsign{\cdot}%
1466              \npunitseparator{\,}%
1467              \npdegreeseparator{}%
1468              \nppercentseparator{\nprt@unitsep}%
1469          }%
1470      \else
1471          \renewcommand*\npstylefrench{%
1472              \nptousandsep{~}%
1473              \npdecimalsign{,}%
1474              \npproductsign{\cdot}%
1475              \npunitseparator{\,}%
1476              \npdegreeseparator{}%
1477              \nppercentseparator{\nprt@unitsep}%
1478          }%
1479      \fi
1480      \npaddtolanguage{french}{french}%
1481  \fi}{}%

```

**FrenchSuperscripts:** if `true`  $\up=\text{\fup}$ , else  $\up=\text{\textsuperscript}$ . Anyway  $\up*=\text{\FB@up@fake}$ . The star-form  $\up*$  is provided for fonts that lack some superior letters: Adobe Jenson Pro and Utopia Expert have no “g superior” for instance.

```

1482  \ifFBFrenchSuperscripts
1483      \DeclareRobustCommand*{\up}{\@ifstar{\FB@up@fake}{\fup}}%
1484  \else
1485      \DeclareRobustCommand*{\up}{\@ifstar{\FB@up@fake}%
1486                                  {\textsuperscript}}%
1487  \fi

```

**LowercaseSuperscripts:** if `true` let  $\FB@lc$  be  $\text{\lowercase}$ , else  $\FB@lc$  is redefined to do nothing.

```

1488  \ifFBLowercaseSuperscripts
1489  \else
1490      \renewcommand*{\FB@lc}[1]{##1}%
1491  \fi

```

Unless `CustomiseFigTabCaptions` has been set to `false`, use `\CaptionSeparator` for koma-script, memoir and beamer classes.

```

1492  \ifFBCustomiseFigTabCaptions
1493      \iffB@koma
1494          \renewcommand*{\captionformat}{\CaptionSeparator}%
1495      \fi
1496      \@ifclassloaded{memoir}%
1497          {\captiondelim{\CaptionSeparator}}{}%
1498      \@ifclassloaded{beamer}%
1499          {\defbeamertemplate{caption label separator}{FBcustom}{%
1500              \CaptionSeparator}%
1501          \setbeamertemplate{caption label separator}[FBcustom]}%

```

```
1502 \else  
When CustomiseFigTabCaptions is false, have the colon behave properly in French:  
locally force \autospace@beforeFDP in case of AutoSpacePunctuation=false.
```

```
1503 \ifFB@koma  
1504     \renewcommand*\captionformat{{\autospace@beforeFDP : }}%  
1505 \fi  
1506 \ifclassloaded{memoir}{%  
1507     {\captiondelim{\autospace@beforeFDP : }}%  
1508 }{}%  
1509 \ifclassloaded{beamer}{%  
1510     \defbeamertemplate{caption label separator}{FBcolon}{%  
1511         {\autospace@beforeFDP : }}%  
1512     \setbeamertemplate{caption label separator}[FBcolon]{%  
1513 }{}%  
1514 \fi
```

**ShowOptions:** if **true**, print the list of all options to the **.log** file.

```
1515 \ifFBShowOptions  
1516 \GenericWarning{* }{  
1517 * **** List of possible options for frenchb *****\MessageBreak  
1518 [Default values between brackets when frenchb is loaded *LAST*]%">  
1519 \MessageBreak  
1520 ShowOptions=true [false]\MessageBreak  
1521 StandardLayout=true [false]\MessageBreak  
1522 GlobalLayoutFrench=false [true]\MessageBreak  
1523 StandardLists=true [false]\MessageBreak  
1524 IndentFirst=false [true]\MessageBreak  
1525 ReduceListSpacing=false [true]\MessageBreak  
1526 ListOldLayout=true [false]\MessageBreak  
1527 StandardItemizeEnv=true [false]\MessageBreak  
1528 StandardEnumerateEnv=true [false]\MessageBreak  
1529 StandardItemLabels=true [false]\MessageBreak  
1530 ItemLabels=\textemdash, \textbullet,  
1531     \protect\ding{43},... [\textendash]\MessageBreak  
1532 ItemLabeli=\textemdash, \textbullet,  
1533     \protect\ding{43},... [\textendash]\MessageBreak  
1534 ItemLabelii=\textemdash, \textbullet,  
1535     \protect\ding{43},... [\textendash]\MessageBreak  
1536 ItemLabeliii=\textemdash, \textbullet,  
1537     \protect\ding{43},... [\textendash]\MessageBreak  
1538 ItemLabeliv=\textemdash, \textbullet,  
1539     \protect\ding{43},... [\textendash]\MessageBreak  
1540 FrenchFootnotes=false [true]\MessageBreak  
1541 AutoSpaceFootnotes=false [true]\MessageBreak  
1542 AutoSpacePunctuation=false [true]\MessageBreak  
1543 OriginalTypewriter=true [false]\MessageBreak  
1544 ThinColonSpace=true [false]\MessageBreak  
1545 ThinSpaceInFrenchNumbers=true [false]\MessageBreak  
1546 FrenchSuperscripts=false [true]\MessageBreak  
1547 LowercaseSuperscripts=false [true]\MessageBreak  
1548 PartNameFull=false [true]\MessageBreak
```

```

1549     SuppressWarning=true [false]\MessageBreak
1550     CustomiseFigTabCaptions=false [true]\MessageBreak
1551     OldFigTabCaptions=true [false]\MessageBreak
1552     SmallCapsFigTabCaptions=false [true]\MessageBreak
1553     INGuillSpace=true [false]\MessageBreak
1554     InnerGuillSingle=true [false]\MessageBreak
1555     EveryParGuill=open, close, none [open]\MessageBreak
1556     EveryLineGuill=open, close, none
1557         [open in LuaTeX, none otherwise]\MessageBreak
1558     og= <left quote character>, fg= <right quote character>%
1559     \MessageBreak
1560     ****%
1561     \MessageBreak\protect\frenchbsetup{ShowOptions}}
1562 \fi
1563 }

```

At `\begin{document}`, we have to provide an `\xspace` command in case the `xspace` package is not loaded, do some setup for `hyperref`'s bookmarks, execute `\FBprocess@options`, switch `LuaTeX` punctuation on and issue some warnings if necessary.

```

1564 \AtBeginDocument{%
1565   \providecommand*\{\xspace}{\relax}%

```

Let's redefine some commands in `hyperref`'s bookmarks.

```

1566   \ifdefined\pdfstringdefDisableCommands
1567     \pdfstringdefDisableCommands{%
1568       \let\up\relax
1569       \let\fup\relax
1570       \let\degre\textdegree
1571       \let\degres\textdegree
1572       \def\ieme{e\xspace}%
1573       \def\iemes{es\xspace}%
1574       \def\ier{er\xspace}%
1575       \def\iers{ers\xspace}%
1576       \def\iere{re\xspace}%
1577       \def\ieres{res\xspace}%
1578       \def\FrenchEnumerate#1{\#1\degre\space}%
1579       \def\FrenchPopularEnumerate#1{\#1\degre)\space}%
1580       \def\No{N\degre\space}%
1581       \def\no{n\degre\space}%
1582       \def\Nos{N\degre\space}%
1583       \def\nos{n\degre\space}%
1584       \def\FB@og{\guillemotleft\space}%
1585       \def\FB@fg{\space\guillemotright}%
1586       \def\at{@}%
1587       \def\circonflexe{\string^}%
1588       \def\tild{\string~}%
1589       \let\bsc{textsc}
1590     }%
1591   \fi

```

It is time to process the options set with `\frenchbsetup{}` or later.

```

1592     \FBprocess@options
With LuaTeX engines (\FBthinspace and \FBcolonskip values are set now), it is time
to load file frenchb.lua.
1593     \ifFB@luatex@punct
1594         \activate@luatexpunct
1595     \fi
Some warnings are issued when output font encodings are not properly set. With
XeLaTeX or LuaLaTeX, fonts.sty and xunicode.sty should be loaded unless T1
encoded fonts are used through luainputenc, in the latter case \FB@og and \FB@fg
have to be redefined; with (pdf)LaTeX, a warning is issued when OT1 encoding is
in use at the \begin{document}. Mind that \encodingdefault is defined as 'long',
defining \FBOTone with \newcommand* would fail!
1596     \ifFBunicode
1597         \ifdef\DeclareUTFcharacter
1598             \else
1599                 @ifpackageloaded{luainputenc}{}%
1600                 {\PackageWarning{frenchb.ldf}%
1601                  {Add \protect\usepackage{fontspec} to the\MessageBreak
1602                   preamble of your document,}%
1603                 }%
1604             \fi
1605         \else
1606             \begin{group} \newcommand{\FBOTone}{OT1}%
1607             \ifx\encodingdefault\FBOTone
1608                 \PackageWarning{frenchb.ldf}%
1609                 {OT1 encoding should not be used for French.%%
1610                  \MessageBreak
1611                  Add \protect\usepackage[T1]{fontenc} to the
1612                   preamble\MessageBreak of your document,}%
1613             \fi
1614             \endgroup
1615         \fi
1616     }

```

## 2.11 French lists

\listFB Vertical spacing in lists should be shorter in French texts than the defaults provided by \listORI by LaTeX. Note that the easy way, just changing values of vertical spacing parameters \FB@listVsettings when entering French and restoring them to their defaults on exit would not work; so we define the command \FB@listVsettings to hold the settings to be used by the French variant \listFB of \list. Note that switching to \listFB reduces vertical spacing in *all* environments built on \list: itemize, enumerate, description, but also abstract, quotation, quote and verse... The amount of vertical space before and after a list is given by \topsep + \parskip (+ \partopsep if the list starts a new paragraph). IMHO, \parskip should be added *only* when the list starts a new paragraph, so I subtract \parskip from \topsep and add it back to \partopsep; this will normally make no difference because \parskip's default value is 0pt, but will be noticeable when \parskip is *not* null.

```

1617 \let\listORI\list
1618 \let\endlistORI\endlist
1619 \def\FB@listVsettings{%
1620     \setlength{\itemsep}{0.4ex plus 0.2ex minus 0.2ex}%
1621     \setlength{\parsep}{0.4ex plus 0.2ex minus 0.2ex}%
1622     \setlength{\topsep}{0.8ex plus 0.4ex minus 0.4ex}%
1623     \setlength{\partopsep}{0.4ex plus 0.2ex minus 0.2ex}%
1624     \tempdima=\parskip
1625     \addtolength{\topsep}{-\tempdima}%
1626     \addtolength{\partopsep}{\tempdima}%
1627 }
1628 \def\listFB#1#2{\listORI{#1}{\FB@listVsettings #2}}
1629 \let\endlistFB\endlist

```

Let's now consider French itemize-lists. They differ from those provided by the standard  $\text{\LaTeX}_2\epsilon$  classes:

- The ‘•’ is never used in French itemize-lists, an emdash ‘—’ or an endash ‘–’ is preferred for all levels. The item label to be used in French is stored in `\FrenchLabelItem`, it defaults to ‘—’ and can be changed using `\frenchbsetup{}` (see section 2.10).
- Vertical spacing between items, before and after the list, should be *null* with *no glue* added;
- In French the labels of itemize-lists are vertically aligned as follows:
 

Text starting at ‘parindent’  
 $\Leftarrow$  Leftmargin  
   — first item...  
   — first second level item  
   — next one...  
   — second item...

`\FrenchLabelItem` Default labels for French itemize-lists (same label for all levels):

```

\frlabelitemi1630 \newcommand*{\FrenchLabelItem}{\textemdash}
\frlabelitemii1631 \newcommand*{\frlabelitemi}{\FrenchLabelItem}
\frlabelitemiii1632 \newcommand*{\frlabelitemii}{\FrenchLabelItem}
\frlabelitemiv1633 \newcommand*{\frlabelitemiii}{\FrenchLabelItem}
\frlabelitemv1634 \newcommand*{\frlabelitemiv}{\FrenchLabelItem}

```

`\listindentFB` Let's define two lengths `\listindentFB` and `\labelwidthFB` to customise lists' horizontal indentations. They are given silly values here ( $-1\text{pt}$ ) in order to eventually enable their customisation in the preamble. They will get reasonable defaults later when entering French (see `\bbl@frenchlabelitems`) unless they have been customised.

```
1635 \newlength\listindentFB
```

```

1636 \setlength{\listindentFB}{-1pt}
1637 \newlength\labelwidthFB
1638 \setlength{\labelwidthFB}{-1pt}

```

\FB@listHsettings \FB@listHsettings holds the new horizontal settings chosen for French lists itemize \leftmarginFB and enumerate starting with version 2.6a. They are based on the look requested in French for itemize-lists.

```

1639 \newlength\leftmarginFB
1640 \def\FB@listHsettings{%
1641   \leftmarginFB\labelwidthFB
1642   \advance\leftmarginFB \labelsep
1643   \leftmargini\leftmarginFB
1644   \advance\leftmargini \listindentFB
1645   \leftmarginii\leftmarginFB
1646   \leftmarginiii\leftmarginFB
1647   \leftmarginiv\leftmarginFB
1648   \leftmargin\csname leftmargin\romannumeral\the\@listdepth\endcsname
1649 }

```

\itemizeFB New environment for French itemize-lists.

\FB@itemizesettings \FB@itemizesettings does two things: first suppress all vertical spaces including glue when option `ReduceListSpacing` is set, then set horizontal indentations according to \FB@listHsettings unless option `ListOldLayout` is `true` (compatibility with lists up to v. 2.5k).

```

1650 \def\FB@itemizesettings{%
1651   \ifFBReduceListSpacing
1652     \setlength{\itemsep}{\z@}%
1653     \setlength{\parsep}{\z@}%
1654     \setlength{\topsep}{\z@}%
1655     \setlength{\partopsep}{\z@}%
1656     \tempdima=\parskip
1657     \addtolength{\topsep}{-\tempdima}%
1658     \addtolength{\partopsep}{\tempdima}%
1659   \fi
1660   \settowidth{\labelwidth}\csname\itemitem\endcsname%
1661   \ifFBListOldLayout
1662     \setlength{\leftmargin}{\labelwidth}%
1663     \addlength{\leftmargin}{\labelsep}%
1664     \addlength{\leftmargin}{\parindent}%
1665   \else
1666     \FB@listHsettings
1667   \fi
1668 }

```

The definition of \itemizeFB follows the one of \itemize in standard  $\text{\LaTeX} 2_{\varepsilon}$  classes (see `ltlists.dtx`), spaces are customised by \FB@itemizesettings.

```

1669 \def\itemizeFB{%
1670   \ifnum \@itemdepth >\thr@@\@toodeep\else
1671     \advance\@itemdepth\@ne
1672     \edef\@itemitem{\labelitem\romannumeral\the\@itemdepth}%
1673     \expandafter

```

```

1674     \listORI
1675     \csname@itemitem\endcsname
1676     \FB@itemizesettings
1677   \fi
1678 }
1679 \let\enditemizeFB\endlistORI

1680 \def\labelitemsFB{%
1681   \let\labelitemi\rlabelitemi
1682   \let\labelitemii\rlabelitemii
1683   \let\labelitemiii\rlabelitemiii
1684   \let\labelitemiv\rlabelitemiv
1685   \ifdim\labelwidthFB<\z@
1686     \settowidth{\labelwidthFB}{\FrenchLabelItem}%
1687   \fi
1688   \ifdim\listindentFB<\z@
1689     \ifdim\parindent=\z@
1690       \setlength{\listindentFB}{1.5em}%
1691     \else
1692       \setlength{\listindentFB}{\parindent}%
1693     \fi
1694   \fi
1695 }

```

**\enumerateFB** The definition of `\enumerateFB`, new to version 2.6a, follows the one of `\enumerate` in standard  $\text{\LaTeX}2_{\varepsilon}$  classes (see `ltlists.dtx`), vertical spaces are customised (or not) via `\list` ( $=\listFB$  or `\listORI`) and horizontal spaces (`leftmargin`) are borrowed from `itemize` lists via `\FB@listHsettings`.

```

1696 \def\enumerateFB{%
1697   \ifnum \@enumdepth >\thr@@@toodeep\else
1698     \advance\@enumdepth\@ne
1699     \edef\@enumctr{enum\romannumeral\the\@enumdepth}%
1700     \expandafter
1701     \list
1702       \csname label\@enumctr\endcsname
1703       {\FB@listHsettings
1704        \usecounter\@enumctr\def\makelabel##1{\hss\llap{##1}}%
1705     \fi
1706   }
1707 \let\endenumerateFB\endlistORI

```

**\descriptionFB** Same tuning for the `description` environment (see the original definition in `classes.dtx`). Customisable `\listindentFB` added to `\itemindent` (first level only).

```

1708 \def\descriptionFB{%
1709   \list{}{\FB@listHsettings
1710     \labelwidth\z@
1711     \itemindent-\leftmargin
1712     \ifnum\@listdepth=1
1713       \advance\itemindent by \listindentFB

```

```

1714          \fi
1715          \let\makelabel\descriptionlabel}%
1716 }
1717 \let\enddescriptionFB\endlist0RI

\update@frenchlists \update@frenchlists will set up lists according to the options of \frenchbsetup{}.

\bbbl@frenchlistlayout1718 \def\update@frenchlists{%
\bbbl@nonfrenchlistlayout1719 \ifFBReduceListSpacing \let\list\listFB \fi
1720 \ifFBStandardItemizeEnv
1721 \else \let\itemize\itemizeFB \fi
1722 \ifFBStandardItemLabels
1723 \else \labelitemsFB \fi
1724 \ifFBStandardEnumerateEnv
1725 \else \let\enumerate\enumerateFB \let\description\descriptionFB \fi
1726 }

In order to ensure compatibility with packages customising lists, the command
\update@frenchlists should not be included in \extrasfrench yet, so we also
define \FB@ufl as \relax, it will be redefined as \update@frenchlists in due time
'AtBeginDocument' by \FBprocess@options, see p. 53.

1727 \def\FB@ufl{\relax}
1728 \def\bbbl@frenchlistlayout{%
1729   \ifFBGlobalLayoutFrench
1730   \else
1731     \babel@save\list      \babel@save\itemize
1732     \babel@save\enumerate  \babel@save\description
1733     \babel@save\labelitemi \babel@save\labelitemii
1734     \babel@save\labelitemiii \babel@save\labelitemiv
1735   \fi
1736   \FB@ufl
1737 }
1738 \def\bbbl@nonfrenchlistlayout{%
1739   \ifFBGlobalLayoutFrench
1740     \update@frenchlists
1741   \fi
1742 }
1743 \FB@addto{extras}{\bbbl@frenchlistlayout}
1744 \FB@addto{noextras}{\bbbl@nonfrenchlistlayout}

```

## 2.12 French indentation of sections

\bbbl@frenchindent In French the first paragraph of each section should be indented, this is another  
\bbbl@nonfrenchindent difference with US-English. This is controlled by the flag \if@afterindent.

We will need to save the value of the flag \if@afterindent 'AtBeginDocument'  
before eventually changing its value.

```

1745 \def\bbbl@frenchindent{%
1746   \ifFBGlobalLayoutFrench\else\babel@save\@afterindentfalse\fi
1747   \ifFBIndentFirst
1748     \let\@afterindentfalse\@afterindenttrue
1749     \@afterindenttrue

```

```

1750 \fi}
1751 \def\bbl@nonfrenchindent{%
1752   \ifFBGlobalLayoutFrench
1753     \ifFBIndentFirst
1754       \@afterindenttrue
1755     \fi
1756   \fi}
1757 \FB@addto{extras}{\bbl@frenchindent}
1758 \FB@addto{noextras}{\bbl@nonfrenchindent}

```

## 2.13 Formatting footnotes

The `bigfoot` package deeply changes the way footnotes are handled. When `bigfoot` is loaded, we just warn the user that `frenchb` will drop the customisation of footnotes. The layout of footnotes is controlled by two flags `\iffBAutoSpaceFootnotes` and `\iffBFFrenchFootnotes` which are set by options of `\frenchbsetup{}` (see section 2.10). The layout of footnotes *does not depend* on the current language (just think of two footnotes on the same page looking different because one was called in a French part, the other one in English!).

When `\iffBAutoSpaceFootnotes` is true, `\@footnotemark` (the definition of which is saved at the `\begin{document}`) in order to include any customisation that packages might have done) is redefined to add a thin space before the number or symbol calling a footnote (any space typed in is removed first). This has no effect on the layout of the footnote itself.

```

1759 \AtBeginDocument{@ifpackageloaded{bigfoot}%
1760   {\PackageInfo{frenchb.ldf}{%
1761     {bigfoot package in use.\MessageBreak
1762       frenchb will NOT customise footnotes;\MessageBreak
1763       reported}}%
1764     {\let\@footnotemarkORI\@footnotemark
1765       \def\@footnotemarkFB{\leavevmode\unskip\unkern
1766         \, ,\@footnotemarkORI}%
1767       \iffBAutoSpaceFootnotes
1768         \let\@footnotemark\@footnotemarkFB
1769       \fi}%
1770   }

```

We then define `\@makefntextFB`, a variant of `\@makefntext` which is responsible for the layout of footnotes, to match the specifications of the French ‘Imprimerie Nationale’: footnotes will be indented by `\parindentFFN`, numbers (if any) typeset on the baseline (instead of superscripts) and followed by a dot and an half quad space. Whenever symbols are used to number footnotes (as in `\thanks` for instance), we switch back to the standard layout (the French layout of footnotes is meant for footnotes numbered by Arabic or Roman digits).

The value of `\parindentFFN` will be redefined at the `\begin{document}`, as the maximum of `\parindent` and `1.5em` *unless* it has been set in the preamble (the weird value `10in` is just for testing whether `\parindentFFN` has been set or not).

```

1771 \newcommand*\dotFFN{.}
1772 \newcommand*\kernFFN{\kern .5em}

```

```

1773 \newdimen\parindentFFN
1774 \parindentFFN=10in
1775 \def\ftnISsymbol{\@fnssymbol\c@footnote}
1776 \long\def\@makefntextFB#1{\ifx\thefootnote\ftnISsymbol
1777                                     \atmakefntextORI{#1}%
1778                                     \else
1779                                         \parindent=\parindentFFN
1780                                         \rule{z@\footnotesepr
1781                                         \setbox\@tempboxa\hbox{\@thefnmark}%
1782                                         \ifdim\wd\@tempboxa>z@
1783                                         \llap{\@thefnmark}\dotFFN\kernFFN
1784                                         \fi #1
1785                                         \fi}%

```

We save the standard definition of `\@makefntext` at the `\begin{document}`, and then redefine `\@makefntext` according to the value of flag `\iffBFFrenchFootnotes` (true or false).

```

1786 \AtBeginDocument{@ifpackageloaded{bigfoot}{}}%
1787             {\ifdim\parindentFFN<10in
1788             \else
1789                 \parindentFFN=\parindent
1790                 \ifdim\parindentFFN<1.5em \parindentFFN=1.5em \fi
1791             \fi
1792             \let\@makefntextORI\@makefntext
1793             \long\def\@makefntext#1{%
1794                 \iffBFFrenchFootnotes
1795                     \@makefntextFB{#1}%
1796                 \else
1797                     \@makefntextORI{#1}%
1798                 \fi}%
1799             }%
1800         }

```

For compatibility reasons, we provide definitions for the commands dealing with the layout of footnotes in `frenchb` version 1.6. `\frenchbsetup{}` (see in section 2.10) should be preferred for setting these options. `\StandardFootnotes` may still be used locally (in `minipages` for instance), that's why the test `\iffBFFrenchFootnotes` is done inside `\@makefntext`.

```

1801 \newcommand*\AddThinSpaceBeforeFootnotes{\FBAutoSpaceFootnote=true}
1802 \newcommand*\FrenchFootnotes{\FBFrenchFootnote=true}
1803 \newcommand*\StandardFootnotes{\FBFrenchFootnote=false}

```

## 2.14 Clean up and exit

Final cleaning. The macro `\ldf@finish` takes care for setting the main language to be switched on at `\begin{document}` and resetting the category code of @ to its original value.

```

1804 \FBclean@on@exit
1805 \ldf@finish\CurrentOption

```

### 3 Change History

v2.0	General: \parindentFFN not changed if already defined (required by JA for cah-gut.cls). . . . .	63	v2.0g	\frenchbsetup: Revert previous change to StandardLayout. This option must set the three flags \FBReduceListSpacingfalse, \FBCompactItemizefalse, and \FBStandardItemLabeltrue instead of \FBStandardListstrue, so that later options can still change their value before executing \FBprocess@options. Same thing for option StandardLists. . . . .	46
	Added warning for OT1 encoding. . . . .	57	v2.1a	General: Command \fup added to produce better superscripts than \textsuperscript. . . . .	35
	Footnotes are now printed by default ‘à la française’ for the whole document. . . . .	63		\datefrench: \today changed (correction in 2.0 was wrong: \today was printed without spaces in toc). . . . .	34
	New command \frenchbsetup added for global customisation. . . . .	46		\frenchbsetup: New option: FrenchSuperscripts to define \up as \fup or as \textsuperscript. . . . .	46
	\bsc: \hbox dropped, replaced by \kern0pt. . . . .	37		New option: LowercaseSuperscripts. . . . .	46
	\captionsfrench: ‘Fig.’ changed to ‘Figure’ and ‘Tab.’ to ‘Table’. . . . .	40	v2.1b	General: Disable some commands in bookmarks. . . . .	57
	\datefrench: 2 ‘\relax’ added in \today’s definition. . . . .	34		\fup: Command \fup changed to use real superscripts from fourier v. 1.6. . . . .	35
	\FBtextellipsis: Added special case for LY1 encoding, see bug report from Bruno Voisin (2004/05/18). . . . .	44	v2.1c	General: Added commands \Nos and \nos. . . . .	37
	\nombre: \nombre now requires numprint.sty. . . . .	39		\degrees: Provide a temporary definition (hyperref safe) of \degrees in case it has to be expanded in the preamble (by beamer’s \title command for instance). . . . .	38
v2.0b	General: Footnotes: Just do nothing (except warning) when the bigfoot package is loaded. . . . .	63		\up: Provide a temporary definition (hyperref safe) of \up in case it has to be expanded in the preamble (by beamer’s \title command for instance). . . . .	35
v2.0c	General: There is no need to define here numprint’s command \npstylefrench, it will be redefined ‘AtBeginDocument’ by \FBprocess@options. . . . .	40	v2.1d	General: Argument of \ProvidesLanguage changed above from ‘french’ to ‘frenchb’ (otherwise \listfiles prints no date/version information). The real name of current language	88
	\frenchbsetup: Option ThinSpaceInFrenchNumbers added. . . . .	46			
v2.0d	\frenchbsetup: Options og and fg changed: limit the definition to French so that quote characters can be used in German. . . . .	46			
v2.0e	\frenchbsetup: New option: StandardLists. . . . .	46			
v2.0f	\frenchbsetup: StandardLayout option had no effect on lists. Test moved to \FBprocess@options. . . . .	46			
	Two typos corrected in option StandardLists: [false] → [true] and StandardLayout → StandardLists. . . . .	46			

(french) as to be corrected before calling \LdfInit. ....	13	\rmfamily and \sffamily have to be robust. Bug introduced in 2.3a, pointed out by Manuel Pégourié-Gonnard. ....	29
Avoid warning “\end occurred when \ifx ... incomplete” with LaTeX-2.09. ....	13	v2.3d	
v2.2a		\bbl@nonfrenchindent: Bug correction: previous versions of frenchb set the flag \if@afterindent to false outside French which is correct for English but wrong for some languages like Spanish. Pointed out by Juan José Torrens. ....	62
\frenchbsetup: Default values of flags changed: default now means ‘StandardLayout’, they will be changed to ‘FrenchLayout’ AtEndOfPackage only if french is \bbl@main@language. ....	46	v2.3e	
The global layout of the document is no longer changed when frenchb is not the last option of babel (\bbl@main@Language). Suggested by Ulrike Fischer. ....	46	General: Execute \AutoSpaceBeforeFDP also in LaTeX to define \FDP@colonspace: needed for tex4ht, pointed out by MPG. ....	28
When frenchb is babel’s last option, French becomes the document’s main language, so GlobalLayout-French applies. ....	46	v2.4a	
\fup: \newif and \newdimen moved before \ifLaTeXe to avoid an error with plainTeX. ....	35	General: \PackageWarning changed to \FBWarning (when bigfoot package in use). ....	63
v2.3a		\CaptionSeparator: \PackageWarning changed to \FBWarning (in case \makecaption has been customised). \FBWarning is defined as \PackageWarning by default but can be made silent using \frenchbsetup, (suggested by MPG). ....	42
General: \NoAutoSpaceBeforeFDP and \AutoSpaceBeforeFDP now set the flag \iffBAutoSpacePunctuation accordingly (LaTeX only). ....	28	\frenchbsetup: New option Suppress-Warning. ....	46
In LaTeX, frenchb no longer adds spaces before ‘high punctuation’ characters in computer code. Suggested by Yannis Haralambous. ....	29	\ifFBXeTeX: Added a new ‘if’ \FBunicode and some \lccode definitions to \extrasfrench and \noextrasfrench. ....	15
\frenchbsetup: New option: Original-Typewriter. Now frenchb switches to \noautospace@beforeFDP when a tt-font is in use. When OriginalTypewriter is set to true, frenchb behaves as in pre-2.3 versions. ....	46	v2.4c	
\fup: \lowercase changed to \MakeLowercase as the former doesn’t work for non ASCII characters in encodings like applemac, utf-8,... ....	35	General: In \ttfamilyFB, also cancel automatic spaces inside French guillemets coded as characters (see \frenchbsetup). ....	50
v2.3b		In \ttfamilyFB, also cancel automatic spaces inside French guillemets entered as characters (see \frenchbsetup). ....	29
General: New commands \dotFFN and \kernFFN for more flexibility (suggested by JA). ....	63	v2.4d	
v2.3c		\up: Command \up defined with \providecommand instead of \newcommand as \up may be defined elsewhere (catalan.ldf). Bug pointed out by Felip Manyé i Ballester. ....	35
General: Commands \ttfamily,			

v2.5a	
General: \og and \fg do not print correctly in English when using XeTeX or LuaTeX, fixed by using \textquotedblleft and \textquotedblright defined above. ....	32
New command \NoAutoSpacing, suggested by MPG. ....	30
Punctuation is no longer made active with XeTeX-based engines. ....	16
\captionsfrench: \emph deleted in \seename and \alsoname to match what is done for the other languages. Suggested by Marc Baudoin. ....	40
\FBthinspace: Define \FBthinspace for those who want to customise the width of the space before ; and co. ....	17
\textquoteddblright: Change \guillemotleft and \guillemotright definitions for Unicode and provide definitions for \textquotedblleft and \textquotedblright. Insures correct printing of quotes by \og and \fg in French and outside. ....	30
v2.5b	
General: Do not use the test \iflanguage{french} to check whether French is the main language or not, as it might be erroneously positive when English is the main language and no hyphenation patterns are available for French. In this case \l@french and \l@english are 0. Pointed out by Günter Milde. ....	47
v2.5c	
General: The code meant for XeTeX also works for LuaTeX, we just need to change the test. ....	50
v2.5d	
General: Moved the \newcount command outside \ifFB@xetex@punct ... \fi (it broke Plain formats). ...	24
\ifFBXeTeX: Added two new 'if' \FBXeTeX and \FBLuaTeX as XeTeX and behave differently regarding	
the status of the French "apostrophe". ....	15
v2.5e	
General: \pdfstringdefDisableCommands should redefine \FB@og and \FB@fg instead of \og and \fg so that it works also when quotes are entered as characters. Reported by Sébastien Gouezel. ....	57
v2.5f	
General: Changed definitions of \at, \circonflexe, \tild, \boi and \degre for Unicode based engines. ....	37
\FBtextellipsis: Unicode fonts also provide a ready made character for \textellipsis, let's just use it (reported by Maxime Chupin, 2011/06/04). ....	44
v2.5g	
General: Redefine \degre, \degrees \at \circonflexe and \tild for bookmarks. Add \fup also. ....	57
When \ifFB@xetex@punct is true, 'og' and 'fg' options now set XeTeX-charclasses of these characters to \FB@guilo and \FB@guilf. Otherwise French quotes behave as normal characters (their XeTeXchar-class is 0). ....	50
\FB@xetex@punct@french: XeTeX-charclass(es) for French quotes will be set to \FB@guilo and \FB@guilf by options 'og' and 'fg' in \frenchbsetup. French quotes should behave as normal characters by default in XeLaTeX as in LaTeX. ....	25
v2.5h	
\degres: textcomp.sty has changed. The test about \M@TS1 is no longer relevant, let's change it. ....	38
v2.5i	
General: Temporary fix: as long as xeCJK.sty will not use \newXeTeXintercharclass to allocate its classes, we will have to define 3 fake classes. ....	25
\FB@xetex@punct@french: xeCJK.sty changes the \XeTeXcharclass of ASCII chars '-' ',' '.' '}' '[' '}'	

'{' '%' opening and closing single and double quotes. We set their class to 0 in French and reset their class to their original value when leaving French. See \FB@xetex@punct@nonfrench below. ....	25	to \FBthinspace and \Fcolonspace to \FBcolonspace to avoid a conflict with fournier.sty. ....	17		
v2.5j		\degrees: Refrain from redefining \textdegree from latin1.def, applemac.def, etc. as \degrees because it loops in hyperref's bookmarks. Pointed out by Eddy Flas on fctt. ....	38		
v2.6a	General: Bug correction: changing \leftmargin cannot be done only for itemize-lists: it messes up embedded enumerate lists. Pointed out by Denis Bitouzé. Lists have been completely redesigned in frenchb v. 2.6a. An option for backward compatibility is provided. .	58	\FB@itemizesettings: \labelwidth must be reset, f.i. when an itemize list occurs inside environments based on trivlist which set \labelwidth to 0 (see proof environment in amsthm.sty). Bug pointed out by Julien Hauseux. .	60	
\frenchbsetup:	New options ListOldLayout, StandardItemizeEnv and StandardEnumerateEnv (CompactItemize is deprecated). ....	46	\FB@itemizesettings: Suppress all vertical spaces only if ReduceListSpacing is true. Pointed out by Pierre Willaime. ....	60	
\FrenchLabelItem:	default changed from \textendash to \textemdash. ....	59	\iffBTeX: Iccode values for the French “apostrophe” are now the same for XeTeX and LuaTeX. ....	15	
v2.6b	\descriptionFB: Settings of \FB@listHsettings should apply to description lists too. ....	61	v2.6h	General: \FG@og and \FG@fg changed: former clumsy code removed. .	50
v2.6c	General: Dummy file frenchb.cfg is no longer generated from frenchb.dtx. ....	12	If \makecaption is undefined, no warning. ....	43	
No warning about \makecaption for AMS classes. ....	42	New class \FB@guilnul for characters U+00A0 (Unicode no-breakspace) and U+202F (Unicode nobreakthinspace), to prevent frenchb from adding spurious spaces inside quotes. ....	25		
No warning about \makecaption for koma-script classes. \captionformat customised in French. ....	43	\CaptionSeparator: No active catcodes in \STD@makecaption’s definition. ....	42		
Warning added when the caption or floatrow package is loaded before babel/frenchb. ....	43	v3.0a	General: \LdfInit checks \datefrench instead of \captionsfrench to avoid a conflict with papertex.cls which loads		
\CaptionSeparator:	Former \CaptionSeparator has been renamed as \FBCaption@Separator; Newif \if@FBwarning@capsep added. ....	42			
v2.6d	\FBthinspace: Rename \Fthinspace				

datetime.sty. ....	13	\extrasfrench: Take advantage of babel's \babel@savevariable to handle apostrophe's \lccode. . .	15
\bbl@nonfrenchguillemets deleted, use \babel@save instead. ....	32	\FBprocess@options: Changed option ThinColonSpace to make it work also with LuaTeX. . . . .	54
Added explicit \FBguillskip for LuaTeX. ....	31	With koma-script and memoir class, customise \captionformat and \captiondelim. ....	55
Definitions of \FB@og and \FB@fg now depend on punctuation handling (LuaTeX / XeTeX / active). . .	31	\FBthinspace: LuaTeX requires dimensions: two new skips \FBcolonskip and \FBthinspace. .	17
french.cfg will be loaded (if found) instead of frenchb.cfg. NO NEED for .cfg files in French anyway. . .	64	\frenchbsetup: New options Old-FigTabCaptions and Customise-FigTabCaptions. . . . .	46
In Plain, provide a substitute for \PackageWarning and \PackageInfo. ....	14	v3.0b	
Merging of \captionsfrenchb, \captionsfrancais with \captionsfrench deleted in favor of new babel 3.9 syntax. ....	41	General: frenchb.lua was not found by Lua function dofile (not kpathsea aware). Call function kpse.find_file first, as suggested by Paul Gaborit. . . . .	23
More informative, less TeXnical warning about \maketitle. . .	43	Require luatexbase with LaTeXe in case fontspec has not been loaded before babel. . . . .	17
New flag \ifFB@luatex@punct for 'high punctuation' management with LuaTeX engines. ....	16	v3.0c	
New handling of 'high punctuation' through callbacks with LuaTeX engines. ....	17	General: Activate option StandardLists when beamer class is loaded. . .	47
No warning about \maketitle for SMF classes. No warning either with LuaTeX or XeTeX engines. . .	42	Changed \FBguill@spacing (internal) to \FBguillspace (public). .	31
Options processing completely reorganised. ....	46	frenchb requires babel-3.9i. . . . .	14
Support for options frenchb, francais, canadien, acadian changed. .	13	frenchb.lua: null glues should not trigger space insertion before high punctuation. Bug pointed out by Benoit Rivet for the 'lstlisting' environment of the listings package. .	20
Test \ifXeTeX changed to \ifFBunicode and 'xltextra' changed to 'fontspec'. . .	58	Just load luatexbase.sty instead of luatextfloat.sty with plain formats. .	17
\CaptionSeparator: Remove \CaptionSeparatorORI, use \babel@save instead. ....	42	No need to define \l@french as \lang@french, babel.def (3.9j) takes care for this. . . . .	13
\captionsfrench: Take advantage of babel's \SetString commands for captionnames. ....	40	\datefrench: \SetString still does not work for Plain with babel 3.9k. Need to define \datefrench. . .	34
\datefrench: Take advantage of babel's \SetString commands for \datefrench. Doesn't work with Plain (yet?). . . . .	34	\frenchbsetup: New option IN-GuillSpace. . . . .	46
\descriptionFB: Add \listindentFB to \itemindent. Suggested by Denis Bitouzé. . . . .	61	v3.1a	
		General: Codes "13 and "14 added for French quotes in T1-encoding. Support for older versions of LaTeX and XeTeX dropped. . . . .	50

fontspec is not required for T1 fonts used with the luainputenc.sty package. . . . .	58	\ieres: Removed \lowercase from definitions of \ieme and co: \up already does the conversion. . . . .	36
v3.1c		General: frenchb.lua: Previous bug fix for null glues (v3.0c) did not work properly. Fixed now (I hope). Pointed out by Jacques André. . . . .	20
v3.1d		General: New section: issue warnings if packages listings, numprint and natbib are loaded too early or too late vs babel. . . . .	45
v3.1e		\frenchbsetup: Corrected typo: SmallCapsFigTabcaptions instead of SmallCapsFigTabCaptions. Pointed out by Céline Chevalier. . . . .	46
v3.1f		General: \FBCaption@Separator changed when option CustomiseFigTabCaptions is set to false. . . . .	43
\FBprocess@options		Bug fix for the beamer class: figure and table captions are now consistent with frenchb's documentation. Pointed out by Denis Bitouzé. . . . .	55
\FBprocess@options		Definition of \captionformat and \captiondelim changed when option CustomiseFigTabCaptions is set to false. . . . .	55
\FBthinspace		\FBthinspace is no longer a kern but a skip (frenchb adds a nobreak penalty before it). . . . .	17