

fontscripts

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Abstract

`fontscripts` provides variant font encodings, support metrics and Lua script fragments to automate the creation of $\text{\TeX}/\text{\LaTeX}$ 2 ε font files for 8-bit engines using `l3build`. A template-based system enables the automatic generation of font tables and `l3build` tests. Variables support the addition of encoding subset declarations for the Text Companion (`TS1`) encoding and variable scaling factors in font definition files.

The script fragments¹ make it possible to automate the generation of \TeX font metrics, virtual fonts, map files etc. and the conversion of fonts and encodings. For tools which do not otherwise support it, such as `fontinst`, the scripts enable the automatic addition of variable scaling in font definition files. A semi-automatic system tries to ensure font encoding names are unique.

The script fragments were originally designed for `fontinst`, but support for `afm2tfm` (intended for fonts consisting entirely of ornaments etc.) is provided and a modular approach enables easy modification for other tools. The default configuration is intended to be cross-platform and requires only tools included in \TeX Live, but the documentation includes a simple adaption for integration with FontForge and GNU make.

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*Bug tracker: codeberg.org/cfr/nfsext/issues | Code: codeberg.org/cfr/nfsext | Mirror: github.com/cfr42/nfsext

¹The main script fragments are written in *extremely elementary* Lua. This is the first thing I've ever attempted in Lua and I am not a programmer.

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1 Quick Start

This assumes you are familiar with basic usage of **I3build**. If not, please see **I3build**'s manual for basic setup.

Configuring your project for I3build includes creation of a file, `build.lua`, in your working directory. This should specify at least the `module` name, typically the name of your package. So you should have something like this,

```
module = "fontastic"
```

We now need to edit this file to make I3build aware of the Lua `fntbuild` scripts provided by `fontscripts`.

```
module = "fontastic"
require(kpse.lookup("fntbuild.lua"))
```

This should be sufficient to make the functions provided by the script available. To effectively use these functions, however, you will probably need to provide configuration details for your specific workflow and setup. For example, if you want to build fonts this way, you may need to specify which build tool you use and which files contain the code to compile or commands to execute. The remainder of this document explains how to do this². You also need to tell the scripts if you want to override the defaults e.g. if you would like `fntbuild` to insert subset encoding declarations and/or variable scaling factors³ into font definition files or to auto-generate tests and/or font tables.

²Unless you are reading a version which includes the implementation section. In that case, *most* of the document is just code listing and it is the first bit of what remains which explains how to actually use the scripts.

³`fontinst` only. As far as I know, this is simply an oversight on `fontinst`'s part – fixed scaling factors are supported out-of-the-box – and I assume other tools have the ability to include variable scaling without `fntbuild`'s interference.

2 Lua Script Fragments

`fntbuild.lua` provides two custom `l3build` targets and five new Lua functions. In addition, it redefines three `l3build` functions (two of which do nothing by default). As well as those provided by `l3build`, a number of additional variables are used by these functions to determine what, where and how they should operate.

2.1 l3build Targets

`fnttarg` (*targ*) Runs `fnt.fontinst()` by default or `fnt.afm2tfm()` if `fnt.afmtotfm` is `true`.

Builds traditional TeX font files for 8-bit engines. The building is done in `fnt.fntdir`. The results are copied to `fnt.keepdir` and the intermediate results to `fnt.keeptempdir`. Files in the former are copied back into the `builddir` when building documentation, running tests etc.

This target may be redefined if another tool chain is used for font creation⁴.

If additional setup is required, this may be done by defining `fnt.buildinit_hook()`, which is empty by default. See section 2.2.1.

`uniquifyencs` (*targ*) `<encoding tag>`

Tries to ensure that the names of encoding files and font encodings are unique by editing font definition files and map file fragments in `fnt.keepdir`. `<encoding tag>` is optional. If no argument is given and `encodingtag` is empty, a suitable tag will be determined automatically⁵.

Note that it is not necessary to use this target if `l3build` `fnttarg` is used with a tool for which built-in support is provided.

2.2 Lua Functions

2.2.1 New Functions

`fnt.afm2tfm()` (*fn*) `fnt.afm2afm(<dir>)`

A function to generate support files for simple symbolic fonts in `<dir>` using `afm2tfm`. The function generates TFMS, FDS and a MAP. It requires AFMS and, optionally, ENCS. If `<dir>` is unspecified, `fnt.fntdir` is used.

If `fnt.afmtotfm` is `true`, a call to `fnt.afm2tfm()` replaces the default call to `fnt.fontinst()` when the `fnttarg` target is used.

Like `fnt.fontinst()`, `fnt.afm2tfm()` calls `build_fnt()` and `fnt.fntkeeper()`, but it does **not** call `fnt.uniquify()`.

Note this function is designed for only very simple cases. The target TeX fonts must each correspond to a unique `.afm` (though it would not be hard to extend the function to support a one-many mapping).

`fnt.buildinit()` (*fn*) `fnt.buildinit()`

⁴`fnt.afm2tfm()` in `fntbuild.lua` and `build.lua` in `berenisadf` provide examples.

⁵Hopefully.

Sets up the build environment in preparation for building by unpacking and copying files, installing dependencies etc. in preparation for building. Workflows supported out-of-the-box use this function, so there is no need to invoke it explicitly in these cases⁶. It can be used in the definition of custom functions. See section 5 for an example.

`fnt.buildinit_hook() (fn) fnt.buildinit_hook()`

A function which does nothing successfully by default, similar to the hooks provided by `I3build`. May be redefined to perform additional tasks when setting up the environment for `fnttarg`. The function should return an error level.

The hook is executed after unpacking, copying etc. at the end of `fnt.buildinit()` so it can be used to modify those preparations, if necessary.

`fnt.build_fnt() (fn) fnt.build_fnt(<dir>, <cmd>, <file>)`

A wrapper around `runcmd()` which runs `<cmd> <file>` in `<dir>`. If `fnt.buildsearch` is `false` (the default), the function first sets up a restricted environment designed to avoid contaminating the build with undesirable elements from TeX search paths.

Note that the restrictions are designed to avoid contamination resulting from searches using `kpathsea`. If you use this function with a different tool chain, you may need to take additional steps to isolate the build. For example, the function does nothing to prevent a FontForge script accessing resources in `~/.local/share`, `/usr/local/fonts`, `/etc`, `/System/Library` etc.

In general, `I3build` ‘sandboxing’ uses a black-listing rather than a white-listing model. Since this is inherently less reliable, you should not depend on the effectiveness of isolation. This means you should check what actually happens e.g. which paths actually end up in your `.log` files or test the effectiveness of the isolation.

The table `fnt.build_fnt_env` may be used to selectively adapt the default sandboxing, which is sets the `kpathsea` variables shown in table 1.

`fnt.finst() (fn) fnt.finst(<patt>, <dir>, <mode>)`

A wrapper around `fnt.build_fnt()` which runs `pdftex --interaction <mode>` in directory `<dir>` on each file in `<dir>` matching the pattern `<patt>`.

Called by `fnt.fontinst()`. There is usually no need to call this function directly.

`fnt.fontinst() (fn) fnt.fontinst(<dir>, <mode>)`

Executes a `fontinst` workflow to generate TeX fonts and associated files in directory `<dir>`, executing `pdftex` with the option `--interaction <mode>`.

This is the default build function called by `fnttarg`.

The function calls `fnt.finst()`, `fnt.fntkeeper()` and `fnt.uniquify()` in addition to performing initial compilation. The process requires the usual `fontinst` setup i.e. a driver to generate the initial files and a second file to create map file fragments.

If a variable scaling factor is used, the font definition files will be edited to ensure this works, since `fontinst` apparently supports scaling only by a fixed factor. For a simple demonstration of how to set this up, see, for example, `baskervaldad`'s driver which includes

```
% \declaresize{}{<-> \string\yb@{scale}}
```

⁶See `fnt.fontinst()` and `fnt.afm2tfm()` in `fntbuild-build.lua`.

Table 1: Default environment for ‘sandboxed’ build.

kpathsea variable	value
TEXINPUTS	. fnt.localtexmf()
TEXMF_AUXTREES	{}
TEXMFHOME	{}
TEXMFLOCAL	{}
TEXMFCONFIG	.
TEXMFVAR	.
VFFONTS	`\${TEXINPUTS}`
TFMFONTS	`\${TEXINPUTS}`
TEXFONTMAPS	`\${TEXINPUTS}`
T1FONTS	`\${TEXINPUTS}`
AFMFONTS	`\${TEXINPUTS}`
TTFFONTS	`\${TEXINPUTS}`
OPENTYPEFONTS	`\${TEXINPUTS}`
LIGFONTS	`\${TEXINPUTS}`
ENCFONTS	`\${TEXINPUTS}`

Shape declarations should then be written without scaling,

```
% \installfont{ybvr8t}{ybvr8r,ybvr8sr,newlatin}{t1-baskervald}{T1}{ybv}{m}{n}{}%
```

since scaling will be added after the font definition files are created,

```
% \expandafter\ifx\csname ybv@scale\endcsname\relax
%   \let\ybvv@scale\empty
% \else
%   \edef\ybvv@scale{s*[\csname ybv@scale\endcsname]}%
% \fi
%
% \DeclareFontFamily{T1}{ybv}{}%
%
% \DeclareFontShape{T1}{ybv}{m}{n}{
%   <-> \ybvv@scale ybvr8t
% }{}
```

to enable a suitable option in the `sty` file.

If `fontinst` is setup to produce a shell script for converting `.pl` and `.vpl` files to `.tfm` and `.vf`, the function executes the commands contained in this script. In order to maintain compatibility on Windows, the commands are extracted and run by Lua rather than calling the shell to execute the commands directly.

`fnt.fntsubsetter () (fn) fnt.fntsubsetter()`

Inserts a font encoding subset declarations into font definition files. Explicit use is only required for custom build functions, as the standard options for `fnt.build_fnt ()` incorporate this function. Returns an error level, but this may not be accurate.

Note that, by default, the presence of this function does nothing because subset declarations

are disabled by default. To insert declarations, not only must `fnt.fntsubsetter()` be executed by the build function. `fnt_subset` must also be set to a non-nil value other than `false`.

`fnt.fntkeeper()` (*fn*) `fnt.fntkeeper(<dir>)`

Copies generated files in `<dir>` to `fnt.keepdir` and/or `fnt.keeptempdir` to prevent deletion by `l3build`. Returns an error level.

This function is called by the function executed by the default functions called by `fnttarg()` and may be useful if that target is redefined to call a different function.

`fnt.lsrdir()` (*fn*) `fnt.lsrdir(<path>, <filenames>)`

Adds a recursive list of files in `path` to the list of files in `filenames` and returns `filenames` and returns the resulting table. `path` should be a string containing the fully-qualified path to a directory. If specified, `filenames` should be a table. Note that the function appends entries to `filenames` rather than replacing them.

`fnt.test()` (*fn*) `fnt.test(<fntpkname>, <fds>, <content>, <maps>, <fdssdir>)`

Auto-generates lvt files suitable for use with `l3build check` from a template.

`fnt.uniquify()` (*fn*) `fnt.uniquify(<tag>)`

Tries to ensure the names of font encodings and encoding files are unique by editing font definition files and map file fragments.

This function is used by `fnt.fontinst()` and `fnt.afm2tfm()`, may be utilised in a custom definition of `fnt.build_fnt()` or may be called directly using the `uniquifyencs` target.

2.2.2 Redefined Functions

`checkinit_hook()` (*fn*) `checkinit_hook()`

This is a standard `l3build` function which does nothing by default. `fntbuild.lua` redefines it to automatically generate test files suitable for use with `l3build check` if a test template is available. If `checksearch` is `false`, the hook also sets up an environment tailored to font-testing.

Note that `checksearch` is disabled by default. Contrary to `l3build`, `fntbuild.lua` enables sandboxing during both building and testing. If you do not want this, reenable `checksearch` after `fntbuild.lua` is read or, better yet, create a custom `fntbuild-config.lua`.

The default environment for testing does the following:

- concatenates all files specified in `fnt.mapfiles_sys` and writes the result to `pdftex.map` in `testdir`;
- copies the contents of `fnt.keepdir` to `testdir`;
- copies either the files specified in `fnt.checksuppfiles_sys` or the contents of the directories listed in table 2 to `testdir`;
- copies any files specified in `fnt.checksuppfiles_add` to `testdir`;
- copies the file specified by `fnt.regress` to `testdir`;

Table 2: Default additions to ‘sandbox’ if none are specified. For files, the file is added. For directories, the contents are added.

Files	Directories
/tex/latex/base/	
article.cls	/tex/latex/l3build
fontenc.sty	/tex/latex/l3backend
omlcmm.fd	/fonts/enc/dvips/base
omlcmr.fd	/fonts/enc/dvips/cm-super
omscmr.fd	/fonts/type1/public/amsfonts/cm
omscmsy.fd	/fonts/type1/public/cm-super
ot1cmr.fd	/fonts/tfm/public/cm
ot1cmss.fd	/fonts/tfm/jknappen/ec
ot1cmtt.fd	
size10.clo	
size11.clo	
size12.clo	
t1cmr.fd	
t1cmss.fd	
t1cmtt.fd	
tracefnt.sty	
ts1cmr.fd	
ts1cmss.fd	
ts1cmtt.fd	
ucmr.fd	
ucmss.fd	
ucmtt.fd	
/tex/latex/fonttable/	fonttable.sty

Table 3: Default environment for ‘sandboxed’ testing. Note this configuration is applied *in addition* to the steps taken by `l3build -check` to ‘isolate’ the test environment when `checksearch` is `false`.

kpathsea variable	value
<code>TEXMFAUXTREES</code>	<code>{}</code>
<code>TEXMFHOME</code>	<code>{}</code>
<code>TEXMFLOCAL</code>	<code>{}</code>
<code>TEXMFCONFIG</code>	<code>.</code>
<code>TEXMFVAR</code>	<code>.</code>
<code>VFFONTS</code>	<code>. fnt.localtexmf()</code>
<code>TFMFONTS</code>	<code>. fnt.localtexmf()</code>
<code>TEXFONTMAPS</code>	<code>. fnt.localtexmf()</code>
<code>T1FONTS</code>	<code>. fnt.localtexmf()</code>
<code>AFMFONTS</code>	<code>. fnt.localtexmf()</code>
<code>TTFFONTS</code>	<code>. fnt.localtexmf()</code>
<code>OPENTYPEFONTS</code>	<code>. fnt.localtexmf()</code>
<code>LIGFONTS</code>	<code>. fnt.localtexmf()</code>
<code>ENCFONTS</code>	<code>. fnt.localtexmf()</code>

- copies the template specified by `fnt.testtemp` to `unpackdir` for use in auto-generating tests;
- restricts the environment by setting the variables listed in table 3.

`copyctan() (fn) copyctan()`

This is extended to copy files from `fnt.keepdir` and to impose a single-layer of sub-directories of the kind required by [CTAN](#) for font distributions.

`docinit_hook() (fn) docinit_hook()`

This is a standard `l3build` function which does nothing by default. `fntbuild.lua` redefines it to automatically generate font tables suitable for use with `l3build doc` from a template.

2.3 Variables

Defaults assigned by `fntbuild.lua` to both `l3build` and `fontsheets` variables are listed in table 4 and table 5 respectively.

`fnt.afmtotfm (var) fnt.afmtotfm= {true/false}`

`nil` by default. Setting this to anything other than `false` or `nil` will use `afm2tfm` rather than `fontinst` to build the fonts. This is only designed for *extremely* simple fonts such as those which contain only text symbols.

`fnt.autotestfds (var) fnt.autotestfds = {<globs>}`

`fnt.binmakers (var) fnt.binmakers = {<globs>}`

Scripts to run to convert human-readable `TeX` font metrics/virtual font metrics into binary `TeX` font metrics and virtual fonts.

Table 4: fontscripts defaults for l3build variables.

Variable	Value
binaryfiles	= {".pdf", ".zip", ".vf", ".tfm", ".pfb", ".pfm", ".ttf", ".otf", ".tar.gz"}
checkdeps	= {maindir .. "/fnt-tests"}
checkengines	= {"pdftex"}
checkformat	= "latex"
checksearch	= false
cleanfiles	= {fnt.keeptempfiles}
installfiles	= {".afm", ".cls", ".enc", ".fd", ".map", ".otf", ".pfb", ".pfm", ".sty", ".tfm", ".ttf", ".vf"}
sourcefiledir	= sourcefiledir or "."
sourcefiles	= {".afm", "afm/*.afm", ".pfb", ".pfm", ".dtx", ".ins", "opentype/*.otf", ".otf", "tfm/*.tfm", "truetype/*.ttf", ".ttf", "type1/*.pfb", "type1/*.pfm"}
tdslocations	= { "fonts/afm/" .. fnt.vendor .. "/" .. module .. "/" .. "*.afm", "fonts/enc/dvips/" .. module .. "/" .. "*.enc", "fonts/map/dvips/" .. module .. "/" .. "*.map", "fonts/opentype/" .. fnt.vendor .. "/" .. module .. "/" .. "*.otf", "fonts/tfm/" .. fnt.vendor .. "/" .. module .. "/" .. "*.tfm", "fonts/truetype/" .. fnt.vendor .. "/" .. module .. "/" .. "*.ttf", "fonts/type1/" .. fnt.vendor .. "/" .. module .. "/" .. "*.pfb", "fonts/type1/" .. fnt.vendor .. "/" .. module .. "/" .. "*.pfm", "fonts/vf/" .. fnt.vendor .. "/" .. module .. "/" .. "*.vf", "source/fonts/" .. module .. "/" .. "*.etx", "source/fonts/" .. module .. "/" .. "*.mtx", "source/fonts/" .. module .. "/" .. "*-drv.tex", "source/fonts/" .. module .. "/" .. "*-map.tex", "tex/latex/" .. module .. "/" .. "*.fd", "tex/latex/" .. module .. "/" .. "*.sty" }
typesetexe	= "TEXMFDOTDIR=.../local: pdflatex"
typesetfiles	= typesetfiles or {"*.dtx", "*-tables.tex", "*-example.tex"}
typesetsourcefiles	= {fnt.keepdir .. "/" *{}}

Table 5: Default values for fontscripts variables.

Variable	Value
fnt.afmtotfm	= nil
fnt.autotestfds	= fnt.autotestfds or {}
fnt.binmakers	= fnt.binmakers or {"*-pltotf.sh"}
fnt.builddeps	= fnt.builddeps or {}
fnt.buildfiles	= fnt.buildfiles or { "*.afm", "*.enc", "*.etx", "*.fd", "*.lig", "*.make", "*.map", "*.mtx", "*.nam", "*.otf", "*.pe", "*.tex" , "*.tfm" }
fnt.buildsearch	= false
fnt.buildsuppfiles_sys	= fnt.buildsuppfiles_sys or {}
fnt.checksuppfiles_sys	= fnt.checksuppfiles_sys or {}
fnt.checksuppfiles_add	= fnt.checksuppfiles_add or {}
fnt.familymakers	= fnt.familymakers or {"*-drv.tex"}
fnt.fntdir	= fnt.fntdir or builddir .. "/fnt"
fnt.fnttestfds	= fnt.fnttestfds or {}
fnt.keepdir	= fnt.keepdir or sourcefiledir .. "/keep"
fnt.keepfiles	= fnt.keepfiles or {"*.enc", "*.fd", "*.map", "*.tfm", "*.vf"}
fnt.keeptempdir	= fnt.keeptempdir or sourcefiledir .. "/keeptemp"
fnt.keeptempfiles	= fnt.keeptempfiles or {"*.mtx", "*.pl", "-pltotf.sh", "-rec.tex", "*.vpl", "*.zz"}
fnt.mapmakers	= fnt.mapmakers or {"*-map.tex"}
fnt.mapfiles_sys	= fnt.mapfiles_sys or {}
fnt.mapfiles_add	= fnt.mapfiles_add or {}
fnt.pkgbase	= fnt.pkgbase or ""
fnt.regress	= fnt.regress or "fnt-tests.tex"
fnt.subset	= false
fnt.subsetdefns	= fnt.subsetdefns or {}
fnt.subsetfiles	= fnt.subsetfiles or {}
fnt.subsettemplate	= fnt.subsettemplate or "\DeclareEncodingSubset{TS1}{\$FONTFAMILY}{\$SUBSET}"
fnt.tablestemp	= fnt.tablestemp or "fnt-tables.tex"
fnt.testtemp	= fnt.testtemp or "fnt-test.lvt"
fnt.vendor	= fnt.vendor or "public"

`fnt.buildsearch (var) fnt.buildsearch= <true/false>`

Whether to search the `texmf` trees while generating font files.

Defaults to `false`.

Note that this is akin to `l3build`'s `checksearch` etc. but for the additional build step required when preparing fonts.

`fnt.buildeps (var) fnt.buildeps = {}`

Dependencies to install when building fonts in a sandbox. If empty, some basic dependencies are installed to ensure straightforward cases work out-of-the-box.

`fnt.buildfiles (var) fnt.buildfiles = {<globs>}`

Source files to copy to the build directory when generating font files.

`fnt.buildsuppfiles_sys (var) fnt.buildsuppfiles_sys = {<globs>}`

`fnt.checksuppfiles_add (var) fnt.checksuppfiles_add = {<globs>}`

Dependencies to install when checking. Supplements default list.

`fnt.checksuppfiles_sys (var) fnt.checksuppfiles_sys = {<globs>}`

Dependencies to install when checking. Overrides default list.

`fnt.familymakers (var) fnt.familymakers = {<globs>}`

Source files `fnt.fontinst()` should compile to generate `TEX` support files.

For the default definition of `fnt.fontinst()` this variable should specify the driver or drivers to be compiled.

`fnt.fntdir (var) fnt.fntdir= "<directory path>"`

Directory in which to build fonts.

`fnt.fnttestfds (var) fnt.fnttestfds = {<globs>}`

Files to use when generating test files for `l3build`.

`fnt.keepdir (var) fnt.keepdir = "<dir>"`

Directory to store final products of font creation e.g. font definitions, map file fragments, `TEX` font metrics, virtual fonts etc.

`fnt.keepfiles (var) fnt.keepfiles = {<globs>}`

Files to copy to `fnt.keepdir`.

`fnt.keeptempdir (var) fnt.keeptempdir = "<dir>"`

Directory to store intermediate products of font creation e.g. human-readable `TEX` font metrics, virtual font metrics etc.

`fnt.keeptempfiles (var) fnt.keeptempfiles = {<globs>}`

Files to copy to `fnt.keeptempdir`.

`fnt.mapfiles_sys (var) fnt.mapfiles_sys = {<globs>}`

Map file fragments to install when checking. If unset, `cm.map`, `cm-super-t1.map`, `cm-super-ts1.map` and `lm.map` are used.

`fnt.mapfiles_add (var) fnt.mapfiles_add = {<globs>}`

Additional map file fragments to install when checking.

`fnt.mapmakers (var) fnt.mapmakers = {<glob>}`

Source files `fnt.finst()` should compile to generate map file fragments etc.

`fnt.pkgbase (var) fnt.pkgbase = "<identifier>"`

May be used to set a string identifying the package if `fntbuild` has trouble determining one automatically⁷.

`fnt.regress (var) fnt.regress= "<filename>"`

The file containing regression tests for use in auto-generating tests. `fnt-tests.tex` provides a set used by default.

`fnt.subset (var) fnt.subset= <true/false>`

`nil` by default. Set to any value other than `nil` or `false` to enable subset declarations.

Note this variable must be given a non-default value if subset encoding declarations should be added. Specifying definitions, files and templates only determines what will be done IF anything is done at all.

`fnt.subsetdefns (var) fnt.subsetdefns = {}`

If different families should get different subset values, the various settings should be configured here.

For example, the following code sets the subset for `<family 1>` to 1 and that for `<family 2>` to 3.

```
fnt.subsetdefns.<family 1> = "1"
fnt.subsetdefns.<family 2> = "3"
```

`fnt.subsetfiles (var) fnt.subsetfiles = {<glob>}`

Font definition files into which encoding subset declarations should be inserted.

`fnt.subsettemplate (var) fnt.subsettemplate = "<>"`

Template to use when constructing subset declarations.

By default, the template simply plugs family and value pairs into a standard declaration as shown in table 5. However, it is also possible to use more complex declarations. For example, `cfr-lm` does not actually include any TS1 fonts at all. Instead, it just says which Latin Modern family should be used for which `cfr-lm` family. So the only sensible approach is to use whichever subset declarations the relevant Latin Modern font definitions use. Unfortunately, these are provided by the L^AT_EX 2 _{ϵ} format rather than `lm`, besides which it is at least theoretically possible the appropriate subsets might change and `cfr-lm` has no control over this. For this reason, the package simply says ‘for `cfr-lm` family x , use whichever subset is declared for Latin Modern family y ’ for each pair of families x and y .

This is setup using the following line in the `build.lua`:

```
fnt.subsettemplate = "\\\ExpandArgs {nnc} \\\DeclareEncodingSubset {TS1} {$FONTFAMILY} {
```

⁷None of the packages I’ve prepared with `fntbuild` have required this. Usually, the script should do a reasonable job of discovering a suitable value automatically.

Rather than numerical values, therefore, cfr-lm declares subset encodings such as

```
fnt.subsetdefns.clms = "lmss"
```

The result is that L^AT_EX 2_E will use whichever subset is declared for `lmss` for `clms`, which, after all, is no more than a fancy alias for `lmss` in the TS1 encoding.

```
fnt.tablestemp (var) fnt.tablestemp= "<filename>"
```

The file containing the template to use when auto-generating font tables. `fnt-tables.tex` provides the default template.

```
fnt.testtemp (var) fnt.testtemp= "<filename>"
```

The file containing the template to use when auto-generating font tests. `fnt-test.lvt` provides the default template.

```
fnt.vendor (var) fnt.vendor = "<fnt.vendor>"
```

Vendor directory for font installation such as `public` or `arkandis`.

3 Configuration

For simple cases, configuration may be done in `build.lua`, along with generic l3build customisation. For more elaborate modifications — or cases where a subset of configuration options should be shared between modules — settings may be placed in one or more `fntbuild-config.lua` files.

1. `fntbuild-vars.lua` is loaded. This ensures required variables get default values and modifies a number of l3build defaults.
2. A kpse-based search is performed. If `fntbuild-config.lua` is found, it is loaded.
3. If it exists, `maindir/fntbuild-config.lua` is loaded.
4. If it exists, `sourcedir/fntbuild-config.lua` is loaded.

So more specific settings will override more general ones.

4 Templates

By default, `fntbuild.lua` is able to utilise two kinds of `tex` template. The names of these files are stored in `fnt.testtemp` and `fnt.tablestemp`. If no local alternatives are provided, `fntbuild.lua` will use `kpathsea` to locate them, falling back to those included in the package and installed in `tex/latex/fontscripts/` under the TEXMFDIST tree by default.

The default files may be overridden by either or both of the following methods:

1. altering the values of `fnt.testtemp` and/or `fnt.tablestemp`;
2. providing local copies of the files named in `fnt.testtemp` and/or `fnt.tablestemp`.

The default contents are listed in section 5.2.

4.1 Font Tables

A template for producing font tables as part of package documentation is provided. The template is used in `fntbuild.lua`'s `doc_init()` hook to generate `tex` files populated with font information from font definition files. This is then compiled by `l3build doc` to produce font tables.

Alternative content may be provided by supplying a local copy of `fnt-tables.tex` or specifying an alternative template in `fnt.tablestemp`. If `TABLES` occurs in the template, `fntbuild.lua` will replace it with a `document` environment containing a series of commands of the form `\sampletable{\langle encoding \rangle}{\langle family \rangle}{\langle series \rangle}{\langle shape \rangle}`, where `\langle encoding \rangle`, `\langle family \rangle`, `\langle series \rangle` and `\langle shape \rangle` are derived from the font definition files.

The default template is listed in section 5.2.1.

4.2 Font Tests

If a template is found in the font test directory, it will be used in `fntbuild.lua`'s `check_init()` hook to generate `lvt` files populated with font information from font definition files. These tests are then compiled by `l3build check` as part of the test suite. Certain file patterns are excluded from testing. In particular, separate tests are not generated for `ts1 fd` files because these families are typically better tested along with their `t1` counterparts.

Alternative content may be provided by supplying a local copy of `fnt-test.lvt` or specifying an alternative template in `fnt.testtemp`. If `SAMP` occurs in the template, `fntbuild.lua` will replace it with a series of tests derived from the font definition files. These tests should typically use commands provided explicitly or implicitly by the file specified in `fnt.regress`. By default, tests utilise a macro `\sampler` defined to absorb four arguments of the form `\{\langle encoding \rangle\}{\langle family \rangle}{\langle series \rangle}{\langle shape \rangle}`. The result is a document containing various pieces supplied by `fonttable`.

A custom test suite may be specified by supplying a local copy of `fnt-tests.tex`, giving an alternative in `fnt.regress` or defining a different set of tests in the template specified by `fnt.testtemp`.

Note that you MUST supply a custom template if you change `fnt.regress`. It is, however, fine to supply a customised `fnt-tests.tex` for use with the default template. Only if you want to use a different filename for the test suite is a custom template required.

The default template is listed in section 5.2.2. The default test suite is listed in section 5.3.

5 Customisation

As in the case of `l3build`, you can replace functions and targets at will, albeit on a much more limited scale. Although it would be better to just not use `fntbuild.lua` at all if you want to redefine everything, it can make sense to replace `fnt.fontinst()` if, say, you want to use different font creation tools but make use of the functions for stashing generated files, generating font tables, testing etc.

For example, `berenisadf` was built using a `build.lua` containing

```

19 -- require(kpse.lookup("fntbuild.lua"))
20 local function fntmake (dir,mode)
21   dir = dir or fnt.fntdir
22   mode = mode or "errorstopmode --halt-on-error"
23   local autotcfds = { "ts1ybd2j.fd", "ts1ybd2.fd", "ts1ybdj.fd", "ts1ybd.fd" }
24   -- set up the build environment
25   assert(fnt.buildinit(), "Setting up build environment failed!")
26   print("Running make. Please be patient ...\\n")
27   assert(run(dir, "chmod +x ff-ybd.pe"), "Attempt to make fontforge script executable in")
28   assert(run(dir, "make -f Makefile.make all"), "'make -f Makefile.make all' failed in")
29   -- make ts1 swash families so tc commands pick up the characters in ly1
30   -- we don't need t1 versions of these families as there's no room for swash
31   -- there
32   -- ideally, we could just tell latex to use the non-swash families for the
33   -- tc encoding, but that doesn't seem possible without rewriting more
34   -- internal stuff than seems altogether wise ...
35   for i, j in ipairs(autotcfds) do
36     local jfam = string.gsub(j, "^ts1(.*)%.fd$", "%1")
37     local jnewfam = jfam .. "w"
38     local jnew = string.gsub(j, "(%.fd)$", "w%1")
39     local f = assert(io.open(dir .. "/" .. j, "rb"))
40     local content = f:read("*all")
41     f:close()
42     -- normalise line endings to be platform-agnostic
43     -- copied from l3build
44     content = string.gsub(content .. (string.match(content, "\n$") and "" or "\n"),
45     "\r\n", "\n")
46     local new_content = string.gsub(content,
47     "{" .. jfam .. "}", "{" .. jnewfam .. "}")
48     new_content = string.gsub(new_content, "(ts1[^%.]*)(%.fd)", "%1w%2")
49     new_content = string.gsub(new_content, "(TS1/ybd[a-z0-9]*)", "%1w")
50     f = assert(io.open(dir .. "/" .. jnew, "w"))
51     f:write((string.gsub(new_content, "\n", fnt.os_newline_cp)))
52     f:close()
53   end
54   -- call fnt.fntkeeper() to save the build results into fnt.keepdir else
55   -- l3build deletes them before testing or compilation!
56   assert(fnt.fntkeeper(),"FONT KEEPER FAILED IN " .. dir .. "! DO NOT MAKE STANDARD TAN")
57   return 0
58 end
59 -- make local function available in table bt
60 bt = {}
61 bt.fntmake = fntmake
62 -- redefine fnt.ntarg so that fnttarg calls bt.fntmake rather than fontinst
63 -- fntmake must be specified first
64 -- it just ain't TeX
65 target_list[fnt.ntarg] = {
66   func = bt.fntmake,
67   desc = "Creates TeX font files",
68   pre = function(names)

```

```

69     if names then
70         print("fntmake does not need names\n")
71         help()
72         exit(1)
73     end
74     return 0
75 end
76 }

```

That is, `berenisadf` doesn't use any built-in build function at all, but `fnt.fntmake()`, which simply invokes `gnu make` and calls `fnt.fntkeeper()`⁸. Note the use of `fnt.buildinit()` to setup the build environment.

5.1 Examples

The latest versions of the following packages were developed using `fontsheets` and build using `I3build`⁹. Full details, including the use of templates and scaling are available on [CODEBERG](#) or [GITHUB](#).

- GUST:
 - `cfr-lm`
- ARKANDIS:
 - `baskervaldadf`
 - `berenisadf`
 - `electrumadf`
 - `librisadf`
 - `romandeadf`
 - `venturisadf.`

5.2 Templates

Templates for auto-generating font tables and regression tests.

5.2.1 Font Tables Template

`fnt-tables.tex (tpt)`

```

1 \pdftracingfonts=1
2 \RequirePackage{svn-prov}
3 \ProvidesFileSVN[fnt-tables.tex]{$Id: fontsheets.dtx 10771 2025-02-05 22:55:06Z
   cfrees $}[v0.2 \revinfo[\filebase: font table template]
4 \DefineFileInfoSVN

```

⁸It does not ensure encoding names are unique because it uses no custom encodings of its own.

⁹Note that it is in no sense a dependency; it contains nothing ever required in typesetting.

```

5  \documentclass[10pt,a4paper]{article}
6  \usepackage{geometry}
7  \usepackage{fonttable}
8  \newcommand\sampletable[4]{%
9    #1/#2/#3/#4:\par\noindent
10   \xfonttable{#1}{#2}{#3}{#4}%
11   \clearpage
12 }
13
14 TABLES
15

```

5.2.2 Test Template

`fnt-test.lvt (tpt)`

```

16 \RequirePackage{svn-prov}
17 \ProvidesFileSVN[fnt-test.lvt]{$Id: fontsheets.dtx 10771 2025-02-05 22:55:06Z
18   cfrees $}[v0.0 \revinfo][fontsheets: l3build test template]
19 \listfiles
20 \input regression-test.tex\relax
21 \input fnt-tests.tex\relax
22 \setlength{\parindent}{0pt}
23 \textheight=250mm
24 \textwidth=160mm
25 \oddsidemargin=0mm
26 \evensidemargin=0mm
27 \headheight=0pt
28 \headsep=0pt
29 \topmargin=-10mm
30 \marginparwidth=0pt
31 \marginparsep=0pt
32 SAMP
33

```

5.3 Regression Tests

Simple regression test suite for fonts focused on T1 and TS1 encodings.

`fnt-tests.tex (tpt)`

```

34 \pdftracingfonts=1
35 \RequirePackage{svn-prov}
36 \ProvidesFileSVN[fnt-tests.tex]{$Id: fontsheets.dtx 10771 2025-02-05 22:55:06Z
37   cfrees $}[v0.0 \revinfo][fontsheets: l3build tests]
38 \documentclass[10pt,a4paper]{article}
39 \usepackage{fonttable}
40 \usepackage{tracefnt}% infoshow is default; debugshow traces maths fonts, too
41 \PassOptionsToPackage{nfssext-cfr}{debug}
42 \newcounter{tccharcnt}
43 \NewDocumentCommand \tcfnttest { o m }

```

```

43  {%
44    \iftctest
45      \stepcounter{tccharcnt}{\normalfont\thetccharcnt:-}%
46      % \texttt{\textbackslash textbackslash #2}:
47      \IfValueTF{#1}{%
48        \csname #2\endcsname {#1}%
49      }{%
50        \csname #2\endcsname
51      }%
52    \fi
53  }
54 \newif\iftctest
55 \tctesttrue
56 \makeatletter
57 \newcommand\sampler{}
58 \def\sampler#1#2#3#4{%
59   \setcounter{tccharcnt}{0}%
60   % \tracingoutput=1
61   #1 / #2 / #3 / #4 :
62
63   \tracinglostchars\thr@@
64   % \tracingonline\thr@@
65   \showoutput
66   \pikfont{#1}{#2}{#3}{#4}%
67   \aztext
68
69   \AZtext
70
71   \digitstext
72
73   \puncttext
74
75   \knutext
76
77   \AA \AA \Yy \Ss \C
78
79   percent: \%
80
81   \begin{tabular}{llllllllll}
82     \tcfnttest{S} &
83     \tcfnttest[I]{capitalacute} &
84     \tcfnttest[I]{capitalbreve} &
85     \tcfnttest[I]{capitalcaron} &
86     \tcfnttest[I]{capitalcedilla} &
87     \tcfnttest[I]{capitalcircumflex} &
88     \tcfnttest[I]{capitaldieresis} &
89     \tcfnttest[I]{capitaldotaccent} &
90     \tcfnttest[I]{capitalgrave} &
91     \tcfnttest[I]{capitalhungarumlaut} \\
92     \tcfnttest[I]{capitalnewtie} &
93     \tcfnttest[I]{capitalogonek} &
94     \tcfnttest[I]{capitalring} &
95     \tcfnttest[I]{capitaltie} &
96     \tcfnttest[I]{capitaltilde} &

```

```
97      \tcfnttest{textacutedbl} &
98      \tcfnttest{textasciacute} &
99      \tcfnttest{textasciibreve} &
100     \tcfnttest{textasciicaron} &
101     \tcfnttest{textasciicircum} \\
102     \tcfnttest{textasciidieresis} &
103     \tcfnttest{textasciigrave} &
104     \tcfnttest{textasciimacron} &
105     \tcfnttest{textasciitilde} &
106     \tcfnttest{textasteriskcentered} &
107     \tcfnttest{textbackslash} &
108     \tcfnttest{textbaht} &
109     \tcfnttest{textbar} &
110     \tcfnttest{textbardbl} &
111     \tcfnttest{textbigcircle} \\
112     \tcfnttest{textblank} &
113     \tcfnttest{textborn} &
114     \tcfnttest{textbraceleft} &
115     \tcfnttest{textbraceright} &
116     \tcfnttest{textbrokenbar} &
117     \tcfnttest{textbullet} &
118     \tcfnttest{textcelsius} &
119     \tcfnttest{textcent} &
120     \tcfnttest{textcentoldstyle} &
121     \tcfnttest{textcircledP} \\
122     \tcfnttest{textcolonmonetary} &
123     \tcfnttest{textcompwordmark} &
124     \tcfnttest{textcopyleft} &
125     \tcfnttest{textcopyright} &
126     \tcfnttest{textcurrency} &
127     \tcfnttest{textdagger} &
128     \tcfnttest{textdaggerdbl} &
129     \tcfnttest{textdblhyphen} &
130     \tcfnttest{textdblhyphenchar} &
131     \tcfnttest{textdegree} \\
132     \tcfnttest{textdied} &
133     \tcfnttest{textdiscount} &
134     \tcfnttest{textdiv} &
135     \tcfnttest{textdivorced} &
136     \tcfnttest{textdollar} &
137     \tcfnttest{textdollaroldstyle} &
138     \tcfnttest{textdong} &
139     \tcfnttest{textdownarrow} &
140     \tcfnttest{texteightoldstyle} &
141     \tcfnttest{textestimated} \\
142     \tcfnttest{texteuro} &
143     \tcfnttest{textfiveoldstyle} &
144     \tcfnttest{textflorin} &
145     \tcfnttest{textfouroldstyle} &
146     \tcfnttest{textfractionsolidus} &
147     \tcfnttest{textgravedbl} &
148     \tcfnttest{textguarani} &
149     \tcfnttest{textinterrobang} &
150     \tcfnttest{textinterrobangdown} &
```

```
151   \tcfnttest{textangle} \\
152   \tcfnttest{textlbrackdbl} &
153   \tcfnttest{textleaf} &
154   \tcfnttest{textleftarrow} &
155   \tcfnttest{textlira} &
156   \tcfnttest{textlnot} &
157   \tcfnttest{textlquill} &
158   \tcfnttest{textmarried} &
159   \tcfnttest{textmho} &
160   \tcfnttest{textminus} &
161   \tcfnttest{textmu} \\
162   \tcfnttest{textmusicalnote} &
163   \tcfnttest{textnaira} &
164   \tcfnttest{textnaira} &
165   \tcfnttest{textnineoldstyle} &
166   \tcfnttest{textnumero} &
167   \tcfnttest{textohm} &
168   \tcfnttest{textonehalf} &
169   \tcfnttest{textoneoldstyle} &
170   \tcfnttest{textonequarter} &
171   \tcfnttest{textonesuperior} \\
172   \tcfnttest{textopenbullet} &
173   \tcfnttest{textordfeminine} &
174   \tcfnttest{textordmasculine} &
175   \tcfnttest{textparagraph} &
176   \tcfnttest{textperiodcentered} &
177   \tcfnttest{textpertenthousand} &
178   \tcfnttest{textperthousand} &
179   \tcfnttest{textpeso} &
180   \tcfnttest{textpilcrow} &
181   \tcfnttest{textpm} \\
182   \tcfnttest{textquotedblleft} &
183   \tcfnttest{textquotedblright} &
184   \tcfnttest{textquotyleft} &
185   \tcfnttest{textquoteright} &
186   \tcfnttest{textquotesingle} &
187   \tcfnttest{textquotestraightbase} &
188   \tcfnttest{textquotestraightdblbase} &
189   \tcfnttest{texttriangle} &
190   \tcfnttest{textrbrackdbl} &
191   \tcfnttest{textrecipe} \\
192   \tcfnttest{textreferencemark} &
193   \tcfnttest{textregistered} &
194   \tcfnttest{textrightarrow} &
195   \tcfnttest{textrquill} &
196   \tcfnttest{textsection} &
197   \tcfnttest{textservicemark} &
198   \tcfnttest{textsevenoldstyle} &
199   \tcfnttest{textsixoldstyle} &
200   \tcfnttest{textsterling} &
201   \tcfnttest{textsurd} \\
202   \tcfnttest{textthreeoldstyle} &
203   \tcfnttest{textthreequarters} &
204   \tcfnttest{textthreequartersemdash} &
```

```

205   \tcfnttest{textthreesuperior} &
206   \tcfnttest{texttildelow} &
207   \tcfnttest{texttimes} &
208   \tcfnttest{texttrademark} &
209   \tcfnttest{texttwelvedash} &
210   \tcfnttest{texttwooldstyle} &
211   \tcfnttest{texttwosuperior} \\
212   \tcfnttest{textuparrow} &
213   \tcfnttest{textwon} &
214   \tcfnttest{textyen} &
215   \tcfnttest{textzerooldstyle} &
216   &
217   &
218   &
219   &
220   &
221   \\
222   \end{tabular}
223
224   \vfil\break
225 }
226
227 \makeatother

```

6 Implementation

6.1 Script Fragments

These are not standalone scripts, but files to be read by `l3build` to provide additional and/or divergent functions. Note that several are based on LPPL files not on [CTAN](#), as the L^AT_EX Project does not package their build scripts.

6.1.1 fntbuild.lua

`fntbuild.lua` (*lua*) Use `dofile()` in `build.lua` to add to `l3build`.

```

1 -- $Id: fntbuild.lua 10743 2025-01-29 02:29:53Z cfrees $
2 -----
3 -----
4 -- I don't know how to bootstrap this ...
5 -- these are needed when fontscripts is part of the same repo
6 -----
7 sourcefiledir = sourcefiledir or "."
8 maindir = maindir or sourcefiledir
9 -----
10 -- namespace
11 ---@usage ??
12 fnt = fnt or {}
13 -- error-tracking

```

```
14 ---@usage private
15 fnt.nifergwall = 0
16 -- target names
17 -- fnttarg
18 ---@usage private
19 local ntarg = "fnttarg"
20 -- uniquifyencs
21 ---@usage private
22 local utarg = "uniquifyencs"
23 -----
24 --- fnt.gwall {{{
25 ---@param msg string
26 ---@param file string
27 ---@param rtn number
28 ---@see
29 ---@usage private
30 function fnt.gwall (msg,file,rtn)
31     file = file or "current file"
32     msg = msg or "Error:"
33     rtn = rtn or 0
34     if rtn ~= 0 then
35         fnt.nifergwall = fnt.nifergwall + rtn
36         print (msg, file, "failed (" .. rtn .. ")\n")
37     end
38 end
39 }}}}
40 -----
41 -----
42 local possplaces = { sourcefiledir, maindir, maindir .. "/fontscripts" }
43 for _,i in ipairs (possplaces) do
44     if fileexists( i .. "/fntbuild.lua" ) then
45         fnt.fntbuild_home = i
46         break
47     end
48 end
49 print("fnt.fntbuild_home:", fnt.fntbuild_home)
50 if fnt.fntbuild_home == nil then
51     -- dwyn o Joseph Wright: l3build.lua
52     -- ar gael am fod Joseph yn wneud kpse.set_program_name("kpsewhich")
53     -- gweler texdoc luatex
54     local p = kpse.find_file("fntbuild.lua", "lua")
55     if p ~= nil and p ~= "" then
56         fnt.fntbuild_home = dirname(p)
57     else
58         fnt.gwall("Search for ","self",1)
59     end
60 end
61 -----
62 print("Found myself in", fnt.fntbuild_home)
63 -----
```

```
64 -- dwyn o Joseph Wright: l3build.lua
65 local function fntbuild_require (frag)
66     require(kpse.lookup("fntbuild-" .. frag .. ".lua", { path = fnt.fntbuild_home }))
67 end
68 -----
69 fntbuild_require("vars")
70 fntbuild_require("utils")
71 fntbuild_require("build")
72 fntbuild_require("check")
73 fntbuild_require("doc")
74 fntbuild_require("ctan")
75 -----
76 -- load user config
77 -- local (if fnt.buildsearch) - maindir -- sourcefiledir
78 -----
79 -- execute before testing afmtotfm so fnttarg is correct in case the
80 -- config sets it true
81 fnt.build_config()
82 -----
83 -----
84 -- fontinst must be specified first
85 -- it just ain't TeX
86 -- ntarg {{{
87 target_list[ntarg] = {
88     func = fnt.fontinst,
89     desc = "Creates TeX font file",
90     pre = function(names)
91         if names then
92             print("fontinst does not need names\n")
93             help()
94             exit(1)
95         end
96         return 0
97     end
98 }
99 -- }}}
100 -- utarg {{{
101 target_list[utarg] = {
102     func = fnt.uniquify,
103     desc = "Uniquifies encodings ONLY",
104     pre = function(names)
105         standalone = true
106         if names and #names > 1 then
107             print("Too many encoding tags specified; no more than one allowed")
108             help()
109             exit(1)
110         else
111             names = names or encodingtag or ""
112         end
113     return 0
114 }
```

```
114     end
115 }
116 -- }}}
117 -- diwedde targets
118 -----
119 -----
120 -- fnt.afmtotfm -> fnttarg {{{
121 if fnt.afmtotfm then
122     target_list[ntarg] = {
123         func = fnt.afm2tfm,
124         desc = "Creates TeX font files",
125         pre = function(names)
126             if names then
127                 print("fntmake does not need names\n")
128                 help()
129                 exit(1)
130             end
131             return 0
132         end
133     }
134 end
135 --}}
136 -----
137 if options["target"] == "install" then
138     table.insert(sourcefiles,fnt.keepdir .. "/*.*")
139 end
140 -----
142 --
143 -- override l3build functions {{{
144 checkinit_hook = fnt.checkinit_hook
145 copyctan = fnt.copyctan
146 docinit_hook = fnt.docinit_hook
147 --}}
148 -- other exports {{{
149 fnt.ntarg = ntarg
150 --}}
151 -----
152 --
153 -- vim: ts=2:sw=2:et:foldmethod=marker:
```

6.1.2 fntbuild-build.lua

fntbuild-build.lua (*lua*) Included by fntbuild.lua. Functions used when building fonts for fnttarg.

```
1 -- $Id:
2 -----
3 -- fntbuild-build
4 -----
```

```

5 -----
6 -- map_cat (frags,dir,mapfile) {{{
7 ---@param frags table
8 ---@param dir string
9 ---@param mapfile string
10 ---@return 0 on success, number of errors otherwise
11 ---@see
12 ---@usage private
13 local function map_cat (frags,dir,mapfile)
14   mapfile = mapfile or "pdftex.map"
15   local n = 0
16   if #frags == 0 then
17     frags = { "cm.map", "cm-super-t1.map", "cm-super-ts1.map", "lm.map" }
18   end
19   if #fnt.mapfiles_add ~= 0 then
20     for _,i in ipairs(fnt.mapfiles_add) do
21       table.insert(frags,i)
22     end
23   end
24   if fileexists(dir .. "/" .. mapfile) then
25     local errorlevel = rm(dir,mapfile)
26     fnt.gwall("Removal of ",dir .. "/" .. mapfile,errorlevel)
27   end
28   if #frags ~= 0 then
29     local m = assert(io.open(dir .. "/" .. mapfile,"a"))
30     for _,i in ipairs(frags) do
31       -- kpse.find_file assumes filetype tex i.e. ignores file ext.
32       local ff = kpse.find_file(i,"map")
33       if ff ~= "" then
34         local f = assert(io.open(ff),"rb")
35         local l = f:read("*all")
36         f:close()
37         m:write(l)
38       else
39         fnt.gwall("Search for map fragment ",i,1)
40         n = n + 1
41       end
42     end
43     m:close()
44   end
45   return n
46 end
47 }}}
48 -----
49 -- buildinit_hook
50 ---@return 0
51 ---@usage public
52 local function buildinit_hook () return 0 end
53 -----
54 -- buildinit {{{

```

```

55  -- hack copy of checkinit()
56  ---@return 0 on success, error level otherwise
57  ---@see
58  ---@usage public
59  local function buildinit ()
60      cleandir(fnt.fntdir)
61      -- l3build never cleans this by default?
62      cleandir(localdir)
63      fnt.dep_install (fnt.builddeps)
64      -- is this a appropriate? better not?
65      for i,j in ipairs(filelist(localdir)) do
66          cp(j,localdir,fnt.fntdir)
67      end
68      print("Unpacking ...\\n")
69      -- direct usage is legitimate ...
70      -- https://chat.stackexchange.com/transcript/message/66617079#66617079
71      local errorlevel = unpack()
72      if errorlevel ~= 0 then
73          fnt.gwall("Unpacking ",module,errorlevel)
74          return fnt.nifergwall
75      else
76          for i,j in ipairs(fnt.buildfiles) do
77              cp(j,unpackdir,fnt.fntdir)
78          end
79          if #fnt.buildsuppfiles_sys ~= 0 then
80              for _,j in ipairs(fnt.buildsuppfiles_sys) do
81                  if fileexists(j) then
82                      cp(basename(j),dirname(j),fnt.fntdir)
83                  else
84                      local jpath = kpse.find_file(j)
85                      local jdir = dirname(jpath)
86                      cp(j,jdir,fnt.fntdir)
87                  end
88              end
89          end
90      end
91      if not fnt.buildsearch then
92          -- we aren't typesetting, so we really don't need a map file
93          -- not sure this is really needed - do any tools use this anyway?
94          -- https://rosettacode.org/wiki/Create_a_file
95          io.open(fnt.fntdir .. "/pdftex.map", "w"):close()
96      end
97      return buildinit_hook()
98  end
99  -- }}}
100 -----
101 -----
102  -- build_fnt {{{
103  ---@param file string
104  ---@param cmd string

```

```

105 ---@param file string
106 ---@return 0 on success, error level otherwise
107 ---@see
108 ---@usage public
109 local function build_fnt (dir,cmd,file)
110   file = file or ""
111   cmd = cmd or ""
112   dir = dir or unpackkdir
113   local build_fnt_env = fnt.build_fnt_env or {}
114   local build_fnt_envset = ""
115   if #build_fnt_env ~= 0 then
116     for _,i in ipairs(build_fnt_env) do
117       build_fnt_envset = build_fnt_envset .. os_concat .. os_setenv .. " " .. i
118     end
119   end
120   -- steal from l3build-check.lua
121   local preamble =
122     -- would it be simpler to copy the typesetting sandbox here?
123     -- paths in the logs don't matter and copying localdir complicates things a bit
124     -- No use of localdir here as the files get copied to testdir:
125     -- avoids any paths in the logs
126     os_setenv .. " TEXINPUTS=." .. fnt.localtexmf()
127     .. (fnt.buildsearch and os_pathsep or "")
128     .. os_concat ..
129     -- no need for LUAINPUTS here
130     -- but we need to set more variables ...?!
131     (fnt.buildsearch and "" or
132      (os_setenv .. " TEXMFAUTXTREES={}" ..
133        .. os_concat .. os_setenv .. " TEXMFHOME={}"))
134      .. os_concat .. os_setenv .. " TEXMFLOCAL={}"
135      .. os_concat .. os_setenv .. " TEXMFCONFIG=."
136      .. os_concat .. os_setenv .. " TEXMFVAR=."
137      .. os_concat .. os_setenv .. " VFFONTS=${TEXINPUTS}"
138      .. os_concat .. os_setenv .. " TFMFONTS=${TEXINPUTS}"
139      .. os_concat .. os_setenv .. " TEXFONTMAPS=${TEXINPUTS}"
140      .. os_concat .. os_setenv .. " T1FONTS=${TEXINPUTS}"
141      .. os_concat .. os_setenv .. " AFMFONTS=${TEXINPUTS}"
142      .. os_concat .. os_setenv .. " TTFFFONTS=${TEXINPUTS}"
143      .. os_concat .. os_setenv .. " OPENTYPEFONTS=${TEXINPUTS}"
144      .. os_concat .. os_setenv .. " LIGFONTS=${TEXINPUTS}"
145      .. os_concat .. os_setenv .. " ENCFONTS=${TEXINPUTS}")
146    )
147    .. build_fnt_envset
148    .. os_concat
149  local errorlevel = runcmd(
150    preamble .. " " .. cmd .. " " .. file, dir
151  )
152  fnt.gwall(cmd,file,errorlevel)
153  return errorlevel
154 end

```

```
155 -- }}}
156 -----
157 -----
158 -- fntkeeper {{
159 ---@param dir string
160 ---@return 0 on success, error level otherwise
161 ---@see
162 ---@usage public
163 local function fntkeeper (dir)
164   dir = dir or fnt.fntdir
165   local rtn = direxists(fnt.keepdir)
166   if not rtn then
167     local errorlevel = mkdir(fnt.keepdir)
168     if errorlevel ~= 0 then
169       print("DO NOT BUILD STANDARD TARGETS WITHOUT RESOLVING!!\n")
170       fnt.gwall("Attempt to create directory ", fnt.keepdir, errorlevel)
171     end
172   else
173     local errorlevel = cleandir(fnt.keepdir)
174     if errorlevel ~= 0 then
175       print("KEEP CONTAMINATED!\n")
176       fnt.gwall("Attempt to clean directory ",fnt.keepdir,errorlevel)
177     end
178   end
179   local keepdir = abspath(fnt.keepdir) -- abspath requires existence
180   if fnt.keepfiles ~= {} then
181     for i,j in ipairs(fnt.keepfiles) do
182       local rtn = cp(j, dir, keepdir)
183       if rtn ~= 0 then
184         fnt.gwall("Copy ", j, errorlevel)
185         print("DO NOT BUILD STANDARD TARGETS WITHOUT RESOLVING!\\n")
186       end
187     end
188   else
189     print("ARE YOU SURE YOU DON'T WANT TO KEEP THE FONTS??!!\\n")
190   end
191   if fnt.keeptempfiles ~= {} then
192     rtn = direxists(fnt.keeptempdir)
193     if not rtn then
194       local errorlevel = mkdir(fnt.keeptempdir)
195       if errorlevel ~= 0 then
196         fnt.gwall("Attempt to create directory ", fnt.keeptempdir, errorlevel)
197       end
198     else
199       local errorlevel = cleandir(fnt.keeptempdir)
200       if errorlevel ~= 0 then
201         print("keeptemp contaminated!\\n")
202         fnt.gwall("Attempt to clean directory ",fnt.keeptempdir,errorlevel)
203       end
204     end
205   end
```

```

205     for i,j in ipairs(fnt.keeptempfiles) do
206         local errorlevel = cp(j,dir,fnt.keeptempdir)
207         if errorlevel ~= 0 then
208             fnt.gwall("Copy ", j, errorlevel)
209         end
210     end
211   end
212   return fnt.nifergwall
213 end
-- }}}

-----
216 --
217 -- fnt_subset {{{
218 ---@params fd, family, fnt.subset
219 ---@usage private
220 local function fnt_subset (fd,fam,subset)
221   local defn = string.gsub(fnt.subsettemplate,"%$FONTFAMILY",fam)
222   defn = string.gsub(defn,"%$SUBSET",subset)
223   local f = assert(io.open(fnt.fntdir .. "/" .. fd, "rb"))
224   local content = f:read("*all")
225   f:close()
226   local patt
227   if string.match(content, "\\\endinput") then
228     patt = "(\\endinput)"
229   else
230     patt = "()$"
231   end
232   f = assert(io.open(fnt.fntdir .. "/" .. fd, "w"))
233   f:write("% Encoding subset declaration added by fontsheets\n",
234         (string.gsub(content,patt,"\n\n" .. defn .. "\n\n%1"))
235   )
236   f:close()
237   return 0    -- how to make this return an error level?
238 end
-- }}}

-----
240 -- fntsubsetter {{{
241 ---@param
242 ---@description add encoding fnt.subset definitions for TS1 if applicable and requested
243 ---@return 0 on success, error level or 1 otherwise
244 ---@see
245 ---@usage public
246 local function fntsubsetter ()
247   local tcsubset = tcsubset or "9"
248   if fnt.subset == nil or fnt.subset == false then return 0 end
249   local subsetfiles = fnt.subsetfiles or {}
250   if type(subsetfiles) == "string" and subsetfiles ~= "auto" then
251     local s = subsetfiles
252     subsetfiles = { s }
253   end
254

```

```

255     if #subsetfiles == 0 then
256         for i in lfs.dir(fnt.fntdir) do
257             -- we avoid using filelist() here because it doesn't support char sets
258             if string.match(i, "[Tt][Ss]1.*%.fd$") then
259                 table.insert(subsetfiles,i)
260             end
261         end
262     end
263     if #subsetfiles == 0 then return 0 end
264     for _, i in ipairs(subsetfiles) do
265         local fam = string.gsub(i, "[Tt][Ss]1(.+).fd$", "%1")
266         local s = fnt.subsetdefns[fam] or tcsubset
267         local errorlevel = fnt_subset(i,fam,s)
268         fnt.gwall("Inserting TS1 subset definition ",i,errorlevel)
269     end
270     return fnt.nifergwall
271 end
272 -- }}}
273 -----
274 -----
275 -- uniquify {{{
276 -- oherwydd fy mod i bron ag anfon pob un ac mae'n amlwg fy mod i wedi anfon
277 -- bacedi heb ei wneud hwn yn y gorffennol, well i mi wneud rhywbeth (scriptiau
278 -- gwneud-cyhoeddus a make-public yn argraffu rhybudd os encs yn y cymysg
279 -- (cymraeg yn ofnadwy hefyd)
280 ---@param tag string
281 ---@return 0 on success, error level or 1 otherwise
282 ---@see
283 ---@usage public
284 local function uniquify (tag)
285     local dir = ""
286     tag = tag or fnt.encodingtag or ""
287     local pkgbase = fnt.pkgbase or ""
288     local pkglist = {}
289     if standalone then
290         dir = fnt.keepdir
291     else
292         dir = fnt.fntdir
293     end
294     if fileexists(dir .. "/pdftex.map") then
295         print("\nRemoving temporary pdftex.map from ", dir, "...\\n")
296         local errorlevel = rm(dir,"pdftex.map")
297         fnt.gwall("Removing ","pdftex.map",errorlevel)
298     end
299     if pkgbase == "" then
300         print("pkgbase unspecified. Trying to guess ... ")
301         if not standalone then
302             pkglist = filelist(dir,"*.sty")
303             if #pkglist == 0 then
304                 pkglist = filelist(unpackdir,"*.sty")

```

```
305     end
306     if #pkglist ~= 0 then
307         pkgbase = string.gsub(pkglist[1], "%.sty", "")
308         print("Guessing ", pkgbase)
309     end
310     end
311 end
312 if pkgbase == "" then
313     if ctanpkg ~= module and module ~= "" and module ~= nil then
314         print("Guessing ", module)
315         pkgbase = module
316     else
317         pkgbase = string.gsub(ctanpkg, "adf$", "")
318         if pkgbase ~= "" then
319             print("Guessing ", pkgbase)
320         end
321     end
322 end
323 if pkgbase == "" then
324     pkgbase = "NotAMatchAtAll"
325     fnt.gwall("Guessing pkgbase","",1)
326 end
327 local encs = encs or filelist(dir,"*.enc")
328 local maps = maps or filelist(dir,"*.map")
329 print("Uniquifying encodings ... ")
330 for _,i in ipairs(encs) do print(" ", i) end
331 print("\nUniquifying maps ... ")
332 for _,i in ipairs(maps) do print(" ", i) end
333 print(" ...\n")
334 if #encs == 0 then
335     return 0
336 elseif tag == "" then
337     if #maps ~= 0 then
338         if #maps == 1 then
339             tag = string.gsub(maps[1], "%.map$", "")
340         else
341             local t = ""
342             local tt = ""
343             for i,j in ipairs(maps) do
344                 if tt == t then
345                     tt = string.gsub(j,"%w%.map$","",)
346                 elseif t == "" then
347                     t = string.gsub(j,"%w%.map$","",)
348                 end
349             end
350             if t == tt then
351                 tag = tt
352             else
353                 fnt.gwall("Attempt to find tag","",1)
354             end

```

```

355         end
356     end
357     if tag ~= "" then
358         for i, j in ipairs(encs) do
359             if string.match(j, "-" .. tag .. "%.enc$")
360                 or string.match(j, module)
361                 or string.match(j, ctanpkg)
362                 or string.match(j, pkgbase)
363                 or string.match(j, string.gsub(module, "adf", ""))
364             then
365                 print(j, "... OK\n")
366             else
367                 local targenc = (string.gsub(j, "%.enc$", "-" .. tag .. ".enc"))
368                 print("Target encoding is", targenc, "\n")
369                 if fileexists(dir .. "/" .. targenc) then
370                     fnt.gwall("Target encoding exists !! ", targenc, 1)
371                     return 1
372                 else
373                     local f = assert(io.open(dir .. "/" .. j, "rb"))
374                     local content = f:read("*all")
375                     f:close()
376                     local new_content = (string.gsub(content,
377                         "(\\n%%%%BeginResource: encoding fontinst%-autoenc[^\\n ]*)( *\\n/fontinst%-a"
378                         "\\\n%% Encoding renamed by fontscripts\\n\\n%1-"
379                         .. tag .. "%2-" .. tag .. "%3"
380                     ))
381                     if new_content ~= content then
382                         print("Writing unique encoding to ", targenc)
383                         f = assert(io.open(dir .. "/" .. targenc, "w"))
384                         -- remove the second value returned by string.gsub
385                         f:write((string.gsub(new_content, "\n", fnt.os_newline_cp)))
386                         f:close()
387                         if fileexists(dir .. "/" .. targenc) then
388                             local errorlevel = rm(dir, j)
389                             if errorlevel ~= 0 then
390                                 fnt.gwall("Attempt to rm old encoding ", j, errorlevel)
391                             end
392                             if #maps ~= 0 then
393                                 local jpatt = string.gsub(j, "%-", "%%-")
394                                 jpatt = string.gsub(jpatt, "%.", "%%.")
395                                 for k,m in ipairs(maps) do
396                                     f = assert(io.open(dir .. "/" .. m, "rb"))
397                                     local mcontent = f:read("*all")
398                                     f:close()
399                                     local new_mcontent = (string.gsub(mcontent,
400                                         "(%<%[?]) .. jpatt ..
401                                         "( %<%w+%.pfb \" fontinst%-autoenc[%w%-_]*)( ReEncodeFont)",
402                                         "%1" .. targenc .. "%2-" .. tag .. "%3"
403                                     ))
404                                     if new_mcontent ~= mcontent then
405                                         print("Writing adjusted map lines to ", m)

```

```
405             f = assert(io.open(dir .. "/" .. m,"w"))
406             -- remove the second value returned by string.gsub
407             f:write("%% Encodings renamed by fontscripts\n",
408                     (string.gsub(new_mcontent,"\n",fnt.os_newline_cp)))
409             f:close()
410         else
411             print("Nothing to do for ", m, ".\n")
412         end
413     end
414     else
415         print("FOUND NO MAPS??\n")
416     end
417     else
418         fnt.gwall("Attempt to write ",targenc,1)
419     end
420     else
421         fnt.gwall("Attempt to uniquify " .. j .. " as ",targenc,1)
422     end
423     end
424     end
425     end
426     return fnt.nifergwall
427 end
428 print("Something weird happened.\n")
429 return 1
430 end
431 end
432 -- }}}
433 -----
434 -----
435 -- fontinst
436 -----
437 -- finst {{{
438 ---@param patt string
439 ---@param dir string
440 ---@param mode string
441 ---@return
442 ---@see
443 ---@usage public
444 local function finst (patt,dir,mode)
445     dir = dir or "."
446     mode = mode or "nonstopmode"
447     local cmd = "pdftex --interaction=" .. mode
448     -- https://lunarmodules.github.io/luafilesystem/examples.html (expl)
449     -- l3build-file-functions.lua (filelist fn)
450     local targs = filelist(dir,patt)
451     for i,j in ipairs(targs) do
452         -- local errorlevel = tex(j,dir,cmd)
453         local errorlevel = build_fnt(dir,cmd,j)
454         fnt.gwall("Compilation of ", j, errorlevel)
```

```

455     end
456 end
457 -- }}}
458 -----
459 -- fontinst {{{
460 ---@param dir string
461 ---@param mode string
462 ---@return 0 on success, error level otherwise
463 ---@see
464 ---@usage public
465 local function fontinst (dir,mode)
466   -- dir = dir or unpackdir
467   dir = dir or fnt.fntdir
468   mode = mode or "errorstopmode --halt-on-error"
469   standalone = false
470   fnt.encodingtag = fnt.encodingtag or ""
471   if #fnt.buildsuppfiles_sys == 0 then
472     print("Assuming all fontinst files should be available during build.\n")
473     local path = kpse.var_value("TEXMFDIST") .. "/tex/fontinst"
474     fnt.buildsuppfiles_sys = fnt.lsrdir(path)
475   end
476   buildinit ()
477   local tfmfiles = filelist(dir,"*.tfm")
478   for i,j in ipairs(tfmfiles) do
479     local plname = string.gsub(j, "%.tfm$", ".pl")
480     if fileexists(dir .. "/" .. plname) then
481       print(plname, "already exists!")
482       return 1
483     else
484       local cmd = "tftopl " .. j .. " " .. plname
485       -- safe or not?
486       local errorlevel = runcmd(cmd,dir)
487       -- necessary or not?
488       -- local errorlevel = build_fnt(cmd,dir)
489       fnt.gwall("Conversion to pl from tfm ",j,errorlevel)
490       -- remove tfm to reduce pollution of package later
491       rm(dir,j)
492       fnt.gwall("Deletion of tfm ", j, errorlevel)
493     end
494   end
495   for i,j in ipairs(fnt.familymakers) do
496     local errorlevel = finst(j,dir,mode)
497     fnt.gwall("Compilation of driver ", j, errorlevel)
498   end
499   if fnt.nifergwall ~= 0 then return fnt.nifergwall end
500   for i,j in ipairs(fnt.mapmakers) do
501     local errorlevel = finst (j,dir,mode)
502     fnt.gwall("Compilation of map ", j, errorlevel)
503   end
504   if fnt.nifergwall ~= 0 then return fnt.nifergwall end

```

```

505     print("Tidying up build directory ...\\n")
506     for _,i in ipairs(fnt.buildsuppfiles_sys) do
507         local errorlevel = rm(dir,i)
508         fnt.gwall("Removal of ",dir .. "/" .. i,errorlevel)
509     end
510     for i,j in ipairs(fnt.binmakers) do
511         local targs = filelist(dir,j)
512         -- https://www.lua.org/pil/21.1.html
513         for k,m in ipairs(targs) do
514             targ = dir .. "/" .. m
515             -- is this really the right way to do this?
516             -- surely it is not at all safe?
517             -- though presumably no worse than executing the script directly
518             for line in io.lines(targ) do
519                 if string.match(line,"^pltotf [a-zA-Z0-9%-]+%.pl [a-zA-Z0-9%-]+%.tfm$") then
520                     -- local errorlevel = runcmd(line,dir)
521                     local errorlevel = build_fnt(dir,line)
522                     fnt.gwall("Creation of TFM using " .. line .. " from ", j, errorlevel)
523                 else
524                     print("Ignoring unexpected line \" .. line .. "\" in", j .. ".\\n")
525                     fnt.nifergwall = fnt.nifergwall + 1
526                 end
527             end
528         end
529     end
530     if fnt.nifergwall ~= 0 then return fnt.nifergwall end
531     local targs = filelist(dir,"*.vpl")
532     for i,j in ipairs(targs) do
533         -- local cmd = "vptovf " .. j
534         -- local errorlevel = runcmd(cmd,dir)
535         local cmd = "vptovf"
536         local errorlevel = build_fnt(dir,cmd,j)
537         fnt.gwall("Creation of virtual font from ", j, errorlevel)
538     end
539     -- edit the .fd files if a scale factor is declared because fontinst
540     -- doesn't allow us to do this and the last message to the mailing list
541     -- is from 2022 with no response from the maintainer
542     local fdfiles = filelist(dir, "*.fd")
543     for i,j in ipairs(fdfiles) do
544         local f = assert(io.open(dir .. "/" .. j,"rb"))
545         local content = f:read("*all")
546         f:close()
547         local new_content = content
548         local csscaleaux = string.match(content, "%<%-%> *\\([%a%d] [%a%d]*@@scale)%")
549         if csscaleaux ~= nil then
550             local cssscale = string.gsub(csscaleaux, "@(@)", "%1")
551             if csscale ~= nil then
552                 new_content = string.gsub(content, "(\\DeclareFontFamily{})",
553                 "% addaswyd o t1phv.fd (dyddiad y ffeil fd: 2020-03-25)\\n\\expandafter\\ifx\\
554                 .. csscale .. "\\endcsname\\relax\\n \\let\\\" .. csscaleaux

```

```

555     .. "\\\@empty\n\\else\n  \\edef\\" .. csscaleaux
556     .. "{s*[\\\csname " .. csscale .. "\\endcsname]}%\\n\\fi\\n\\n%1")
557   end
558 end
559 csscaleaux = string.match(content,
560 "\\\\DeclareFontFamily{[^}]*{[^}]*{[^}]*\\hyphenchar *\\font *=[^}\\n]*}")
561 if csscaleaux ~= nil then
562   content = new_content
563   new_content = string.gsub(content,
564   "(\\\\DeclareFontFamily{[^}]*{[^}]*{\\\\hyphenchar) *(\\\\font) *([^\n]*)([^\\n]*%)")
565   "%1%2%3%4")
566 end
567 if new_content ~= content then
568   local f = assert(io.open(dir .. "/" .. j,"w"))
569   -- this somehow removes the second value returned by string.gsub??
570   f:write("% Scaling added by fontsheets\\n", (string.gsub(new_content,
571   "\\\n",fnt.os_newline_cp)))
572   f:close()
573 end
574 end
575 local errorlevel = uniquify(fnt.encodingtag)
576 if errorlevel ~= 0 then
577   fnt.gwall("Encodings not uniquified! Do not submit to CTAN! uniquify("
578   .. fnt.encodingtag .. ")", "", errorlevel)
579 end
580 errorlevel = fntsubsetter()
581 if errorlevel ~= 0 then
582   fnt.gwall("Encoding fnt.subset definitions not inserted! fntsubsetter()","",errorlevel)
583 end
584 errorlevel = fntkeeper()
585 if errorlevel ~= 0 then
586   fnt.gwall(
587     "FONT KEEPER FAILED! DO NOT MAKE STANDARD TARGETS WITHOUT RESOLVING!! fntkeeper("
588     dir, errorlevel)
589 end
590 return fnt.nifergwall
591 end
592 -- }})
593 -----
594 -----
595 -- afm2tfm (simple symbol fonts only)
596 -----
597 -- afm2tfm (dir) {{{
598 ---@param dir string
599 ---@return 0 on success, number of errors otherwise
600 ---@see
601 ---@usage public
602 local function afm2tfm (dir)
603   dir = dir or fnt.fntdir
604   local fntbasename = fntbasename or module

```

```

605 local map = mapfile or fntbasename .. ".map"
606 local fntencs = fnt.encs or {}
607 standalone = false
608 fnt.encodingtag = fnt.encodingtag or ""
609 buildinit ()
610 print("Running afm2tfm. Please be patient ...\\n")
611 local afms = filelist(dir,"*.afm")
612 local content = ""
613 for i,k in ipairs(afms) do
614     j = string.gsub(k,"%afm","", "")
615     if fntencs[j] == nil then
616         local rtn = fileexists(dir .. "/" .. j .. ".enc")
617         if not rtn then
618             errorlevel = build_fnt(dir,"afm2tfm " .. k " >> " .. dir
619             .. "/" .. map .. ".tmp")
620         else
621             errorlevel = build_fnt(dir, "afm2tfm " .. k .. " -p " .. j
622             .. ".enc" .. " >> " .. dir .. "/" .. map .. ".tmp")
623         end
624     elseif not fileexists(dir .. "/" .. fntencs[j]) then
625         fnt.gwall("Search for encoding specified for " .. j .. " ",dir,1)
626     else
627         errorlevel = build_fnt(dir, "afm2tfm " .. k .. " -p " .. fntencs[j]
628             .. " >> " .. dir .. "/" .. map .. ".tmp")
629     end
630     if errorlevel ~= 0 then
631         fnt.gwall("afm2tfm (" .. j .. ")",dir,errorlevel)
632     else
633         local g = assert(io.open(dir .. "/" .. map .. ".tmp","rb"))
634         local c = g:read("all")
635         g:close()
636         content = content .. string.gsub(c, "\n", " <
637             .. string.gsub(k,"%afm",".pdf") .. "\n")
638         rm(dir, map .. ".tmp")
639     end
640 end
641 -- need to do this as uniquify() isn't used
642 -- otherwise the file ends up in localdir (and probably the package)
643 -- catching this is the only benefit I can see in my inability to clean localdir
644 if fileexists(dir .. "/pdftex.map") then
645     local errorlevel = rm(dir,"pdftex.map")
646     fnt.gwall("Removing ", "pdftex.map",errorlevel)
647 end
648 local f
649 f = assert(io.open(dir .. "/" .. map, "w"))
650 f:write((string.gsub(content,"\n",fnt.os_newline_cp)))
651 f:close()
652 errorlevel = fntkeeper()
653 if errorlevel ~= 0 then
654     fnt.gwall("FONT KEEPER FAILED! DO NOT MAKE STANDARD TARGETS WITHOUT RESOLVING!! ",
```

```
655     dir, errorlevel)
656   end
657   return fnt.nifergwall
658 end
659 -- }}}
660 -----
661 -----
662 -- exports {{{
663 fnt.build_fnt = build_fnt
664 fnt.buildinit = buildinit
665 fnt.buildinit_hook = buildinit_hook
666 fnt.finst = finst
667 fnt.fntkeeper = fntkeeper
668 fnt.fntsubsetter = fntsubsetter
669 fnt.afm2tfm = afm2tfm
670 fnt.fontinst = fontinst
671 fnt.map_cat = map_cat
672 fnt.uniquify = uniquify
673 -- }}}
674 -----
675 -----
676 -- vim: ts=2:sw=2:et:foldmethod=marker:
```

6.1.3 fntbuild-check.lua

`fntbuild-check.lua` (*lua*) Included by `fntbuild.lua`. Configures l3build hook to auto-generate (additional) test files if templates are provided.

```
1  -- $Id: fntbuild-check.lua 10763 2025-02-04 20:28:32Z cfrees $
2 -----
3  -- fntbuild-check
4 -----
5  -- writes lvt files
6  -- ensures build products are available
7  -- enforces sandbox if checksearch is false
8 -----
9 -----
10 -- local copio_aux {{{
11 ---Copy files or directory contents recursively.
12 ---@return 0 on success, error level otherwise
13 ---@see
14 ---@param locs table
15 ---@param dest string
16 ---@param kpsevar string
17 ---@param indent string
18 ---@usage private
19 local function copio_aux (locs,dest,kpsevar,indent)
20   indent = indent .. " "
21   for _,i in ipairs(locs) do
```

```

22     local path = kpse.var_value(kpsevar) .. i
23     local attr = lfs.attributes (path)
24     if type(attr) == "table" then
25       if attr.mode == "directory" then
26         print(indent .. i .. "/")
27         local tmpls = filelist(path)
28         for _,j in ipairs(tmpls) do
29           if j ~= "." and j ~= ".." then
30             local att = lfs.attributes (path .. "/" .. j)
31             assert (type(att) == "table")
32             if att.mode == "directory" then
33               copio_aux({path .. "/" .. j},dest,kpsevar,indent)
34             else
35               local errorlevel = cp(j,path,dest)
36               fnt.gwall("Copying ",path .. "/" .. j,errorlevel)
37             end
38           end
39         end
40       elseif fileexists(path) then
41         print(" " .. i)
42         local errorlevel = cp(basename(path),dirname(path),dest)
43         fnt.gwall("Copying ",path,errorlevel)
44       else
45         fnt.gwall("Lookup ",path,1)
46       end
47     else
48       fnt.gwall("Getting information about ",i,1)
49     end
50   end
51 end
52 -- }}}
53 -----
54 -- local copio {{{
55 ---Copy files or directory contents recursively.
56 ---@return 0 on success, error level otherwise
57 ---@see
58 ---@param locs table
59 ---@param dest string
60 ---@param kpsevar string
61 ---@usage private
62 local function copio (locs,dest,kpsevar)
63   if locs == nil then return 0 end
64   if #locs == 0 then return 0 end
65   kpsevar = kpsevar or "TEXMFDIST"
66   copio_aux(locs,dest,kpsevar,"")
67 end
68 -- }}}
69 -----
70 -----
71 -- local test {{{

```

```
72 ---Generates lvt files for l3build check from fds and template.
73 ---@param fntpkgname string
74 ---@param fds table
75 ---@param content string
76 ---@param maps table
77 ---@param fdsdir string
78 ---@return 0 on success, error level otherwise
79 ---@see
80 ---@usage public
81 local function test (fntpkgname,fds,content,maps,fdsdir)
82     local coll = ""
83     -- suffix ly -> ly1 ; no suffix -> t1
84     local collly = ""
85     local targname = fntpkgname .. "-auto-test.lvt"
86     local targnamely = fntpkgname .. "-auto-test-ly1.lvt"
87     local targfile = unpackdir .. "/" .. targname
88     local targfilely = unpackdir .. "/" .. targnamely
89     -- ly1 boolean
90     local yy = 0
91     -- texnansi/ly1 fds
92     local lys = {}
93     -- ec/t1 fds
94     local ecs = {}
95     -- local mapsly = ""
96     print("Creating test file for", fntpkgname, "with fds: ")
97     for i, j in ipairs(fds) do print(" fd:", j) end
98     print("\n")
99     -- l3build-tagging.lua
100    for i, j in ipairs(fds) do
101        -- local errorlevel = cp(j, fnt.keepdir, unpackdir)
102        if string.match(j,"^ly1") then
103            yy = 1
104            table.insert(lys,j)
105        else
106            table.insert(ecs,j)
107        end
108        if fdsdir ~= unpackdir then
109            local errorlevel = cp(j, fdsdir, unpackdir)
110            if errorlevel ~= 0 then
111                fnt.gwall("Copy ", j, errorlevel)
112                return errorlevel
113            end
114        end
115    end
116    -- restart so we get the filtered list (hopefully)
117    for i, j in ipairs(ecs) do
118        j = unpackdir .. "/" .. j
119        for line in io.lines(j) do
120            -- it would be much better to filter the file list ...
121            if string.match(line,
```



```

172  -- PAID Â CHEISIO YR ISOD!!
173  -- cp(targname,unpackdir,testfiledir)
174  local errorlevel = cp(targname,unpackdir,testdir)
175  if errorlevel ~= 0 then
176      fnt.gwall("Attempt to copy ", targname, errorlevel)
177  end
178  errorlevel = cp(targnamely,unpackdir,testdir)
179  if errorlevel ~= 0 then
180      fnt.gwall("Attempt to copy ", targnamely, errorlevel)
181  end
182  return fnt.nifergwall
183 end
184 --}}
185 -----
186 -----
187 -- redefine l3build function
188 -----
189 -- local check_init {{{

190 ---Additional setup for testing tailored to font packages.
191 ---@return 0 on success, error level otherwise
192 ---@see l3build
193 ---@usage N/A
194 local function check_init ()
195     local filename = fnt.testtemp
196     local regfile = fnt.regress
197     local file = unpackdir .. "/" .. filename
198     -- local fnttestdir = maindir .. "/fnt-tests"
199     local maps = ""
200     local mapfiles=filelist(fnt.keepdir, "*.map")
201     local mapsdir = ""
202     local fdsdir = ""
203     -- local adds = checksuppfiles_addlst or maindir .. "/checksuppfiles-add.lst"
204     if not checksearch then
205         fnt.map_cat(fnt.mapfiles_sys,testdir)
206     end
207     -- how did this ever work?
208     for _,i in ipairs(filelist(fnt.keepdir)) do
209         if i ~= "." and i ~= ".." then
210             local errorlevel = cp(i,fnt.keepdir,testdir)
211             fnt.gwall("Copying ",i,errorlevel)
212         end
213     end
214     if not checksearch then
215         print("\nAssuming some basic files should be available during testing.\n\nAdding f
216         if #fnt.checksuppfiles_sys == 0 then
217             fnt.checksuppfiles_sys = {
218                 "/tex/latex/base/article.cls",
219                 "/tex/latex/base/fontenc.sty",
220                 "/tex/latex/base/omlcmm.fd",
221                 "/tex/latex/base/omlcmr.fd",

```

```

222     "/tex/latex/base/omscmr.fd",
223     "/tex/latex/base/omscmsy.fd",
224     "/tex/latex/base/omxcmex.fd",
225     "/tex/latex/base/ot1cmr.fd",
226     "/tex/latex/base/ot1cmss.fd",
227     "/tex/latex/base/ot1cmtt.fd",
228     "/tex/latex/base/size10.clo",
229     "/tex/latex/base/size11.clo",
230     "/tex/latex/base/size12.clo",
231     "/tex/latex/base/t1cmr.fd",
232     "/tex/latex/base/t1cmss.fd",
233     "/tex/latex/base/t1cmtt.fd",
234     "/tex/latex/base/tracefnt.sty",
235     "/tex/latex/base/ts1cmr.fd",
236     "/tex/latex/base/ts1cmss.fd",
237     "/tex/latex/base/ts1cmtt.fd",
238     "/tex/latex/base/ucmr.fd",
239     "/tex/latex/base/ucmss.fd",
240     "/tex/latex/base/ucmmtt.fd",
241     "/tex/latex/l3build",
242     "/tex/latex/l3backend",
243     "/tex/latex/fonttable/fonttable.sty",
244     "/fonts/enc/dvips/base",
245     "/fonts/enc/dvips/cm-super",
246     "/fonts/type1/public/amsfonts/cm",
247     "/fonts/type1/public/cm-super",
248     "/fonts/tfm/public/cm",
249     "/fonts/tfm/jknappen/ec",
250   }
251 end
252 copio(fnt.checksuppfiles_sys,testdir,"TEXMFDIST")
253 if not fileexists(testdir .. "/" .. regfile) then
254   if fileexists(unpackdir .. "/" .. regfile) then
255     cp(regfile,unpackdir,testdir)
256     print("Using regression tests from " .. unpackdir .. "/" .. regfile .. ".\n")
257   else
258     table.insert(fnt.checksuppfiles_add,regfile)
259     print("Adding " .. regfile .. "to fnt.checksuppfiles_add.\n")
260   end
261 else
262   print("Using regression tests from " .. testdir .. "/" .. regfile .. ".\n")
263 end
264 if #fnt.checksuppfiles_add ~= 0 then
265   local str = kpse.var_value("TEXMFDIST")
266   if string.match(str,"%-") then str = string.gsub(str,"%-","%%-") end
267   for _,j in ipairs(fnt.checksuppfiles_add) do
268     if string.match(j,"^/") then
269       copio({j},testdir,"TEXMFDIST")
270     else
271       local jpath = kpse.lookup(j)

```

```
272         if jpath ~= nil then
273             local jdir = dirname(jpath)
274             if string.match(jdir,"^" .. str) then
275                 print(" " .. jpath)
276                 local errorlevel = cp(j,jdir,testdir)
277                 fnt.gwall("Copying ",j,errorlevel)
278             else
279                 fnt.gwall("Restricted search for ",j,1)
280             end
281         else
282             fnt.gwall("Finding ",j,errorlevel)
283         end
284     end
285   end
286 end
287
288 -- setup & test creation
289 if #mapfiles == 0 then
290   mapfiles=filelist(unpackdir, "*.map")
291   if #mapfiles == 0 then
292     fnt.gwall("Attempt to find map files ", ".map", 1)
293     return 1
294   else
295     print("\nUsing maps from", unpackdir)
296     mapsdir = unpackdir
297   end
298 else
299   mapsdir = fnt.keepdir
300   print("\nUsing maps from", fnt.keepdir)
301 end
302 local fntpkgnames = fntpkgnames or filelist(unpackdir,"*.sty")
303 for i, j in ipairs(fntpkgnames) do
304   fntpkgnames[i] = string.gsub(j,"%..sty","","")
305 end
306 -----
307 local autotestfdstmp = filelist(fnt.keepdir, "*.fd")
308 -- if they're not kept, they may be source (e.g. berenisadf)
309 if #autotestfdstmp == 0 then
310   autotestfdstmp = filelist(unpackdir, "*.fd")
311   if #autotestfdstmp == 0 then
312     fnt.gwall("Attempt to find fd files ", ".fd", 1)
313     return 1
314   else
315     fdsdir = unpackdir
316     print("Using fds from", unpackdir)
317   end
318 else
319   fdsdir = fnt.keepdir
320   print("Using fds from", fnt.keepdir)
321 end
```

```

322     if #autotestfdstmp == 0 then
323         print("Something is amiss - this code should never be executed!")
324         fnt.gwall("Attempt to locate fd files ", ".fd", 1)
325     elseif #fnt.autotestfds == 0 then
326         for i, j in ipairs(autotestfdstmp) do
327             if not ( string.match(j,"^ts1") or string.match(j,"^u") ) then
328                 table.insert (fnt.autotestfds, j)
329             end
330         end
331     end
332     -----
333     -- if fnttestfds.<package name> has been specified, use that (should be a table)
334     -- o/w assign the fnt.autotestfds table to fnttestfds.<package name>
335     -- but remember fnt.fnttestfds may be pairs and/or ipairs ...
336     -- there must be a better way to do this ...
337     if #fnt.fnttestfds == 0 then
338         print("\n#fnt.fnttestfds:", #fnt.fnttestfds)
339         if #fnt.autotestfds ~= 0 then
340             print("#fnt.autotestfds:",#fnt.autotestfds)
341             for i,j in ipairs(fntpkgnames) do
342                 if fnt.fnttestfds[j] == nil then
343                     print("Auto-assigning fnt.autotestfds to fnt.fnttestfds[" .. j .. "] ... \n")
344                     fnt.fnttestfds[j] = {}
345                     for a,b in ipairs(fnt.autotestfds) do
346                         table.insert(fnt.fnttestfds[j],b)
347                     end
348                 end
349             end
350         end
351     else
352         local testmes = {}
353         for i,j in ipairs(fnt.fnttestfds) do
354             table.insert(testmes,j)
355         end
356         for i, j in ipairs(fntpkgnames) do
357             -- I really don't understand tables (and I know this is very, very basic)
358             if fnt.fnttestfds[j] == nil then
359                 fnt.fnttestfds[j] = {}
360                 -- use only if fnt.fnttestfds isn't specified either as table of tables or
361                 -- table of files/globs
362                 -- this doesn't seem very robust
363                 for k, l in ipairs(testmes) do
364                     table.insert (fnt.fnttestfds[j], 1)
365                 end
366             end
367         end
368     end
369     -----
370     for i, j in ipairs(mapfiles) do
371         maps = maps .. "\\\pdfmapfile{-" .. j .. "}\\\\pdfmapfile{+" .. j .. "}"

```

```

372     end
373     -- maps = maps .. "\n\\pdfmapfile{+pdftex.map}"
374     if next(fnt.fnttestfds) == nil then
375         print("Skipping test creation.\n")
376     else
377         print("Creating (additional) test file(s).\n")
378         if not fileexists(unpackdir .. "/" .. filename) then
379             if fileexists(testdir .. "/" .. filename) then
380                 cp(filename,testdir,unpackdir)
381                 print("Using local " .. filename .. " from " .. testdir .. "...\\n")
382             elseif fileexists(localdir .. "/" .. filename) then
383                 cp(filename,localdir,unpackdir)
384                 print("Using " .. filename .. " from " .. localdir .. "...\\n")
385             else
386                 local ffeil = kpse.find_file(filename)
387                 if ffeil ~= nil then
388                     cp(filename,dirname(ffeil),unpackdir)
389                     print("Using " .. filename .. " from " .. dirname(ffeil) .. "...\\n")
390                 else
391                     print("Skipping test creation. This is probably not what you want if I've co"
392                         filename = 0
393                         fnt.gwall("Copy ", filename, 1)
394                     end
395                 end
396             else
397                 print("Using local " .. filename .. "...\\n")
398             end
399             -- local errorlevel = cp(filename,fnttestdir,unpackdir)
400             -- local errorlevel = ren(unpackdir, filename, targname)
401             if filename ~= 0 then
402                 -- need to get content here
403                 -- copy this from l3build-tagging.lua
404                 local f = assert(io.open(file,"rb"))
405                 local content = f:read("*all")
406                 f:close()
407                 -- ought to normalise line endings here
408                 -- copied from l3build
409                 -- but I don't understand why the first subs is needed
410                 -- is it a problem if the file doesn't end with a newline?
411                 content = string.gsub(content .. (string.match(content,"\n$") and ""
412                                         or "\n"), "\r\n", "\n")
413                 content = string.gsub(content,
414                     "\\RequirePackage%{svn%-prov%}\\n\\ProvidesFileSVN%{[^%]*%}%[[^%]*%][[^%]*%]\\n"
415                     ""))
416                 for i, j in ipairs(fntpkgnames) do
417                     -- create the test file for each package
418                     -- errorlevel = test(j,fnt.fnttestfds[j],content,maps)
419                     -- dyw fnt.fnttestfds.j ddim yn gweithio yma!!
420                     errorlevel = test(j,fnt.fnttestfds[j],content,maps,fdsdir)
421                     if errorlevel ~= 0 then

```

```

422         fnt.gwall("Font test creation ", j, errorlevel)
423         return errorlevel
424     end
425   end
426   rm(unpackdir,filename)
427 end
428 end
429 if not checksearch then
430   local localtexmf = fnt.localtexmf()
431   checkopts = checkopts
432   .. " --cnf-line=TEXMFauxtrees={} --cnf-line=TEXMFHOME={} --cnf-line=TEXMFLOCAL={}
433   .. localtexmf .. " --cnf-line=TFMFONTS=."
434   .. localtexmf .. " --cnf-line=TEXFONTMAPS=."
435   .. localtexmf .. " --cnf-line=T1FONTS=."
436   .. localtexmf .. " --cnf-line=AFMFONTS=."
437   .. localtexmf .. " --cnf-line=TTFFONTS=."
438   .. localtexmf .. " --cnf-line=OPENTYPEFONTS=."
439   .. localtexmf .. " --cnf-line=LIGFONTS=."
440   .. localtexmf .. " --cnf-line=ENCFONTS=."
441   .. localtexmf
442 end
443   return 0
444 end
445 -- }}}
```

```

446 -----
447 --
448 -- exports {{{
449 fnt.checkinit_hook = check_init
450 fnt.test = test
451 -- }}}
452 -----
453 --
454 -- vim: ts=2:sw=2:et:foldmethod=marker:
```

6.1.4 fntbuild-ctan.lua

fntbuild-ctan.lua (*lua*) Included by fntbuild.lua. Changes the way the `ctan` target builds the archive to match [CTAN](#) requirements for font distributions.

```

1  -- $Id: fntbuild-ctan.lua 10743 2025-01-29 02:29:53Z cfrees $
2  -----
3  local exts = {}
4  -----
5  --
6  -- origcopyctan()
7  -- copy David Carlisle
8  local origcopyctan = copyctan
9  -----
10 -----
```

```

11  -- local extname(filename) {{{
12  local function extname(filename)
13      local b = basename(filename)
14      ext = string.gsub(b, "^[^%.]*%.", "")
15      if ext == nil then
16          fnt.gwall("Failed to get extension ",ext,1)
17      end
18      return ext
19  end
20  -- }}}
21 -----
22  -- local copysubctan(files,srcdir,targdir) {{{
23  local function copysubctan(files,srcdir,targdir)
24      local errorlevel
25      local extdir
26      if not direxists(targdir) then
27          errorlevel = mkdir(targdir)
28          if errorlevel ~= 0 then return errorlevel end
29      end
30      for i,j in ipairs(files) do
31          local ext = extname(j)
32          if exts[ext] == nil then
33              extdir = ext
34              exts[ext] = ext
35          else
36              extdir = exts[ext]
37          end
38          if not direxists(targdir .. "/" .. extdir) then
39              errorlevel = mkdir(targdir .. "/" .. extdir)
40              if errorlevel ~= 0 then return errorlevel end
41          end
42          errorlevel = cp(j,srcdir,targdir .. "/" .. extdir)
43          if errorlevel ~= 0 then return errorlevel end
44      end
45      return 0
46  end
47  -- }}}
48 -----
49  -- local copy_ctan() {{{
50  local function copy_ctan()
51      local keepdir = fnt.keepdir or sourcefiledir .. "/keep"
52      local errorlevel
53      local targdir = ctandir .. "/" .. ctanpkg
54      keptfiles = {}
55      if #exts == 0 then exts = {"afm","dtx","enc","fd","ins","map","md",
56          "otf","pdf","pfb","pfm","tex","tfm","txt","vf"} end
57      if not exts["pfb"] then exts["pfb"] = "type1" end
58      if not exts["pfm"] then exts["pfm"] = "type1" end
59      if not exts["ttf"] then exts["ttf"] = "truetype" end
60      if not exts["otf"] then exts["otf"] = "opentype" end

```

```

61     if not exts["fd"] then exts["fd"] = "latex" end
62     if not exts["dtx"] then exts["dtx"] = "source" end
63     if not exts["ins"] then exts["ins"] = "source" end
64     if not exts["md"] then exts["md"] = "doc" end
65     if not exts["txt"] then exts["txt"] = "doc" end
66     if not exts["tex"] then exts["tex"] = "doc" end
67     if not exts["pdf"] then exts["pdf"] = "doc" end
68     for i,j in ipairs(filelist(keepdir,"*.*")) do
69         if j ~= ".." and j ~= "." then
70             table.insert(keptfiles,j)
71         end
72     end
73     copysubctan(keptfiles,keepdir,targdir)
74     origcopyctan()
75     local g = {}
76     for i,j in ipairs(exts) do
77         local f = filelist(targdir,"*." .. j)
78         if #f ~= 0 then
79             for m,n in ipairs(f) do
80                 if n ~= "README.md" and n ~= "README" then
81                     table.insert(g,n)
82                 end
83             end
84         end
85     end
86     if #g ~= 0 then
87         errorlevel = copysubctan(g,targdir,targdir)
88         if errorlevel ~= 0 then return errorlevel end
89     end
90     for i,j in ipairs(exts) do
91         errorlevel = rm(targdir, "*." .. j)
92         if errorlevel ~= 0 then return errorlevel end
93     end
94     if fileexists(targdir .. "/COPYING") then
95         if not direxists(targdir .. "/doc") then mkdir(targdir .. "/doc") end
96         errorlevel = cp("COPYING",targdir,targdir .. "/doc")
97         if errorlevel ~= 0 then return errorlevel end
98         errorlevel = rm(targdir, "COPYING")
99         if errorlevel ~= 0 then return errorlevel end
100    end
101    -- this is horrible: ctan() copies all the files, we deal with them,
102    -- and then it copies all the textfiles a second time!
103    textfiles = {"README","README.md"}
104    return 0
105 end
106 -- end copyctan() }}}
```

```

107 -----
108 -----
109 -- exports {{{
110 fnt.copyctan = copy_ctan

```

```

111 -- }}}
112 -----
113 -----
114 -- vim: ts=2:sw=2:et:foldmethod=marker:

```

6.1.5 fntbuild-doc.lua

`fntbuild-doc.lua` (*lua*) Included by `fntbuild.lua`. Configures l3build's documentation hook to produce template-based documentation supplement e.g. for auto-generating font tables.

```

1 -- $Id: fntbuild-doc.lua 10769 2025-02-05 20:41:12Z cfrees $
2 -----
3 -- fntbuild-doc
4 -----
5 -----
6 -- redefine l3build fn
7 -----
8 -- local doc_init {{{
9 ---Additional setup for typesetting tailored to font packages with optional
10 ---creation of template-based docs e.g. font tables.
11 ---@return 0 on success, error level otherwise
12 ---@see l3build
13 ---@usage N/A
14 local function doc_init ()
15     -- local fdfiles = filelist(fnt.keepdir, "*.fd")
16     local fdfiles = filelist(unpackdir, "*.fd")
17     local filename = fnt.tablestemp
18     local targname = ctanpkg .. "-tables.tex"
19     local file = unpackdir .. "/" .. filename
20     local targfile = unpackdir .. "/" .. targname
21     local coll = ""
22     -- local fnttestmdir = maindir .. "/fnt-tests"
23     local maps = ""
24     local mapfiles=filelist(unpackdir, "*.map")
25     local yy = 0
26     for i, j in ipairs(mapfiles) do
27         maps = maps .. "\n\\pdfmapfile{-" .. j .. "}\n\\pdfmapfile{+" .. j .. "}"
28     end
29     if not fileexists(unpackdir .. "/" .. filename) then
30         if fileexists(typesetdir .. "/" .. filename) then
31             cp(filename,typesetdir,unpackdir)
32             print("Using " .. filename .. " from " .. typesetdir .. ".")
33         elseif fileexists(localdir .. "/" .. filename) then
34             cp(filename,localdir,unpackdir)
35             print("Using " .. filename .. " from " .. localdir .. ".")
36         else
37             local ffeil = kpse.find_file(filename)
38             if ffeil ~= nil then
39                 cp(filename,dirname(ffeil),unpackdir)

```

```

40         print("Using " .. filename .. " from " .. dirname(ffeil) .. ".")
41     else
42         print("Skipping font tables.\n")
43         filename = nil
44     end
45   end
46 else
47   print("Using " .. filename .. " from " .. unpackdir .. ".")
48 end
49 if filename then
50   print("Creating font tables ... \n")
51   -- need to get content here
52   -- copy this from l3build-tagging.lua
53   local f = assert(io.open(file,"rb"))
54   local content = f:read("*all")
55   f:close()
56   -- ought to normalise line endings here
57   -- copied from l3build
58   -- but I don't understand why the first subs is needed
59   -- is it a problem if the file doesn't end with a newline?
60   content = string.gsub(content .. (string.match(content,"\\n$") and ""
61   or "\\n"), "\r\n", "\n")
62   content = string.gsub(content,
63   "\\\RequirePackage{svn%-prov}\n\\ProvidesFileSVN{[^%]*%}{[^%]*%}{[^%]*%}\n"
64   ""))
65   -- l3build-tagging.lua
66   for i, j in ipairs(fdfiles) do
67     if string.match(j,"^ly1") then
68       yy = 1
69     end
70     j = unpackdir .. "/" .. j
71     for line in io.lines(j) do
72       if string.match(line,
73           "^\\DeclareFontShape{[^%]*%}{[^%]*%}{[^%]*%}{[^%]*%}{[^%]*%}{\$"
74       ) then
75         coll = (coll .. string.gsub(string.gsub(line,"%{$","%%%"),
76         "\\\DeclareFontShape","\n\\samptable"))
77       end
78     end
79   end
80   if yy == 1 then
81     maps = "\n\\input{ly1enc.def}\n" .. maps
82   end
83   coll = maps .. "\n\\begin{document}\n" .. coll .. "\n\\end{document}\n"
84   local new_content =
85   "% Do not edit this file as changes will be overwritten.\n%" It was generated by l3
86   .. os.date("%Y-%M-%d %H:%m:%S") .. ".\n" .. string.gsub(content,
87   "\n%s*TABLES%s*\n", coll)
88   local f = assert(io.open(targfile,"w"))
89   f:write((string.gsub(new_content,"\n",fnt.os_newline_cp)))

```

```

90     f:close()
91     rm(unpackdir,filename)
92     cp(targname,unpackdir,typesetdir)
93     end
94     return 0
95   end
96 -- }}}
97 -----
98 -----
99 -- exports {{{
100 fnt.docinit_hook = doc_init
101 -- }}}
102 -----
103 -----
104 -- vim: ts=2:sw=2:et:foldmethod=marker:

```

6.1.6 fntbuild-utils.lua

`fntbuild-utils.lua` (*lua*) Included by `fntbuild.lua`. Internal functions used in various places.

```

1  -- $Id: fntbuild-utils.lua 10743 2025-01-29 02:29:53Z cfrees $
2 -----
3  -- fntbuild-utils
4 -----
5 -----
6  -- l3build duplicates
7 -----
8  -- copy non-public things from l3build
9  -- these are just copied because they aren't documented
10 -- so we duplicate them as we're not entitled to use them o/w
11 -- I've tried to eliminate local shorthands for clarity
12 -- should these all be local? or renamed? or both?
13 -----
14 -- os_newline_cp {{{
15 local os_newline_cp = "\n"
16 if os.type == "windows" then
17   if tonumber(status.luatex_version) < 100 or
18     (tonumber(status.luatex_version) == 100
19      and tonumber(status.luatex_revision) < 4) then
20     os_newline_cp = "\r\n"
21   end
22 end
23 -- }}}
24 -----
25 -- localtexmf {{{
26 -- from l3build-aux.lua
27 -- Construct a localtexmf including any tdsdirs
28 -- Needed for checking and typesetting, hence global
29 local function localtexmf()

```

```
30     local paths = ""
31     for src,_ in pairs(tdsdirs) do
32         paths = paths .. os_pathsep .. abspath(src) .. "//"
33     end
34     if texmfdir and texmfdir ~= "" and direxists(texmfdir) then
35         paths = paths .. os_pathsep .. abspath(texmfdir) .. "//"
36     end
37     return paths
38 end
39 -- }}}
40 -----
41 -- get_script_name {{{
42 local function get_script_name()
43     if string.match(arg[0], "l3build$") or string.match(arg[0], "l3build%.lua$") then
44         return kpse.lookup("l3build.lua")
45     else
46         return arg[0] -- Why no lookup here?
47     end
48 end
49 -- }}}
50 -----
51 -- dep_install {{{
52 ---@param
53 ---@return
54 ---@see
55 ---@usage
56 local function dep_install(deps)
57     local error_level
58     for _, dep in ipairs(deps) do
59         print("Installing dependency:", dep)
60         error_level = run(dep, "texlua " .. get_script_name() .. " unpack -q")
61         if error_level ~= 0 then
62             return error_level
63         end
64     end
65     return 0
66 end
67 -- }}}
68 -----
69 -----
70 -- additions
71 -----
72 -- lsrdir_aux {{{
73 ---@param path string
74 ---@param filenames table
75 ---@return table
76 ---@see
77 ---@usage private
78 local function lsrdir_aux (path,filenames)
79     for file in lfs.dir(path) do
```

```

80     if file ~= "." and file ~= ".." then
81         local f = path .. "/" .. file
82         local attr = lfs.attributes (f)
83         -- why is this necessary?
84         -- lfs.attributes does or doesn't return a table?
85         -- David Carlisle: poss. nil rather than table
86         -- -> assert then gives error
87         assert (type(attr) == "table")
88         if attr.mode == "directory" then
89             lsrdir_aux (f,filenames)
90         else
91             table.insert(filenames,file)
92         end
93     end
94 end
95 return filenames
96 end
97 -- }}}
98 -- lsrdir {{{
99 -- https://lunarmodules.github.io/luafilesystem/examples.html
100 ---@param path string
101 ---@param filenames table
102 ---@return table
103 ---@see
104 ---@usage public
105 local function lsrdir (path,filenames)
106     local filenames = filenames or {}
107     filenames = lsrdir_aux (path,filenames)
108     return filenames
109 end
110 -- }}}
111 -----
112 -- build_config() {{{
113 ---use fntbuild-config.lua if found
114 ---@usage private
115 local function build_config()
116     local configs = {}
117     -- not sure what the correct test is here?
118     -- if options["target"] .. "search" then
119     if fnt.buildsearch then
120         local f = kpse.find_file("fntbuild-config.lua")
121         if f ~= nil then
122             dofile(f)
123             print("\nWARNING: Using local configuration from", f
124             .. ".\nYour package may not build elsewhere.\n")
125             table.insert(configs,f)
126         end
127     end
128     if fileexists(maindir .. "/fntbuild-config.lua") then
129         dofile(maindir .. "/fntbuild-config.lua")

```

```

130     print("\nUsing local configuration from", maindir
131     .. "/fntbuild-config.lua.\nEnsure this is included when publishing sources.\n")
132     table.insert(configs,maindir .. "/fntbuild-config.lua")
133   end
134   if fileexists(sourcefiledir .. "/fntbuild-config.lua") then
135     dofile(sourcefiledir .. "/fntbuild-config.lua")
136     print("\nUsing local configuration from", sourcefiledir
137     .. "/fntbuild-config.lua.\nEnsure this is included when publishing sources.\n")
138     table.insert(configs,sourcefiledir .. "/fntbuild-config.lua")
139   end
140   if #configs == 0 then
141     print("\nNo fntbuild-config.lua found.\nUsing defaults.\n")
142   end
143   return 0
144 end
145 -- }}}
146 -----
147 -----
148 -- exports {{{
149 fnt.build_config = build_config
150 fnt.dep_install = dep_install
151 fnt.localtexmf = localtexmf
152 fnt.lsrdir = lsrdir
153 fnt.os_newline_cp = os_newline_cp
154 -----
155 -----
156 -- vim: ts=2:sw=2:et:foldmethod=marker:

```

6.1.7 fntbuild-vars.lua

`fntbuild-vars.lua` (*lua*) Included by `fntbuild.lua`. Additional variables and changes to default values of existing `l3build` variables. These may be overridden in `fntbuild-config.lua` and/or `build.lua`.

```

1  -- $Id: fntbuild-vars.lua 10763 2025-02-04 20:28:32Z cfrees $
2  -- fntbuild variables
3  -----
4  -----
5  -- l3build variables needed before l3build defines them {{{
6  -----
7  sourcefiledir = sourcefiledir or "."
8  maindir = maindir or sourcefiledir
9  -- builddir
10 -- should be global? or local is better?
11 builddir = builddir or maindir .. "/build"
12 -- }}}
13 -----
14 -- l3build variables with changed defaults {{{
15 -----
16 binaryfiles = {"*.pdf", "*.zip", "*vf", "*tfm", "*pfb", "*pfm", "*ttf",

```

```

17      "*.otf", "*.tar.gz"}
```

-- also very easy for font files not to get installed properly and the old ones used

-- note this overrides the l3build default

checksearch = false

-- maindir before checkdeps

-- maindir = "../.."

-- checkdeps = { maindir .. "/fnt-tests" }

checkengines = { "pdftex" }

checkformat = "latex"

-- cleanfiles changed below

installfiles = {"*.afm", "*.cls", "*.enc", "*.fd", "*.map", "*.otf", "*.pdf",
 "*.pfm", "*.sty", "*.tfm", "*.ttf", "*.vf"}

-- need module test or default?

sourcefiles = {"*.afm", "afm/*.afm", "*.pdf", "*.pfm", "*.dtx", "*.ins",
 "opentype/*.otf", "*.otf", "tfm/*.tfm", "truetype/*.ttf", "*.ttf",
 "type1/*.pdf", "type1/*.pfm"}

-- tdslocations changed below

typesetexe = "TEXMFDDOTDIR=.../local: pdflatex"

typesetfiles = typesetfiles or {"*.dtx", "-tables.tex", "-example.tex"}

-- typesetsourcefiles changed below

-- }}}

-- additional variables (inc. dependant changes) {{

-- font definitions to use when auto-generating tests

--@see fnt_test() checkinit_hook() fnt.fnttestfds

--@usage public

fnt.autotestfds = fnt.autotestfds or {}

-- script containing commands to convert pl and vpl files to binary form

--@see fontinst()

--@usage public

fnt.binmakers = fnt.binmakers or {"-pltotf.sh"}

--@usage public

-- it is way too easy to pick up the same package's files in the dist tree

-- when that happens, some installation tools fail to generate duplicate files

-- once the update goes to ctan, the files disappear ...

fnt.buildsearch = false

fnt.builddeps = fnt.builddeps or {}

-- should use existing fnt variables, I think

fnt.buildfiles = fnt.buildfiles or { "*.afm", "*.enc", "*.etx", "*.fd", "*.lig",
 "*.make", "*.map", "*.mtx", "*.nam", "*.otf", "*.pe", "*.tex", "*.tfm" }

fnt.buildsuppfiles_sys = fnt.buildsuppfiles_sys or {}

-- sys replaces defaults; add ads to them

fnt.checksuppfiles_sys = fnt.checksuppfiles_sys or {}

fnt.checksuppfiles_add = fnt.checksuppfiles_add or {}

-- \TeX{} files to compile to produce pl, vpl etc.

--@see fontinst()

--@usage public

```

67 fnt.familymakers = fnt.familymakers or {"*-drv.tex"}
68 fnt.fntdir = fnt.fntdir or builddir .. "/fnt"
69 -- font definitions to use when auto-generating tests
70 ---@see fnt_test() checkinit_hook() fnt.autotestfds
71 ---@usage public
72 fnt.fnttestfds = fnt.fnttestfds or {}
73 fnt.mapfiles_sys = fnt.mapfiles_sys or {}
74 fnt.mapfiles_add = fnt.mapfiles_add or {}
75 -- sourcefiledir must be specified first
76 -- directory to store build products
77 ---@usage public
78 fnt.keepdir = fnt.keepdir or sourcefiledir .. "/keep"
79 -- directory to store keeptempfiles
80 ---@usage public
81 fnt.keeptempdir = fnt.keeptempdir or sourcefiledir .. "/keeptemp"
82 -- build products
83 ---@usage public
84 fnt.keepfiles = fnt.keepfiles or {"*.enc", ".*.fd", ".*.map", ".*.tfm", ".*.vf"}
85 -- files to keep for diagnostics, but which shouldn't be packaged
86 ---@usage public
87 fnt.keeptempfiles = fnt.keeptempfiles or {"*.mtx", ".*.pl", "*-pltotf.sh", "*-rec.tex",
88     "*.vpl", ".*.zz"}
89 cleanfiles = {fnt.keeptempfiles} -- ** changed default
90 -- \TeX{} files to compile to produce map file fragments etc.
91 ---@see fontinst()
92 ---@usage public
93 fnt.mapmakers = fnt.mapmakers or {"*-map.tex"}
94 -- file containing regression tests
95 ---@see check_init() in fntbuild-check.lua
96 ---@usage public
97 fnt.regress = fnt.regress or "fnt-tests.tex"
98 ---@see fntsubsetter()
99 ---@usage public
100 ---@boolean
101 --@description whether to add fnt.subset defns to fd files for TC encodings
102 fnt.subset = false
103 ---@see fntsubsetter()
104 ---@usage public
105 ---@usage fnt.subsetdefns.<family> = <fnt.subset>
106 --@description table: list of TC fds to insert fnt.subset defns into
107 --@description entry keys should be family names; entry values should be values
108 --@description for fnt.subsetdefns.<key> = <value>,
109 --@description <key> will be substituted for $FONTFAMILY and
110 --@description <value> will be substituted for $SUBSET into the fnt.subsettemplate
111 fnt.subsetdefns = fnt.subsetdefns or {}
112 ---@see fntsubsetter()
113 ---@usage public
114 ---@usage value should be list of filenames as table
115 --@description list of font defn files to insert fnt.subset defns into
116 ---@description defaults to all fds matching [Tt][Ss]1.*\.\.fd

```

```

117 fnt.subsetfiles = fnt.subsetfiles or {}
118 ---@see fntsubsetter()
119 ---@description $FONTFAMILY and $SUBSET may be used as placeholders
120 ---@description template for inserted lines specifying TS1 encoding subsets in
121 ---@description fnt.subsetfiles
122 ---@usage public
123 fnt.subsettemplate = fnt.subsettemplate or
124   "\\\DeclarEncodingSubset{TS1}{$FONTFAMILY}{$SUBSET}"
125 -- file to use as template for tables
126 ---@see doc_init() in fntbuild-doc.lua
127 ---@usage public
128 fnt.tablestemp = fnt.tablestemp or "fnt-tables.tex"
129 -- file to use as template for tests
130 ---@see check_init() in fntbuild-check.lua
131 ---@usage public
132 fnt.testtemp = fnt.testtemp or "fnt-test.lvt"
133 -----
134 -- fnt.vendor and module must be specified before tdslocations
135 ---@usage public
136 fnt.vendor = fnt.vendor or "public"
137 tdslocations = { -- ** changed default
138   "fonts/afm/" .. fnt.vendor .. "/" .. module .. "/" .. "*.afm",
139   "fonts/enc/dvips/" .. module .. "/" .. "*.enc",
140   "fonts/map/dvips/" .. module .. "/" .. "*.map",
141   "fonts/opentype/" .. fnt.vendor .. "/" .. module .. "/" .. "*.otf",
142   "fonts/tfm/" .. fnt.vendor .. "/" .. module .. "/" .. "*.tfm",
143   "fonts/truetype/" .. fnt.vendor .. "/" .. module .. "/" .. "*.ttf",
144   "fonts/type1/" .. fnt.vendor .. "/" .. module .. "/" .. "*.pfb",
145   "fonts/type1/" .. fnt.vendor .. "/" .. module .. "/" .. "*.pfm",
146   "fonts/vf/" .. fnt.vendor .. "/" .. module .. "/" .. "*.vf",
147   "source/fonts/" .. module .. "/" .. "*.etx",
148   "source/fonts/" .. module .. "/" .. "*.mtx",
149   "source/fonts/" .. module .. "/" .. "*-drv.tex",
150   "source/fonts/" .. module .. "/" .. "*-map.tex",
151   "tex/latex/" .. module .. "/" .. "*.fd",
152   "tex/latex/" .. module .. "/" .. "*.sty"
153 }
154 typesetsourcefiles = {fnt.keepdir .. "/" *} -- ** changed default
155 -- }}}
156 -----
157 -----
158 -----
159 -- vim: ts=2:sw=2:et:foldmethod=marker:

```

6.2 Metrics

These files influence the characters which end up in the TeX fonts. For example, they may construct otherwise missing glyphs or adjust kerning pairs.

6.2.1 dotsccbld.mtx

`dotsccbld.mtx (mtx)`

```

228 \relax
229
230 \metrics
231
232 \needsfontinstversion{1.917}
233
234 \usemtxpackage{ltcmds}
235 \ProvidesMtxPackage{dotsccbld}
236
237 \begincomment
238 \section{Proper latin small capitals}
239
240 \subsection{Some utility commands}
241 \endcomment
242
243 \setcommand\setcsctopglyph#1#2#3#4{
244     \ifareglyphs{#2.sc,#3}\then
245         \setglyph{#1}
246         \topaccent{#2.sc}{#3}{#4}
247         \endsetglyph
248         \setleftrightkerning{#1}{#2.sc}{1000}
249     \Fi
250 }
251 \setcommand\setcscbotglyph#1#2#3#4{
252     \ifareglyphs{#2.sc,#3}\then
253         \setglyph{#1}
254         \botaccent{#2.sc}{#3}{#4}
255         \endsetglyph
256         \setleftrightkerning{#1}{#2.sc}{1000}
257     \Fi
258 }
259 \begincomment\medskip
260 A \textbf{Try: Set glyph} is an ordinary \textbf{Set glyph} which is
261 conditional on that a set of glyphs (those used to construct the
262 composite glyph) are available. It is technically e.g.
263 \begin{quotation}
264     \setcsctopglyph{\macroparameter{1}}{\macroparameter{2}}%
265     {\macroparameter{3}}{\macroparameter{4}}
266     \setcscbotglyph{\macroparameter{1}}{\macroparameter{2}}%
267     {\macroparameter{3}}{\macroparameter{4}}\par
268 \end{quotation}
269 (both of which are implemented in the code as simple four argument
270 commands), but in the list of commands below those two commands will
271 be typeset as
272 \resetcommand\setcsctopglyph#1#2#3#4{%
273     \Aheading{Try: Set glyph '\TypesetStringExpression{#1}'}
274     \topaccent{#2.sc}{#3}{#4}
275     \setleftrightkerning{#1}{#2.sc}{1000}
276 }
277 \resetcommand\setcscbotglyph#1#2#3#4{%

```

```

278   \Aheading{Try: Set glyph '\TypesetStringExpression[#1]'}
279   \botaccent{#2.sc}{#3}{#4}
280   \setleftrightkerning[#1]{#2.sc}{1000}
281 }
282 \begin{quotation}
283   \setcsctopglyph{\macroparameter{1}}{\macroparameter{2}}%
284   {\macroparameter{3}}{\macroparameter{4}}
285   \setcscbotglyph{\macroparameter{1}}{\macroparameter{2}}%
286   {\macroparameter{3}}{\macroparameter{4}}
287 \end{quotation}
288 \endcomment
289
290 \ifareglyphs{L,1.sc}\then
291   \setint{smallcapsscale}{%
292     \div{\mul{1000}{\height{1.sc}}}{\height{L}}}
293   }
294 \Else
295   \setint{smallcapsscale}{800}
296 \Fi
297
298
299 \setcsctopglyph{aacute.sc}{a}{acute}{500}
300 \setcsctopglyph{abreve.sc}{a}{breve}{500}
301 \setcsctopglyph{acircumflex.sc}{a}{circumflex}{500}
302 \setcsctopglyph{adieresis.sc}{a}{dieresis}{500}
303 \setcsctopglyph{agrave.sc}{a}{grave}{500}
304 \setcscbotglyph{aogonek.sc}{a}{ogonek}{900}
305 \setcsctopglyph{aring.sc}{a}{ring}{500}
306 \setcsctopglyph{atilde.sc}{a}{tilde}{500}
307
308 \setcsctopglyph{cacute.sc}{c}{acute}{500}
309 \setcsctopglyph{ccaron.sc}{c}{caron}{500}
310 \setcsctopglyph{ccedilla.sc}{c}{cedilla}{500}
311
312 \setcsctopglyph{dcaron.sc}{d}{caron}{500}
313
314 \setcsctopglyph{eacute.sc}{e}{acute}{500}
315 \setcsctopglyph{ecaron.sc}{e}{caron}{500}
316 \setcsctopglyph{ecircumflex.sc}{e}{circumflex}{500}
317 \setcsctopglyph{edieresis.sc}{e}{dieresis}{500}
318 \setcsctopglyph{egrave.sc}{e}{grave}{500}
319 \setcscbotglyph{eogonek.sc}{e}{ogonek}{850}
320
321 \setcsctopglyph{gbreve.sc}{g}{breve}{500}
322
323 \setcsctopglyph{iacute.sc}{i}{acute}{500}
324 \setcsctopglyph{icircumflex.sc}{i}{circumflex}{500}
325 \setcsctopglyph{idieresis.sc}{i}{dieresis}{500}
326 \setcsctopglyph{idotaccent.sc}{i}{dotaccent}{500}
327 \setcsctopglyph{igrave.sc}{i}{grave}{500}
328
329 \setcsctopglyph{lacute.sc}{l}{acute}{250}
330
331 \ifareglyphs{l.sc,quoteright}\then

```

```

332   \setglyph{lcaron.sc}
333     \glyph{l.sc}{1000}
334     \ifisint{monowidth}\then\Else \movert{-100} \Fi
335     \glyph{quoteright}{\int{smallcapscale}}
336   \endsetglyph
337   \setleftkerning{lcaron.sc}{l.sc}{1000}
338 \Fi
339
340 \setcsctopglyph{nacute.sc}{n}{acute}{500}
341 \setcsctopglyph{ncaron.sc}{n}{caron}{500}
342 \setcsctopglyph{ntilde.sc}{n}{tilde}{500}
343
344 \setcsctopglyph{oacute.sc}{o}{acute}{500}
345 \setcsctopglyph{ocircumflex.sc}{o}{circumflex}{500}
346 \setcsctopglyph{odieresis.sc}{o}{dieresis}{500}
347 \setcsctopglyph{ograve.sc}{o}{grave}{500}
348 \setcsctopglyph{ohungarumlaut.sc}{o}{hungarumlaut}{500}
349 \setcsctopglyph{otilde.sc}{o}{tilde}{500}
350
351 \setcsctopglyph{racute.sc}{r}{acute}{500}
352 \setcsctopglyph{rcaron.sc}{r}{caron}{500}
353
354 \setcsctopglyph{sacute.sc}{s}{acute}{500}
355 \setcsctopglyph{scaron.sc}{s}{caron}{500}
356 \setcscbotglyph{scedilla.sc}{s}{cedilla}{500}
357
358 \setcsctopglyph{tcaron.sc}{t}{caron}{500}
359 \setcscbotglyph{tcedilla.sc}{t}{cedilla}{500}
360
361 \setcsctopglyph{uacute.sc}{u}{acute}{500}
362 \setcsctopglyph{ucircumflex.sc}{u}{circumflex}{500}
363 \setcsctopglyph{udieresis.sc}{u}{dieresis}{500}
364 \setcsctopglyph{ugrave.sc}{u}{grave}{500}
365 \setcsctopglyph{uhungarumlaut.sc}{u}{hungarumlaut}{500}
366 \setcsctopglyph{uring.sc}{u}{ring}{500}
367
368 \setcsctopglyph{yacute.sc}{y}{acute}{500}
369 \setcsctopglyph{ydieresis.sc}{y}{dieresis}{500}
370
371 \setcsctopglyph{zacute.sc}{z}{acute}{500}
372 \setcsctopglyph{zcaron.sc}{z}{caron}{500}
373 \setcsctopglyph{zdotaccent.sc}{z}{dotaccent}{500}
374
375 \begincomment
376 \subsection{Other glyphs that can be built}
377 \endcomment
378
379 \ifisglyph{dcroat.sc}\then
380   \setglyph{dbar.sc}
381     \glyph{dcroat.sc}{1000}
382   \endsetglyph
383   \setleftrightkerning{dbar.sc}{dcroat.sc}{1000}
384 \Else\ifisglyph{eth.sc}\then
385

```

```

386      \setglyph{dbar.sc}
387          \glyph{eth.sc}{1000}
388      \endsetglyph
389      \setleftrightkerning{dbar.sc}{eth.sc}{1000}
390 \Fi\Fi
391
392
393 \endmetrics

```

6.2.2 newlatin-dotsc mtx

`newlatin-dotsc.mtx` (*mtx*) based on `newlatin.mtx` - because I couldn't figure out how to pass options...

```

394 \relax
395
396 \documentclass[twocolumn]{article}
397
398 \metrics
399
400 \needsfontinstversion{1.924}
401
402 \usemtxpackage{lubuild}
403
404 \usemtxpackage{lubuild}
405
406 \ifoption{nosc}\then \Else
407
408 \usemtxpackage{dotscbuild}
409 \usemtxpackage{dotscmisc}
410
411 \Fi
412
413 \usemtxpackage{ltpunct}
414
415 \usemtxpackage{ltcmds}
416
417
418 \unfakable{Gamma}
419 \unfakable{Delta}
420 \unfakable{Theta}
421 \unfakable{Lambda}
422 \unfakable{Xi}
423 \unfakable{Pi}
424 \unfakable{Sigma}
425 \unfakable{Upsilon}
426 \unfakable{Upsilon1}
427 \unfakable{Phi}
428 \unfakable{Psi}
429 \unfakable{Omega}
430
431 \foreach(accent){grave,acute,circumflex,tilde,dieresis,hungarumlaut,%
432           ring,caron,breve,macron,dotaccent}
433   \ifisglyph{\str{accent}}\then

```

```

434   \resetglyph{\str{accent}}
435     \glyph{\str{accent}}{1000}
436   \resetdepth{0}
437   \endresetglyph
438   \Fi
439 \endfor(accent)
440
441
442 \setglyph{ringfitted}
443   \movert{\half{\sub{\width{A}}{\width{ring}}}}
444   \glyph{ring}{1000}
445   \movert{\otherhalf{\sub{\width{A}}{\width{ring}}}}
446 \endsetglyph
447
448
449 \setleftkerning{less}{guillemotleft}{1000}
450 \setleftkerning{greater}{guillemotright}{1000}
451
452
453 \endmetrics
454
455

```

6.2.3 dotscmisc mtx

dotscmisc.mtx (*mtx*)

```

456 \relax
457
458 \metrics
459
460 \needsfontinstversion{1.917}
461
462 \ProvidesMtxPackage{dotscmisc}
463
464 \ifisglyph{i.sc}\then
465   \setglyph{dotlessi.sc}
466   \glyph{i.sc}{1000}
467   \setleftrightkerning{dotlessi.sc}{i.sc}{1000}
468 \endsetglyph
469 \Fi
470
471 \ifisglyph{j.sc}\then
472   \setglyph{dotlessj.sc}
473   \glyph{j.sc}{1000}
474   \setleftrightkerning{dotlessj.sc}{j.sc}{1000}
475 \endsetglyph
476 \Fi
477
478 \setint{smallcapsspacing}{0}
479
480 \ifisglyph{f.sc}\then

```

```
482 \setglyph{ff.sc}
483   \glyph{f.sc}{1000}
484   \movert{\add{\kerning{f.sc}{f.sc}}{\int{smallcapsspacing}}}
485   \glyph{f.sc}{1000}
486 \endsetglyph
487 \setrightkerning{ff.sc}{f.sc}{1000}
488 \setglyph{f_f.sc}
489   \glyph{ff.sc}{1000}
490 \endsetglyph
491 \setrightkerning{f_f.sc}{ff.sc}{1000}
492
493 \ifisglyph{i.sc}\then
494   \setglyph{fi.sc}
495   \glyph{f.sc}{1000}
496   \movert{\add{\kerning{f.sc}{i.sc}}{\int{smallcapsspacing}}}
497   \glyph{i.sc}{1000}
498 \endsetglyph
499
500 \setrightkerning{fi.sc}{i.sc}{1000}
501
502 \setglyph{f_i.sc}
503 \glyph{fi.sc}{1000}
504 \endsetglyph
505 \setrightkerning{f_i.sc}{fi.sc}{1000}
506
507 \setglyph{ffi.sc}
508   \glyph{ff.sc}{1000}
509   \movert{\add{\kerning{f.sc}{i.sc}}{\int{smallcapsspacing}}}
510   \glyph{i.sc}{1000}
511 \endsetglyph
512
513 \setglyph{f_f_i.sc}
514 \glyph{ffi.sc}{1000}
515 \endsetglyph
516 \setrightkerning{f_f_i.sc}{ffi.sc}{1000}
517
518 \setrightkerning{ffi.sc}{i.sc}{1000}
519
520 \fi
521
522 \ifisglyph{l.sc}\then
523   \setglyph{fl.sc}
524   \glyph{f.sc}{1000}
525   \movert{\add{\kerning{f.sc}{l.sc}}{\int{smallcapsspacing}}}
526   \glyph{l.sc}{1000}
527 \endsetglyph
528
529 \setrightkerning{fl.sc}{l.sc}{1000}
530
531 \setglyph{f_l.sc}
532 \glyph{fl.sc}{1000}
533 \endsetglyph
534 \setrightkerning{f_l.sc}{fl.sc}{1000}
535
```

```

536   \setglyph{ffl.sc}
537   \glyph{ff.sc}{1000}
538   \movert{\add{\kerning{f.sc}{l.sc}}{\int{smallcapspacing}}}
539   \glyph{l.sc}{1000}
540   \endsetglyph
541
542   \setrightkerning{ffl.sc}{l.sc}{1000}
543
544   \setglyph{f_f_l.sc}
545   \glyph{ffl.sc}{1000}
546   \endsetglyph
547   \setrightkerning{f_f_l.sc}{ffl.sc}{1000}
548
549 \fi
550 \fi % ifisglyph{f.sc}
551
552
553 \ifareglyphs{i.sc,j.sc}\then
554   \setglyph{ij.sc}
555   \glyph{i.sc}{1000}
556   \movert{\add{\kerning{i.sc}{j.sc}}{\int{smallcapspacing}}}
557   \glyph{j.sc}{1000}
558   \endsetglyph
559   \setrightkerning{ij.sc}{j.sc}{1000}
560 \fi
561
562 \ifisglyph{ss.sc}\then
563   \setglyph{germandbls.sc}
564   \glyph{ss.sc}{1000}
565   \endsetglyph
566   \setleftrightkerning{germandbls.sc}{ss.sc}{1000}
567 \Else
568   \ifisglyph{s.sc}\then
569     \setglyph{germandbls.sc}
570     \glyph{s.sc}{1000}
571     \movert{\add{\kerning{s.sc}{s.sc}}{\int{smallcapspacing}}}
572     \glyph{s.sc}{1000}
573     \endsetglyph
574     \setleftrightkerning{germandbls.sc}{s.sc}{1000}
575 \Fi
576 \Fi
577
578 \endmetrics

```

6.2.4 unfakable.mtx

This metrics file prevents fontinst from inserting ‘gravestones’ into virtual fonts when a glyph is missing. **It should be used only for the TS1. It should NOT be used when using the T1 encoding.**

`unfakable.mtx (mtx)`

```
579 \relax
```

```

580 \metrics
581
582 \ProvidesMtxPackage{unfakable}
583
584 \setcommand\unfakableaccent#1{%
585   \message{Missing glyph '#1'}%
586 }
587 \setcommand\unfakable#1{%
588   \message{Missing glyph '#1'}%
589 }
590
591 \endmetrics

```

6.3 Encodings

None of these files are actually used in typesetting. Rather, they are converted to `.enc` files, renamed and automatically edited to ensure unique encoding names. These names are then substituted into `.map` files.

6.3.1 dotoldstyle.etx

`dotoldstyle.etx` (*etx*)

```

592 \relax
593 \encoding
594 \setcommand\digit#1{\#1.oldstyle}
595 \endencoding

```

6.3.2 dotsc2.etx

`dotsc2.etx` (*etx*)

```

596 \relax
597
598 \encoding
599
600 \setcommand\lc#1#2{\#2.sc}
601 \setcommand\uc#1#2{\#1}
602 \setcommand\lctop#1#2{\#2.sc}
603 \setcommand\uctop#1#2{\#1}
604 \setcommand\lclig#1#2{\#2.sc}
605 \setcommand\uclig#1#2{\#1spaced}
606
607
608 \ifisint{capspacing}\then
609   \setint{letterspacing}{\int{capspacing}}
610 \fi
611
612 \endencoding

```

6.3.3 dottaboldstyle.etx

dottaboldstyle.etx (*etx*)

```
613 \relax
614 \encoding
615 \setcommand\digit#1{\#1.taboldstyle}
616 \endencoding
```

6.3.4 lining.etx

lining.etx (*etx*)

```
617 \relax
618 \encoding
619 \setcommand\digit#1{\#1lining}
620 \endencoding
```

6.3.5 oldstyle.etx

oldstyle.etx (*etx*)

```
621 \relax
622 \encoding
623 \setcommand\digit#1{\#1oldstyle}
624 \endencoding
```

6.3.6 t1-cfr.etx

t1-cfr.etx (*etx*)

```
625 %%
626 %% - The commentary in the original is deleted in this version. For
627 %% information about the T1 etc., typeset the original t1.etx
628 %% included with fontinst.
629 %% - Slots are altered to accommodate characters which are named
630 %% differently. For example, this encoding uses "endash" and "emdash"
631 %% whereas t1.etx called for "rangedash" and "punctdash".
632 %% - The original notices at the top of that file concerning authors,
633 %% maintenance etc. are replaced by this notice.
634 %% - The file is renamed.
635 %% - The encoding name is modified.
636 %%
637 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
638 \relax
639 \encoding
640
641 \needsfontinstversion{1.910}
642
643 \setcommand\lc#1#2{\#2}
644 \setcommand\uc#1#2{\#1}
645 \setcommand\lctop#1#2{\#2}
```

```

646 \setcommand\uctop#1#2{#1}
647 \setcommand\lclig#1#2{#2}
648 \ifisint{letterspacing}\then
649   \ifnumber{\int{letterspacing}}={0}\then \Else
650     \setcommand\uclig#1#2{#1spaced}
651     \comment{Here we set \verb|\uclig#1#2| to \verb|\verb|#1spaced|, but
652     you can't see it as \verb|\verb|\setcommand| commands are invisible in
653     the typeset output.}
654   \Fi
655 \Fi
656 \setcommand\uclig#1#2{#1}
657 \setcommand\digit#1{#1}
658
659 \ifisint{monowidth}\then
660   \setint{ligaturing}{0}
661 \Else
662   % The following empty line is *important* to get the formatting
663   % right here (sigh)! (Remember that it is a \par token.)
664
665 \ifisint{letterspacing}\then
666   \ifnumber{\int{letterspacing}}={0}\then \Else
667     \setint{ligaturing}{0}
668   \Fi
669 \Fi
670 \setint{ligaturing}{1}
671 \Fi
672
673 \setint{italicslant}{0}
674 \setint{quad}{1000}
675 \setint{baselineskip}{1200}
676
677 \ifisglyph{x}\then
678   \setint{xheight}{\height{x}}
679 \Else
680   \setint{xheight}{500}
681 \Fi
682
683 \ifisglyph{space}\then
684   \setint{interword}{\width{space}}
685 \Else\ifisglyph{i}\then
686   \setint{interword}{\width{i}}
687 \Else
688   \setint{interword}{333}
689 \Fi\Fi
690
691 \ifisint{monowidth}\then
692   \setint{stretchword}{0}
693   \setint{shrinkword}{0}
694   \setint{extraspace}{\int{interword}}
695 \Else
696   \setint{stretchword}{\scale{\int{interword}}{600}}
697   \setint{shrinkword}{\scale{\int{interword}}{240}}
698   \setint{extraspace}{\scale{\int{interword}}{240}}
699 \Fi

```

```

700 \ifisglyph{X}\then
701   \setint{capheight}{\height{X}}
702 \Else
703   \setint{capheight}{750}
704 \Fi
705
706 \ifisglyph{d}\then
707   \setint{ascender}{\height{d}}
708 \Else\ifisint{capheight}\then
709   \setint{ascender}{\int{capheight}}
710 \Else
711   \setint{ascender}{750}
712 \Fi\Fi
713
714 \ifisglyph{Aring}\then
715   \setint{acccapheight}{\height{Aring}}
716 \Else
717   \setint{acccapheight}{999}
718 \Fi
719
720 \ifisint{descender_neg}\then
721   \setint{descender}{\neg{\int{descender_neg}}}
722 \Else\ifisglyph{p}\then
723   \setint{descender}{\depth{p}}
724 \Else
725   \setint{descender}{250}
726 \Fi\Fi
727
728 \ifisglyph{Aring}\then
729   \setint{maxheight}{\height{Aring}}
730 \Else
731   \setint{maxheight}{1000}
732 \Fi
733
734 \ifisint{maxdepth_neg}\then
735   \setint{maxdepth}{\neg{\int{maxdepth_neg}}}
736 \Else\ifisglyph{j}\then
737   \setint{maxdepth}{\depth{j}}
738 \Else
739   \setint{maxdepth}{250}
740 \Fi\Fi
741
742 \ifisglyph{six}\then
743   \setint{digitwidth}{\width{six}}
744 \Else
745   \setint{digitwidth}{500}
746 \Fi
747
748 \setint{capstem}{0} % not in AFM files
749
750 \setfontdimen{1}{italicslant}    % italic slant
751 \setfontdimen{2}{interword}      % interword space
752 \setfontdimen{3}{stretchword}    % interword stretch
753

```

```

754 \setfontdimen{4}{shrinkword}           % interword shrink
755 \setfontdimen{5}{xheight}              % x-height
756 \setfontdimen{6}{quad}                % quad
757 \setfontdimen{7}{extraspace}          % extra space after .
758 \setfontdimen{8}{capheight}           % cap height
759 \setfontdimen{9}{ascender}            % ascender
760 \setfontdimen{10}{accapheight}         % accented cap height
761 \setfontdimen{11}{descender}           % descender's depth
762 \setfontdimen{12}{maxheight}           % max height
763 \setfontdimen{13}{maxdepth}            % max depth
764 \setfontdimen{14}{digitwidth}          % digit width
765 \setfontdimen{15}{verticalstem}        % dominant width of vertical stems
766 \setfontdimen{16}{baselineskip}         % baselineskip

767
768 \ifnumber{\int{ligaturing}}<0\then
769     \comment{In this case, the codingscheme can be different from the
770     default, and therefore we refrain from setting it.}
771 \Else
772     \setstr{codingscheme}{EXTENDED TEX FONT ENCODING - LATIN CFR}
773 \Fi

774
775 \setslot{\lc{Grave}{grave}}
776     \comment{The grave accent '\{}.'}
777 \endsetslot

778
779 \setslot{\lc{Acute}{acute}}
780     \comment{The acute accent '\{}.'}
781 \endsetslot

782
783 \setslot{\lc{Circumflex}{circumflex}}
784     \comment{The circumflex accent '\^{ }.'}
785 \endsetslot

786
787 \setslot{\lc{Tilde}{tilde}}
788     \comment{The tilde accent '\~{}.'}
789 \endsetslot

790
791 \setslot{\lc{Dieresis}{dieresis}}
792     \comment{The umlaut or dieresis accent '\\"{}.'}
793 \endsetslot

794
795 \setslot{\lc{Hungarumlaut}{hungarumlaut}}
796     \comment{The long Hungarian umlaut '\H{}.'}
797 \endsetslot

798
799 \setslot{\lc{Ring}{ring}}
800     \comment{The ring accent '\r{}.'}
801 \endsetslot

802
803 \setslot{\lc{Caron}{caron}}
804     \comment{The caron or h'a\v cek accent '\v{}.'}
805 \endsetslot

806
807 \setslot{\lc{Breve}{breve}}

```

```

808     \comment{The breve accent '\u{ }'.}
809 \endsetslot
810
811 \setslot{\lc{Macron}{macron}}
812     \comment{The macron accent '\={ }'.}
813 \endsetslot
814
815 \setslot{\lc{Dotaccent}{dotaccent}}
816     \comment{The dot accent '\.{ }'.}
817 \endsetslot
818
819 \setslot{\lc{Cedilla}{cedilla}}
820     \comment{The cedilla accent '\c { }'.}
821 \endsetslot
822
823 \setslot{\lc{Ogonek}{ogonek}}
824     \comment{The ogonek accent '\k { }'.}
825 \endsetslot
826
827 \setslot{quotesinglbase}
828     \comment{A German single quote mark '\quotesinglbase' similar to a comma,
829             but with different sidebearings.}
830 \endsetslot
831
832 \setslot{guilsinglleft}
833     \comment{A French single opening quote mark '\guilsinglleft',
834             unavailable in \plain\ \TeX.}
835 \endsetslot
836
837 \setslot{guilsinglright}
838     \comment{A French single closing quote mark '\guilsinglright',
839             unavailable in \plain\ \TeX.}
840 \endsetslot
841
842 \setslot{quotedblleft}
843     \comment{The English opening quote mark '\,\textquotedblleft\,'.}
844 \endsetslot
845
846 \setslot{quotedblrigh}
847     \comment{The English closing quote mark '\,\textquotedblrigh\,'.}
848 \endsetslot
849
850 \setslot{quotedblbase}
851     \comment{A German double quote mark '\quotedblbase' similar to two commas,
852             but with tighter letterspacing and different sidebearings.}
853 \endsetslot
854
855 \setslot{guillemotleft}
856     \comment{A French double opening quote mark '\guillemotleft',
857             unavailable in \plain\ \TeX.}
858 \endsetslot
859
860 \setslot{guillemotright}
861     \comment{A French closing opening quote mark '\guillemotright',

```

```

862      unavailable in \plain\ \TeX.}
863 \endsetslot
864
865 \setslot{endash}
866   \ligature[LIG]{hyphen}{emdash}
867   \comment{The number range dash ‘1--9’. This is called ‘rangedash’ by
868   fontinst’s t1.etx, but it needs to be called ‘endash’ to work right. The
869   ‘\textendash’. In a monowidth font, this might be set as
870   ‘\texttt{1{-}9}’.}
871 \endsetslot
872
873 \setslot{emdash}
874   \comment{The punctuation dash ‘Oh---boy.’ This is calle ‘punctdash’ by
875   fontinst’s t1.etx, but needs to be called ‘emdash’ to work right. The
876   ‘\textemdash’. In a monowidth font, this might be set as
877   ‘\texttt{Oh{-}{-}boy.}’}
878 \endsetslot
879
880 \setslot{compwordmark}
881   \comment{An invisible glyph, with zero width and depth, but the
882   height of lowercase letters without ascenders.
883   It is used to stop ligaturing in words like ‘shelf{}ful’.}
884 \endsetslot
885
886 \setslot{perthousandzero}
887   \comment{A glyph which is placed after ‘\%’ to produce a
888   ‘per-thousand’, or twice to produce ‘per-ten-thousand’.
889   Your guess is as good as mine as to what this glyph should look
890   like in a monowidth font.}
891 \endsetslot
892
893 \setslot{\lc{dotlessI}{dotlessi}}
894   \comment{A dotless i ‘\i’, used to produce accented letters such as
895   ‘\=i’.}
896 \endsetslot
897
898 \setslot{\lc{dotlessJ}{dotlessj}}
899   \comment{A dotless j ‘\j’, used to produce accented letters such as
900   ‘\=j’. Most non-\TeX\ fonts do not have this glyph.}
901 \endsetslot
902
903 \ifnumber{\int{ligaturing}}<0\then \skipslots{5}\Else
904
905 \setslot{\lc{clig}{ff}}
906   \ifnumber{\int{ligaturing}}>0\then
907     \ligature[LIG]{\lc{I}{i}}{\lc{clig}{FFI}{ffi}}
908     \ligature[LIG]{\lc{L}{l}}{\lc{clig}{FFL}{ffl}}
909     \Fi
910     \comment{The ‘ff’ ligature. It should be two characters wide in a
911     monowidth font.}
912 \endsetslot
913
914 \setslot{\lc{clig}{fi}}
915     \comment{The ‘fi’ ligature. It should be two characters wide in a

```

```
916     monowidth font.}
917 \endsetslot
918
919 \setslot{\lclig{FL}{f1}}
920   \comment{The 'fl' ligature. It should be two characters wide in a
921   monowidth font.}
922 \endsetslot
923
924 \setslot{\lclig{FFI}{ffi}}
925   \comment{The 'ffi' ligature. It should be three characters wide in a
926   monowidth font.}
927 \endsetslot
928
929 \setslot{\lclig{FFL}{ffl}}
930   \comment{The 'ffl' ligature. It should be three characters wide in a
931   monowidth font.}
932 \endsetslot
933
934 \Fi
935
936 \setslot{visiblespace}
937   \comment{A visible space glyph '\textvisiblespace'.}
938 \endsetslot
939
940 \setslot{exclam}
941   \ligature{LIG}{quotelleft}{exclamdown}
942   \comment{The exclamation mark '!'.}
943 \endsetslot
944
945 \setslot{quotedbl}
946   \comment{The 'neutral' double quotation mark '\textquotedbl',,
947   included for use in monowidth fonts, or for setting computer
948   programs. Note that the inclusion of this glyph in this slot
949   means that \TeX documents which used '{\tt\char"} as an
950   input character will no longer work.}
951 \endsetslot
952
953 \setslot{numbersign}
954   \comment{The hash sign '#'.}
955 \endsetslot
956
957 \setslot{dollar}
958   \comment{The dollar sign '$'.}
959 \endsetslot
960
961 \setslot{percent}
962   \comment{The percent sign '%'.}
963 \endsetslot
964
965 \setslot{ampersand}
966   \comment{The ampersand sign '&'.}
967 \endsetslot
968
969 \setslot{quoteright}
```

```
970     \ligature{LIG}{quoteright}{quotedblright}
971     \comment{The English closing single quote mark '\textquoteright,'.}
972 \endsetslot
973
974 \setslot{parenleft}
975   \comment{The opening parenthesis '('.}
976 \endsetslot
977
978 \setslot{parenright}
979   \comment{The closing parenthesis ')'.}
980 \endsetslot
981
982 \setslot{asterisk}
983   \comment{The raised asterisk '*'..}
984 \endsetslot
985
986 \setslot{plus}
987   \comment{The addition sign '+'.}
988 \endsetslot
989
990 \setslot{comma}
991   \ligature{LIG}{comma}{quotedblbase}
992   \comment{The comma ','.}
993 \endsetslot
994
995 \setslot{hyphen}
996   \ligature{LIG}{hyphen}{endash}
997   \ligature{LIG}{hyphenchar}{hyphenchar}
998   \comment{The hyphen '-'.}
999 \endsetslot
1000
1001 \setslot{period}
1002   \comment{The period '.'.}
1003 \endsetslot
1004
1005 \setslot{slash}
1006   \comment{The forward oblique '/'.}
1007 \endsetslot
1008
1009 \setslot{\digit{zero}}
1010   \comment{The number '0'. This (and all the other numerals) may be
1011       old style or ranging digits.}
1012 \endsetslot
1013
1014 \setslot{\digit{one}}
1015   \comment{The number '1'.}
1016 \endsetslot
1017
1018 \setslot{\digit{two}}
1019   \comment{The number '2'.}
1020 \endsetslot
1021
1022 \setslot{\digit{three}}
1023   \comment{The number '3'.}
```

```
1024 \endsetslot
1025
1026 \setslot{\digit{four}}
1027     \comment{The number '4'.}
1028 \endsetslot
1029
1030 \setslot{\digit{five}}
1031     \comment{The number '5'.}
1032 \endsetslot
1033
1034 \setslot{\digit{six}}
1035     \comment{The number '6'.}
1036 \endsetslot
1037
1038 \setslot{\digit{seven}}
1039     \comment{The number '7'.}
1040 \endsetslot
1041
1042 \setslot{\digit{eight}}
1043     \comment{The number '8'.}
1044 \endsetslot
1045
1046 \setslot{\digit{nine}}
1047     \comment{The number '9'.}
1048 \endsetslot
1049
1050 \setslot{colon}
1051     \comment{The colon punctuation mark ':' .}
1052 \endsetslot
1053
1054 \setslot{semicolon}
1055     \comment{The semi-colon punctuation mark ';' .}
1056 \endsetslot
1057
1058 \setslot{less}
1059     \ligature[LIG]{less}{guillemotleft}
1060     \comment{The less-than sign '\textless'.}
1061 \endsetslot
1062
1063 \setslot{equal}
1064     \comment{The equals sign '=' .}
1065 \endsetslot
1066
1067 \setslot{greater}
1068     \ligature[LIG]{greater}{guillemotright}
1069     \comment{The greater-than sign '\textgreater'.}
1070 \endsetslot
1071
1072 \setslot{question}
1073     \ligature[LIG]{quotyleft}{questiondown}
1074     \comment{The question mark '?'.}
1075 \endsetslot
1076
1077 \setslot{at}
```

```
1078     \comment{The at sign '@'.}
1079     \endsetslot
1080
1081 \setslot{\uc{A}{a}}
1082     \comment{The letter '{A}'.}
1083 \endsetslot
1084
1085 \setslot{\uc{B}{b}}
1086     \comment{The letter '{B}'.}
1087 \endsetslot
1088
1089 \setslot{\uc{C}{c}}
1090     \comment{The letter '{C}'.}
1091 \endsetslot
1092
1093 \setslot{\uc{D}{d}}
1094     \comment{The letter '{D}'.}
1095 \endsetslot
1096
1097 \setslot{\uc{E}{e}}
1098     \comment{The letter '{E}'.}
1099 \endsetslot
1100
1101 \setslot{\uc{F}{f}}
1102     \comment{The letter '{F}'.}
1103 \endsetslot
1104
1105 \setslot{\uc{G}{g}}
1106     \comment{The letter '{G}'.}
1107 \endsetslot
1108
1109 \setslot{\uc{H}{h}}
1110     \comment{The letter '{H}'.}
1111 \endsetslot
1112
1113 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
1114
1115 \setslot{\uc{I}{i}}
1116     \comment{The letter '{I}'.}
1117 \endsetslot
1118
1119 \Fi
1120
1121 \setslot{\uc{J}{j}}
1122     \comment{The letter '{J}'.}
1123 \endsetslot
1124
1125 \setslot{\uc{K}{k}}
1126     \comment{The letter '{K}'.}
1127 \endsetslot
1128
1129 \setslot{\uc{L}{l}}
1130     \comment{The letter '{L}'.}
1131 \endsetslot
```

```
1132 \setslot{\uc{M}{m}}
1133   \comment{The letter '{M}'.}
1134 \endsetslot
1135
1136 \setslot{\uc{N}{n}}
1137   \comment{The letter '{N}'.}
1138 \endsetslot
1139
1140 \setslot{\uc{O}{o}}
1141   \comment{The letter '{O}'.}
1142 \endsetslot
1143
1144 \setslot{\uc{P}{p}}
1145   \comment{The letter '{P}'.}
1146 \endsetslot
1147
1148 \setslot{\uc{Q}{q}}
1149   \comment{The letter '{Q}'.}
1150 \endsetslot
1151
1152 \setslot{\uc{R}{r}}
1153   \comment{The letter '{R}'.}
1154 \endsetslot
1155
1156 \setslot{\uc{S}{s}}
1157   \comment{The letter '{S}'.}
1158 \endsetslot
1159
1160 \setslot{\uc{T}{t}}
1161   \comment{The letter '{T}'.}
1162 \endsetslot
1163
1164 \setslot{\uc{U}{u}}
1165   \comment{The letter '{U}'.}
1166 \endsetslot
1167
1168 \setslot{\uc{V}{v}}
1169   \comment{The letter '{V}'.}
1170 \endsetslot
1171
1172 \setslot{\uc{W}{w}}
1173   \comment{The letter '{W}'.}
1174 \endsetslot
1175
1176 \setslot{\uc{X}{x}}
1177   \comment{The letter '{X}'.}
1178 \endsetslot
1179
1180 \setslot{\uc{Y}{y}}
1181   \comment{The letter '{Y}'.}
1182 \endsetslot
1183
1184 \setslot{\uc{Z}{z}}
```

```

1186     \comment{The letter '{Z}'.}
1187     \endsetslot
1188
1189 \setslot{bracketleft}
1190     \comment{The opening square bracket '['.}
1191 \endsetslot
1192
1193 \setslot{backslash}
1194     \comment{The backwards oblique '\textbackslash'.}
1195 \endsetslot
1196
1197 \setslot{bracketright}
1198     \comment{The closing square bracket ']'.}
1199 \endsetslot
1200
1201 \setslot{asciicircum}
1202     \comment{The ASCII upward-pointing arrow head '\textasciicircum'.
```

This is included for compatibility with typewriter fonts used for computer listings.}

```
1203 \endsetslot
1204
1205 \setslot{underscore}
1206     \comment{The ASCII underline character '\textunderline', usually set on the baseline.}
```

This is included for compatibility with typewriter fonts used for computer listings.}

```
1207 \endsetslot
1208
1209 \setslot{quotyleft}
1210     \ligature{LIG}{quotyleft}{quotedblleft}
1211     \comment{The English opening single quote mark '\textquotyleft\,'.}
```

```
1212 \endsetslot
1213
1214 \setslot{\lc{A}{a}}
1215     \comment{The letter '{a}'.}
1216 \endsetslot
1217
1218 \setslot{\lc{B}{b}}
1219     \comment{The letter '{b}'.}
1220 \endsetslot
1221
1222 \setslot{\lc{C}{c}}
1223     \comment{The letter '{c}'.}
1224 \endsetslot
1225
1226 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
1227
1228     \setslot{\lc{C}{c}}
1229         \comment{The letter '{c}'.}
1230     \endsetslot
1231
1232 \Fi
1233
1234 \setslot{\lc{D}{d}}
1235     \comment{The letter '{d}'.}
1236 \endsetslot
1237
1238 \setslot{\lc{E}{e}}
1239

```

```

1240     \comment{The letter '{e}'.}
1241     \endsetslot
1242
1243 \ifnumber{\int{ligaturing}}<-1\then \skipslots{1}\Else
1244
1245     \setslot{\lc{F}{f}}
1246     \ifnumber{\int{ligaturing}}>0\then
1247         \ligature{LIG}{\lc{I}{i}}{\lclig{FI}{fi}}
1248         \ligature{LIG}{\lc{F}{f}}{\lclig{FF}{ff}}
1249         \ligature{LIG}{\lc{L}{l}}{\lclig{FL}{fl}}
1250         \Fi
1251         \comment{The letter '{f}'.}
1252     \endsetslot
1253
1254 \Fi
1255
1256 \setslot{\lc{G}{g}}
1257     \comment{The letter '{g}'.}
1258 \endsetslot
1259
1260 \setslot{\lc{H}{h}}
1261     \comment{The letter '{h}'.}
1262 \endsetslot
1263
1264 \ifnumber{\int{ligaturing}}<-1\then \skipslots{1}\Else
1265
1266     \setslot{\lc{I}{i}}
1267     \comment{The letter '{i}'.}
1268 \endsetslot
1269
1270 \Fi
1271
1272 \setslot{\lc{J}{j}}
1273     \comment{The letter '{j}'.}
1274 \endsetslot
1275
1276 \setslot{\lc{K}{k}}
1277     \comment{The letter '{k}'.}
1278 \endsetslot
1279
1280 \setslot{\lc{L}{l}}
1281     \comment{The letter '{l}'.}
1282 \endsetslot
1283
1284 \setslot{\lc{M}{m}}
1285     \comment{The letter '{m}'.}
1286 \endsetslot
1287
1288 \setslot{\lc{N}{n}}
1289     \comment{The letter '{n}'.}
1290 \endsetslot
1291
1292 \setslot{\lc{O}{o}}
1293     \comment{The letter '{o}'.}

```

```
1294 \endsetslot
1295
1296 \setslot{\lc{P}{p}}
1297   \comment{The letter '{p}'.}
1298 \endsetslot
1299
1300 \setslot{\lc{Q}{q}}
1301   \comment{The letter '{q}'.}
1302 \endsetslot
1303
1304 \setslot{\lc{R}{r}}
1305   \comment{The letter '{r}'.}
1306 \endsetslot
1307
1308 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
1309
1310   \setslot{\lc{S}{s}}
1311     \comment{The letter '{s}'.}
1312 \endsetslot
1313
1314 \Fi
1315
1316 \setslot{\lc{T}{t}}
1317   \comment{The letter '{t}'.}
1318 \endsetslot
1319
1320 \setslot{\lc{U}{u}}
1321   \comment{The letter '{u}'.}
1322 \endsetslot
1323
1324 \setslot{\lc{V}{v}}
1325   \comment{The letter '{v}'.}
1326 \endsetslot
1327
1328 \setslot{\lc{W}{w}}
1329   \comment{The letter '{w}'.}
1330 \endsetslot
1331
1332 \setslot{\lc{X}{x}}
1333   \comment{The letter '{x}'.}
1334 \endsetslot
1335
1336 \setslot{\lc{Y}{y}}
1337   \comment{The letter '{y}'.}
1338 \endsetslot
1339
1340 \setslot{\lc{Z}{z}}
1341   \comment{The letter '{z}'.}
1342 \endsetslot
1343
1344 \setslot{braceleft}
1345   \comment{The opening curly brace '\textbraceleft'.}
1346 \endsetslot
1347
```

```
1348 \setslot{bar}
1349   \comment{The ASCII vertical bar ‘\textbar’.
1350     This is included for compatibility with typewriter fonts used
1351     for computer listings.}
1352 \endsetslot
1353
1354 \setslot{braceright}
1355   \comment{The closing curly brace ‘\textbraceright’.}
1356 \endsetslot
1357
1358 \setslot{asciitilde}
1359   \comment{The ASCII tilde ‘\textasciitilde’.
1360     This is included for compatibility with typewriter fonts used
1361     for computer listings.}
1362 \endsetslot
1363
1364 \setslot{hyphenchar}
1365   \comment{The glyph used for hyphenation in this font, which will
1366     almost always be the same as ‘hyphen’.}
1367 \endsetslot
1368
1369 \setslot{\uctop{Abreve}{abreve}}
1370   \comment{The letter ‘\u A’.}
1371 \endsetslot
1372
1373 \setslot{\uc{Aogonek}{aogonek}}
1374   \comment{The letter ‘\k A’.}
1375 \endsetslot
1376
1377 \setslot{\uctop{Cacute}{cacute}}
1378   \comment{The letter ‘\’ C’.}
1379 \endsetslot
1380
1381 \setslot{\uctop{Ccaron}{ccaron}}
1382   \comment{The letter ‘\v C’.}
1383 \endsetslot
1384
1385 \setslot{\uctop{Dcaron}{dcaron}}
1386   \comment{The letter ‘\v D’.}
1387 \endsetslot
1388
1389 \setslot{\uctop{Ecaron}{ecaron}}
1390   \comment{The letter ‘\v E’.}
1391 \endsetslot
1392
1393 \setslot{\uc{Eogonek}{eogonek}}
1394   \comment{The letter ‘\k E’.}
1395 \endsetslot
1396
1397 \setslot{\uctop{Gbreve}{gbreve}}
1398   \comment{The letter ‘\u G’.}
1399 \endsetslot
1400
1401 \setslot{\uctop{Lacute}{lacute}}
```

```

1402     \comment{The letter '\ L'.}
1403 \endsetslot
1404
1405 \setslot{\uc{Lcaron}{lcaron}}
1406     \comment{The letter '\v L'.}
1407 \endsetslot
1408
1409 \setslot{\uc{Lslash}{lslash}}
1410     \comment{The letter '\L'.}
1411 \endsetslot
1412
1413 \setslot{\uctop{Nacute}{nacute}}
1414     \comment{The letter '\ N'.}
1415 \endsetslot
1416
1417 \setslot{\uctop{Ncaron}{ncaron}}
1418     \comment{The letter '\v N'.}
1419 \endsetslot
1420
1421 \setslot{\uc{Eng}{eng}}
1422     \comment{The Sami letter '\NG'. It is unavailable in \plain\ \TeX.
1423 This needs to be called 'Eng'/'eng' rather than 'Ng'/'ng' as in t1.etx in
1424 most cases, it seems.}
1425 \endsetslot
1426
1427 \setslot{\uctop{Ohungarumlaut}{ohungarumlaut}}
1428     \comment{The letter '\H O'.}
1429 \endsetslot
1430
1431 \setslot{\uctop{Racute}{racute}}
1432     \comment{The letter '\ R'.}
1433 \endsetslot
1434
1435 \setslot{\uctop{Rcaron}{rcaron}}
1436     \comment{The letter '\v R'.}
1437 \endsetslot
1438
1439 \setslot{\uctop{Sacute}{sacute}}
1440     \comment{The letter '\ S'.}
1441 \endsetslot
1442
1443 \setslot{\uctop{Scaron}{scaron}}
1444     \comment{The letter '\v S'.}
1445 \endsetslot
1446
1447 \setslot{\uc{Scedilla}{scedilla}}
1448     \comment{The letter '\c S'.}
1449 \endsetslot
1450
1451 \setslot{\uctop{Tcaron}{tcaron}}
1452     \comment{The letter '\v T'.}
1453 \endsetslot
1454
1455 \setslot{\uc{Tcedilla}{tcedilla}}

```

```

1456     \comment{The letter '\c T'.}
1457     \endsetslot
1458
1459 \setslot{\uctop{Uhungarumlaut}{uhungarumlaut}}
1460     \comment{The letter '\H U'.}
1461 \endsetslot
1462
1463 \setslot{\uctop{Uring}{uring}}
1464     \comment{The letter '\r U'.}
1465 \endsetslot
1466
1467 \setslot{\uctop{Ydieresis}{ydieresis}}
1468     \comment{The letter '\Y' .}
1469 \endsetslot
1470
1471 \setslot{\uctop{Zacute}{zacute}}
1472     \comment{The letter '\` Z'.}
1473 \endsetslot
1474
1475 \setslot{\uctop{Zcaron}{zcaron}}
1476     \comment{The letter '\v Z'.}
1477 \endsetslot
1478
1479 \setslot{\uctop{Zdotaccent}{zdotaccent}}
1480     \comment{The letter '\. Z'.}
1481 \endsetslot
1482
1483 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{1}\Else
1484
1485     \setslot{\uclig{IJ}{ij}}
1486         \comment{The letter 'IJ'. This is a single letter, and in a
1487             monowidth font should ideally be one letter wide.}
1488     \endsetslot
1489
1490 \Fi
1491
1492 \setslot{\uctop{Idotaccent}{idotaccent}}
1493     \comment{The letter '\. I'.}
1494 \endsetslot
1495
1496 \setslot{\lc{Dbar}{dbar}}
1497     \comment{The letter '\dj'.}
1498 \endsetslot
1499
1500 \setslot{section}
1501     \comment{The section mark '\textsection'.}
1502 \endsetslot
1503
1504 \setslot{\lctop{Abreve}{abreve}}
1505     \comment{The letter '\u a'.}
1506 \endsetslot
1507
1508 \setslot{\lc{Aogonek}{aogonek}}
1509     \comment{The letter '\k a'.}

```

```

1510 \endsetslot
1511
1512 \setslot{\lctop{Cacute}{cacute}}
1513   \comment{The letter '\c'.}
1514 \endsetslot
1515
1516 \setslot{\lctop{Ccaron}{ccaron}}
1517   \comment{The letter '\v c'.}
1518 \endsetslot
1519
1520 \setslot{\lctop{Dcaron}{dcaron}}
1521   \comment{The letter '\v d'.}
1522 \endsetslot
1523
1524 \setslot{\lctop{Ecaron}{ecaron}}
1525   \comment{The letter '\v e'.}
1526 \endsetslot
1527
1528 \setslot{\lc{Eogonek}{eogonek}}
1529   \comment{The letter '\k e'.}
1530 \endsetslot
1531
1532 \setslot{\lctop{Gbreve}{gbreve}}
1533   \comment{The letter '\u g'.}
1534 \endsetslot
1535
1536 \setslot{\lctop{Lacute}{lacute}}
1537   \comment{The letter '\l'.}
1538 \endsetslot
1539
1540 \setslot{\lc{Lcaron}{lcaron}}
1541   \comment{The letter '\v l'.}
1542 \endsetslot
1543
1544 \setslot{\lc{Lslash}{lslash}}
1545   \comment{The letter '\l'.}
1546 \endsetslot
1547
1548 \setslot{\lctop{Nacute}{nacute}}
1549   \comment{The letter '\n'.}
1550 \endsetslot
1551
1552 \setslot{\lctop{Ncaron}{ncaron}}
1553   \comment{The letter '\v n'.}
1554 \endsetslot
1555
1556 \setslot{\lc{Eng}{eng}}
1557   \comment{The Sami letter '\ng'. It is unavailable in \plain\ \TeX. This needs
           to be called 'Eng'/'eng' rather than 'Ng'/'ng' as it is in t1.etx in most cases,
           it seems.}
1558 \endsetslot
1559
1560 \setslot{\lctop{Ohungarumlaut}{ohungarumlaut}}
1561   \comment{The letter '\H o'.}

```

```
1562 \endsetslot
1563
1564 \setslot{\lctop{Racute}{racute}}
1565   \comment{The letter '\r'.}
1566 \endsetslot
1567
1568 \setslot{\lctop{Rcaron}{rcaron}}
1569   \comment{The letter '\v r'.}
1570 \endsetslot
1571
1572 \setslot{\lctop{Sacute}{sacute}}
1573   \comment{The letter '\s'.}
1574 \endsetslot
1575
1576 \setslot{\lctop{Scaron}{scaron}}
1577   \comment{The letter '\v s'.}
1578 \endsetslot
1579
1580 \setslot{\lc{Scedilla}{scedilla}}
1581   \comment{The letter '\c s'.}
1582 \endsetslot
1583
1584 \setslot{\lctop{Tcaron}{tcaron}}
1585   \comment{The letter '\v t'.}
1586 \endsetslot
1587
1588 \setslot{\lc{Tcedilla}{tcedilla}}
1589   \comment{The letter '\c t'.}
1590 \endsetslot
1591
1592 \setslot{\lctop{Uhungarumlaut}{uhungarumlaut}}
1593   \comment{The letter '\H u'.}
1594 \endsetslot
1595
1596 \setslot{\lctop{Uring}{uring}}
1597   \comment{The letter '\r u'.}
1598 \endsetslot
1599
1600 \setslot{\lctop{Ydieresis}{ydieresis}}
1601   \comment{The letter '\y'.}
1602 \endsetslot
1603
1604 \setslot{\lctop{Zacute}{zacute}}
1605   \comment{The letter '\z'.}
1606 \endsetslot
1607
1608 \setslot{\lctop{Zcaron}{zcaron}}
1609   \comment{The letter '\v z'.}
1610 \endsetslot
1611
1612 \setslot{\lctop{Zdotaccent}{zdotaccent}}
1613   \comment{The letter '\. z'.}
1614 \endsetslot
1615
```

```
1616 \ifnumber{\int{ligaturing}}<0\then \skipslots{1}\Else
1617
1618   \setslot{\lclig{IJ}{ij}}
1619     \comment{The letter 'ij'. This is a single letter, and in a
1620       monowidth font should ideally be one letter wide.}
1621   \endsetslot
1622
1623 \Fi
1624
1625 \setslot{exclamdown}
1626   \comment{The Spanish punctuation mark '!'.}
1627 \endsetslot
1628
1629 \setslot{questiondown}
1630   \comment{The Spanish punctuation mark '?'.}
1631 \endsetslot
1632
1633 \setslot{sterling}
1634   \comment{The British currency mark '\textsterling'.}
1635 \endsetslot
1636
1637 \setslot{\uctop{Agrave}{agrave}}
1638   \comment{The letter '\` A'.}
1639 \endsetslot
1640
1641 \setslot{\uctop{Aacute}{aacute}}
1642   \comment{The letter '\^ A'.}
1643 \endsetslot
1644
1645 \setslot{\uctop{Acircumflex}{acircumflex}}
1646   \comment{The letter '\~ A'.}
1647 \endsetslot
1648
1649 \setslot{\uctop{Atilde}{atilde}}
1650   \comment{The letter '\~ A'.}
1651 \endsetslot
1652
1653 \setslot{\uctop{Adieresis}{adieresis}}
1654   \comment{The letter '\u00e4 A'.}
1655 \endsetslot
1656
1657 \setslot{\uctop{Aring}{aring}}
1658   \comment{The letter '\r A'.}
1659 \endsetslot
1660
1661 \setslot{\uc{AE}{ae}}
1662   \comment{The letter '\AE'. This is a single letter, and should not be
1663     faked with 'AE'.}
1664 \endsetslot
1665
1666 \setslot{\uc{Ccedilla}{ccedilla}}
1667   \comment{The letter '\c C'.}
1668 \endsetslot
1669
```

```

1670 \setslot{\uctop{Egrave}{egrave}}
1671   \comment{The letter '\` E'.}
1672 \endsetslot
1673
1674 \setslot{\uctop{Eacute}{eacute}}
1675   \comment{The letter '\^ E'.}
1676 \endsetslot
1677
1678 \setslot{\uctop{Ecircumflex}{ecircumflex}}
1679   \comment{The letter '\~ E'.}
1680 \endsetslot
1681
1682 \setslot{\uctop{Edieresis}{edieresis}}
1683   \comment{The letter '\" E'.}
1684 \endsetslot
1685
1686 \setslot{\uctop{Igrave}{igrave}}
1687   \comment{The letter '\` I'.}
1688 \endsetslot
1689
1690 \setslot{\uctop{Iacute}{iacute}}
1691   \comment{The letter '\^ I'.}
1692 \endsetslot
1693
1694 \setslot{\uctop{Icircumflex}{icircumflex}}
1695   \comment{The letter '\~ I'.}
1696 \endsetslot
1697
1698 \setslot{\uctop{Idieresis}{idieresis}}
1699   \comment{The letter '\" I'.}
1700 \endsetslot
1701
1702 \setslot{\uc{Eth}{eth}}
1703   \comment{The uppercase Icelandic letter 'Eth' similar to a 'D'
1704       with a horizontal bar through the stem. It is unavailable
1705       in \plain\ \TeX.}
1706 \endsetslot
1707
1708 \setslot{\uctop{Ntilde}{ntilde}}
1709   \comment{The letter '\~ N'.}
1710 \endsetslot
1711
1712 \setslot{\uctop{Ograve}{ograve}}
1713   \comment{The letter '\` O'.}
1714 \endsetslot
1715
1716 \setslot{\uctop{Oacute}{oacute}}
1717   \comment{The letter '\^ O'.}
1718 \endsetslot
1719
1720 \setslot{\uctop{Ocircumflex}{ocircumflex}}
1721   \comment{The letter '\~ O'.}
1722 \endsetslot
1723

```

```

1724 \setslot{\uctop{Otilde}{otilde}}
1725   \comment{The letter '\~ O'.}
1726 \endsetslot
1727
1728 \setslot{\uctop{Odieresis}{odieresis}}
1729   \comment{The letter '\" O'.}
1730 \endsetslot
1731
1732 \setslot{\uc{OE}{oe}}
1733   \comment{The letter '\OE'. This is a single letter, and should not be
1734     faked with 'OE'.}
1735 \endsetslot
1736
1737 \setslot{\uc{0slash}{oslash}}
1738   \comment{The letter '\0'.}
1739 \endsetslot
1740
1741 \setslot{\uctop{Ugrave}{ugrave}}
1742   \comment{The letter '\` U'.}
1743 \endsetslot
1744
1745 \setslot{\uctop{Uacute}{uacute}}
1746   \comment{The letter '\^ U'.}
1747 \endsetslot
1748
1749 \setslot{\uctop{Ucircumflex}{ucircumflex}}
1750   \comment{The letter '\^ U'.}
1751 \endsetslot
1752
1753 \setslot{\uctop{Udieresis}{udieresis}}
1754   \comment{The letter '\" U'.}
1755 \endsetslot
1756
1757 \setslot{\uctop{Yacute}{yacute}}
1758   \comment{The letter '\` Y'.}
1759 \endsetslot
1760
1761 \setslot{\uc{Thorn}{thorn}}
1762   \comment{The Icelandic capital letter Thorn, similar to a 'P'
1763     with the bowl moved down. It is unavailable in \plain\ \TeX.}
1764 \endsetslot
1765
1766 \setslot{\uclig{SS}{germandbls}}
1767   \comment{The ligature 'SS', used to give an upper case '\ss'.
1768     In a monowidth font it should be two letters wide.}
1769 \endsetslot
1770
1771 \setslot{\lctop{Agrave}{agrave}}
1772   \comment{The letter '\` a'.}
1773 \endsetslot
1774
1775 \setslot{\lctop{Aacute}{aacute}}
1776   \comment{The letter '\^ a'.}
1777 \endsetslot

```

```
1778 \setslot{\lctop{Acircumflex}{acircumflex}}
1779   \comment{The letter '\^ a'.}
1780 \endsetslot
1782
1783 \setslot{\lctop{Atilde}{atilde}}
1784   \comment{The letter '\~ a'.}
1785 \endsetslot
1786
1787 \setslot{\lctop{Adieresis}{adieresis}}
1788   \comment{The letter '\" a'.}
1789 \endsetslot
1790
1791 \setslot{\lctop{Aring}{aring}}
1792   \comment{The letter '\r a'.}
1793 \endsetslot
1794
1795 \setslot{\lc{AE}{ae}}
1796   \comment{The letter '\ae'. This is a single letter, and should not be
1797     faked with 'ae'.}
1798 \endsetslot
1799
1800 \setslot{\lc{Ccedilla}{ccedilla}}
1801   \comment{The letter '\c c'.}
1802 \endsetslot
1803
1804 \setslot{\lctop{Egrave}{egrave}}
1805   \comment{The letter '\` e'.}
1806 \endsetslot
1807
1808 \setslot{\lctop{Eacute}{eacute}}
1809   \comment{The letter '\' e'.}
1810 \endsetslot
1811
1812 \setslot{\lctop{Ecircumflex}{ecircumflex}}
1813   \comment{The letter '\^ e'.}
1814 \endsetslot
1815
1816 \setslot{\lctop{Edieresis}{edieresis}}
1817   \comment{The letter '\\" e'.}
1818 \endsetslot
1819
1820 \setslot{\lctop{Igrave}{igrave}}
1821   \comment{The letter '\`i'.}
1822 \endsetslot
1823
1824 \setslot{\lctop{Iacute}{iacute}}
1825   \comment{The letter '\'i'.}
1826 \endsetslot
1827
1828 \setslot{\lctop{Icircumflex}{icircumflex}}
1829   \comment{The letter '\^i'.}
1830 \endsetslot
1831
```

```

1832 \setslot{\lctop{Idieresis}{idieresis}}
1833   \comment{The letter '\i'.}
1834 \endsetslot
1835
1836 \setslot{\lc{Eth}{eth}}
1837   \comment{The Icelandic lowercase letter 'eth' similar to
1838     a '$\partial$' with an oblique bar through the stem.
1839     It is unavailable in \plain\ TeX.}
1840 \endsetslot
1841
1842 \setslot{\lctop{Ntilde}{ntilde}}
1843   \comment{The letter '\~n'.}
1844 \endsetslot
1845
1846 \setslot{\lctop{Ograve}{ograve}}
1847   \comment{The letter '\`o'.}
1848 \endsetslot
1849
1850 \setslot{\lctop{Oacute}{oacute}}
1851   \comment{The letter '\^o'.}
1852 \endsetslot
1853
1854 \setslot{\lctop{Ocircumflex}{ocircumflex}}
1855   \comment{The letter '\^o'.}
1856 \endsetslot
1857
1858 \setslot{\lctop{Otilde}{otilde}}
1859   \comment{The letter '\~o'.}
1860 \endsetslot
1861
1862 \setslot{\lctop{Odieresis}{odieresis}}
1863   \comment{The letter '\o'.}
1864 \endsetslot
1865
1866 \setslot{\lc{OE}{oe}}
1867   \comment{The letter '\oe'. This is a single letter, and should not be
1868     faked with 'oe'.}
1869 \endsetslot
1870
1871 \setslot{\lc{Oslash}{oslash}}
1872   \comment{The letter '\o'.}
1873 \endsetslot
1874
1875 \setslot{\lctop{Ugrave}{ugrave}}
1876   \comment{The letter '\`u'.}
1877 \endsetslot
1878
1879 \setslot{\lctop{Uacute}{uacute}}
1880   \comment{The letter '\^u'.}
1881 \endsetslot
1882
1883 \setslot{\lctop{Ucircumflex}{ucircumflex}}
1884   \comment{The letter '\^u'.}
1885 \endsetslot

```

```

1886 \setslot{\lctop{Udieresis}{udieresis}}
1887   \comment{The letter '\u00fdu'.}
1888 \endsetslot
1889
1890 \setslot{\lctop{Yacute}{yacute}}
1891   \comment{The letter '\u00f9 y'.}
1892 \endsetslot
1893
1894 \setslot{\lc{Thorn}{thorn}}
1895   \comment{The Icelandic lowercase letter 'thorn', similar to a 'p'
1896     with an ascender rising from the stem. It is unavailable
1897     in \plain\ \TeX.}
1898 \endsetslot
1899
1900 \setslot{\lc{SS}{germandbls}}
1901   \comment{The letter '\u00fass'.}
1902 \endsetslot
1903
1904 \endencoding

```

6.3.7 t1-dotalt-f_f.etx

t1-dotalt-f_f (etx)

```

1906 %%
1907 %% - The commentary in the original is deleted in this version. For
1908 %% information about the T1 etc., typeset the original t1.etx
1909 %% included with fontinst.
1910 %% - Slots are altered to accommodate characters which are named
1911 %% differently. For example, this encoding uses "endash" and "emdash"
1912 %% whereas t1.etx called for "rangedash" and "punctdash".
1913 %% - The original notices at the top of that file concerning authors,
1914 %% maintenance etc. are replaced by this notice.
1915 %% - The file is renamed.
1916 %% - The encoding name is modified.
1917 %% - f_f, f_f_i and f_f_l replace ff, ffi and ffl.
1918 %% - lc, uc and accented lc, uc are set to characters named "a.alt" etc.
1919 %%
1920 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
1921 \relax
1922 \encoding
1923
1924 \needsfontinstversion{1.910}
1925
1926 \setcommand{\lc#1#2{\#2.alt}}
1927 \setcommand{\uc#1#2{\#1.alt}}
1928 \setcommand{\lctop#1#2{\#2.alt}}
1929 \setcommand{\uctop#1#2{\#1.alt}}
1930 \setcommand{\lclig#1#2{\#2}}
1931 \ifisint{letterspacing}\then
1932   \ifnumber{\int{letterspacing}}={0}\then \Else
1933     \setcommand{\uclig#1#2{\#1spaced}}

```

```

1934     \comment{Here we set \verb|\uclig#1#2| to \verb|\verb|#1spaced|, but
1935     you can't see it as \verb|\setcommand| commands are invisible in
1936     the typeset output.}
1937     \Fi
1938     \Fi
1939     \setcommand\uclig#1#2{#1}
1940     \setcommand\digit#1{#1}
1941
1942     \ifisint{monowidth}\then
1943         \setint{ligaturing}{0}
1944     \Else
1945         % The following empty line is *important* to get the formatting
1946         % right here (sigh)! (Remember that it is a \par token.)
1947
1948     \ifisint{letterspacing}\then
1949         \ifnumber{\int{letterspacing}}={0}\then \Else
1950             \setint{ligaturing}{0}
1951         \Fi
1952         \Fi
1953     \setint{ligaturing}{1}
1954     \Fi
1955
1956     \setint{italicslant}{0}
1957     \setint{quad}{1000}
1958     \setint{baselineskip}{1200}
1959
1960     \ifisglyph{x}\then
1961         \setint{xheight}{\height{x}}
1962     \Else
1963         \setint{xheight}{500}
1964     \Fi
1965
1966     \ifisglyph{space}\then
1967         \setint{interword}{\width{space}}
1968     \Else\ifisglyph{i}\then
1969         \setint{interword}{\width{i}}
1970     \Else
1971         \setint{interword}{333}
1972     \Fi\Fi
1973
1974     \ifisint{monowidth}\then
1975         \setint{stretchword}{0}
1976         \setint{shrinkword}{0}
1977         \setint{extraspace}{\int{interword}}
1978     \Else
1979         \setint{stretchword}{\scale{\int{interword}}{600}}
1980         \setint{shrinkword}{\scale{\int{interword}}{240}}
1981         \setint{extraspace}{\scale{\int{interword}}{240}}
1982     \Fi
1983
1984     \ifisglyph{X}\then
1985         \setint{capheight}{\height{X}}
1986     \Else
1987         \setint{capheight}{750}

```

```

1988 \Fi
1989
1990 \ifisglyph{d}\then
1991   \setint{ascender}{\height{d}}
1992 \Else\ifisint{capheight}\then
1993   \setint{ascender}{\int{capheight}}
1994 \Else
1995   \setint{ascender}{750}
1996 \Fi\Fi
1997
1998 \ifisglyph{Aring}\then
1999   \setint{acccapheight}{\height{Aring}}
2000 \Else
2001   \setint{acccapheight}{999}
2002 \Fi
2003
2004 \ifisint{descender_neg}\then
2005   \setint{descender}{\neg{\int{descender_neg}}}
2006 \Else\ifisglyph{p}\then
2007   \setint{descender}{\depth{p}}
2008 \Else
2009   \setint{descender}{250}
2010 \Fi\Fi
2011
2012 \ifisglyph{Aring}\then
2013   \setint{maxheight}{\height{Aring}}
2014 \Else
2015   \setint{maxheight}{1000}
2016 \Fi
2017
2018 \ifisint{maxdepth_neg}\then
2019   \setint{maxdepth}{\neg{\int{maxdepth_neg}}}
2020 \Else\ifisglyph{j}\then
2021   \setint{maxdepth}{\depth{j}}
2022 \Else
2023   \setint{maxdepth}{250}
2024 \Fi\Fi
2025
2026 \ifisglyph{six}\then
2027   \setint{digitwidth}{\width{six}}
2028 \Else
2029   \setint{digitwidth}{500}
2030 \Fi
2031
2032 \setint{capstem}{0} % not in AFM files
2033
2034 \setfontdimen{1}{italicslant}      % italic slant
2035 \setfontdimen{2}{interword}        % interword space
2036 \setfontdimen{3}{stretchword}      % interword stretch
2037 \setfontdimen{4}{shrinkword}       % interword shrink
2038 \setfontdimen{5}{xheight}         % x-height
2039 \setfontdimen{6}{quad}             % quad
2040 \setfontdimen{7}{extraspace}       % extra space after .
2041 \setfontdimen{8}{capheight}        % cap height

```

```

2042 \setfontdimen{9}{ascender} % ascender
2043 \setfontdimen{10}{accapheight} % accented cap height
2044 \setfontdimen{11}{descender} % descender's depth
2045 \setfontdimen{12}{maxheight} % max height
2046 \setfontdimen{13}{maxdepth} % max depth
2047 \setfontdimen{14}{digitwidth} % digit width
2048 \setfontdimen{15}{verticalstem} % dominant width of vertical stems
2049 \setfontdimen{16}{baselineskip} % baselineskip
2050
2051 \ifnumber{\int{ligaturing}}<{0}\then
2052   \comment{In this case, the codingscheme can be different from the
2053   default, and therefore we refrain from setting it.}
2054 \Else
2055   \setstr{codingscheme}{EXTENDED TEX ENC - DOTALT F_F}
2056 \Fi
2057
2058 \setslot{\lc{Grave}{grave}}
2059   \comment{The grave accent '\{}.'}
2060 \endsetslot
2061
2062 \setslot{\lc{Acute}{acute}}
2063   \comment{The acute accent '\{}.'}
2064 \endsetslot
2065
2066 \setslot{\lc{Circumflex}{circumflex}}
2067   \comment{The circumflex accent '\^{}.'}
2068 \endsetslot
2069
2070 \setslot{\lc{Tilde}{tilde}}
2071   \comment{The tilde accent '\~{}.'}
2072 \endsetslot
2073
2074 \setslot{\lc{Dieresis}{dieresis}}
2075   \comment{The umlaut or dieresis accent '\\"{}.'}
2076 \endsetslot
2077
2078 \setslot{\lc{Hungarumlaut}{hungarumlaut}}
2079   \comment{The long Hungarian umlaut '\H{}.'}
2080 \endsetslot
2081
2082 \setslot{\lc{Ring}{ring}}
2083   \comment{The ring accent '\r{}.'}
2084 \endsetslot
2085
2086 \setslot{\lc{Caron}{caron}}
2087   \comment{The caron or h'á\v cek accent '\v{}.'}
2088 \endsetslot
2089
2090 \setslot{\lc{Breve}{breve}}
2091   \comment{The breve accent '\u{}.'}
2092 \endsetslot
2093
2094 \setslot{\lc{Macron}{macron}}
2095   \comment{The macron accent '\={}.'}

```

```

2096 \endsetslot
2097
2098 \setslot{\lc{Dotaccent}{dotaccent}}
2099   \comment{The dot accent '\.{ }'.}
2100 \endsetslot
2101
2102 \setslot{\lc{Cedilla}{cedilla}}
2103   \comment{The cedilla accent '\c { }'.}
2104 \endsetslot
2105
2106 \setslot{\lc{Ogonek}{ogonek}}
2107   \comment{The ogonek accent '\k { }'.}
2108 \endsetslot
2109
2110 \setslot{quotesinglbase}
2111   \comment{A German single quote mark '\quotesinglbase' similar to a comma,
2112       but with different sidebearings.}
2113 \endsetslot
2114
2115 \setslot{guilsinglleft}
2116   \comment{A French single opening quote mark '\guilsinglleft',
2117       unavailable in \plain\ \TeX.}
2118 \endsetslot
2119
2120 \setslot{guilsinglright}
2121   \comment{A French single closing quote mark '\guilsinglright',
2122       unavailable in \plain\ \TeX.}
2123 \endsetslot
2124
2125 \setslot{quotedblleft}
2126   \comment{The English opening quote mark '\textquotedblleft', .}
2127 \endsetslot
2128
2129 \setslot{quotedblright}
2130   \comment{The English closing quote mark '\textquotedblright', .}
2131 \endsetslot
2132
2133 \setslot{quotedblbase}
2134   \comment{A German double quote mark '\quotedblbase' similar to two commas,
2135       but with tighter letterspacing and different sidebearings.}
2136 \endsetslot
2137
2138 \setslot{guillemotleft}
2139   \comment{A French double opening quote mark '\guillemotleft',
2140       unavailable in \plain\ \TeX.}
2141 \endsetslot
2142
2143 \setslot{guillemotright}
2144   \comment{A French closing opening quote mark '\guillemotright',
2145       unavailable in \plain\ \TeX.}
2146 \endsetslot
2147
2148 \setslot{endash}
2149   \ligature[LIG]{hyphen}{emdash}

```

```

2150   \comment{The number range dash ‘1--9’.
2151     This is called ‘rangedash’ by fontinst’s t1.etx, but it needs to be
2152     called ‘endash’ to work right.
2153     The ‘\textendash’. In a monowidth font, this might be set as
2154     ‘\texttt{1{-}9}’.}
2155 \endsetslot
2156
2157 \setslot{emdash}
2158   \comment{The punctuation dash ‘Oh---boy.’
2159     This is calle ‘punctdash’ by fontinst’s t1.etx, but needs to be
2160     called ‘emdash’ to work right.
2161     The ‘\textemdash’.
2162     In a monowidth font, this might be set as ‘\texttt{Oh{-}{-}boy.}’}
2163 \endsetslot
2164
2165 \setslot{compwordmark}
2166   \comment{An invisible glyph, with zero width and depth, but the
2167     height of lowercase letters without ascenders.
2168     It is used to stop ligaturing in words like ‘shelf{}ful’.}
2169 \endsetslot
2170
2171 \setslot{perthousandzero}
2172   \comment{A glyph which is placed after ‘\%’ to produce a
2173     ‘per-thousand’, or twice to produce ‘per-ten-thousand’.
2174     Your guess is as good as mine as to what this glyph should look
2175     like in a monowidth font.}
2176 \endsetslot
2177
2178 \setslot{\lc{dotlessI}{dotlessi}}
2179   \comment{A dotless i ‘\i’, used to produce accented letters such as
2180     ‘\=i’.}
2181 \endsetslot
2182
2183 \setslot{\lc{dotlessJ}{dotlessj}}
2184   \comment{A dotless j ‘\j’, used to produce accented letters such as
2185     ‘\=j’. Most non-\TeX\ fonts do not have this glyph.}
2186 \endsetslot
2187
2188 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{5}\Else
2189
2190 \setslot{\lclig{FF}{f_f}}
2191   \ifnumber{\int{ligaturing}}>{0}\then
2192     \ligature{LIG}{\lc{I}{i}}{\lclig{FFI}{f_f_i}}
2193     \ligature{LIG}{\lc{L}{l}}{\lclig{FFL}{f_f_l}}
2194   \Fi
2195   \comment{The ‘ff’ ligature. It should be two characters wide in a
2196     monowidth font.}
2197 \endsetslot
2198
2199 \setslot{\lclig{FI}{fi}}
2200   \comment{The ‘fi’ ligature. It should be two characters wide in a
2201     monowidth font.}
2202 \endsetslot
2203

```

```

2204 \setslot{\lclig{FL}{f1}}
2205   \comment{The 'f1' ligature. It should be two characters wide in a
2206     monowidth font.}
2207 \endsetslot
2208
2209 \setslot{\lclig{FFI}{f_f_i}}
2210   \comment{The 'ffi' ligature. It should be three characters wide in a
2211     monowidth font.}
2212 \endsetslot
2213
2214 \setslot{\lclig{FFL}{f_f_l}}
2215   \comment{The 'ffl' ligature. It should be three characters wide in a
2216     monowidth font.}
2217 \endsetslot
2218
2219 \Fi
2220
2221 \setslot{visiblespace}
2222   \comment{A visible space glyph '\textvisiblespace'.}
2223 \endsetslot
2224
2225 \setslot{exclam}
2226   \ligature{LIG}{quotelleft}{exclamdown}
2227   \comment{The exclamation mark '!'.}
2228 \endsetslot
2229
2230 \setslot{quotedbl}
2231   \comment{The 'neutral' double quotation mark '\textquotedbl',,
2232     included for use in monowidth fonts, or for setting computer
2233     programs. Note that the inclusion of this glyph in this slot
2234     means that \TeX\ documents which used '{\tt\char"} as an
2235     input character will no longer work.}
2236 \endsetslot
2237
2238 \setslot{numbersign}
2239   \comment{The hash sign '#'.}
2240 \endsetslot
2241
2242 \setslot{dollar}
2243   \comment{The dollar sign '$'.}
2244 \endsetslot
2245
2246 \setslot{percent}
2247   \comment{The percent sign '%'.}
2248 \endsetslot
2249
2250 \setslot{ampersand}
2251   \comment{The ampersand sign '&'.}
2252 \endsetslot
2253
2254 \setslot{quoteright}
2255   \ligature{LIG}{quoteright}{quotedblright}
2256   \comment{The English closing single quote mark '\textquoteright,'.}
2257 \endsetslot

```

```
2258 \setslot{parenleft}
2259   \comment{The opening parenthesis '(').}
2260 \endsetslot
2261
2262 \setslot{parenright}
2263   \comment{The closing parenthesis ')'.}
2264 \endsetslot
2265
2266 \setslot{asterisk}
2267   \comment{The raised asterisk '*' .}
2268 \endsetslot
2269
2270 \setslot{plus}
2271   \comment{The addition sign '+' .}
2272 \endsetslot
2273
2274 \setslot{comma}
2275   \ligature{LIG}{comma}{quotedblbase}
2276   \comment{The comma ',' .}
2277 \endsetslot
2278
2279 \setslot{hyphen}
2280   \ligature{LIG}{hyphen}{endash}
2281   \ligature{LIG}{hyphenchar}{hyphenchar}
2282   \comment{The hyphen '-' .}
2283 \endsetslot
2284
2285 \setslot{period}
2286   \comment{The period '.' .}
2287 \endsetslot
2288
2289 \setslot{slash}
2290   \comment{The forward oblique '/'.}
2291 \endsetslot
2292
2293 \setslot{\digit{zero}}
2294   \comment{The number '0'. This (and all the other numerals) may be
2295     old style or ranging digits.}
2296 \endsetslot
2297
2298 \setslot{\digit{one}}
2299   \comment{The number '1' .}
2300 \endsetslot
2301
2302 \setslot{\digit{two}}
2303   \comment{The number '2' .}
2304 \endsetslot
2305
2306 \setslot{\digit{three}}
2307   \comment{The number '3' .}
2308 \endsetslot
2309
2310 \setslot{\digit{four}}
```

```
2312     \comment{The number '4'.}
2313     \endsetslot
2314
2315     \setslot{\digit{five}}
2316         \comment{The number '5'.}
2317     \endsetslot
2318
2319     \setslot{\digit{six}}
2320         \comment{The number '6'.}
2321     \endsetslot
2322
2323     \setslot{\digit{seven}}
2324         \comment{The number '7'.}
2325     \endsetslot
2326
2327     \setslot{\digit{eight}}
2328         \comment{The number '8'.}
2329     \endsetslot
2330
2331     \setslot{\digit{nine}}
2332         \comment{The number '9'.}
2333     \endsetslot
2334
2335     \setslot{colon}
2336         \comment{The colon punctuation mark ':' .}
2337     \endsetslot
2338
2339     \setslot{semicolon}
2340         \comment{The semi-colon punctuation mark ';' .}
2341     \endsetslot
2342
2343     \setslot{less}
2344         \ligature[LIG]{less}{guillemotleft}
2345         \comment{The less-than sign '\textless' .}
2346     \endsetslot
2347
2348     \setslot{equal}
2349         \comment{The equals sign '=' .}
2350     \endsetslot
2351
2352     \setslot{greater}
2353         \ligature[LIG]{greater}{guillemotright}
2354         \comment{The greater-than sign '\textgreater' .}
2355     \endsetslot
2356
2357     \setslot{question}
2358         \ligature[LIG]{quotelleft}{questiondown}
2359         \comment{The question mark '?' .}
2360     \endsetslot
2361
2362     \setslot{at}
2363         \comment{The at sign '@' .}
2364     \endsetslot
2365
```

```
2366 \setslot{\uc{A}{a}}
2367   \comment{The letter '{A}'.}
2368 \endsetslot
2369
2370 \setslot{\uc{B}{b}}
2371   \comment{The letter '{B}'.}
2372 \endsetslot
2373
2374 \setslot{\uc{C}{c}}
2375   \comment{The letter '{C}'.}
2376 \endsetslot
2377
2378 \setslot{\uc{D}{d}}
2379   \comment{The letter '{D}'.}
2380 \endsetslot
2381
2382 \setslot{\uc{E}{e}}
2383   \comment{The letter '{E}'.}
2384 \endsetslot
2385
2386 \setslot{\uc{F}{f}}
2387   \comment{The letter '{F}'.}
2388 \endsetslot
2389
2390 \setslot{\uc{G}{g}}
2391   \comment{The letter '{G}'.}
2392 \endsetslot
2393
2394 \setslot{\uc{H}{h}}
2395   \comment{The letter '{H}'.}
2396 \endsetslot
2397
2398 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
2399
2400 \setslot{\uc{I}{i}}
2401   \comment{The letter '{I}'.}
2402 \endsetslot
2403
2404 \Fi
2405
2406 \setslot{\uc{J}{j}}
2407   \comment{The letter '{J}'.}
2408 \endsetslot
2409
2410 \setslot{\uc{K}{k}}
2411   \comment{The letter '{K}'.}
2412 \endsetslot
2413
2414 \setslot{\uc{L}{l}}
2415   \comment{The letter '{L}'.}
2416 \endsetslot
2417
2418 \setslot{\uc{M}{m}}
2419   \comment{The letter '{M}'.}
```

```
2420 \endsetslot
2421
2422 \setslot{\uc{N}{n}}
2423   \comment{The letter '{N}'.}
2424 \endsetslot
2425
2426 \setslot{\uc{O}{o}}
2427   \comment{The letter '{O}'.}
2428 \endsetslot
2429
2430 \setslot{\uc{P}{p}}
2431   \comment{The letter '{P}'.}
2432 \endsetslot
2433
2434 \setslot{\uc{Q}{q}}
2435   \comment{The letter '{Q}'.}
2436 \endsetslot
2437
2438 \setslot{\uc{R}{r}}
2439   \comment{The letter '{R}'.}
2440 \endsetslot
2441
2442 \setslot{\uc{S}{s}}
2443   \comment{The letter '{S}'.}
2444 \endsetslot
2445
2446 \setslot{\uc{T}{t}}
2447   \comment{The letter '{T}'.}
2448 \endsetslot
2449
2450 \setslot{\uc{U}{u}}
2451   \comment{The letter '{U}'.}
2452 \endsetslot
2453
2454 \setslot{\uc{V}{v}}
2455   \comment{The letter '{V}'.}
2456 \endsetslot
2457
2458 \setslot{\uc{W}{w}}
2459   \comment{The letter '{W}'.}
2460 \endsetslot
2461
2462 \setslot{\uc{X}{x}}
2463   \comment{The letter '{X}'.}
2464 \endsetslot
2465
2466 \setslot{\uc{Y}{y}}
2467   \comment{The letter '{Y}'.}
2468 \endsetslot
2469
2470 \setslot{\uc{Z}{z}}
2471   \comment{The letter '{Z}'.}
2472 \endsetslot
2473
```

```
2474 \setslot{bracketleft}
2475   \comment{The opening square bracket '['.}
2476 \endsetslot
2477
2478 \setslot{backslash}
2479   \comment{The backwards oblique '\textbackslash'.}
2480 \endsetslot
2481
2482 \setslot{bracketright}
2483   \comment{The closing square bracket ']'..}
2484 \endsetslot
2485
2486 \setslot{asciicircum}
2487   \comment{The ASCII upward-pointing arrow head '\textasciicircum'.
2488 This is included for compatibility with typewriter fonts used
2489 for computer listings.}
2490 \endsetslot
2491
2492 \setslot{underscore}
2493   \comment{The ASCII underline character '\textunderline', usually
2494 set on the baseline.
2495 This is included for compatibility with typewriter fonts used
2496 for computer listings.}
2497 \endsetslot
2498
2499 \setslot{quotyleft}
2500   \ligature{LIG}{quotyleft}{quotedblleft}
2501   \comment{The English opening single quote mark '\textquotyleft\,'.}
2502 \endsetslot
2503
2504 \setslot{\lc{A}{a}}
2505   \comment{The letter '{a}'.}
2506 \endsetslot
2507
2508 \setslot{\lc{B}{b}}
2509   \comment{The letter '{b}'.}
2510 \endsetslot
2511
2512 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
2513
2514   \setslot{\lc{C}{c}}
2515     \comment{The letter '{c}'.}
2516   \endsetslot
2517
2518 \Fi
2519
2520 \setslot{\lc{D}{d}}
2521   \comment{The letter '{d}'.}
2522 \endsetslot
2523
2524 \setslot{\lc{E}{e}}
2525   \comment{The letter '{e}'.}
2526 \endsetslot
2527
```

```

2528 \ifnumber{\int{ligaturing}}<-1\then \skipslots{1}\Else
2529   \setslot{\lc{F}{f}}
2530     \ifnumber{\int{ligaturing}}>0\then
2531       \ligature{LIG}{\lc{I}{i}}{\lc{lig{FI}}{fi}}
2532       \ligature{LIG}{\lc{F}{f}}{\lc{lig{FF}}{f_f}}
2533       \ligature{LIG}{\lc{L}{l}}{\lc{lig{FL}}{fl}}
2534     \Fi
2535     \comment{The letter '{f}'.}
2536   \endsetslot
2537
2538 \Fi
2539
2540 \setslot{\lc{G}{g}}
2541   \comment{The letter '{g}'.}
2542 \endsetslot
2543
2544 \setslot{\lc{H}{h}}
2545   \comment{The letter '{h}'.}
2546 \endsetslot
2547
2548 \ifnumber{\int{ligaturing}}<-1\then \skipslots{1}\Else
2549   \setslot{\lc{I}{i}}
2550     \comment{The letter '{i}'.}
2551   \endsetslot
2552
2553 \Fi
2554
2555 \setslot{\lc{J}{j}}
2556   \comment{The letter '{j}'.}
2557 \endsetslot
2558
2559 \setslot{\lc{K}{k}}
2560   \comment{The letter '{k}'.}
2561 \endsetslot
2562
2563 \setslot{\lc{L}{l}}
2564   \comment{The letter '{l}'.}
2565 \endsetslot
2566
2567 \setslot{\lc{M}{m}}
2568   \comment{The letter '{m}'.}
2569 \endsetslot
2570
2571 \setslot{\lc{N}{n}}
2572   \comment{The letter '{n}'.}
2573 \endsetslot
2574
2575 \setslot{\lc{O}{o}}
2576   \comment{The letter '{o}'.}
2577 \endsetslot
2578
2579 \setslot{\lc{P}{p}}

```

```

2582     \comment{The letter '{p}'.}
2583     \endsetslot
2584
2585     \setslot{\lc{Q}{q}}
2586         \comment{The letter '{q}'.}
2587     \endsetslot
2588
2589     \setslot{\lc{R}{r}}
2590         \comment{The letter '{r}'.}
2591     \endsetslot
2592
2593 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
2594
2595     \setslot{\lc{S}{s}}
2596         \comment{The letter '{s}'.}
2597     \endsetslot
2598
2599 \Fi
2600
2601 \setslot{\lc{T}{t}}
2602     \comment{The letter '{t}'.}
2603 \endsetslot
2604
2605 \setslot{\lc{U}{u}}
2606     \comment{The letter '{u}'.}
2607 \endsetslot
2608
2609 \setslot{\lc{V}{v}}
2610     \comment{The letter '{v}'.}
2611 \endsetslot
2612
2613 \setslot{\lc{W}{w}}
2614     \comment{The letter '{w}'.}
2615 \endsetslot
2616
2617 \setslot{\lc{X}{x}}
2618     \comment{The letter '{x}'.}
2619 \endsetslot
2620
2621 \setslot{\lc{Y}{y}}
2622     \comment{The letter '{y}'.}
2623 \endsetslot
2624
2625 \setslot{\lc{Z}{z}}
2626     \comment{The letter '{z}'.}
2627 \endsetslot
2628
2629 \setslot{braceleft}
2630     \comment{The opening curly brace '\textbraceleft'.}
2631 \endsetslot
2632
2633 \setslot{bar}
2634     \comment{The ASCII vertical bar '\textbar'.
2635             This is included for compatibility with typewriter fonts used

```

```
2636     for computer listings.}
2637 \endsetslot
2638
2639 \setslot{braceright}
2640     \comment{The closing curly brace '\textbraceright'.}
2641 \endsetslot
2642
2643 \setslot{asciitilde}
2644     \comment{The ASCII tilde '\textasciitilde'.
2645         This is included for compatibility with typewriter fonts used
2646         for computer listings.}
2647 \endsetslot
2648
2649 \setslot{hyphenchar}
2650     \comment{The glyph used for hyphenation in this font, which will
2651         almost always be the same as 'hyphen'.}
2652 \endsetslot
2653
2654 \setslot{\uctop{Abreve}{abreve}}
2655     \comment{The letter '\u A'.}
2656 \endsetslot
2657
2658 \setslot{\uc{Aogonek}{aogonek}}
2659     \comment{The letter '\k A'.}
2660 \endsetslot
2661
2662 \setslot{\uctop{Cacute}{cacute}}
2663     \comment{The letter '\ C'.}
2664 \endsetslot
2665
2666 \setslot{\uctop{Ccaron}{ccaron}}
2667     \comment{The letter '\v C'.}
2668 \endsetslot
2669
2670 \setslot{\uctop{Dcaron}{dcaron}}
2671     \comment{The letter '\v D'.}
2672 \endsetslot
2673
2674 \setslot{\uctop{Ecaron}{ecaron}}
2675     \comment{The letter '\v E'.}
2676 \endsetslot
2677
2678 \setslot{\uc{Eogonek}{eogonek}}
2679     \comment{The letter '\k E'.}
2680 \endsetslot
2681
2682 \setslot{\uctop{Gbreve}{gbreve}}
2683     \comment{The letter '\u G'.}
2684 \endsetslot
2685
2686 \setslot{\uctop{Lacute}{lacute}}
2687     \comment{The letter '\ L'.}
2688 \endsetslot
2689
```

```

2690 \setslot{\uc{Lcaron}{lcaron}}
2691   \comment{The letter '\v L'.}
2692 \endsetslot
2693
2694 \setslot{\uc{Lslash}{lslash}}
2695   \comment{The letter '\L'.}
2696 \endsetslot
2697
2698 \setslot{\uctop{Nacute}{nacute}}
2699   \comment{The letter '\ N'.}
2700 \endsetslot
2701
2702 \setslot{\uctop{Ncaron}{ncaron}}
2703   \comment{The letter '\v N'.}
2704 \endsetslot
2705
2706 \setslot{\uc{Eng}{eng}}
2707   \comment{The Sami letter '\NG'. It is unavailable in \plain\ TeX. This needs
to be called 'Eng'/'eng' rather than 'Ng'/'ng' as in t1.etx in most cases, it
seems.}
2708 \endsetslot
2709
2710 \setslot{\uctop{Ohungarumlaut}{ohungarumlaut}}
2711   \comment{The letter '\H O'.}
2712 \endsetslot
2713
2714 \setslot{\uctop{Racute}{racute}}
2715   \comment{The letter '\ R'.}
2716 \endsetslot
2717
2718 \setslot{\uctop{Rcaron}{rcaron}}
2719   \comment{The letter '\v R'.}
2720 \endsetslot
2721
2722 \setslot{\uctop{Sacute}{sacute}}
2723   \comment{The letter '\ S'.}
2724 \endsetslot
2725
2726 \setslot{\uctop{Scaron}{scaron}}
2727   \comment{The letter '\v S'.}
2728 \endsetslot
2729
2730 \setslot{\uc{Scedilla}{scedilla}}
2731   \comment{The letter '\c S'.}
2732 \endsetslot
2733
2734 \setslot{\uctop{Tcaron}{tcaron}}
2735   \comment{The letter '\v T'.}
2736 \endsetslot
2737
2738 \setslot{\uc{Tcedilla}{tcedilla}}
2739   \comment{The letter '\c T'.}
2740 \endsetslot
2741

```

```

2742 \setslot{\uctop{Uhungarumlaut}{uhungarumlaut}}
2743   \comment{The letter '\H U'.}
2744 \endsetslot
2745
2746 \setslot{\uctop{Uring}{uring}}
2747   \comment{The letter '\r U'.}
2748 \endsetslot
2749
2750 \setslot{\uctop{Ydieresis}{ydieresis}}
2751   \comment{The letter '\Y'.}
2752 \endsetslot
2753
2754 \setslot{\uctop{Zacute}{zacute}}
2755   \comment{The letter '\Z'.}
2756 \endsetslot
2757
2758 \setslot{\uctop{Zcaron}{zcaron}}
2759   \comment{The letter '\v Z'.}
2760 \endsetslot
2761
2762 \setslot{\uctop{Zdotaccent}{zdotaccent}}
2763   \comment{The letter '\. Z'.}
2764 \endsetslot
2765
2766 \ifnumber{\int{ligaturing}}<0\then \skipslots{1}\Else
2767
2768   \setslot{\uclig{IJ}{ij}}
2769     \comment{The letter 'IJ'. This is a single letter, and in a
2770       monowidth font should ideally be one letter wide.}
2771 \endsetslot
2772
2773 \Fi
2774
2775 \setslot{\uctop{Idotaccent}{idotaccent}}
2776   \comment{The letter '\. I'.}
2777 \endsetslot
2778
2779 \setslot{\lc{Dbar}{dbar}}
2780   \comment{The letter '\dj'.}
2781 \endsetslot
2782
2783 \setslot{section}
2784   \comment{The section mark '\textsection'.}
2785 \endsetslot
2786
2787 \setslot{\lctop{Abreve}{abreve}}
2788   \comment{The letter '\u a'.}
2789 \endsetslot
2790
2791 \setslot{\lc{Aogonek}{aogonek}}
2792   \comment{The letter '\k a'.}
2793 \endsetslot
2794
2795 \setslot{\lctop{Cacute}{cacute}}

```

```

2796     \comment{The letter '\c'.}
2797     \endsetslot
2798
2799 \setslot{\lctop{Ccaron}{ccaron}}
2800     \comment{The letter '\v c'.}
2801 \endsetslot
2802
2803 \setslot{\lctop{Dcaron}{dcaron}}
2804     \comment{The letter '\v d'.}
2805 \endsetslot
2806
2807 \setslot{\lctop{Ecaron}{ecaron}}
2808     \comment{The letter '\v e'.}
2809 \endsetslot
2810
2811 \setslot{\lc{Eogonek}{eogonek}}
2812     \comment{The letter '\k e'.}
2813 \endsetslot
2814
2815 \setslot{\lctop{Gbreve}{gbreve}}
2816     \comment{The letter '\u g'.}
2817 \endsetslot
2818
2819 \setslot{\lctop{Lacute}{lacute}}
2820     \comment{The letter '\l'.}
2821 \endsetslot
2822
2823 \setslot{\lc{Lcaron}{lcaron}}
2824     \comment{The letter '\v l'.}
2825 \endsetslot
2826
2827 \setslot{\lc{Lslash}{lslash}}
2828     \comment{The letter '\l'.}
2829 \endsetslot
2830
2831 \setslot{\lctop{Nacute}{nacute}}
2832     \comment{The letter '\n'.}
2833 \endsetslot
2834
2835 \setslot{\lctop{Ncaron}{ncaron}}
2836     \comment{The letter '\v n'.}
2837 \endsetslot
2838
2839 \setslot{\lc{Eng}{eng}}
2840     \comment{The Sami letter '\ng'. It is unavailable in \plain\ \TeX. This needs
2841       to be called 'Eng'/'eng' rather than 'Ng'/'ng' as it is in t1.tex in most cases,
2842       it seems.}
2843 \endsetslot
2844
2845 \setslot{\lctop{Ohungarumlaut}{ohungarumlaut}}
2846     \comment{The letter '\H o'.}
2847 \endsetslot
2848
2849 \setslot{\lctop{Racute}{racute}}

```

```
2848     \comment{The letter '\ r'.}
2849     \endsetslot
2850
2851 \setslot{\lctop{Rcaron}{rcaron}}
2852     \comment{The letter '\ v r'.}
2853 \endsetslot
2854
2855 \setslot{\lctop{Sacute}{sacute}}
2856     \comment{The letter '\ s'.}
2857 \endsetslot
2858
2859 \setslot{\lctop{Scaron}{scaron}}
2860     \comment{The letter '\ v s'.}
2861 \endsetslot
2862
2863 \setslot{\lc{Scedilla}{scedilla}}
2864     \comment{The letter '\c s'.}
2865 \endsetslot
2866
2867 \setslot{\lctop{Tcaron}{tcaron}}
2868     \comment{The letter '\v t'.}
2869 \endsetslot
2870
2871 \setslot{\lc{Tcedilla}{tcedilla}}
2872     \comment{The letter '\c t'.}
2873 \endsetslot
2874
2875 \setslot{\lctop{Uhungarumlaut}{uhungarumlaut}}
2876     \comment{The letter '\H u'.}
2877 \endsetslot
2878
2879 \setslot{\lctop{Uring}{uring}}
2880     \comment{The letter '\r u'.}
2881 \endsetslot
2882
2883 \setslot{\lctop{Ydieresis}{ydieresis}}
2884     \comment{The letter '\y y'.}
2885 \endsetslot
2886
2887 \setslot{\lctop{Zacute}{zacute}}
2888     \comment{The letter '\ z'.}
2889 \endsetslot
2890
2891 \setslot{\lctop{Zcaron}{zcaron}}
2892     \comment{The letter '\v z'.}
2893 \endsetslot
2894
2895 \setslot{\lctop{Zdotaccent}{zdotaccent}}
2896     \comment{The letter '\. z'.}
2897 \endsetslot
2898
2899 \ifnumber{\int{ligaturing}}<0\then \skipslots{1}\Else
2900     \setslot{\lclig{IJ}{ij}}
```

```
2902     \comment{The letter ‘ij’. This is a single letter, and in a
2903         monowidth font should ideally be one letter wide.}
2904     \endsetslot
2905
2906     \Fi
2907
2908     \setslot{exclamdown}
2909         \comment{The Spanish punctuation mark ‘!‘.}
2910     \endsetslot
2911
2912     \setslot{questiondown}
2913         \comment{The Spanish punctuation mark ‘?‘.}
2914     \endsetslot
2915
2916     \setslot{sterling}
2917         \comment{The British currency mark ‘\textsterling’.}
2918     \endsetslot
2919
2920     \setslot{\uctop{Agrave}{agrave}}
2921         \comment{The letter ‘‘ A’.}
2922     \endsetslot
2923
2924     \setslot{\uctop{Aacute}{aacute}}
2925         \comment{The letter ‘\` A’.}
2926     \endsetslot
2927
2928     \setslot{\uctop{Acircumflex}{acircumflex}}
2929         \comment{The letter ‘\^ A’.}
2930     \endsetslot
2931
2932     \setslot{\uctop{Atilde}{atilde}}
2933         \comment{The letter ‘\~ A’.}
2934     \endsetslot
2935
2936     \setslot{\uctop{Adieresis}{adieresis}}
2937         \comment{The letter ‘\" A’.}
2938     \endsetslot
2939
2940     \setslot{\uctop{Aring}{aring}}
2941         \comment{The letter ‘\r A’.}
2942     \endsetslot
2943
2944     \setslot{\uc{AE}{ae}}
2945         \comment{The letter ‘\AE’. This is a single letter, and should not be
2946             faked with ‘AE’.}
2947     \endsetslot
2948
2949     \setslot{\uc{Ccedilla}{ccedilla}}
2950         \comment{The letter ‘\c C’.}
2951     \endsetslot
2952
2953     \setslot{\uctop{Egrave}{egrave}}
2954         \comment{The letter ‘‘ E’.}
2955     \endsetslot
```

```
2956 \setslot{\uctop{Eacute}{eacute}}
2957   \comment{The letter '\` E'.}
2958 \endsetslot
2959
2960 \setslot{\uctop{Ecircumflex}{ecircumflex}}
2961   \comment{The letter '\^ E'.}
2962 \endsetslot
2963
2964 \setslot{\uctop{Edieresis}{edieresis}}
2965   \comment{The letter '\" E'.}
2966 \endsetslot
2967
2968 \setslot{\uctop{Igrave}{igrave}}
2969   \comment{The letter '\` I'.}
2970 \endsetslot
2971
2972 \setslot{\uctop{Iacute}{iacute}}
2973   \comment{The letter '\` I'.}
2974 \endsetslot
2975
2976 \setslot{\uctop{Icircumflex}{icircumflex}}
2977   \comment{The letter '\^ I'.}
2978 \endsetslot
2979
2980 \setslot{\uctop{Idieresis}{idieresis}}
2981   \comment{The letter '\" I'.}
2982 \endsetslot
2983
2984 \setslot{\uc{Eth}{eth}}
2985   \comment{The uppercase Icelandic letter 'Eth' similar to a 'D'
2986       with a horizontal bar through the stem. It is unavailable
2987       in \plain\ \TeX.}
2988 \endsetslot
2989
2990 \setslot{\uctop{Ntilde}{ntilde}}
2991   \comment{The letter '\~ N'.}
2992 \endsetslot
2993
2994 \setslot{\uctop{Ograve}{ograve}}
2995   \comment{The letter '\` O'.}
2996 \endsetslot
2997
2998 \setslot{\uctop{Oacute}{oacute}}
2999   \comment{The letter '\` O'.}
3000 \endsetslot
3001
3002 \setslot{\uctop{Ocircumflex}{ocircumflex}}
3003   \comment{The letter '\^ O'.}
3004 \endsetslot
3005
3006 \setslot{\uctop{Otilde}{otilde}}
3007   \comment{The letter '\~ O'.}
3008 \endsetslot
3009
```

```
3010
3011 \setslot{\uctop{Odieresis}{odieresis}}
3012   \comment{The letter '\u00f8'.}
3013 \endsetslot
3014
3015 \setslot{\uc{OE}{oe}}
3016   \comment{The letter '\u00d8'. This is a single letter, and should not be
3017     faked with 'OE'.}
3018 \endsetslot
3019
3020 \setslot{\uc{0slash}{oslash}}
3021   \comment{The letter '\u00f8'.}
3022 \endsetslot
3023
3024 \setslot{\uctop{Ugrave}{ugrave}}
3025   \comment{The letter '\u00c9'.}
3026 \endsetslot
3027
3028 \setslot{\uctop{Uacute}{uacute}}
3029   \comment{The letter '\u00c9'.}
3030 \endsetslot
3031
3032 \setslot{\uctop{Ucircumflex}{ucircumflex}}
3033   \comment{The letter '\u00c9'.}
3034 \endsetslot
3035
3036 \setslot{\uctop{Udieresis}{udieresis}}
3037   \comment{The letter '\u00c9'.}
3038 \endsetslot
3039
3040 \setslot{\uctop{Yacute}{yacute}}
3041   \comment{The letter '\u00c9'.}
3042 \endsetslot
3043
3044 \setslot{\uc{Thorn}{thorn}}
3045   \comment{The Icelandic capital letter Thorn, similar to a 'P'
3046     with the bowl moved down. It is unavailable in \plain\ \TeX.}
3047 \endsetslot
3048
3049 \setslot{\uclig{SS}{germandbls}}
3050   \comment{The ligature 'SS', used to give an upper case '\ss'.
3051     In a monowidth font it should be two letters wide.}
3052 \endsetslot
3053
3054 \setslot{\lctop{Agrave}{agrave}}
3055   \comment{The letter '\u00e5'.}
3056 \endsetslot
3057
3058 \setslot{\lctop{Aacute}{aacute}}
3059   \comment{The letter '\u00e5'.}
3060 \endsetslot
3061
3062 \setslot{\lctop{Acircumflex}{acircumflex}}
3063   \comment{The letter '\u00e5'.
```

```
3064 \endsetslot
3065
3066 \setslot{\lctop{Atilde}{atilde}}
3067     \comment{The letter '\~ a'.}
3068 \endsetslot
3069
3070 \setslot{\lctop{Adieresis}{adieresis}}
3071     \comment{The letter '\" a'.}
3072 \endsetslot
3073
3074 \setslot{\lctop{Aring}{aring}}
3075     \comment{The letter '\r a'.}
3076 \endsetslot
3077
3078 \setslot{\lc{AE}{ae}}
3079     \comment{The letter '\ae'. This is a single letter, and should not be
3080         faked with 'ae'.}
3081 \endsetslot
3082
3083 \setslot{\lc{Ccedilla}{ccedilla}}
3084     \comment{The letter '\c c'.}
3085 \endsetslot
3086
3087 \setslot{\lctop{Egrave}{egrave}}
3088     \comment{The letter '\` e'.}
3089 \endsetslot
3090
3091 \setslot{\lctop{Eacute}{eacute}}
3092     \comment{The letter '\^ e'.}
3093 \endsetslot
3094
3095 \setslot{\lctop{Ecircumflex}{ecircumflex}}
3096     \comment{The letter '\~ e'.}
3097 \endsetslot
3098
3099 \setslot{\lctop{Edieresis}{edieresis}}
3100     \comment{The letter '\" e'.}
3101 \endsetslot
3102
3103 \setslot{\lctop{Igrave}{igrave}}
3104     \comment{The letter '\` i'.}
3105 \endsetslot
3106
3107 \setslot{\lctop{Iacute}{iacute}}
3108     \comment{The letter '\^ i'.}
3109 \endsetslot
3110
3111 \setslot{\lctop{Icircumflex}{icircumflex}}
3112     \comment{The letter '\~\i'.}
3113 \endsetslot
3114
3115 \setslot{\lctop{Idieresis}{idieresis}}
3116     \comment{The letter '\" \i'.}
3117 \endsetslot
```

```
3118 \setslot{\lc{Eth}{eth}}
3119   \comment{The Icelandic lowercase letter ‘eth’ similar to
3120     a ‘$\partial$’ with an oblique bar through the stem.
3121     It is unavailable in \plain\ TeX.}
3122 \endsetslot
3123
3124 \setslot{\lctop{Ntilde}{ntilde}}
3125   \comment{The letter ‘‘n’.}
3126 \endsetslot
3127
3128 \setslot{\lctop{Ograve}{ograve}}
3129   \comment{The letter ‘‘o’.}
3130 \endsetslot
3131
3132 \setslot{\lctop{Oacute}{oacute}}
3133   \comment{The letter ‘‘o’.}
3134 \endsetslot
3135
3136 \setslot{\lctop{Ocircumflex}{ocircumflex}}
3137   \comment{The letter ‘‘o’.}
3138 \endsetslot
3139
3140 \setslot{\lctop{Otilde}{otilde}}
3141   \comment{The letter ‘‘o’.}
3142 \endsetslot
3143
3144 \setslot{\lctop{Odieresis}{odieresis}}
3145   \comment{The letter ‘‘o’.}
3146 \endsetslot
3147
3148 \setslot{\lc{OE}{oe}}
3149   \comment{The letter ‘oe’. This is a single letter, and should not be
3150     faked with ‘oe’.}
3151 \endsetslot
3152
3153 \setslot{\lc{Oslash}{oslash}}
3154   \comment{The letter ‘o’.}
3155 \endsetslot
3156
3157 \setslot{\lctop{Ugrave}{ugrave}}
3158   \comment{The letter ‘‘u’.}
3159 \endsetslot
3160
3161 \setslot{\lctop{Uacute}{uacute}}
3162   \comment{The letter ‘‘u’.}
3163 \endsetslot
3164
3165 \setslot{\lctop{Ucircumflex}{ucircumflex}}
3166   \comment{The letter ‘‘u’.}
3167 \endsetslot
3168
3169 \setslot{\lctop{Udieresis}{udieresis}}
3170   \comment{The letter ‘‘u’.}
3171
```

```

3172 \endsetslot
3173
3174 \setslot{\lctop{Yacute}{yacute}}
3175   \comment{The letter '\`y'.}
3176 \endsetslot
3177
3178 \setslot{\lc{Thorn}{thorn}}
3179   \comment{The Icelandic lowercase letter 'thorn', similar to a 'p'
3180     with an ascender rising from the stem. It is unavailable
3181     in \plain\ \TeX.}
3182 \endsetslot
3183
3184 \setslot{\lc{SS}{germandbls}}
3185   \comment{The letter '\ss'.}
3186 \endsetslot
3187
3188 \endencoding

```

6.3.8 t1-dotinf.etx

t1-dotinf.etx (*etx*)

```

3189 %%
3190 %% - The original notices at the top of that file concerning authors,
3191 %% maintenance etc. are replaced by this notice.
3192 %% - The file is renamed.
3193 %% - The encoding name is modified.
3194 %% - The file is modified to accommodate differences in glyph names.
3195 %% - The file is modified for use in encoding inferiors.
3196 %%
3197 %%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%/%
3198 \relax
3199 \encoding
3200
3201 \needsfontinstversion{1.910}
3202
3203 \setcommand\lc#1#2{\#2.inferior}
3204 \setcommand\uc#1#2{\#1.inferior}
3205 \setcommand\lctop#1#2{\#2.inferior}
3206 \setcommand\uctop#1#2{\#1.inferior}
3207 \setcommand\lclig#1#2{\#2.inferior}
3208 \ifisint{letterspacing}\then
3209   \ifnumber{\int{letterspacing}}={0}\then \Else
3210     \setcommand\uclig#1#2{\#1spaced}
3211     \comment{Here we set \verb|\uclig#1#2| to \verb|\verb|\#1spaced|, but
3212       you can't see it as \verb|\verb|\setcommand| commands are invisible in
3213       the typeset output.}
3214   \Fi
3215 \Fi
3216 \setcommand\uclig#1#2{\#1.inferior}
3217 \setcommand\digit#1{\#1.inferior}
3218
3219 \ifisint{monowidth}\then

```

```
3220     \setint{ligaturing}{0}
3221     \Else
3222         % The following empty line is *important* to get the formatting
3223         % right here (sigh)! (Remember that it is a \par token.)
3224
3225     \ifisint{letterspacing}\then
3226         \ifnumber{\int{letterspacing}}={0}\then \Else
3227             \setint{ligaturing}{0}
3228         \Fi
3229     \Fi
3230     \setint{ligaturing}{1}
3231     \Fi
3232
3233 \setint{italicslant}{0}
3234 \setint{quad}{1000}
3235 \setint{baselineskip}{1200}
3236
3237 \ifisglyph{x}\then
3238     \setint{xheight}{\height{x}}
3239 \Else
3240     \setint{xheight}{500}
3241 \Fi
3242
3243 \ifisglyph{space}\then
3244     \setint{interword}{\width{space}}
3245 \Else\ifisglyph{i}\then
3246     \setint{interword}{\width{i}}
3247 \Else
3248     \setint{interword}{333}
3249 \Fi\Fi
3250
3251 \ifisint{monowidth}\then
3252     \setint{stretchword}{0}
3253     \setint{shrinkword}{0}
3254     \setint{extraspace}{\int{interword}}
3255 \Else
3256     \setint{stretchword}{\scale{\int{interword}}{600}}
3257     \setint{shrinkword}{\scale{\int{interword}}{240}}
3258     \setint{extraspace}{\scale{\int{interword}}{240}}
3259 \Fi
3260
3261 \ifisglyph{X}\then
3262     \setint{capheight}{\height{X}}
3263 \Else
3264     \setint{capheight}{750}
3265 \Fi
3266
3267 \ifisglyph{d}\then
3268     \setint{ascender}{\height{d}}
3269 \Else\ifisint{capheight}\then
3270     \setint{ascender}{\int{capheight}}
3271 \Else
3272     \setint{ascender}{750}
3273 \Fi\Fi
```

```

3274 \ifisglyph{Aring}\then
3275   \setint{acccapheight}{\height{Aring}}
3276 \Else
3277   \setint{acccapheight}{999}
3278 \Fi
3280
3281 \ifisint{descender_neg}\then
3282   \setint{descender}{\neg{\int{descender_neg}}}
3283 \Else\ifisglyph{p}\then
3284   \setint{descender}{\depth{p}}
3285 \Else
3286   \setint{descender}{250}
3287 \Fi\Fi
3288
3289 \ifisglyph{Aring}\then
3290   \setint{maxheight}{\height{Aring}}
3291 \Else
3292   \setint{maxheight}{1000}
3293 \Fi
3294
3295 \ifisint{maxdepth_neg}\then
3296   \setint{maxdepth}{\neg{\int{maxdepth_neg}}}
3297 \Else\ifisglyph{j}\then
3298   \setint{maxdepth}{\depth{j}}
3299 \Else
3300   \setint{maxdepth}{250}
3301 \Fi\Fi
3302
3303 \ifisglyph{six}\then
3304   \setint{digitwidth}{\width{six}}
3305 \Else
3306   \setint{digitwidth}{500}
3307 \Fi
3308
3309 \setint{capstem}{0} % not in AFM files
3310
3311 \setfontdimen{1}{italicslant}      % italic slant
3312 \setfontdimen{2}{interword}        % interword space
3313 \setfontdimen{3}{stretchword}      % interword stretch
3314 \setfontdimen{4}{shrinkword}       % interword shrink
3315 \setfontdimen{5}{xheight}         % x-height
3316 \setfontdimen{6}{quad}            % quad
3317 \setfontdimen{7}{extraspace}       % extra space after .
3318 \setfontdimen{8}{capheight}        % cap height
3319 \setfontdimen{9}{ascender}         % ascender
3320 \setfontdimen{10}{acccapheight}     % accented cap height
3321 \setfontdimen{11}{descender}        % descender's depth
3322 \setfontdimen{12}{maxheight}        % max height
3323 \setfontdimen{13}{maxdepth}         % max depth
3324 \setfontdimen{14}{digitwidth}        % digit width
3325 \setfontdimen{15}{verticalstem}      % dominant width of vertical stems
3326 \setfontdimen{16}{baselineskip}       % baselineskip
3327

```

```

3328 \ifnumber{\int{ligaturing}}<{0}\then
3329   \comment{In this case, the codingscheme can be different from the
3330   default, and therefore we refrain from setting it.}
3331 \Else
3332   \setstr{codingscheme}{EXTENDED TEX FONT ENCODING - DOTINF}
3333 \Fi
3334
3335 \setslot{\lc{Grave}{grave}}
3336   \comment{The grave accent '\{}.'}
3337 \endsetslot
3338
3339 \setslot{\lc{Acute}{acute}}
3340   \comment{The acute accent '\{}.'}
3341 \endsetslot
3342
3343 \setslot{\lc{Circumflex}{circumflex}}
3344   \comment{The circumflex accent '\^{}}.'}
3345 \endsetslot
3346
3347 \setslot{\lc{Tilde}{tilde}}
3348   \comment{The tilde accent '\~{}.'}
3349 \endsetslot
3350
3351 \setslot{\lc{Dieresis}{dieresis}}
3352   \comment{The umlaut or dieresis accent '\\"{}.'}
3353 \endsetslot
3354
3355 \setslot{\lc{Hungarumlaut}{hungarumlaut}}
3356   \comment{The long Hungarian umlaut '\H{}.'}
3357 \endsetslot
3358
3359 \setslot{\lc{Ring}{ring}}
3360   \comment{The ring accent '\r{}.'}
3361 \endsetslot
3362
3363 \setslot{\lc{Caron}{caron}}
3364   \comment{The caron or h'á\v cek accent '\v{}.'}
3365 \endsetslot
3366
3367 \setslot{\lc{Breve}{breve}}
3368   \comment{The breve accent '\u{}.'}
3369 \endsetslot
3370
3371 \setslot{\lc{Macron}{macron}}
3372   \comment{The macron accent '\={}}.'}
3373 \endsetslot
3374
3375 \setslot{\lc{Dotaccent}{dotaccent}}
3376   \comment{The dot accent '\.{}}.'}
3377 \endsetslot
3378
3379 \setslot{\lc{Cedilla}{cedilla}}
3380   \comment{The cedilla accent '\c {}.'}
3381 \endsetslot

```

```

3382 \setslot{\lc{ogonek}{ogonek}}
3383   \comment{The ogonek accent ‘\k {}’.}
3384 \endsetslot
3385
3386 \setslot{quotesinglbase.inferior}
3387   \comment{A German single quote mark ‘\quotesinglbase’ similar to a comma,
3388           but with different sidebearings.}
3389 \endsetslot
3390
3391 \setslot{guilsinglleft.inferior}
3392   \comment{A French single opening quote mark ‘\guilsinglleft’,
3393           unavailable in \plain\ \TeX.}
3394 \endsetslot
3395
3396 \setslot{guilsinglright.inferior}
3397   \comment{A French single closing quote mark ‘\guilsinglright’,
3398           unavailable in \plain\ \TeX.}
3399 \endsetslot
3400
3401 \setslot{quotedblleft.inferior}
3402   \comment{The English opening quote mark ‘\,\textquotedblleft\,.}
3403 \endsetslot
3404
3405 \setslot{quotedblright.inferior}
3406   \comment{The English closing quote mark ‘\,\textquotedblright\,.}
3407 \endsetslot
3408
3409 \setslot{quotedblbase.inferior}
3410   \comment{A German double quote mark ‘\quotedblbase’ similar to two commas,
3411           but with tighter letterspacing and different sidebearings.}
3412 \endsetslot
3413
3414 \setslot{guillemotleft.inferior}
3415   \comment{A French double opening quote mark ‘\guillemotleft’,
3416           unavailable in \plain\ \TeX.}
3417 \endsetslot
3418
3419 \setslot{guillemotright.inferior}
3420   \comment{A French closing opening quote mark ‘\guillemotright’,
3421           unavailable in \plain\ \TeX.}
3422 \endsetslot
3423
3424 \setslot{endash.inferior}
3425   \ligature{LIG}{hyphen.inferior}{emdash.inferior}
3426   \comment{The number range dash ‘1--9’.
3427           This is called ‘rangedash’ by fontinst’s t1.etx, but it needs to be
3428           called ‘endash’ to work right.
3429           The ‘\textendash’.
3430           In a monowidth font, this might be set as ‘\texttt{1{-}9}’.}
3431 \endsetslot
3432
3433 \setslot{emdash.inferior}
3434   \comment{The punctuation dash ‘Oh---boy.’}
3435

```

```

3436     This is calle ‘punctdash’ by fontinst’s t1.etx, but needs to be
3437     called ‘emdash’ to work right.
3438     The ‘\textemdash’.
3439     In a monowidth font, this might be set as ‘\texttt{Oh{-}{-}boy.}’
3440 \endsetslot
3441
3442 \setslot{compwordmark.inferior}
3443   \comment{An invisible glyph, with zero width and depth, but the
3444     height of lowercase letters without ascenders.
3445     It is used to stop ligaturing in words like ‘shelf{}ful’.}
3446 \endsetslot
3447
3448 \setslot{perthousandzero.inferior}
3449   \comment{A glyph which is placed after ‘\%’ to produce a
3450     ‘per-thousand’, or twice to produce ‘per-ten-thousand’.
3451     Your guess is as good as mine as to what this glyph should look
3452     like in a monowidth font.}
3453 \endsetslot
3454
3455 \setslot{\lc{dotlessI}{dotlessi}}
3456   \comment{A dotless i ‘\i’, used to produce accented letters such as
3457     ‘\=\i’.}
3458 \endsetslot
3459
3460 \setslot{\lc{dotlessJ}{dotlessj}}
3461   \comment{A dotless j ‘\j’, used to produce accented letters such as
3462     ‘\=\j’. Most non-\TeX\ fonts do not have this glyph.}
3463 \endsetslot
3464
3465 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{5}\Else
3466
3467 \setslot{\lclig{FF}{ff}}
3468   \ifnumber{\int{ligaturing}}>{0}\then
3469     \ligature{LIG}{\lc{I}{i}}{\lclig{FFI}{ffi}}
3470     \ligature{LIG}{\lc{L}{l}}{\lclig{FFL}{ffl}}
3471     \Fi
3472     \comment{The ‘ff’ ligature. It should be two characters wide in a
3473       monowidth font.}
3474 \endsetslot
3475
3476 \setslot{\lclig{FI}{fi}}
3477   \comment{The ‘fi’ ligature. It should be two characters wide in a
3478       monowidth font.}
3479 \endsetslot
3480
3481 \setslot{\lclig{FL}{fl}}
3482   \comment{The ‘fl’ ligature. It should be two characters wide in a
3483       monowidth font.}
3484 \endsetslot
3485
3486 \setslot{\lclig{FFI}{ffi}}
3487   \comment{The ‘ffi’ ligature. It should be three characters wide in a
3488       monowidth font.}
3489 \endsetslot

```

```
3490 \setslot{\lclig{FFL}{ffl}}
3491   \comment{The 'ffl' ligature. It should be three characters wide in a
3492     monowidth font.}
3493 \endsetslot
3495
3496 \Fi
3497
3498 \setslot{visiblespace.inferior}
3499   \comment{A visible space glyph '\textvisiblespace'.}
3500 \endsetslot
3501
3502 \setslot{exclam.inferior}
3503   \ligature{LIG}{quotyleft.inferior}{exclamdown.inferior}
3504   \comment{The exclamation mark '!'.}
3505 \endsetslot
3506
3507 \setslot{quotedbl.inferior}
3508   \comment{The 'neutral' double quotation mark '\textquotedbl',,
3509     included for use in monowidth fonts, or for setting computer
3510     programs. Note that the inclusion of this glyph in this slot
3511     means that \TeX documents which used '{\tt\char"} as an
3512     input character will no longer work.}
3513 \endsetslot
3514
3515 \setslot{numbersign.inferior}
3516   \comment{The hash sign '#'.}
3517 \endsetslot
3518
3519 \setslot{dollar.inferior}
3520   \comment{The dollar sign '$'.}
3521 \endsetslot
3522
3523 \setslot{percent.inferior}
3524   \comment{The percent sign '%'.}
3525 \endsetslot
3526
3527 \setslot{ampersand.inferior}
3528   \comment{The ampersand sign '&'.}
3529 \endsetslot
3530
3531 \setslot{quoteright.inferior}
3532   \ligature{LIG}{quoteright.inferior}{quotedblright.inferior}
3533   \comment{The English closing single quote mark '\textquoteright,'.}
3534 \endsetslot
3535
3536 \setslot{parenleft.inferior}
3537   \comment{The opening parenthesis '('.}
3538 \endsetslot
3539
3540 \setslot{parenright.inferior}
3541   \comment{The closing parenthesis ')'.}
3542 \endsetslot
3543
```

```
3544 \setslot{asterisk.inferior}
3545   \comment{The raised asterisk '*' .}
3546 \endsetslot
3547
3548 \setslot{plus.inferior}
3549   \comment{The addition sign '+' .}
3550 \endsetslot
3551
3552 \setslot{comma.inferior}
3553   \ligature{LIG}{comma.inferior}{quotedblbase.inferior}
3554   \comment{The comma ',' .}
3555 \endsetslot
3556
3557 \setslot{hyphen.inferior}
3558   \ligature{LIG}{hyphen.inferior}{endash.inferior}
3559   \ligature{LIG}{hyphenchar.inferior}{hyphenchar.inferior}
3560   \comment{The hyphen '-' .}
3561 \endsetslot
3562
3563 \setslot{period.inferior}
3564   \comment{The period '.' .}
3565 \endsetslot
3566
3567 \setslot{slash.inferior}
3568   \comment{The forward oblique '/' .}
3569 \endsetslot
3570
3571 \setslot{\digit{zero}}
3572   \comment{The number '0'. This (and all the other numerals) may be
3573       old style or ranging digits.}
3574 \endsetslot
3575
3576 \setslot{\digit{one}}
3577   \comment{The number '1' .}
3578 \endsetslot
3579
3580 \setslot{\digit{two}}
3581   \comment{The number '2' .}
3582 \endsetslot
3583
3584 \setslot{\digit{three}}
3585   \comment{The number '3' .}
3586 \endsetslot
3587
3588 \setslot{\digit{four}}
3589   \comment{The number '4' .}
3590 \endsetslot
3591
3592 \setslot{\digit{five}}
3593   \comment{The number '5' .}
3594 \endsetslot
3595
3596 \setslot{\digit{six}}
3597   \comment{The number '6' .}
```

```
3598 \endsetslot
3599
3600 \setslot{\digit{seven}}
3601   \comment{The number '7'.}
3602 \endsetslot
3603
3604 \setslot{\digit{eight}}
3605   \comment{The number '8'.}
3606 \endsetslot
3607
3608 \setslot{\digit{nine}}
3609   \comment{The number '9'.}
3610 \endsetslot
3611
3612 \setslot{colon.inferior}
3613   \comment{The colon punctuation mark ':' .}
3614 \endsetslot
3615
3616 \setslot{semicolon.inferior}
3617   \comment{The semi-colon punctuation mark ';' .}
3618 \endsetslot
3619
3620 \setslot{less.inferior}
3621   \ligature{LIG}{less.inferior}{guillemotleft.inferior}
3622   \comment{The less-than sign '\textless' .}
3623 \endsetslot
3624
3625 \setslot{equal.inferior}
3626   \comment{The equals sign '=' .}
3627 \endsetslot
3628
3629 \setslot{greater.inferior}
3630   \ligature{LIG}{greater.inferior}{guillemotright.inferior}
3631   \comment{The greater-than sign '\textgreater' .}
3632 \endsetslot
3633
3634 \setslot{question.inferior}
3635   \ligature{LIG}{quotyleft.inferior}{questiondown.inferior}
3636   \comment{The question mark '?' .}
3637 \endsetslot
3638
3639 \setslot{at.inferior}
3640   \comment{The at sign '@' .}
3641 \endsetslot
3642
3643 \setslot{\uc{A}{a}}
3644   \comment{The letter '{A}' .}
3645 \endsetslot
3646
3647 \setslot{\uc{B}{b}}
3648   \comment{The letter '{B}' .}
3649 \endsetslot
3650
3651 \setslot{\uc{C}{c}}
```

```
3652     \comment{The letter '{C}'.}
3653 \endsetslot
3654
3655 \setslot{\uc{D}{d}}
3656     \comment{The letter '{D}'.}
3657 \endsetslot
3658
3659 \setslot{\uc{E}{e}}
3660     \comment{The letter '{E}'.}
3661 \endsetslot
3662
3663 \setslot{\uc{F}{f}}
3664     \comment{The letter '{F}'.}
3665 \endsetslot
3666
3667 \setslot{\uc{G}{g}}
3668     \comment{The letter '{G}'.}
3669 \endsetslot
3670
3671 \setslot{\uc{H}{h}}
3672     \comment{The letter '{H}'.}
3673 \endsetslot
3674
3675 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
3676
3677 \setslot{\uc{I}{i}}
3678     \comment{The letter '{I}'.}
3679 \endsetslot
3680
3681 \Fi
3682
3683 \setslot{\uc{J}{j}}
3684     \comment{The letter '{J}'.}
3685 \endsetslot
3686
3687 \setslot{\uc{K}{k}}
3688     \comment{The letter '{K}'.}
3689 \endsetslot
3690
3691 \setslot{\uc{L}{l}}
3692     \comment{The letter '{L}'.}
3693 \endsetslot
3694
3695 \setslot{\uc{M}{m}}
3696     \comment{The letter '{M}'.}
3697 \endsetslot
3698
3699 \setslot{\uc{N}{n}}
3700     \comment{The letter '{N}'.}
3701 \endsetslot
3702
3703 \setslot{\uc{O}{o}}
3704     \comment{The letter '{O}'.}
3705 \endsetslot
```

```
3706
3707 \setslot{\uc{P}{p}}
3708   \comment{The letter '{P}'.}
3709 \endsetslot
3710
3711 \setslot{\uc{Q}{q}}
3712   \comment{The letter '{Q}'.}
3713 \endsetslot
3714
3715 \setslot{\uc{R}{r}}
3716   \comment{The letter '{R}'.}
3717 \endsetslot
3718
3719 \setslot{\uc{S}{s}}
3720   \comment{The letter '{S}'.}
3721 \endsetslot
3722
3723 \setslot{\uc{T}{t}}
3724   \comment{The letter '{T}'.}
3725 \endsetslot
3726
3727 \setslot{\uc{U}{u}}
3728   \comment{The letter '{U}'.}
3729 \endsetslot
3730
3731 \setslot{\uc{V}{v}}
3732   \comment{The letter '{V}'.}
3733 \endsetslot
3734
3735 \setslot{\uc{W}{w}}
3736   \comment{The letter '{W}'.}
3737 \endsetslot
3738
3739 \setslot{\uc{X}{x}}
3740   \comment{The letter '{X}'.}
3741 \endsetslot
3742
3743 \setslot{\uc{Y}{y}}
3744   \comment{The letter '{Y}'.}
3745 \endsetslot
3746
3747 \setslot{\uc{Z}{z}}
3748   \comment{The letter '{Z}'.}
3749 \endsetslot
3750
3751 \setslot{bracketleft.inferior}
3752   \comment{The opening square bracket '['.}
3753 \endsetslot
3754
3755 \setslot{backslash.inferior}
3756   \comment{The backwards oblique '\textbackslash'.}
3757 \endsetslot
3758
3759 \setslot{bracketright.inferior}
```

```

3760     \comment{The closing square bracket ']'.}
3761     \endsetslot
3762
3763 \setslot{asciicircum.inferior}
3764     \comment{The ASCII upward-pointing arrow head '\textasciicircum'.
3765         This is included for compatibility with typewriter fonts used
3766         for computer listings.}
3767 \endsetslot
3768
3769 \setslot{underscore.inferior}
3770     \comment{The ASCII underline character '\textunderscore', usually
3771         set on the baseline.
3772         This is included for compatibility with typewriter fonts used
3773         for computer listings.}
3774 \endsetslot
3775
3776 \setslot{quotyleft.inferior}
3777     \ligature{LIG}{quotyleft.inferior}{quotedblleft.inferior}
3778     \comment{The English opening single quote mark '\,\textquotyleft\,'.}
3779 \endsetslot
3780
3781 \setslot{\lc{A}{a}}
3782     \comment{The letter '{a}'.}
3783 \endsetslot
3784
3785 \setslot{\lc{B}{b}}
3786     \comment{The letter '{b}'.}
3787 \endsetslot
3788
3789 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
3790
3791     \setslot{\lc{C}{c}}
3792     \comment{The letter '{c}'.}
3793 \endsetslot
3794
3795 \Fi
3796
3797 \setslot{\lc{D}{d}}
3798     \comment{The letter '{d}'.}
3799 \endsetslot
3800
3801 \setslot{\lc{E}{e}}
3802     \comment{The letter '{e}'.}
3803 \endsetslot
3804
3805 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
3806
3807 \setslot{\lc{F}{f}}
3808     \ifnumber{\int{ligaturing}}>{0}\then
3809         \ligature{LIG}{\lc{I}{i}}{\lc{lig{FI}}{fi}}
3810         \ligature{LIG}{\lc{F}{f}}{\lc{lig{FF}}{ff}}
3811         \ligature{LIG}{\lc{L}{l}}{\lc{lig{FL}}{fl}}
3812 \Fi
3813     \comment{The letter '{f}'.}

```

```
3814     \endsetslot
3815
3816 \Fi
3817
3818 \setslot{\lc{G}{g}}
3819     \comment{The letter '{g}'.}
3820 \endsetslot
3821
3822 \setslot{\lc{H}{h}}
3823     \comment{The letter '{h}'.}
3824 \endsetslot
3825
3826 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
3827
3828     \setslot{\lc{I}{i}}
3829         \comment{The letter '{i}'.}
3830     \endsetslot
3831
3832 \Fi
3833
3834 \setslot{\lc{J}{j}}
3835     \comment{The letter '{j}'.}
3836 \endsetslot
3837
3838 \setslot{\lc{K}{k}}
3839     \comment{The letter '{k}'.}
3840 \endsetslot
3841
3842 \setslot{\lc{L}{l}}
3843     \comment{The letter '{l}'.}
3844 \endsetslot
3845
3846 \setslot{\lc{M}{m}}
3847     \comment{The letter '{m}'.}
3848 \endsetslot
3849
3850 \setslot{\lc{N}{n}}
3851     \comment{The letter '{n}'.}
3852 \endsetslot
3853
3854 \setslot{\lc{O}{o}}
3855     \comment{The letter '{o}'.}
3856 \endsetslot
3857
3858 \setslot{\lc{P}{p}}
3859     \comment{The letter '{p}'.}
3860 \endsetslot
3861
3862 \setslot{\lc{Q}{q}}
3863     \comment{The letter '{q}'.}
3864 \endsetslot
3865
3866 \setslot{\lc{R}{r}}
3867     \comment{The letter '{r}'.}
```

```
3868 \endsetslot
3869 \ifnumber{\int{ligaturing}}<-1\then \skipslots{1}\Else
3871
3872   \setslot{\lc{S}{s}}
3873     \comment{The letter '{s}'.}
3874   \endsetslot
3875
3876 \Fi
3877
3878 \setslot{\lc{T}{t}}
3879   \comment{The letter '{t}'.}
3880 \endsetslot
3881
3882 \setslot{\lc{U}{u}}
3883   \comment{The letter '{u}'.}
3884 \endsetslot
3885
3886 \setslot{\lc{V}{v}}
3887   \comment{The letter '{v}'.}
3888 \endsetslot
3889
3890 \setslot{\lc{W}{w}}
3891   \comment{The letter '{w}'.}
3892 \endsetslot
3893
3894 \setslot{\lc{X}{x}}
3895   \comment{The letter '{x}'.}
3896 \endsetslot
3897
3898 \setslot{\lc{Y}{y}}
3899   \comment{The letter '{y}'.}
3900 \endsetslot
3901
3902 \setslot{\lc{Z}{z}}
3903   \comment{The letter '{z}'.}
3904 \endsetslot
3905
3906 \setslot{braceleft.inferior}
3907   \comment{The opening curly brace '\textbraceleft'.}
3908 \endsetslot
3909
3910 \setslot{bar.inferior}
3911   \comment{The ASCII vertical bar '\textbar'.
3912     This is included for compatibility with typewriter fonts used
3913     for computer listings.}
3914 \endsetslot
3915
3916 \setslot{braceright.inferior}
3917   \comment{The closing curly brace '\textbraceright'.}
3918 \endsetslot
3919
3920 \setslot{asciitilde.inferior}
3921   \comment{The ASCII tilde '\textasciitilde'.
```

```
3922     This is included for compatibility with typewriter fonts used
3923         for computer listings.}
3924 \endsetslot
3925
3926 \setslot{hyphenchar.inferior}
3927     \comment{The glyph used for hyphenation in this font, which will
3928         almost always be the same as 'hyphen'.}
3929 \endsetslot
3930
3931 \setslot{\uctop{Abreve}{abreve}}
3932     \comment{The letter '\u A'.}
3933 \endsetslot
3934
3935 \setslot{\uc{Aogonek}{aogonek}}
3936     \comment{The letter '\k A'.}
3937 \endsetslot
3938
3939 \setslot{\uctop{Cacute}{cacute}}
3940     \comment{The letter '\ C'.}
3941 \endsetslot
3942
3943 \setslot{\uctop{Ccaron}{ccaron}}
3944     \comment{The letter '\v C'.}
3945 \endsetslot
3946
3947 \setslot{\uctop{Dcaron}{dcaron}}
3948     \comment{The letter '\v D'.}
3949 \endsetslot
3950
3951 \setslot{\uctop{Ecaron}{ecaron}}
3952     \comment{The letter '\v E'.}
3953 \endsetslot
3954
3955 \setslot{\uc{Eogonek}{eogonek}}
3956     \comment{The letter '\k E'.}
3957 \endsetslot
3958
3959 \setslot{\uctop{Gbreve}{gbreve}}
3960     \comment{The letter '\u G'.}
3961 \endsetslot
3962
3963 \setslot{\uctop{Lacute}{lacute}}
3964     \comment{The letter '\ L'.}
3965 \endsetslot
3966
3967 \setslot{\uc{Lcaron}{lcaron}}
3968     \comment{The letter '\v L'.}
3969 \endsetslot
3970
3971 \setslot{\uc{Lslash}{lslash}}
3972     \comment{The letter '\L'.}
3973 \endsetslot
3974
3975 \setslot{\uctop{Nacute}{nacute}}
```

```

3976     \comment{The letter '\ N'.}
3977     \endsetslot
3978
3979 \setslot{\uctop{Ncaron}{ncaron}}
3980     \comment{The letter '\v N'.}
3981 \endsetslot
3982
3983 \setslot{\uc{Eng}{eng}}
3984     \comment{The Sami letter '\NG'. It is unavailable in \plain\ \TeX. This needs
            to be called 'Eng'/'eng' rather than 'Ng'/'ng' as in t1.etx in most cases, it
            seems.}
3985 \endsetslot
3986
3987 \setslot{\uctop{Ohungarumlaut}{ohungarumlaut}}
3988     \comment{The letter '\H O'.}
3989 \endsetslot
3990
3991 \setslot{\uctop{Racute}{racute}}
3992     \comment{The letter '\ R'.}
3993 \endsetslot
3994
3995 \setslot{\uctop{Rcaron}{rcaron}}
3996     \comment{The letter '\v R'.}
3997 \endsetslot
3998
3999 \setslot{\uctop{Sacute}{sacute}}
4000     \comment{The letter '\ S'.}
4001 \endsetslot
4002
4003 \setslot{\uctop{Scaron}{scaron}}
4004     \comment{The letter '\v S'.}
4005 \endsetslot
4006
4007 \setslot{\uc{Scedilla}{scedilla}}
4008     \comment{The letter '\c S'.}
4009 \endsetslot
4010
4011 \setslot{\uctop{Tcaron}{tcaron}}
4012     \comment{The letter '\v T'.}
4013 \endsetslot
4014
4015 \setslot{\uc{Tcedilla}{tcedilla}}
4016     \comment{The letter '\c T'.}
4017 \endsetslot
4018
4019 \setslot{\uctop{Uhungarumlaut}{uhungarumlaut}}
4020     \comment{The letter '\H U'.}
4021 \endsetslot
4022
4023 \setslot{\uctop{Uring}{uring}}
4024     \comment{The letter '\r U'.}
4025 \endsetslot
4026
4027 \setslot{\uctop{Ydieresis}{ydieresis}}

```

```
4028     \comment{The letter '\` Y'.}
4029     \endsetslot
4030
4031 \setslot{\uctop{Zacute}{zacute}}
4032     \comment{The letter '\` Z'.}
4033 \endsetslot
4034
4035 \setslot{\uctop{Zcaron}{zcaron}}
4036     \comment{The letter '\v Z'.}
4037 \endsetslot
4038
4039 \setslot{\uctop{Zdotaccent}{zdotaccent}}
4040     \comment{The letter '\. Z'.}
4041 \endsetslot
4042
4043 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{1}\Else
4044
4045     \setslot{\uclig{IJ}{ij}}
4046         \comment{The letter 'IJ'. This is a single letter, and in a
4047             monowidth font should ideally be one letter wide.}
4048     \endsetslot
4049
4050 \Fi
4051
4052 \setslot{\uctop{Idotaccent}{idotaccent}}
4053     \comment{The letter '\. I'.}
4054 \endsetslot
4055
4056 \setslot{\lc{Dbar}{dbar}}
4057     \comment{The letter '\dj'.}
4058 \endsetslot
4059
4060 \setslot{section.inferior}
4061     \comment{The section mark '\textsection'.}
4062 \endsetslot
4063
4064 \setslot{\lctop{Abreve}{abreve}}
4065     \comment{The letter '\u a'.}
4066 \endsetslot
4067
4068 \setslot{\lc{Aogonek}{aogonek}}
4069     \comment{The letter '\k a'.}
4070 \endsetslot
4071
4072 \setslot{\lctop{Cacute}{cacute}}
4073     \comment{The letter '\c c'.}
4074 \endsetslot
4075
4076 \setslot{\lctop{Ccaron}{ccaron}}
4077     \comment{The letter '\v c'.}
4078 \endsetslot
4079
4080 \setslot{\lctop{Dcaron}{dcaron}}
4081     \comment{The letter '\v d'.}
```

```

4082 \endsetslot
4083
4084 \setslot{\lctop{Ecaron}{ecaron}}
4085   \comment{The letter '\v e'.}
4086 \endsetslot
4087
4088 \setslot{\lc{Eogonek}{eogonek}}
4089   \comment{The letter '\k e'.}
4090 \endsetslot
4091
4092 \setslot{\lctop{Gbreve}{gbreve}}
4093   \comment{The letter '\u g'.}
4094 \endsetslot
4095
4096 \setslot{\lctop{Lacute}{lacute}}
4097   \comment{The letter '\l'.}
4098 \endsetslot
4099
4100 \setslot{\lc{Lcaron}{lcaron}}
4101   \comment{The letter '\v l'.}
4102 \endsetslot
4103
4104 \setslot{\lc{Lslash}{lslash}}
4105   \comment{The letter '\l'.}
4106 \endsetslot
4107
4108 \setslot{\lctop{Nacute}{nacute}}
4109   \comment{The letter '\n'.}
4110 \endsetslot
4111
4112 \setslot{\lctop{Ncaron}{ncaron}}
4113   \comment{The letter '\v n'.}
4114 \endsetslot
4115
4116 \setslot{\lc{Eng}{eng}}
4117   \comment{The Sami letter '\ng'. It is unavailable in \plain\ \TeX. This needs
        to be called 'Eng'/'eng' rather than 'Ng'/'ng' as it is in t1.tex in most cases,
        it seems.}
4118 \endsetslot
4119
4120 \setslot{\lctop{Ohungarumlaut}{ohungarumlaut}}
4121   \comment{The letter '\H o'.}
4122 \endsetslot
4123
4124 \setslot{\lctop{Racute}{racute}}
4125   \comment{The letter '\r'.}
4126 \endsetslot
4127
4128 \setslot{\lctop{Rcaron}{rcaron}}
4129   \comment{The letter '\v r'.}
4130 \endsetslot
4131
4132 \setslot{\lctop{Sacute}{sacute}}
4133   \comment{The letter '\s'.}

```

```

4134 \endsetslot
4135
4136 \setslot{\lctop{Scaron}{scaron}}
4137   \comment{The letter '\v s'.}
4138 \endsetslot
4139
4140 \setslot{\lc{Scedilla}{scedilla}}
4141   \comment{The letter '\c s'.}
4142 \endsetslot
4143
4144 \setslot{\lctop{Tcaron}{tcaron}}
4145   \comment{The letter '\v t'.}
4146 \endsetslot
4147
4148 \setslot{\lc{Tcedilla}{tcedilla}}
4149   \comment{The letter '\c t'.}
4150 \endsetslot
4151
4152 \setslot{\lctop{Uhngarumlaut}{uhngarumlaut}}
4153   \comment{The letter '\H u'.}
4154 \endsetslot
4155
4156 \setslot{\lctop{Uring}{uring}}
4157   \comment{The letter '\r u'.}
4158 \endsetslot
4159
4160 \setslot{\lctop{Ydieresis}{ydieresis}}
4161   \comment{The letter '\y'.}
4162 \endsetslot
4163
4164 \setslot{\lctop{Zacute}{zacute}}
4165   \comment{The letter '\z'.}
4166 \endsetslot
4167
4168 \setslot{\lctop{Zcaron}{zcaron}}
4169   \comment{The letter '\v z'.}
4170 \endsetslot
4171
4172 \setslot{\lctop{Zdotaccent}{zdotaccent}}
4173   \comment{The letter '\. z'.}
4174 \endsetslot
4175
4176 \ifnumber{\int{ligaturing}}<0\then \skipslots{1}\Else
4177
4178 \setslot{\lclig{IJ}{ij}}
4179   \comment{The letter 'ij'. This is a single letter, and in a
4180     monowidth font should ideally be one letter wide.}
4181 \endsetslot
4182
4183 \Fi
4184
4185 \setslot{exclamdown.inferior}
4186   \comment{The Spanish punctuation mark '!'.}
4187 \endsetslot

```

```
4188 \setslot{questiondown.inferior}
4189   \comment{The Spanish punctuation mark '?' .}
4190 \endsetslot
4192
4193 \setslot{sterling.inferior}
4194   \comment{The British currency mark '\textsterling' .}
4195 \endsetslot
4196
4197 \setslot{\uctop{Agrave}{agrave}}
4198   \comment{The letter '\` A' .}
4199 \endsetslot
4200
4201 \setslot{\uctop{Aacute}{aacute}}
4202   \comment{The letter '\^ A' .}
4203 \endsetslot
4204
4205 \setslot{\uctop{Acircumflex}{acircumflex}}
4206   \comment{The letter '\~ A' .}
4207 \endsetslot
4208
4209 \setslot{\uctop{Atilde}{atilde}}
4210   \comment{The letter '\~ A' .}
4211 \endsetslot
4212
4213 \setslot{\uctop{Adieresis}{adieresis}}
4214   \comment{The letter '\u00e4' .}
4215 \endsetslot
4216
4217 \setslot{\uctop{Aring}{aring}}
4218   \comment{The letter '\r A' .}
4219 \endsetslot
4220
4221 \setslot{\uc{AE}{ae}}
4222   \comment{The letter '\AE'. This is a single letter, and should not be
4223     faked with 'AE'.}
4224 \endsetslot
4225
4226 \setslot{\uc{Ccedilla}{ccedilla}}
4227   \comment{The letter '\c C' .}
4228 \endsetslot
4229
4230 \setslot{\uctop{Egrave}{egrave}}
4231   \comment{The letter '\` E' .}
4232 \endsetslot
4233
4234 \setslot{\uctop{Eacute}{eacute}}
4235   \comment{The letter '\^ E' .}
4236 \endsetslot
4237
4238 \setslot{\uctop{Ecircumflex}{ecircumflex}}
4239   \comment{The letter '\~ E' .}
4240 \endsetslot
4241
```

```
4242 \setslot{\uctop{Edieresis}{edieresis}}
4243   \comment{The letter '\u00c3'.}
4244 \endsetslot
4245
4246 \setslot{\uctop{Igrave}{igrave}}
4247   \comment{The letter '\u00e3'.}
4248 \endsetslot
4249
4250 \setslot{\uctop{Iacute}{iacute}}
4251   \comment{The letter '\u00e1'.}
4252 \endsetslot
4253
4254 \setslot{\uctop{Icircumflex}{icircumflex}}
4255   \comment{The letter '\u00e1'.}
4256 \endsetslot
4257
4258 \setslot{\uctop{Idieresis}{idieresis}}
4259   \comment{The letter '\u00c3'.}
4260 \endsetslot
4261
4262 \setslot{\uc{Eth}{eth}}
4263   \comment{The uppercase Icelandic letter 'Eth' similar to a 'D'
4264       with a horizontal bar through the stem. It is unavailable
4265       in \plain\ \TeX.}
4266 \endsetslot
4267
4268 \setslot{\uctop{Ntilde}{ntilde}}
4269   \comment{The letter '\u00e5'.}
4270 \endsetslot
4271
4272 \setslot{\uctop{Ograve}{ograve}}
4273   \comment{The letter '\u00e4'.}
4274 \endsetslot
4275
4276 \setslot{\uctop{Oacute}{oacute}}
4277   \comment{The letter '\u00e1'.}
4278 \endsetslot
4279
4280 \setslot{\uctop{Ocircumflex}{ocircumflex}}
4281   \comment{The letter '\u00e1'.}
4282 \endsetslot
4283
4284 \setslot{\uctop{Otilde}{otilde}}
4285   \comment{The letter '\u00e5'.}
4286 \endsetslot
4287
4288 \setslot{\uctop{Odieresis}{odieresis}}
4289   \comment{The letter '\u00c3'.}
4290 \endsetslot
4291
4292 \setslot{\uc{OE}{oe}}
4293   \comment{The letter '\u00c3'. This is a single letter, and should not be
4294       faked with 'OE'.}
4295 \endsetslot
```

```
4296 \setslot{\uc{0slash}{oslash}}
4297   \comment{The letter '\0'.}
4298 \endsetslot
4299
4300 \setslot{\uctop{Ugrave}{ugrave}}
4301   \comment{The letter '\` U'.}
4302 \endsetslot
4303
4304 \setslot{\uctop{Uacute}{uacute}}
4305   \comment{The letter '\^ U'.}
4306 \endsetslot
4307
4308 \setslot{\uctop{Ucircumflex}{ucircumflex}}
4309   \comment{The letter '\~ U'.}
4310 \endsetslot
4311
4312 \setslot{\uctop{Udieresis}{udieresis}}
4313   \comment{The letter '\u00f0 U'.}
4314 \endsetslot
4315
4316 \setslot{\uctop{Yacute}{yacute}}
4317   \comment{The letter '\` Y'.}
4318 \endsetslot
4319
4320 \setslot{\uc{Thorn}{thorn}}
4321   \comment{The Icelandic capital letter Thorn, similar to a 'P'
4322       with the bowl moved down. It is unavailable in \plain\ \TeX.}
4323 \endsetslot
4324
4325 \setslot{\uclig{SS}{germandbls}}
4326   \comment{The ligature 'SS', used to give an upper case '\ss'.
4327       In a monowidth font it should be two letters wide.}
4328 \endsetslot
4329
4330 \setslot{\lctop{Agrave}{agrave}}
4331   \comment{The letter '\` a'.}
4332 \endsetslot
4333
4334 \setslot{\lctop{Aacute}{aacute}}
4335   \comment{The letter '\^ a'.}
4336 \endsetslot
4337
4338 \setslot{\lctop{Acircumflex}{acircumflex}}
4339   \comment{The letter '\~ a'.}
4340 \endsetslot
4341
4342 \setslot{\lctop{Atilde}{atilde}}
4343   \comment{The letter '\u00e1 a'.}
4344 \endsetslot
4345
4346 \setslot{\lctop{Adieresis}{adieresis}}
4347   \comment{The letter '\u00f0 a'.}
4348 \endsetslot
4349
```

```
4350 \setslot{\lctop{Aring}{aring}}
4351   \comment{The letter '\r a'.}
4352 \endsetslot
4354
4355 \setslot{\lc{AE}{ae}}
4356   \comment{The letter '\ae'. This is a single letter, and should not be
4357     faked with 'ae'.}
4358 \endsetslot
4359
4360 \setslot{\lc{Ccedilla}{ccedilla}}
4361   \comment{The letter '\c c'.}
4362 \endsetslot
4363
4364 \setslot{\lctop{Egrave}{egrave}}
4365   \comment{The letter '\` e'.}
4366 \endsetslot
4367
4368 \setslot{\lctop{Eacute}{eacute}}
4369   \comment{The letter '\^ e'.}
4370 \endsetslot
4371
4372 \setslot{\lctop{Ecircumflex}{ecircumflex}}
4373   \comment{The letter '\^ e'.}
4374 \endsetslot
4375
4376 \setslot{\lctop{Edieresis}{edieresis}}
4377   \comment{The letter '\" e'.}
4378 \endsetslot
4379
4380 \setslot{\lctop{Igrave}{igrave}}
4381   \comment{The letter '\` i'.}
4382 \endsetslot
4383
4384 \setslot{\lctop{Iacute}{iacute}}
4385   \comment{The letter '\^ i'.}
4386 \endsetslot
4387
4388 \setslot{\lctop{Icircumflex}{icircumflex}}
4389   \comment{The letter '\^ i'.}
4390 \endsetslot
4391
4392 \setslot{\lctop{Idieresis}{idieresis}}
4393   \comment{The letter '\" i'.}
4394 \endsetslot
4395
4396 \setslot{\lc{Eth}{eth}}
4397   \comment{The Icelandic lowercase letter 'eth' similar to
4398     a '$\partial$' with an oblique bar through the stem.
4399     It is unavailable in \plain\ TeX.}
4400 \endsetslot
4401
4402 \setslot{\lctop{Ntilde}{ntilde}}
4403   \comment{The letter '\~ n'.
```

```

4404 \endsetslot
4405
4406 \setslot{\lctop{0grave}{ograve}}
4407   \comment{The letter '\`o'.}
4408 \endsetslot
4409
4410 \setslot{\lctop{0acute}{oacute}}
4411   \comment{The letter '\^o'.}
4412 \endsetslot
4413
4414 \setslot{\lctop{0circumflex}{ocircumflex}}
4415   \comment{The letter '\~o'.}
4416 \endsetslot
4417
4418 \setslot{\lctop{0tilde}{otilde}}
4419   \comment{The letter '\~o'.}
4420 \endsetslot
4421
4422 \setslot{\lctop{0dieresis}{odieresis}}
4423   \comment{The letter '\\"o'.}
4424 \endsetslot
4425
4426 \setslot{\lc{OE}{oe}}
4427   \comment{The letter '\oe'. This is a single letter, and should not be
4428     faked with 'oe'.}
4429 \endsetslot
4430
4431 \setslot{\lc{0slash}{oslash}}
4432   \comment{The letter '\o'.}
4433 \endsetslot
4434
4435 \setslot{\lctop{Ugrave}{ugrave}}
4436   \comment{The letter '\`u'.}
4437 \endsetslot
4438
4439 \setslot{\lctop{Uacute}{uacute}}
4440   \comment{The letter '\^u'.}
4441 \endsetslot
4442
4443 \setslot{\lctop{Ucircumflex}{ucircumflex}}
4444   \comment{The letter '\~u'.}
4445 \endsetslot
4446
4447 \setslot{\lctop{Udieresis}{udieresis}}
4448   \comment{The letter '\\"u'.}
4449 \endsetslot
4450
4451 \setslot{\lctop{Yacute}{yacute}}
4452   \comment{The letter '\^y'.}
4453 \endsetslot
4454
4455 \setslot{\lc{Thorn}{thorn}}
4456   \comment{The Icelandic lowercase letter 'thorn', similar to a 'p'
4457     with an ascender rising from the stem. It is unavailable}

```

```
4458     in \plain\ \TeX.}
4459 \endsetslot
4460
4461 \setslot{\lc{SS}{germandbls}}
4462     \comment{The letter '\ss'.}
4463 \endsetslot
4464
4465 \endencoding
```

6.3.9 t1-dotinferior.etc

t1-dotinferior.etc (etc)

```

4466 %%
4467 %% - The original notices at the top of that file concerning authors,
4468 %% maintenance etc. are replaced by this notice.
4469 %% - The file is renamed.
4470 %% - The encoding name is modified.
4471 %% - The file is modified to accommodate differences in glyph names.
4472 %% - The file is modified for use in encoding inferiors.
4473 %%
4474 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4475 \relax
4476 \encoding
4477
4478 \needsfontinstversion{1.910}
4479
4480 \setcommand\lc#1#2{\#2.inferior}
4481 \setcommand\uc#1#2{\#1.inferior}
4482 \setcommand\lctop#1#2{\#2.inferior}
4483 \setcommand\uctop#1#2{\#1.inferior}
4484 \setcommand\lcclig#1#2{\#2.inferior}
4485 \ifisint{letterspacing}\then
4486   \ifnumber{\int{letterspacing}}={0}\then \Else
4487     \setcommand\ucclig#1#2{\#1spaced}
4488     \comment{Here we set \verb|\ucclig#1#2| to \verb|\verb|\#1spaced|, but
4489     you can't see it as \verb|\verb|\setcommand| commands are invisible in
4490     the typeset output.}
4491   \Fi
4492 \Fi
4493 \setcommand\ucclig#1#2{\#1.inferior}
4494 \setcommand\digit#1{\#1.inferior}
4495
4496 \ifisint{monowidth}\then
4497   \setint{ligaturing}{0}
4498 \Else
4499   % The following empty line is *important* to get the formatting
4500   % right here (sigh)! (Remember that it is a \par token.)
4501
4502 \ifisint{letterspacing}\then
4503   \ifnumber{\int{letterspacing}}={0}\then \Else
4504     \setint{ligaturing}{0}
4505   \Fi

```

```

4506     \Fi
4507     \setint{ligaturing}{1}
4508 \Fi
4509
4510 \setint{italicslant}{0}
4511 \setint{quad}{1000}
4512 \setint{baselineskip}{1200}
4513
4514 \ifisglyph{x}\then
4515     \setint{xheight}{\height{x}}
4516 \Else
4517     \setint{xheight}{500}
4518 \Fi
4519
4520 \ifisglyph{space}\then
4521     \setint{interword}{\width{space}}
4522 \Else\ifisglyph{i}\then
4523     \setint{interword}{\width{i}}
4524 \Else
4525     \setint{interword}{333}
4526 \Fi\Fi
4527
4528 \ifisint{monowidth}\then
4529     \setint{stretchword}{0}
4530     \setint{shrinkword}{0}
4531     \setint{extraspace}{\int{interword}}
4532 \Else
4533     \setint{stretchword}{\scale{\int{interword}}{600}}
4534     \setint{shrinkword}{\scale{\int{interword}}{240}}
4535     \setint{extraspace}{\scale{\int{interword}}{240}}
4536 \Fi
4537
4538 \ifisglyph{X}\then
4539     \setint{capheight}{\height{X}}
4540 \Else
4541     \setint{capheight}{750}
4542 \Fi
4543
4544 \ifisglyph{d}\then
4545     \setint{ascender}{\height{d}}
4546 \Else\ifisint{capheight}\then
4547     \setint{ascender}{\int{capheight}}
4548 \Else
4549     \setint{ascender}{750}
4550 \Fi\Fi
4551
4552 \ifisglyph{Aring}\then
4553     \setint{accicapheight}{\height{Aring}}
4554 \Else
4555     \setint{accicapheight}{999}
4556 \Fi
4557
4558 \ifisint{descender_neg}\then
4559     \setint{descender}{\neg{\int{descender_neg}}}

```

```

4560 \Else\ifisglyph{p}\then
4561   \setint{descender}{\depth{p}}
4562 \Else
4563   \setint{descender}{250}
4564 \Fi\Fi
4565
4566 \ifisglyph{Aring}\then
4567   \setint{maxheight}{\height{Aring}}
4568 \Else
4569   \setint{maxheight}{1000}
4570 \Fi
4571
4572 \ifisint{maxdepth_neg}\then
4573   \setint{maxdepth}{\neg{\int{maxdepth_neg}}}
4574 \Else\ifisglyph{j}\then
4575   \setint{maxdepth}{\depth{j}}
4576 \Else
4577   \setint{maxdepth}{250}
4578 \Fi\Fi
4579
4580 \ifisglyph{six}\then
4581   \setint{digitwidth}{\width{six}}
4582 \Else
4583   \setint{digitwidth}{500}
4584 \Fi
4585
4586 \setint{capstem}{0} % not in AFM files
4587
4588 \setfontdimen{1}{italicslant}      % italic slant
4589 \setfontdimen{2}{interword}        % interword space
4590 \setfontdimen{3}{stretchword}      % interword stretch
4591 \setfontdimen{4}{shrinkword}       % interword shrink
4592 \setfontdimen{5}{xheight}         % x-height
4593 \setfontdimen{6}{quad}            % quad
4594 \setfontdimen{7}{extraspace}       % extra space after .
4595 \setfontdimen{8}{capheight}        % cap height
4596 \setfontdimen{9}{ascender}         % ascender
4597 \setfontdimen{10}{accicapheight}    % accented cap height
4598 \setfontdimen{11}{descender}        % descender's depth
4599 \setfontdimen{12}{maxheight}        % max height
4600 \setfontdimen{13}{maxdepth}         % max depth
4601 \setfontdimen{14}{digitwidth}        % digit width
4602 \setfontdimen{15}{verticalstem}     % dominant width of vertical stems
4603 \setfontdimen{16}{baselineskip}      % baselineskip
4604
4605 \ifnumber{\int{ligaturing}}<{0}\then
4606   \comment{In this case, the codingscheme can be different from the
4607   default, and therefore we refrain from setting it.}
4608 \Else
4609   \setstr{codingscheme}{EXTENDED TEX FONT ENCODING - DOTINFERIOR}
4610 \Fi
4611
4612 \setslot{\lc{Grave}{grave}}
4613   \comment{The grave accent '\{' . }
```

```

4614 \endsetslot
4615
4616 \setslot{\lc{Acute}{acute}}
4617   \comment{The acute accent '\{}.'}
4618 \endsetslot
4619
4620 \setslot{\lc{Circumflex}{circumflex}}
4621   \comment{The circumflex accent '\^{'}.'}
4622 \endsetslot
4623
4624 \setslot{\lc{Tilde}{tilde}}
4625   \comment{The tilde accent '\~{}.'}
4626 \endsetslot
4627
4628 \setslot{\lc{Dieresis}{dieresis}}
4629   \comment{The umlaut or dieresis accent '\\"{}.'}
4630 \endsetslot
4631
4632 \setslot{\lc{Hungarumlaut}{hungarumlaut}}
4633   \comment{The long Hungarian umlaut '\H{}.'}
4634 \endsetslot
4635
4636 \setslot{\lc{Ring}{ring}}
4637   \comment{The ring accent '\r{}.'}
4638 \endsetslot
4639
4640 \setslot{\lc{Caron}{caron}}
4641   \comment{The caron or h'a\v cek accent '\v{}.'}
4642 \endsetslot
4643
4644 \setslot{\lc{Breve}{breve}}
4645   \comment{The breve accent '\u{}.'}
4646 \endsetslot
4647
4648 \setslot{\lc{Macron}{macron}}
4649   \comment{The macron accent '\={}.'}
4650 \endsetslot
4651
4652 \setslot{\lc{Dotaccent}{dotaccent}}
4653   \comment{The dot accent '\.{'}.'}
4654 \endsetslot
4655
4656 \setslot{\lc{Cedilla}{cedilla}}
4657   \comment{The cedilla accent '\c {}.'}
4658 \endsetslot
4659
4660 \setslot{\lc{Ogonek}{ogonek}}
4661   \comment{The ogonek accent '\k {}.'}
4662 \endsetslot
4663
4664 \setslot{quotesinglbase.inferior}
4665   \comment{A German single quote mark 'quotesinglbase' similar to a comma,
4666       but with different sidebearings.}
4667 \endsetslot

```

```

4668 \setslot{guilsingleleft.inferior}
4669   \comment{A French single opening quote mark ‘\guilsingleleft’,
4670       unavailable in \plain\ \TeX.}
4671 \endsetslot
4673
4674 \setslot{guilsinglright.inferior}
4675   \comment{A French single closing quote mark ‘\guilsinglright’,
4676       unavailable in \plain\ \TeX.}
4677 \endsetslot
4678
4679 \setslot{quotedblleft.inferior}
4680   \comment{The English opening quote mark ‘\,\textquotedblleft\,’.}
4681 \endsetslot
4682
4683 \setslot{quotedblrighit.inferior}
4684   \comment{The English closing quote mark ‘\,\textquotedblrighit\,’.}
4685 \endsetslot
4686
4687 \setslot{quotedblbase.inferior}
4688   \comment{A German double quote mark ‘\quotedblbase’ similar to two commas,
4689       but with tighter letterspacing and different sidebearings.}
4690 \endsetslot
4691
4692 \setslot{guillemotleft.inferior}
4693   \comment{A French double opening quote mark ‘\guillemotleft’,
4694       unavailable in \plain\ \TeX.}
4695 \endsetslot
4696
4697 \setslot{guillemotright.inferior}
4698   \comment{A French closing opening quote mark ‘\guillemotright’,
4699       unavailable in \plain\ \TeX.}
4700 \endsetslot
4701
4702 \setslot{endash.inferior}
4703   \ligature{LIG}{hyphen.inferior}{emdash.inferior}
4704   \comment{The number range dash ‘1--9’.
4705       This is called ‘rangedash’ by fontinst’s t1.etx, but it needs to be
4706       called ‘endash’ to work right.
4707       The ‘\textendash’.
4708       In a monowidth font, this might be set as ‘\texttt{1{-}9}’.}
4709 \endsetslot
4710
4711 \setslot{emdash.inferior}
4712   \comment{The punctuation dash ‘Oh---boy.’
4713       This is calle ‘punctdash’ by fontinst’s t1.etx, but needs to be
4714       called ‘emdash’ to work right.
4715       The ‘\textemdash’.
4716       In a monowidth font, this might be set as ‘\texttt{Oh{-}{-}boy.}’}
4717 \endsetslot
4718
4719 \setslot{compwordmark.inferior}
4720   \comment{An invisible glyph, with zero width and depth, but the
4721       height of lowercase letters without ascenders.}

```

```

4722     It is used to stop ligaturing in words like ‘shelf{}ful’.}
4723 \endsetslot
4724
4725 \setslot{perthousandzero.inferior}
4726   \comment{A glyph which is placed after ‘\%’ to produce a
4727     ‘per-thousand’, or twice to produce ‘per-ten-thousand’.
4728     Your guess is as good as mine as to what this glyph should look
4729     like in a monowidth font.}
4730 \endsetslot
4731
4732 \setslot{\lc{dotlessI}{dotlessi}}
4733   \comment{A dotless i ‘\i’, used to produce accented letters such as
4734     ‘\=\i’.}
4735 \endsetslot
4736
4737 \setslot{\lc{dotlessJ}{dotlessj}}
4738   \comment{A dotless j ‘\j’, used to produce accented letters such as
4739     ‘\=\j’. Most non-\TeX\ fonts do not have this glyph.}
4740 \endsetslot
4741
4742 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{5}\Else
4743
4744 \setslot{\lclig{FF}{ff}}
4745   \ifnumber{\int{ligaturing}}>{0}\then
4746     \ligature{LIG}{\lc{I}{i}}{\lclig{FFI}{ffi}}
4747     \ligature{LIG}{\lc{L}{l}}{\lclig{FFL}{ffl}}
4748   \Fi
4749   \comment{The ‘ff’ ligature. It should be two characters wide in a
4750     monowidth font.}
4751 \endsetslot
4752
4753 \setslot{\lclig{FI}{fi}}
4754   \comment{The ‘fi’ ligature. It should be two characters wide in a
4755     monowidth font.}
4756 \endsetslot
4757
4758 \setslot{\lclig{FL}{fl}}
4759   \comment{The ‘fl’ ligature. It should be two characters wide in a
4760     monowidth font.}
4761 \endsetslot
4762
4763 \setslot{\lclig{FFI}{ffi}}
4764   \comment{The ‘ffi’ ligature. It should be three characters wide in a
4765     monowidth font.}
4766 \endsetslot
4767
4768 \setslot{\lclig{FFL}{ffl}}
4769   \comment{The ‘ffl’ ligature. It should be three characters wide in a
4770     monowidth font.}
4771 \endsetslot
4772
4773 \Fi
4774
4775 \setslot{visiblespace.inferior}

```

```
4776     \comment{A visible space glyph '\textvisiblespace'.}
4777     \endsetslot
4778
4779 \setslot{exclam.inferior}
4780     \ligature{LIG}{quotyleft.inferior}{exclamdown.inferior}
4781     \comment{The exclamation mark '!'.}
4782 \endsetslot
4783
4784 \setslot{quotedbl.inferior}
4785     \comment{The 'neutral' double quotation mark '\,\textquotedbl\,,',
4786         included for use in monowidth fonts, or for setting computer
4787         programs. Note that the inclusion of this glyph in this slot
4788         means that \TeX documents which used '{\tt\char"} as an
4789         input character will no longer work.}
4790 \endsetslot
4791
4792 \setslot{numbersign.inferior}
4793     \comment{The hash sign '\#'.}
4794 \endsetslot
4795
4796 \setslot{dollar.inferior}
4797     \comment{The dollar sign '\$'.}
4798 \endsetslot
4799
4800 \setslot{percent.inferior}
4801     \comment{The percent sign '\%'.}
4802 \endsetslot
4803
4804 \setslot{ampersand.inferior}
4805     \comment{The ampersand sign '&'.}
4806 \endsetslot
4807
4808 \setslot{quoteright.inferior}
4809     \ligature{LIG}{quoteright.inferior}{quotedblright.inferior}
4810     \comment{The English closing single quote mark '\,\textquoteright\,'.}
4811 \endsetslot
4812
4813 \setslot{parenleft.inferior}
4814     \comment{The opening parenthesis '('.}
4815 \endsetslot
4816
4817 \setslot{parenright.inferior}
4818     \comment{The closing parenthesis ')'.}
4819 \endsetslot
4820
4821 \setslot{asterisk.inferior}
4822     \comment{The raised asterisk '*'.}
4823 \endsetslot
4824
4825 \setslot{plus.inferior}
4826     \comment{The addition sign '+'.}
4827 \endsetslot
4828
4829 \setslot{comma.inferior}
```

```
4830     \ligature{LIG}{comma.inferior}{quotedblbase.inferior}
4831     \comment{The comma ','.}
4832 \endsetslot
4833
4834 \setslot{hyphen.inferior}
4835     \ligature{LIG}{hyphen.inferior}{endash.inferior}
4836     \ligature{LIG}{hyphenchar.inferior}{hyphenchar.inferior}
4837     \comment{The hyphen '-'.}
4838 \endsetslot
4839
4840 \setslot{period.inferior}
4841     \comment{The period '.'.}
4842 \endsetslot
4843
4844 \setslot{slash.inferior}
4845     \comment{The forward oblique '/'.}
4846 \endsetslot
4847
4848 \setslot{\digit{zero}}
4849     \comment{The number '0'. This (and all the other numerals) may be
4850         old style or ranging digits.}
4851 \endsetslot
4852
4853 \setslot{\digit{one}}
4854     \comment{The number '1'.}
4855 \endsetslot
4856
4857 \setslot{\digit{two}}
4858     \comment{The number '2'.}
4859 \endsetslot
4860
4861 \setslot{\digit{three}}
4862     \comment{The number '3'.}
4863 \endsetslot
4864
4865 \setslot{\digit{four}}
4866     \comment{The number '4'.}
4867 \endsetslot
4868
4869 \setslot{\digit{five}}
4870     \comment{The number '5'.}
4871 \endsetslot
4872
4873 \setslot{\digit{six}}
4874     \comment{The number '6'.}
4875 \endsetslot
4876
4877 \setslot{\digit{seven}}
4878     \comment{The number '7'.}
4879 \endsetslot
4880
4881 \setslot{\digit{eight}}
4882     \comment{The number '8'.}
4883 \endsetslot
```

```
4884 \setslot{\digit{nine}}
4885   \comment{The number '9'.}
4886 \endsetslot
4887
4888 \setslot{colon.inferior}
4889   \comment{The colon punctuation mark ':' .}
4890 \endsetslot
4891
4892 \setslot{semicolon.inferior}
4893   \comment{The semi-colon punctuation mark ';' .}
4894 \endsetslot
4895
4896 \setslot{less.inferior}
4897   \ligature[LIG]{less.inferior}{guillemotleft.inferior}
4898   \comment{The less-than sign '\textless' .}
4899 \endsetslot
4900
4901 \setslot{equal.inferior}
4902   \comment{The equals sign '=' .}
4903 \endsetslot
4904
4905 \setslot{greater.inferior}
4906   \ligature[LIG]{greater.inferior}{guillemotright.inferior}
4907   \comment{The greater-than sign '\textgreater' .}
4908 \endsetslot
4909
4910 \setslot{question.inferior}
4911   \ligature[LIG]{quoteleft.inferior}{questiondown.inferior}
4912   \comment{The question mark '?' .}
4913 \endsetslot
4914
4915 \setslot{at.inferior}
4916   \comment{The at sign '@' .}
4917 \endsetslot
4918
4919 \setslot{\uc{A}{a}}
4920   \comment{The letter '{A}' .}
4921 \endsetslot
4922
4923 \setslot{\uc{B}{b}}
4924   \comment{The letter '{B}' .}
4925 \endsetslot
4926
4927 \setslot{\uc{C}{c}}
4928   \comment{The letter '{C}' .}
4929 \endsetslot
4930
4931 \setslot{\uc{D}{d}}
4932   \comment{The letter '{D}' .}
4933 \endsetslot
4934
4935 \setslot{\uc{E}{e}}
4936   \comment{The letter '{E}' .}
4937 \endsetslot
```

```
4938 \endsetslot
4939
4940 \setslot{\uc{F}{f}}
4941     \comment{The letter '{F}'.}
4942 \endsetslot
4943
4944 \setslot{\uc{G}{g}}
4945     \comment{The letter '{G}'.}
4946 \endsetslot
4947
4948 \setslot{\uc{H}{h}}
4949     \comment{The letter '{H}'.}
4950 \endsetslot
4951
4952 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
4953
4954 \setslot{\uc{I}{i}}
4955     \comment{The letter '{I}'.}
4956 \endsetslot
4957
4958 \Fi
4959
4960 \setslot{\uc{J}{j}}
4961     \comment{The letter '{J}'.}
4962 \endsetslot
4963
4964 \setslot{\uc{K}{k}}
4965     \comment{The letter '{K}'.}
4966 \endsetslot
4967
4968 \setslot{\uc{L}{l}}
4969     \comment{The letter '{L}'.}
4970 \endsetslot
4971
4972 \setslot{\uc{M}{m}}
4973     \comment{The letter '{M}'.}
4974 \endsetslot
4975
4976 \setslot{\uc{N}{n}}
4977     \comment{The letter '{N}'.}
4978 \endsetslot
4979
4980 \setslot{\uc{O}{o}}
4981     \comment{The letter '{O}'.}
4982 \endsetslot
4983
4984 \setslot{\uc{P}{p}}
4985     \comment{The letter '{P}'.}
4986 \endsetslot
4987
4988 \setslot{\uc{Q}{q}}
4989     \comment{The letter '{Q}'.}
4990 \endsetslot
4991
```

```

4992 \setslot{\uc{R}{r}}
4993   \comment{The letter '{R}'.}
4994 \endsetslot
4995
4996 \setslot{\uc{S}{s}}
4997   \comment{The letter '{S}'.}
4998 \endsetslot
4999
5000 \setslot{\uc{T}{t}}
5001   \comment{The letter '{T}'.}
5002 \endsetslot
5003
5004 \setslot{\uc{U}{u}}
5005   \comment{The letter '{U}'.}
5006 \endsetslot
5007
5008 \setslot{\uc{V}{v}}
5009   \comment{The letter '{V}'.}
5010 \endsetslot
5011
5012 \setslot{\uc{W}{w}}
5013   \comment{The letter '{W}'.}
5014 \endsetslot
5015
5016 \setslot{\uc{X}{x}}
5017   \comment{The letter '{X}'.}
5018 \endsetslot
5019
5020 \setslot{\uc{Y}{y}}
5021   \comment{The letter '{Y}'.}
5022 \endsetslot
5023
5024 \setslot{\uc{Z}{z}}
5025   \comment{The letter '{Z}'.}
5026 \endsetslot
5027
5028 \setslot{bracketleft.inferior}
5029   \comment{The opening square bracket '['.}
5030 \endsetslot
5031
5032 \setslot{backslash.inferior}
5033   \comment{The backwards oblique '\textbackslash'.}
5034 \endsetslot
5035
5036 \setslot{bracketright.inferior}
5037   \comment{The closing square bracket ']'.}
5038 \endsetslot
5039
5040 \setslot{asciicircum.inferior}
5041   \comment{The ASCII upward-pointing arrow head '\textasciicircum'.
5042     This is included for compatibility with typewriter fonts used
5043     for computer listings.}
5044 \endsetslot
5045

```

```

5046 \setslot{underscore.inferior}
5047   \comment{The ASCII underline character ‘\textunderscore’, usually
5048     set on the baseline.
5049     This is included for compatibility with typewriter fonts used
5050     for computer listings.}
5051 \endsetslot
5052
5053 \setslot{quotyleft.inferior}
5054   \ligature{LIG}{quotyleft.inferior}{quotedblleft.inferior}
5055   \comment{The English opening single quote mark ‘\,\textquotyleft\,’.}
5056 \endsetslot
5057
5058 \setslot{\lc{A}{a}}
5059   \comment{The letter ‘{a}’.}
5060 \endsetslot
5061
5062 \setslot{\lc{B}{b}}
5063   \comment{The letter ‘{b}’.}
5064 \endsetslot
5065
5066 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
5067
5068   \setslot{\lc{C}{c}}
5069   \comment{The letter ‘{c}’.}
5070 \endsetslot
5071
5072 \Fi
5073
5074 \setslot{\lc{D}{d}}
5075   \comment{The letter ‘{d}’.}
5076 \endsetslot
5077
5078 \setslot{\lc{E}{e}}
5079   \comment{The letter ‘{e}’.}
5080 \endsetslot
5081
5082 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
5083
5084   \setslot{\lc{F}{f}}
5085   \ifnumber{\int{ligaturing}}>{0}\then
5086     \ligature{LIG}{\lc{I}{i}}{\lc{lig{FI}}{fi}}
5087     \ligature{LIG}{\lc{F}{f}}{\lc{lig{FF}}{ff}}
5088     \ligature{LIG}{\lc{L}{l}}{\lc{lig{FL}}{fl}}
5089   \Fi
5090   \comment{The letter ‘{f}’.}
5091 \endsetslot
5092
5093 \Fi
5094
5095 \setslot{\lc{G}{g}}
5096   \comment{The letter ‘{g}’.}
5097 \endsetslot
5098
5099 \setslot{\lc{H}{h}}

```

```
5100     \comment{The letter '{h}'.}
5101     \endsetslot
5102
5103 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
5104
5105     \setslot{\lc{I}{i}}
5106         \comment{The letter '{i}'.}
5107     \endsetslot
5108
5109 \Fi
5110
5111 \setslot{\lc{J}{j}}
5112     \comment{The letter '{j}'.}
5113 \endsetslot
5114
5115 \setslot{\lc{K}{k}}
5116     \comment{The letter '{k}'.}
5117 \endsetslot
5118
5119 \setslot{\lc{L}{l}}
5120     \comment{The letter '{l}'.}
5121 \endsetslot
5122
5123 \setslot{\lc{M}{m}}
5124     \comment{The letter '{m}'.}
5125 \endsetslot
5126
5127 \setslot{\lc{N}{n}}
5128     \comment{The letter '{n}'.}
5129 \endsetslot
5130
5131 \setslot{\lc{O}{o}}
5132     \comment{The letter '{o}'.}
5133 \endsetslot
5134
5135 \setslot{\lc{P}{p}}
5136     \comment{The letter '{p}'.}
5137 \endsetslot
5138
5139 \setslot{\lc{Q}{q}}
5140     \comment{The letter '{q}'.}
5141 \endsetslot
5142
5143 \setslot{\lc{R}{r}}
5144     \comment{The letter '{r}'.}
5145 \endsetslot
5146
5147 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
5148
5149     \setslot{\lc{S}{s}}
5150         \comment{The letter '{s}'.}
5151     \endsetslot
5152
5153 \Fi
```

```

5154 \setslot{\lc{T}{t}}
5155   \comment{The letter '{t}'.}
5156 \endsetslot
5158
5159 \setslot{\lc{U}{u}}
5160   \comment{The letter '{u}'.}
5161 \endsetslot
5162
5163 \setslot{\lc{V}{v}}
5164   \comment{The letter '{v}'.}
5165 \endsetslot
5166
5167 \setslot{\lc{W}{w}}
5168   \comment{The letter '{w}'.}
5169 \endsetslot
5170
5171 \setslot{\lc{X}{x}}
5172   \comment{The letter '{x}'.}
5173 \endsetslot
5174
5175 \setslot{\lc{Y}{y}}
5176   \comment{The letter '{y}'.}
5177 \endsetslot
5178
5179 \setslot{\lc{Z}{z}}
5180   \comment{The letter '{z}'.}
5181 \endsetslot
5182
5183 \setslot{braceleft.inferior}
5184   \comment{The opening curly brace '\textbraceleft'.}
5185 \endsetslot
5186
5187 \setslot{bar.inferior}
5188   \comment{The ASCII vertical bar '\textbar'.
5189     This is included for compatibility with typewriter fonts used
5190     for computer listings.}
5191 \endsetslot
5192
5193 \setslot{braceright.inferior}
5194   \comment{The closing curly brace '\textbraceright'.}
5195 \endsetslot
5196
5197 \setslot{asciitilde.inferior}
5198   \comment{The ASCII tilde '\textasciitilde'.
5199     This is included for compatibility with typewriter fonts used
5200     for computer listings.}
5201 \endsetslot
5202
5203 \setslot{hyphenchar.inferior}
5204   \comment{The glyph used for hyphenation in this font, which will
5205     almost always be the same as 'hyphen'.}
5206 \endsetslot
5207

```

```
5208 \setslot{\uctop{Abreve}{abreve}}
5209   \comment{The letter '\u0101'.}
5210 \endsetslot
5211
5212 \setslot{\uc{Aogonek}{aogonek}}
5213   \comment{The letter '\k A'.}
5214 \endsetslot
5215
5216 \setslot{\uctop{Cacute}{cacute}}
5217   \comment{The letter '\c C'.}
5218 \endsetslot
5219
5220 \setslot{\uctop{Ccaron}{ccaron}}
5221   \comment{The letter '\v C'.}
5222 \endsetslot
5223
5224 \setslot{\uctop{Dcaron}{dcaron}}
5225   \comment{The letter '\v D'.}
5226 \endsetslot
5227
5228 \setslot{\uctop{Ecaron}{ecaron}}
5229   \comment{The letter '\v E'.}
5230 \endsetslot
5231
5232 \setslot{\uc{Eogonek}{eogonek}}
5233   \comment{The letter '\k E'.}
5234 \endsetslot
5235
5236 \setslot{\uctop{Gbreve}{gbreve}}
5237   \comment{The letter '\u0103'.}
5238 \endsetslot
5239
5240 \setslot{\uctop{Lacute}{lacute}}
5241   \comment{The letter '\l L'.}
5242 \endsetslot
5243
5244 \setslot{\uc{Lcaron}{lcaron}}
5245   \comment{The letter '\v L'.}
5246 \endsetslot
5247
5248 \setslot{\uc{Lslash}{lslash}}
5249   \comment{The letter '\L'.}
5250 \endsetslot
5251
5252 \setslot{\uctop{Nacute}{nacute}}
5253   \comment{The letter '\n N'.}
5254 \endsetslot
5255
5256 \setslot{\uctop{Ncaron}{ncaron}}
5257   \comment{The letter '\v N'.}
5258 \endsetslot
5259
5260 \setslot{\uc{Eng}{eng}}
```

```

5261   \comment{The Sami letter '\NG'. It is unavailable in \plain\ \TeX. This needs
      to be called 'Eng'/'eng' rather than 'Ng'/'ng' as in t1.tex in most cases, it
      seems.}
5262 \endsetslot
5263
5264 \setslot{\uctop{Ohungarumlaut}{ohungarumlaut}}
5265   \comment{The letter '\H O'.}
5266 \endsetslot
5267
5268 \setslot{\uctop{Racute}{racute}}
5269   \comment{The letter '\ R'.}
5270 \endsetslot
5271
5272 \setslot{\uctop{Rcaron}{rcaron}}
5273   \comment{The letter '\v R'.}
5274 \endsetslot
5275
5276 \setslot{\uctop{Sacute}{sacute}}
5277   \comment{The letter '\v S'.}
5278 \endsetslot
5279
5280 \setslot{\uctop{Scaron}{scaron}}
5281   \comment{The letter '\v S'.}
5282 \endsetslot
5283
5284 \setslot{\uc{Scedilla}{scedilla}}
5285   \comment{The letter '\c S'.}
5286 \endsetslot
5287
5288 \setslot{\uctop{Tcaron}{tcaron}}
5289   \comment{The letter '\v T'.}
5290 \endsetslot
5291
5292 \setslot{\uc{Tcedilla}{tcedilla}}
5293   \comment{The letter '\c T'.}
5294 \endsetslot
5295
5296 \setslot{\uctop{Uhungarumlaut}{uhungarumlaut}}
5297   \comment{The letter '\H U'.}
5298 \endsetslot
5299
5300 \setslot{\uctop{Uring}{uring}}
5301   \comment{The letter '\r U'.}
5302 \endsetslot
5303
5304 \setslot{\uctop{Ydieresis}{ydieresis}}
5305   \comment{The letter '\Y'.}
5306 \endsetslot
5307
5308 \setslot{\uctop{Zacute}{zacute}}
5309   \comment{The letter '\ Z'.}
5310 \endsetslot
5311
5312 \setslot{\uctop{Zcaron}{zcaron}}

```

```

5313     \comment{The letter '\v Z'.}
5314     \endsetslot
5315
5316 \setslot{\uctop{Zdotaccent}{zdotaccent}}
5317     \comment{The letter '\. Z'.}
5318 \endsetslot
5319
5320 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{1}\Else
5321
5322     \setslot{\uclig{IJ}{ij}}
5323     \comment{The letter 'IJ'. This is a single letter, and in a
5324     monowidth font should ideally be one letter wide.}
5325 \endsetslot
5326
5327 \Fi
5328
5329 \setslot{\uctop{Idotaccent}{idotaccent}}
5330     \comment{The letter '\. I'.}
5331 \endsetslot
5332
5333 \setslot{\lc{Dbar}{dbar}}
5334     \comment{The letter '\dj'.}
5335 \endsetslot
5336
5337 \setslot{section.inferior}
5338     \comment{The section mark '\textsection'.}
5339 \endsetslot
5340
5341 \setslot{\lctop{Abreve}{abreve}}
5342     \comment{The letter '\u a'.}
5343 \endsetslot
5344
5345 \setslot{\lc{Aogonek}{aogonek}}
5346     \comment{The letter '\k a'.}
5347 \endsetslot
5348
5349 \setslot{\lctop{Cacute}{cacute}}
5350     \comment{The letter '\c c'.}
5351 \endsetslot
5352
5353 \setslot{\lctop{Ccaron}{ccaron}}
5354     \comment{The letter '\v c'.}
5355 \endsetslot
5356
5357 \setslot{\lctop{Dcaron}{dcaron}}
5358     \comment{The letter '\v d'.}
5359 \endsetslot
5360
5361 \setslot{\lctop{Ecaron}{ecaron}}
5362     \comment{The letter '\v e'.}
5363 \endsetslot
5364
5365 \setslot{\lc{Eogonek}{eogonek}}
5366     \comment{The letter '\k e'.}

```

```

5367 \endsetslot
5368
5369 \setslot{\lctop{Gbreve}{gbreve}}
5370   \comment{The letter '\u g'.}
5371 \endsetslot
5372
5373 \setslot{\lctop{Lacute}{lacute}}
5374   \comment{The letter '\l'.}
5375 \endsetslot
5376
5377 \setslot{\lc{Lcaron}{lcaron}}
5378   \comment{The letter '\v l'.}
5379 \endsetslot
5380
5381 \setslot{\lc{Lslash}{lslash}}
5382   \comment{The letter '\l'.}
5383 \endsetslot
5384
5385 \setslot{\lctop{Nacute}{nacute}}
5386   \comment{The letter '\n'.}
5387 \endsetslot
5388
5389 \setslot{\lctop{Ncaron}{ncaron}}
5390   \comment{The letter '\v n'.}
5391 \endsetslot
5392
5393 \setslot{\lc{Eng}{eng}}
5394   \comment{The Sami letter '\ng'. It is unavailable in \plain\ \TeX. This needs
      to be called 'Eng'/'eng' rather than 'Ng'/'ng' as it is in t1.etx in most cases,
      it seems.}
5395 \endsetslot
5396
5397 \setslot{\lctop{Ohungarumlaut}{ohungarumlaut}}
5398   \comment{The letter '\H o'.}
5399 \endsetslot
5400
5401 \setslot{\lctop{Racute}{racute}}
5402   \comment{The letter '\r'.}
5403 \endsetslot
5404
5405 \setslot{\lctop{Rcaron}{rcaron}}
5406   \comment{The letter '\v r'.}
5407 \endsetslot
5408
5409 \setslot{\lctop{Sacute}{sacute}}
5410   \comment{The letter '\s'.}
5411 \endsetslot
5412
5413 \setslot{\lctop{Scaron}{scaron}}
5414   \comment{The letter '\v s'.}
5415 \endsetslot
5416
5417 \setslot{\lc{Scedilla}{scedilla}}
5418   \comment{The letter '\c s'.}

```

```

5419 \endsetslot
5420
5421 \setslot{\lctop{Tcaron}{tcaron}}
5422   \comment{The letter '\v t'.}
5423 \endsetslot
5424
5425 \setslot{\lc{Tcedilla}{tcedilla}}
5426   \comment{The letter '\c t'.}
5427 \endsetslot
5428
5429 \setslot{\lctop{Uhngarumlaut}{uhngarumlaut}}
5430   \comment{The letter '\H u'.}
5431 \endsetslot
5432
5433 \setslot{\lctop{Uring}{uring}}
5434   \comment{The letter '\r u'.}
5435 \endsetslot
5436
5437 \setslot{\lctop{Ydieresis}{ydieresis}}
5438   \comment{The letter '\y'.}
5439 \endsetslot
5440
5441 \setslot{\lctop{Zacute}{zacute}}
5442   \comment{The letter '\z'.}
5443 \endsetslot
5444
5445 \setslot{\lctop{Zcaron}{zcaron}}
5446   \comment{The letter '\v z'.}
5447 \endsetslot
5448
5449 \setslot{\lctop{Zdotaccent}{zdotaccent}}
5450   \comment{The letter '\. z'.}
5451 \endsetslot
5452
5453 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{1}\Else
5454
5455   \setslot{\lclig{IJ}{ij}}
5456     \comment{The letter 'ij'. This is a single letter, and in a
5457       monowidth font should ideally be one letter wide.}
5458 \endsetslot
5459
5460 \Fi
5461
5462 \setslot{exclamdown.inferior}
5463   \comment{The Spanish punctuation mark '!'.}
5464 \endsetslot
5465
5466 \setslot{questiondown.inferior}
5467   \comment{The Spanish punctuation mark '?'.}
5468 \endsetslot
5469
5470 \setslot{sterling.inferior}
5471   \comment{The British currency mark '\textsterling'.}
5472 \endsetslot

```

```
5473 \setslot{\uctop{Agrave}{agrave}}
5474   \comment{The letter '\` A'.}
5475 \endsetslot
5477
5478 \setslot{\uctop{Aacute}{aacute}}
5479   \comment{The letter '\^ A'.}
5480 \endsetslot
5481
5482 \setslot{\uctop{Acircumflex}{acircumflex}}
5483   \comment{The letter '\~ A'.}
5484 \endsetslot
5485
5486 \setslot{\uctop{Atilde}{atilde}}
5487   \comment{The letter '\~\ A'.}
5488 \endsetslot
5489
5490 \setslot{\uctop{Adieresis}{adieresis}}
5491   \comment{The letter '\\" A'.}
5492 \endsetslot
5493
5494 \setslot{\uctop{Aring}{aring}}
5495   \comment{The letter '\r A'.}
5496 \endsetslot
5497
5498 \setslot{\uc{AE}{ae}}
5499   \comment{The letter '\AE'. This is a single letter, and should not be
      faked with 'AE'.}
5500 \endsetslot
5502
5503 \setslot{\uc{Ccedilla}{ccedilla}}
5504   \comment{The letter '\c C'.}
5505 \endsetslot
5506
5507 \setslot{\uctop{Egrave}{egrave}}
5508   \comment{The letter '\` E'.}
5509 \endsetslot
5510
5511 \setslot{\uctop{Eacute}{eacute}}
5512   \comment{The letter '\^ E'.}
5513 \endsetslot
5514
5515 \setslot{\uctop{Ecircumflex}{ecircumflex}}
5516   \comment{The letter '\~ E'.}
5517 \endsetslot
5518
5519 \setslot{\uctop{Edieresis}{adieresis}}
5520   \comment{The letter '\\" E'.}
5521 \endsetslot
5522
5523 \setslot{\uctop{Igrave}{igrave}}
5524   \comment{The letter '\` I'.}
5525 \endsetslot
5526
```

```
5527 \setslot{\uctop{Iacute}{iacute}}
5528   \comment{The letter '\` I'.}
5529 \endsetslot
5530
5531 \setslot{\uctop{Icircumflex}{icircumflex}}
5532   \comment{'\^ I'.}
5533 \endsetslot
5534
5535 \setslot{\uctop{Idieresis}{idieresis}}
5536   \comment{" I'.}
5537 \endsetslot
5538
5539 \setslot{\uc{Eth}{eth}}
5540   \comment{The uppercase Icelandic letter 'Eth' similar to a 'D'
      with a horizontal bar through the stem. It is unavailable
      in \plain\ \TeX.}
5541 \endsetslot
5542
5543 \setslot{\uctop{Ntilde}{ntilde}}
5544   \comment{'\~ N'.}
5545 \endsetslot
5546
5547 \setslot{\uctop{Ograve}{ograve}}
5548   \comment{'\` O'.}
5549 \endsetslot
5550
5551 \setslot{\uctop{Oacute}{oacute}}
5552   \comment{'\^ O'.}
5553 \endsetslot
5554
5555 \setslot{\uctop{Ocircumflex}{ocircumflex}}
5556   \comment{'\~ O'.}
5557 \endsetslot
5558
5559 \setslot{\uctop{Otilde}{otilde}}
5560   \comment{'\~ O'.}
5561 \endsetslot
5562
5563 \setslot{\uctop{Odieresis}{odieresis}}
5564   \comment{" O'.}
5565 \endsetslot
5566
5567 \setslot{\uc{OE}{oe}}
5568   \comment{The letter '\OE'. This is a single letter, and should not be
      faked with 'OE'.}
5569 \endsetslot
5570
5571 \setslot{\uc{Oslash}{oslash}}
5572   \comment{'\O'.}
5573 \endsetslot
5574
5575 \setslot{\uctop{Ugrave}{ugrave}}
5576   \comment{'\` U'.}
5577 \endsetslot
5578
5579 \setslot{\uctop{Ucircumflex}{ucircumflex}}
5580   \comment{'\^ U'.}
5581 \endsetslot
```

```
5581 \setslot{\uctop{Uacute}{uacute}}
5582   \comment{The letter '\u00d9 U'.}
5583 \endsetslot
5585
5586 \setslot{\uctop{Ucircumflex}{ucircumflex}}
5587   \comment{The letter '\u00d9 U'.}
5588 \endsetslot
5589
5590 \setslot{\uctop{Udieresis}{udieresis}}
5591   \comment{The letter '\u00d9 U'.}
5592 \endsetslot
5593
5594 \setslot{\uctop{Yacute}{yacute}}
5595   \comment{The letter '\u00d9 Y'.}
5596 \endsetslot
5597
5598 \setslot{\uc{Thorn}{thorn}}
5599   \comment{The Icelandic capital letter Thorn, similar to a 'P'
      with the bowl moved down. It is unavailable in \plain\ \TeX.}
5600 \endsetslot
5601
5602
5603 \setslot{\uclig{SS}{germandbls}}
5604   \comment{The ligature 'SS', used to give an upper case '\ss'.
      In a monowidth font it should be two letters wide.}
5605 \endsetslot
5606
5607
5608 \setslot{\lctop{Agrave}{agrave}}
5609   \comment{The letter '\u00e1 a'.}
5610 \endsetslot
5611
5612 \setslot{\lctop{Aacute}{aacute}}
5613   \comment{The letter '\u00e1 a'.}
5614 \endsetslot
5615
5616 \setslot{\lctop{Acircumflex}{acircumflex}}
5617   \comment{The letter '\u00e1 a'.}
5618 \endsetslot
5619
5620 \setslot{\lctop{Atilde}{atilde}}
5621   \comment{The letter '\u00e1 a'.}
5622 \endsetslot
5623
5624 \setslot{\lctop{Adieresis}{adieresis}}
5625   \comment{The letter '\u00e1 a'.}
5626 \endsetslot
5627
5628 \setslot{\lctop{Aring}{aring}}
5629   \comment{The letter '\u00e1 r a'.}
5630 \endsetslot
5631
5632 \setslot{\lc{AE}{ae}}
5633   \comment{The letter '\u00e1 ae'. This is a single letter, and should not be
      faked with 'ae'.}
```

```

5635 \endsetslot
5636
5637 \setslot{\lc{Ccedilla}{ccedilla}}
5638   \comment{The letter '\c c'.}
5639 \endsetslot
5640
5641 \setslot{\lctop{Egrave}{egrave}}
5642   \comment{The letter '\` e'.}
5643 \endsetslot
5644
5645 \setslot{\lctop{Eacute}{eacute}}
5646   \comment{The letter '\` e'.}
5647 \endsetslot
5648
5649 \setslot{\lctop{Ecircumflex}{ecircumflex}}
5650   \comment{The letter '\^ e'.}
5651 \endsetslot
5652
5653 \setslot{\lctop{Edieresis}{edieresis}}
5654   \comment{The letter '\" e'.}
5655 \endsetslot
5656
5657 \setslot{\lctop{Igrave}{igrave}}
5658   \comment{The letter '\`i'.}
5659 \endsetslot
5660
5661 \setslot{\lctop{Iacute}{iacute}}
5662   \comment{The letter '\`i'.}
5663 \endsetslot
5664
5665 \setslot{\lctop{Icircumflex}{icircumflex}}
5666   \comment{The letter '\^i'.}
5667 \endsetslot
5668
5669 \setslot{\lctop{Idieresis}{idieresis}}
5670   \comment{The letter '\"i'.}
5671 \endsetslot
5672
5673 \setslot{\lc{Eth}{eth}}
5674   \comment{The Icelandic lowercase letter 'eth' similar to
5675     a '$\partial$' with an oblique bar through the stem.
5676     It is unavailable in \plain\ TeX.}
5677 \endsetslot
5678
5679 \setslot{\lctop{Ntilde}{ntilde}}
5680   \comment{The letter '\~ n'.}
5681 \endsetslot
5682
5683 \setslot{\lctop{Ograve}{ograve}}
5684   \comment{The letter '\` o'.}
5685 \endsetslot
5686
5687 \setslot{\lctop{Oacute}{oacute}}
5688   \comment{The letter '\` o'.}

```

```

5689 \endsetslot
5690
5691 \setslot{\lctop{0circumflex}{ocircumflex}}
5692   \comment{The letter '\^ o'.}
5693 \endsetslot
5694
5695 \setslot{\lctop{0tilde}{otilde}}
5696   \comment{The letter '\~ o'.}
5697 \endsetslot
5698
5699 \setslot{\lctop{0dieresis}{odieresis}}
5700   \comment{The letter '\" o'.}
5701 \endsetslot
5702
5703 \setslot{\lc{OE}{oe}}
5704   \comment{The letter '\oe'. This is a single letter, and should not be
5705     faked with 'oe'.}
5706 \endsetslot
5707
5708 \setslot{\lc{0slash}{oslash}}
5709   \comment{The letter '\o'.}
5710 \endsetslot
5711
5712 \setslot{\lctop{Ugrave}{ugrave}}
5713   \comment{The letter '\` u'.}
5714 \endsetslot
5715
5716 \setslot{\lctop{Uacute}{uacute}}
5717   \comment{The letter '\uacute u'.}
5718 \endsetslot
5719
5720 \setslot{\lctop{Ucircumflex}{ucircumflex}}
5721   \comment{The letter '\^ u'.}
5722 \endsetslot
5723
5724 \setslot{\lctop{Udieresis}{udieresis}}
5725   \comment{The letter '\\" u'.}
5726 \endsetslot
5727
5728 \setslot{\lctop{Yacute}{yacute}}
5729   \comment{The letter '\uacute y'.}
5730 \endsetslot
5731
5732 \setslot{\lc{Thorn}{thorn}}
5733   \comment{The Icelandic lowercase letter 'thorn', similar to a 'p'
5734     with an ascender rising from the stem. It is unavailable
5735     in \plain\ \TeX.}
5736 \endsetslot
5737
5738 \setslot{\lc{SS}{germandbls}}
5739   \comment{The letter '\ss'.}
5740 \endsetslot
5741
5742 \endencoding

```

6.3.10 t1-dotsup.etcx

t1-dotsup.etcx (*etcx*)

```

5743 %%
5744 %% - The original notices at the top of that file concerning authors,
5745 %% maintenance etc. are replaced by this notice.
5746 %% - The file is renamed.
5747 %% - The encoding name is modified.
5748 %% - The file is modified to accommodate differences in glyph names.
5749 %% - The file is modified for use in encoding superiors.
5750 %%
5751 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
5752 \relax
5753 \encoding
5754
5755 \needsfontinstversion{1.910}
5756
5757 \setcommand\lc#1#2{\#2.superior}
5758 \setcommand\uc#1#2{\#1.superior}
5759 \setcommand\lctop#1#2{\#2.superior}
5760 \setcommand\uctop#1#2{\#1.superior}
5761 \setcommand\lcclig#1#2{\#2.superior}
5762 \ifisint{letterspacing}\then
5763   \ifnumber{\int{letterspacing}}={0}\then \Else
5764     \setcommand\ucclig#1#2{\#1spaced}
5765     \comment{Here we set \verb|\ucclig#1#2| to \verb|\ucclig#1#2|, but
5766     you can't see it as \verb|\ucclig|\ commands are invisible in
5767     the typeset output.}
5768   \Fi
5769 \Fi
5770 \setcommand\ucclig#1#2{\#1.superior}
5771 \setcommand\digit#1{\#1.superior}
5772
5773 \ifisint{monowidth}\then
5774   \setint{ligaturing}{0}
5775 \Else
5776   % The following empty line is *important* to get the formatting
5777   % right here (sigh)! (Remember that it is a \par token.)
5778
5779 \ifisint{letterspacing}\then
5780   \ifnumber{\int{letterspacing}}={0}\then \Else
5781     \setint{ligaturing}{0}
5782   \Fi
5783 \Fi
5784 \setint{ligaturing}{1}
5785 \Fi
5786
5787 \setint{italicslant}{0}
5788 \setint{quad}{1000}
5789 \setint{baselineskip}{1200}
5790
5791 \ifisglyph{x}\then
5792   \setint{xheight}{\height{x}}

```

```

5793 \Else
5794   \setint{xheight}{500}
5795 \Fi
5796
5797 \ifisglyph{space}\then
5798   \setint{interword}{\width{space}}
5799 \Else\ifisglyph{i}\then
5800   \setint{interword}{\width{i}}
5801 \Else
5802   \setint{interword}{333}
5803 \Fi\Fi
5804
5805 \ifisint{monowidth}\then
5806   \setint{stretchword}{0}
5807   \setint{shrinkword}{0}
5808   \setint{extraspace}{\int{interword}}
5809 \Else
5810   \setint{stretchword}{\scale{\int{interword}}{600}}
5811   \setint{shrinkword}{\scale{\int{interword}}{240}}
5812   \setint{extraspace}{\scale{\int{interword}}{240}}
5813 \Fi
5814
5815 \ifisglyph{X}\then
5816   \setint{capheight}{\height{X}}
5817 \Else
5818   \setint{capheight}{750}
5819 \Fi
5820
5821 \ifisglyph{d}\then
5822   \setint{ascender}{\height{d}}
5823 \Else\ifisint{capheight}\then
5824   \setint{ascender}{\int{capheight}}
5825 \Else
5826   \setint{ascender}{750}
5827 \Fi\Fi
5828
5829 \ifisglyph{Aring}\then
5830   \setint{acccapheight}{\height{Aring}}
5831 \Else
5832   \setint{acccapheight}{999}
5833 \Fi
5834
5835 \ifisint{descender_neg}\then
5836   \setint{descender}{\neg{\int{descender_neg}}}
5837 \Else\ifisglyph{p}\then
5838   \setint{descender}{\depth{p}}
5839 \Else
5840   \setint{descender}{250}
5841 \Fi\Fi
5842
5843 \ifisglyph{Aring}\then
5844   \setint{maxheight}{\height{Aring}}
5845 \Else
5846   \setint{maxheight}{1000}

```

```

5847 \Fi
5848
5849 \ifisint{maxdepth_neg}\then
5850   \setint{maxdepth}{\neg{\int{maxdepth_neg}}}
5851 \Else\ifisglyph{j}\then
5852   \setint{maxdepth}{\depth{j}}
5853 \Else
5854   \setint{maxdepth}{250}
5855 \Fi\Fi
5856
5857 \ifisglyph{six}\then
5858   \setint{digitwidth}{\width{six}}
5859 \Else
5860   \setint{digitwidth}{500}
5861 \Fi
5862
5863 \setint{capstem}{0} % not in AFM files
5864
5865 \setfontdimen{1}{italicslant}      % italic slant
5866 \setfontdimen{2}{interword}        % interword space
5867 \setfontdimen{3}{stretchword}      % interword stretch
5868 \setfontdimen{4}{shrinkword}       % interword shrink
5869 \setfontdimen{5}{xheight}         % x-height
5870 \setfontdimen{6}{quad}            % quad
5871 \setfontdimen{7}{extraspace}       % extra space after .
5872 \setfontdimen{8}{capheight}        % cap height
5873 \setfontdimen{9}{ascender}         % ascender
5874 \setfontdimen{10}{accicapheight}    % accented cap height
5875 \setfontdimen{11}{descender}        % descender's depth
5876 \setfontdimen{12}{maxheight}        % max height
5877 \setfontdimen{13}{maxdepth}         % max depth
5878 \setfontdimen{14}{digitwidth}       % digit width
5879 \setfontdimen{15}{verticalstem}     % dominant width of vertical stems
5880 \setfontdimen{16}{baselineskip}      % baselineskip
5881
5882 \ifnumber{\int{ligaturing}}<{0}\then
5883   \comment{In this case, the codingscheme can be different from the
5884   default, and therefore we refrain from setting it.}
5885 \Else
5886   \setstr{codingscheme}{EXTENDED TEX FONT ENCODING - DOTSUP}
5887 \Fi
5888
5889 \setslot{\lc{Grave}{grave}}
5890   \comment{The grave accent '\{}.\}
5891 \endsetslot
5892
5893 \setslot{\lc{Acute}{acute}}
5894   \comment{The acute accent '\{}.\}
5895 \endsetslot
5896
5897 \setslot{\lc{Circumflex}{circumflex}}
5898   \comment{The circumflex accent '\^{}.\}
5899 \endsetslot
5900

```

```

5901 \setslot{\lc{Tilde}{tilde}}
5902   \comment{The tilde accent '\~{}' .}
5903 \endsetslot
5904
5905 \setslot{\lc{Dieresis}{dieresis}}
5906   \comment{The umlaut or dieresis accent '\\"{}' .}
5907 \endsetslot
5908
5909 \setslot{\lc{Hungarumlaut}{hungarumlaut}}
5910   \comment{The long Hungarian umlaut '\H{}' .}
5911 \endsetslot
5912
5913 \setslot{\lc{Ring}{ring}}
5914   \comment{The ring accent '\r{}' .}
5915 \endsetslot
5916
5917 \setslot{\lc{Caron}{caron}}
5918   \comment{The caron or h' a\v cek accent '\v{}' .}
5919 \endsetslot
5920
5921 \setslot{\lc{Breve}{breve}}
5922   \comment{The breve accent '\u{}' .}
5923 \endsetslot
5924
5925 \setslot{\lc{Macron}{macron}}
5926   \comment{The macron accent '\={}' .}
5927 \endsetslot
5928
5929 \setslot{\lc{Dotaccent}{dotaccent}}
5930   \comment{The dot accent '\.{}' .}
5931 \endsetslot
5932
5933 \setslot{\lc{Cedilla}{cedilla}}
5934   \comment{The cedilla accent '\c {}' .}
5935 \endsetslot
5936
5937 \setslot{\lc{Ogonek}{ogonek}}
5938   \comment{The ogonek accent '\k {}' .}
5939 \endsetslot
5940
5941 \setslot{quotesinglbase.superior}
5942   \comment{A German single quote mark '\quotesinglbase' similar to a comma,
5943           but with different sidebearings.}
5944 \endsetslot
5945
5946 \setslot{guilsinglleft.superior}
5947   \comment{A French single opening quote mark '\guilsinglleft',
5948           unavailable in \plain\ \TeX.}
5949 \endsetslot
5950
5951 \setslot{guilsinglright.superior}
5952   \comment{A French single closing quote mark '\guilsinglright',
5953           unavailable in \plain\ \TeX.}
5954 \endsetslot

```

```

5955 \setslot{quotedblleft.superior}
5956   \comment{The English opening quote mark ‘\,\textquotedblleft\,’.}
5957 \endsetslot
5958
5959 \setslot{quotedblright.superior}
5960   \comment{The English closing quote mark ‘\,\textquotedblright\,’.}
5961 \endsetslot
5962
5963 \setslot{quotedblbase.superior}
5964   \comment{A German double quote mark ‘\quotedblbase’ similar to two commas,
5965       but with tighter letterspacing and different sidebearings.}
5966 \endsetslot
5967
5968 \setslot{guillemotleft.superior}
5969   \comment{A French double opening quote mark ‘\guillemotleft’,
5970       unavailable in \plain\ \TeX.}
5971 \endsetslot
5972
5973 \setslot{guillemotright.superior}
5974   \comment{A French closing opening quote mark ‘\guillemotright’,
5975       unavailable in \plain\ \TeX.}
5976 \endsetslot
5977
5978 \setslot{endash.superior}
5979   \ligature{LIG}{hyphen.superior}{emdash.superior}
5980   \comment{The number range dash ‘1--9’.
5981       This is called ‘rangedash’ by fontinst’s t1.etx, but it needs to be
5982       called ‘endash’ to work right.
5983       The ‘\textendash’.
5984       In a monowidth font, this might be set as ‘\texttt{1{-}9}’.}
5985 \endsetslot
5986
5987 \setslot{emdash.superior}
5988   \comment{The punctuation dash ‘Oh---boy.’
5989       This is calle ‘punctdash’ by fontinst’s t1.etx, but needs to be
5990       called ‘emdash’ to work right.
5991       The ‘\textemdash’.
5992       In a monowidth font, this might be set as ‘\texttt{Oh{-}{-}boy.}’}
5993 \endsetslot
5994
5995 \setslot{compwordmark.superior}
5996   \comment{An invisible glyph, with zero width and depth, but the
5997       height of lowercase letters without ascenders.
5998       It is used to stop ligaturing in words like ‘shelf{}ful’.}
5999 \endsetslot
6000
6001 \setslot{perthousandzero.superior}
6002   \comment{A glyph which is placed after ‘\%’ to produce a
6003       ‘per-thousand’, or twice to produce ‘per-ten-thousand’.
6004       Your guess is as good as mine as to what this glyph should look
6005       like in a monowidth font.}
6006 \endsetslot
6007
6008

```

```

6009 \setslot{\lc{dotlessI}{dotlessi}}
6010   \comment{A dotless i ‘\i’, used to produce accented letters such as
6011     ‘\=i’.}
6012 \endsetslot
6013
6014 \setslot{\lc{dotlessJ}{dotlessj}}
6015   \comment{A dotless j ‘\j’, used to produce accented letters such as
6016     ‘\=j’. Most non-\TeX\ fonts do not have this glyph.}
6017 \endsetslot
6018
6019 \ifnumber{\int{ligaturing}}<0\then \skipslots{5}\Else
6020
6021 \setslot{\lclig{FF}{ff}}
6022   \ifnumber{\int{ligaturing}}>0\then
6023     \ligature{LIG}{\lc{I}{i}}{\lclig{FFI}{ffi}}
6024     \ligature{LIG}{\lc{L}{l}}{\lclig{FFL}{ffl}}
6025   \Fi
6026   \comment{The ‘ff’ ligature. It should be two characters wide in a
6027     monowidth font.}
6028 \endsetslot
6029
6030 \setslot{\lclig{FI}{fi}}
6031   \comment{The ‘fi’ ligature. It should be two characters wide in a
6032     monowidth font.}
6033 \endsetslot
6034
6035 \setslot{\lclig{FL}{fl}}
6036   \comment{The ‘fl’ ligature. It should be two characters wide in a
6037     monowidth font.}
6038 \endsetslot
6039
6040 \setslot{\lclig{FFI}{ffi}}
6041   \comment{The ‘ffi’ ligature. It should be three characters wide in a
6042     monowidth font.}
6043 \endsetslot
6044
6045 \setslot{\lclig{FFL}{ffl}}
6046   \comment{The ‘ffl’ ligature. It should be three characters wide in a
6047     monowidth font.}
6048 \endsetslot
6049
6050 \Fi
6051
6052 \setslot{visiblespace.superior}
6053   \comment{A visible space glyph ‘\textvisiblespace’.}
6054 \endsetslot
6055
6056 \setslot{exclam.superior}
6057   \ligature{LIG}{quotelleft.superior}{exclamdown.superior}
6058   \comment{The exclamation mark ‘!’.}
6059 \endsetslot
6060
6061 \setslot{quotedbl.superior}
6062   \comment{The ‘neutral’ double quotation mark ‘\,\textquotedbl\,’,

```

```
6063     included for use in monowidth fonts, or for setting computer
6064     programs. Note that the inclusion of this glyph in this slot
6065     means that \TeX\ documents which used '{\tt\char'" as an
6066     input character will no longer work.}
6067 \endsetslot
6068
6069 \setslot{numbersign.superior}
6070     \comment{The hash sign '\#'.}
6071 \endsetslot
6072
6073 \setslot{dollar.superior}
6074     \comment{The dollar sign '\$'.}
6075 \endsetslot
6076
6077 \setslot{percent.superior}
6078     \comment{The percent sign '\%'.}
6079 \endsetslot
6080
6081 \setslot{ampersand.superior}
6082     \comment{The ampersand sign '\&'.}
6083 \endsetslot
6084
6085 \setslot{quoteright.superior}
6086     \ligature{LIG}{quoteright.superior}{quotedblright.superior}
6087     \comment{The English closing single quote mark '\,\textquoteright\,'.}
6088 \endsetslot
6089
6090 \setslot{parenleft.superior}
6091     \comment{The opening parenthesis '('.}
6092 \endsetslot
6093
6094 \setslot{parenright.superior}
6095     \comment{The closing parenthesis ')'.}
6096 \endsetslot
6097
6098 \setslot{asterisk.superior}
6099     \comment{The raised asterisk '*'.}
6100 \endsetslot
6101
6102 \setslot{plus.superior}
6103     \comment{The addition sign '+'.}
6104 \endsetslot
6105
6106 \setslot{comma.superior}
6107     \ligature{LIG}{comma.superior}{quotedblbase.superior}
6108     \comment{The comma ','.}
6109 \endsetslot
6110
6111 \setslot{hyphen.superior}
6112     \ligature{LIG}{hyphen.superior}{endash.superior}
6113     \ligature{LIG}{hyphenchar.superior}{hyphenchar.superior}
6114     \comment{The hyphen '-'.}
6115 \endsetslot
6116
```

```
6117 \setslot{period.superior}
6118   \comment{The period '.'.}
6119 \endsetslot
6120
6121 \setslot{slash.superior}
6122   \comment{The forward oblique '/'.}
6123 \endsetslot
6124
6125 \setslot{\digit{zero}}
6126   \comment{The number '0'. This (and all the other numerals) may be
6127     old style or ranging digits.}
6128 \endsetslot
6129
6130 \setslot{\digit{one}}
6131   \comment{The number '1'.}
6132 \endsetslot
6133
6134 \setslot{\digit{two}}
6135   \comment{The number '2'.}
6136 \endsetslot
6137
6138 \setslot{\digit{three}}
6139   \comment{The number '3'.}
6140 \endsetslot
6141
6142 \setslot{\digit{four}}
6143   \comment{The number '4'.}
6144 \endsetslot
6145
6146 \setslot{\digit{five}}
6147   \comment{The number '5'.}
6148 \endsetslot
6149
6150 \setslot{\digit{six}}
6151   \comment{The number '6'.}
6152 \endsetslot
6153
6154 \setslot{\digit{seven}}
6155   \comment{The number '7'.}
6156 \endsetslot
6157
6158 \setslot{\digit{eight}}
6159   \comment{The number '8'.}
6160 \endsetslot
6161
6162 \setslot{\digit{nine}}
6163   \comment{The number '9'.}
6164 \endsetslot
6165
6166 \setslot{colon.superior}
6167   \comment{The colon punctuation mark ':'..}
6168 \endsetslot
6169
6170 \setslot{semicolon.superior}
```

```
6171     \comment{The semi-colon punctuation mark ';' .}
6172     \endsetslot
6173
6174     \setslot{less.superior}
6175         \ligature{LIG}{less.superior}{guillemotleft.superior}
6176         \comment{The less-than sign '\textless'.}
6177     \endsetslot
6178
6179     \setslot{equal.superior}
6180         \comment{The equals sign '=' .}
6181     \endsetslot
6182
6183     \setslot{greater.superior}
6184         \ligature{LIG}{greater.superior}{guillemotright.superior}
6185         \comment{The greater-than sign '\textgreater'.}
6186     \endsetslot
6187
6188     \setslot{question.superior}
6189         \ligature{LIG}{quoteleft.superior}{questiondown.superior}
6190         \comment{The question mark '?'.}
6191     \endsetslot
6192
6193     \setslot{at.superior}
6194         \comment{The at sign '@'.}
6195     \endsetslot
6196
6197     \setslot{\uc{A}{a}}
6198         \comment{The letter '{A}'.}
6199     \endsetslot
6200
6201     \setslot{\uc{B}{b}}
6202         \comment{The letter '{B}'.}
6203     \endsetslot
6204
6205     \setslot{\uc{C}{c}}
6206         \comment{The letter '{C}'.}
6207     \endsetslot
6208
6209     \setslot{\uc{D}{d}}
6210         \comment{The letter '{D}'.}
6211     \endsetslot
6212
6213     \setslot{\uc{E}{e}}
6214         \comment{The letter '{E}'.}
6215     \endsetslot
6216
6217     \setslot{\uc{F}{f}}
6218         \comment{The letter '{F}'.}
6219     \endsetslot
6220
6221     \setslot{\uc{G}{g}}
6222         \comment{The letter '{G}'.}
6223     \endsetslot
6224
```

```
6225 \setslot{\uc{H}{h}}
6226   \comment{The letter '{H}'.}
6227 \endsetslot
6228
6229 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
6230
6231 \setslot{\uc{I}{i}}
6232   \comment{The letter '{I}'.}
6233 \endsetslot
6234
6235 \Fi
6236
6237 \setslot{\uc{J}{j}}
6238   \comment{The letter '{J}'.}
6239 \endsetslot
6240
6241 \setslot{\uc{K}{k}}
6242   \comment{The letter '{K}'.}
6243 \endsetslot
6244
6245 \setslot{\uc{L}{l}}
6246   \comment{The letter '{L}'.}
6247 \endsetslot
6248
6249 \setslot{\uc{M}{m}}
6250   \comment{The letter '{M}'.}
6251 \endsetslot
6252
6253 \setslot{\uc{N}{n}}
6254   \comment{The letter '{N}'.}
6255 \endsetslot
6256
6257 \setslot{\uc{O}{o}}
6258   \comment{The letter '{O}'.}
6259 \endsetslot
6260
6261 \setslot{\uc{P}{p}}
6262   \comment{The letter '{P}'.}
6263 \endsetslot
6264
6265 \setslot{\uc{Q}{q}}
6266   \comment{The letter '{Q}'.}
6267 \endsetslot
6268
6269 \setslot{\uc{R}{r}}
6270   \comment{The letter '{R}'.}
6271 \endsetslot
6272
6273 \setslot{\uc{S}{s}}
6274   \comment{The letter '{S}'.}
6275 \endsetslot
6276
6277 \setslot{\uc{T}{t}}
6278   \comment{The letter '{T}'.}
```

```
6279 \endsetslot
6280
6281 \setslot{\uc{U}{u}}
6282     \comment{The letter '{U}'.}
6283 \endsetslot
6284
6285 \setslot{\uc{V}{v}}
6286     \comment{The letter '{V}'.}
6287 \endsetslot
6288
6289 \setslot{\uc{W}{w}}
6290     \comment{The letter '{W}'.}
6291 \endsetslot
6292
6293 \setslot{\uc{X}{x}}
6294     \comment{The letter '{X}'.}
6295 \endsetslot
6296
6297 \setslot{\uc{Y}{y}}
6298     \comment{The letter '{Y}'.}
6299 \endsetslot
6300
6301 \setslot{\uc{Z}{z}}
6302     \comment{The letter '{Z}'.}
6303 \endsetslot
6304
6305 \setslot{bracketleft.superior}
6306     \comment{The opening square bracket '['.}
6307 \endsetslot
6308
6309 \setslot{backslash.superior}
6310     \comment{The backwards oblique '\textbackslash'.}
6311 \endsetslot
6312
6313 \setslot{bracketright.superior}
6314     \comment{The closing square bracket ']'.}
6315 \endsetslot
6316
6317 \setslot{asciicircum.superior}
6318     \comment{The ASCII upward-pointing arrow head '\textasciicircum'.
6319         This is included for compatibility with typewriter fonts used
6320         for computer listings.}
6321 \endsetslot
6322
6323 \setslot{underscore.superior}
6324     \comment{The ASCII underline character '\textunderline', usually
6325         set on the baseline.
6326         This is included for compatibility with typewriter fonts used
6327         for computer listings.}
6328 \endsetslot
6329
6330 \setslot{quotyleft.superior}
6331     \ligature{LIG}{quotyleft.superior}{quotedblleft.superior}
6332     \comment{The English opening single quote mark '\textquotyleft\,'.}
```

```

6333 \endsetslot
6334
6335 \setslot{\lc{A}{a}}
6336   \comment{The letter '{a}'.}
6337 \endsetslot
6338
6339 \setslot{\lc{B}{b}}
6340   \comment{The letter '{b}'.}
6341 \endsetslot
6342
6343 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
6344
6345   \setslot{\lc{C}{c}}
6346   \comment{The letter '{c}'.}
6347 \endsetslot
6348
6349 \Fi
6350
6351 \setslot{\lc{D}{d}}
6352   \comment{The letter '{d}'.}
6353 \endsetslot
6354
6355 \setslot{\lc{E}{e}}
6356   \comment{The letter '{e}'.}
6357 \endsetslot
6358
6359 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
6360
6361   \setslot{\lc{F}{f}}
6362   \ifnumber{\int{ligaturing}}>{0}\then
6363     \ligature{LIG}{\lc{I}{i}}{\lclig{FI}{fi}}
6364     \ligature{LIG}{\lc{F}{f}}{\lclig{FF}{ff}}
6365     \ligature{LIG}{\lc{L}{l}}{\lclig{FL}{fl}}
6366   \Fi
6367   \comment{The letter '{f}'.}
6368 \endsetslot
6369
6370 \Fi
6371
6372 \setslot{\lc{G}{g}}
6373   \comment{The letter '{g}'.}
6374 \endsetslot
6375
6376 \setslot{\lc{H}{h}}
6377   \comment{The letter '{h}'.}
6378 \endsetslot
6379
6380 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
6381
6382   \setslot{\lc{I}{i}}
6383   \comment{The letter '{i}'.}
6384 \endsetslot
6385
6386 \Fi

```

```
6387 \setslot{\lc{J}{j}}
6388   \comment{The letter '{j}'.}
6389 \endsetslot
6390
6391 \setslot{\lc{K}{k}}
6392   \comment{The letter '{k}'.}
6393 \endsetslot
6394
6395 \setslot{\lc{L}{l}}
6396   \comment{The letter '{l}'.}
6397 \endsetslot
6398
6399 \setslot{\lc{M}{m}}
6400   \comment{The letter '{m}'.}
6401 \endsetslot
6402
6403 \setslot{\lc{N}{n}}
6404   \comment{The letter '{n}'.}
6405 \endsetslot
6406
6407 \setslot{\lc{O}{o}}
6408   \comment{The letter '{o}'.}
6409 \endsetslot
6410
6411 \setslot{\lc{P}{p}}
6412   \comment{The letter '{p}'.}
6413 \endsetslot
6414
6415 \setslot{\lc{Q}{q}}
6416   \comment{The letter '{q}'.}
6417 \endsetslot
6418
6419 \setslot{\lc{R}{r}}
6420   \comment{The letter '{r}'.}
6421 \endsetslot
6422
6423 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
6424
6425   \setslot{\lc{S}{s}}
6426     \comment{The letter '{s}'.}
6427   \endsetslot
6428
6429 \Fi
6430
6431 \setslot{\lc{T}{t}}
6432   \comment{The letter '{t}'.}
6433 \endsetslot
6434
6435 \setslot{\lc{U}{u}}
6436   \comment{The letter '{u}'.}
6437 \endsetslot
6438
6439 \setslot{\lc{V}{v}}
```

```
6441     \comment{The letter '{v}'.}
6442 \endsetslot
6443
6444 \setslot{\lc{W}{w}}
6445     \comment{The letter '{w}'.}
6446 \endsetslot
6447
6448 \setslot{\lc{X}{x}}
6449     \comment{The letter '{x}'.}
6450 \endsetslot
6451
6452 \setslot{\lc{Y}{y}}
6453     \comment{The letter '{y}'.}
6454 \endsetslot
6455
6456 \setslot{\lc{Z}{z}}
6457     \comment{The letter '{z}'.}
6458 \endsetslot
6459
6460 \setslot{braceleft.superior}
6461     \comment{The opening curly brace '\textbraceleft'.}
6462 \endsetslot
6463
6464 \setslot{bar.superior}
6465     \comment{The ASCII vertical bar '\textbar'.
6466         This is included for compatibility with typewriter fonts used
6467         for computer listings.}
6468 \endsetslot
6469
6470 \setslot{braceright.superior}
6471     \comment{The closing curly brace '\textbraceright'.}
6472 \endsetslot
6473
6474 \setslot{asciitilde.superior}
6475     \comment{The ASCII tilde '\textasciitilde'.
6476         This is included for compatibility with typewriter fonts used
6477         for computer listings.}
6478 \endsetslot
6479
6480 \setslot{hyphenchar.superior}
6481     \comment{The glyph used for hyphenation in this font, which will
6482         almost always be the same as 'hyphen'.}
6483 \endsetslot
6484
6485 \setslot{\uctop{Abreve}{abreve}}
6486     \comment{The letter '\u A'.}
6487 \endsetslot
6488
6489 \setslot{\uc{Aogonek}{aogonek}}
6490     \comment{The letter '\k A'.}
6491 \endsetslot
6492
6493 \setslot{\uctop{Cacute}{cacute}}
6494     \comment{The letter '\' C'.
```

```

6495 \endsetslot
6496
6497 \setslot{\uctop{Ccaron}{ccaron}}
6498   \comment{The letter '\v C'.}
6499 \endsetslot
6500
6501 \setslot{\uctop{Dcaron}{dcaron}}
6502   \comment{The letter '\v D'.}
6503 \endsetslot
6504
6505 \setslot{\uctop{Ecaron}{ecaron}}
6506   \comment{The letter '\v E'.}
6507 \endsetslot
6508
6509 \setslot{\uc{Eogonek}{eogonek}}
6510   \comment{The letter '\k E'.}
6511 \endsetslot
6512
6513 \setslot{\uctop{Gbreve}{gbreve}}
6514   \comment{The letter '\u G'.}
6515 \endsetslot
6516
6517 \setslot{\uctop{Lacute}{lacute}}
6518   \comment{The letter '\` L'.}
6519 \endsetslot
6520
6521 \setslot{\uc{Lcaron}{lcaron}}
6522   \comment{The letter '\v L'.}
6523 \endsetslot
6524
6525 \setslot{\uc{Lslash}{lslash}}
6526   \comment{The letter '\L'.}
6527 \endsetslot
6528
6529 \setslot{\uctop{Nacute}{nacute}}
6530   \comment{The letter '\` N'.}
6531 \endsetslot
6532
6533 \setslot{\uctop{Ncaron}{ncaron}}
6534   \comment{The letter '\v N'.}
6535 \endsetslot
6536
6537 \setslot{\uc{Eng}{eng}}
6538   \comment{The Sami letter '\NG'. It is unavailable in \plain\ \TeX. This needs
to be called 'Eng'/'eng' rather than 'Ng'/'ng' as in t1.etx in most cases, it
seems.}
6539 \endsetslot
6540
6541 \setslot{\uctop{Ohungarumlaut}{ohungarumlaut}}
6542   \comment{The letter '\H O'.}
6543 \endsetslot
6544
6545 \setslot{\uctop{Racute}{racute}}
6546   \comment{The letter '\` R'.}

```

```

6547 \endsetslot
6548
6549 \setslot{\uctop{Rcaron}{rcaron}}
6550   \comment{The letter '\v R'.}
6551 \endsetslot
6552
6553 \setslot{\uctop{Sacute}{sacute}}
6554   \comment{The letter '\` S'.}
6555 \endsetslot
6556
6557 \setslot{\uctop{Scaron}{scaron}}
6558   \comment{The letter '\v S'.}
6559 \endsetslot
6560
6561 \setslot{\uc{Scedilla}{scedilla}}
6562   \comment{The letter '\c S'.}
6563 \endsetslot
6564
6565 \setslot{\uctop{Tcaron}{tcaron}}
6566   \comment{The letter '\v T'.}
6567 \endsetslot
6568
6569 \setslot{\uc{Tcedilla}{tcedilla}}
6570   \comment{The letter '\c T'.}
6571 \endsetslot
6572
6573 \setslot{\uctop{Uhungarumlaut}{uhungarumlaut}}
6574   \comment{The letter '\H U'.}
6575 \endsetslot
6576
6577 \setslot{\uctop{Uring}{uring}}
6578   \comment{The letter '\r U'.}
6579 \endsetslot
6580
6581 \setslot{\uctop{Ydieresis}{ydieresis}}
6582   \comment{The letter '\^ Y'.}
6583 \endsetslot
6584
6585 \setslot{\uctop{Zacute}{zacute}}
6586   \comment{The letter '\` Z'.}
6587 \endsetslot
6588
6589 \setslot{\uctop{Zcaron}{zcaron}}
6590   \comment{The letter '\v Z'.}
6591 \endsetslot
6592
6593 \setslot{\uctop{Zdotaccent}{zdotaccent}}
6594   \comment{The letter '\. Z'.}
6595 \endsetslot
6596
6597 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{1}\Else
6598
6599 \setslot{\uclig{IJ}{ij}}
6600   \comment{The letter 'IJ'. This is a single letter, and in a

```

```
6601     monowidth font should ideally be one letter wide.}
6602 \endsetslot
6603
6604 \Fi
6605
6606 \setslot{\uctop{Idotaccent}{idotaccent}}
6607   \comment{The letter '\. I'.}
6608 \endsetslot
6609
6610 \setslot{\lc{Dbar}{dbar}}
6611   \comment{The letter '\dj'.}
6612 \endsetslot
6613
6614 \setslot{section.superior}
6615   \comment{The section mark '\textsection'.}
6616 \endsetslot
6617
6618 \setslot{\lctop{Abreve}{abreve}}
6619   \comment{The letter '\u a'.}
6620 \endsetslot
6621
6622 \setslot{\lc{Aogonek}{aogonek}}
6623   \comment{The letter '\k a'.}
6624 \endsetslot
6625
6626 \setslot{\lctop{Cacute}{cacute}}
6627   \comment{The letter '\c c'.}
6628 \endsetslot
6629
6630 \setslot{\lctop{Ccaron}{ccaron}}
6631   \comment{The letter '\v c'.}
6632 \endsetslot
6633
6634 \setslot{\lctop{Dcaron}{dcaron}}
6635   \comment{The letter '\v d'.}
6636 \endsetslot
6637
6638 \setslot{\lctop{Ecaron}{ecaron}}
6639   \comment{The letter '\v e'.}
6640 \endsetslot
6641
6642 \setslot{\lc{Eogonek}{eogonek}}
6643   \comment{The letter '\k e'.}
6644 \endsetslot
6645
6646 \setslot{\lctop{Gbreve}{gbreve}}
6647   \comment{The letter '\u g'.}
6648 \endsetslot
6649
6650 \setslot{\lctop{Lacute}{lacute}}
6651   \comment{The letter '\l'.}
6652 \endsetslot
6653
6654 \setslot{\lc{Lcaron}{lcaron}}
```

```

6655   \comment{The letter '\v l'.}
6656 \endsetslot
6657
6658 \setslot{\lc{Lslash}{lslash}}
6659   \comment{The letter '\l'.}
6660 \endsetslot
6661
6662 \setslot{\lctop{Nacute}{nacute}}
6663   \comment{The letter '\n'.}
6664 \endsetslot
6665
6666 \setslot{\lctop{Ncaron}{ncaron}}
6667   \comment{The letter '\v n'.}
6668 \endsetslot
6669
6670 \setslot{\lc{Eng}{eng}}
6671   \comment{The Sami letter '\ng'. It is unavailable in \plain\ \TeX. This needs
       to be called 'Eng'/'eng' rather than 'Ng'/'ng' as it is in t1.tex in most cases,
       it seems.}
6672 \endsetslot
6673
6674 \setslot{\lctop{Ohungarumlaut}{ohungarumlaut}}
6675   \comment{The letter '\H o'.}
6676 \endsetslot
6677
6678 \setslot{\lctop{Racute}{racute}}
6679   \comment{The letter '\r'.}
6680 \endsetslot
6681
6682 \setslot{\lctop{Rcaron}{rcaron}}
6683   \comment{The letter '\v r'.}
6684 \endsetslot
6685
6686 \setslot{\lctop{Sacute}{sacute}}
6687   \comment{The letter '\s'.}
6688 \endsetslot
6689
6690 \setslot{\lctop{Scaron}{scaron}}
6691   \comment{The letter '\v s'.}
6692 \endsetslot
6693
6694 \setslot{\lc{Scedilla}{scedilla}}
6695   \comment{The letter '\c s'.}
6696 \endsetslot
6697
6698 \setslot{\lctop{Tcaron}{tcaron}}
6699   \comment{The letter '\v t'.}
6700 \endsetslot
6701
6702 \setslot{\lc{Tcedilla}{tcedilla}}
6703   \comment{The letter '\c t'.}
6704 \endsetslot
6705
6706 \setslot{\lctop{Uhungarumlaut}{uhungarumlaut}}

```

```

6707     \comment{The letter '\H u'.}
6708 \endsetslot
6709
6710 \setslot{\lctop{Uring}{uring}}
6711     \comment{The letter '\r u'.}
6712 \endsetslot
6713
6714 \setslot{\lctop{Ydieresis}{ydieresis}}
6715     \comment{The letter '\^ y'.}
6716 \endsetslot
6717
6718 \setslot{\lctop{Zacute}{zacute}}
6719     \comment{The letter '\` z'.}
6720 \endsetslot
6721
6722 \setslot{\lctop{Zcaron}{zcaron}}
6723     \comment{The letter '\v z'.}
6724 \endsetslot
6725
6726 \setslot{\lctop{Zdotaccent}{zdotaccent}}
6727     \comment{The letter '\. z'.}
6728 \endsetslot
6729
6730 \ifnumber{\int{ligaturing}}<0\then \skipslots{1}\Else
6731
6732 \setslot{\lclig{IJ}{ij}}
6733     \comment{The letter 'ij'. This is a single letter, and in a
6734     monowidth font should ideally be one letter wide.}
6735 \endsetslot
6736
6737 \Fi
6738
6739 \setslot{exclamdown.superior}
6740     \comment{The Spanish punctuation mark '!'.}
6741 \endsetslot
6742
6743 \setslot{questiondown.superior}
6744     \comment{The Spanish punctuation mark '?'.}
6745 \endsetslot
6746
6747 \setslot{sterling.superior}
6748     \comment{The British currency mark '\textsterling'.}
6749 \endsetslot
6750
6751 \setslot{\uctop{Agrave}{agrave}}
6752     \comment{The letter '\` A'.}
6753 \endsetslot
6754
6755 \setslot{\uctop{Aacute}{aacute}}
6756     \comment{The letter '\^ A'.}
6757 \endsetslot
6758
6759 \setslot{\uctop{Acircumflex}{acircumflex}}
6760     \comment{The letter '\^ A'.}

```

```
6761 \endsetslot
6762
6763 \setslot{\uctop{Atilde}{atilde}}
6764     \comment{The letter '\~A'.}
6765 \endsetslot
6766
6767 \setslot{\uctop{Adieresis}{adieresis}}
6768     \comment{The letter '\u00c1'.}
6769 \endsetslot
6770
6771 \setslot{\uctop{Aring}{aring}}
6772     \comment{The letter '\r A'.}
6773 \endsetslot
6774
6775 \setslot{\uc{AE}{ae}}
6776     \comment{The letter '\AE'. This is a single letter, and should not be
6777         faked with 'AE'.}
6778 \endsetslot
6779
6780 \setslot{\uc{Ccedilla}{ccedilla}}
6781     \comment{The letter '\c C'.}
6782 \endsetslot
6783
6784 \setslot{\uctop{Egrave}{egrave}}
6785     \comment{The letter '\`E'.}
6786 \endsetslot
6787
6788 \setslot{\uctop{Eacute}{eacute}}
6789     \comment{The letter '\u00e1 E'.}
6790 \endsetslot
6791
6792 \setslot{\uctop{Ecircumflex}{ecircumflex}}
6793     \comment{The letter '\^E'.}
6794 \endsetslot
6795
6796 \setslot{\uctop{Edieresis}{edieresis}}
6797     \comment{The letter '\u00c1 E'.}
6798 \endsetslot
6799
6800 \setslot{\uctop{Igrave}{igrave}}
6801     \comment{The letter '\`I'.}
6802 \endsetslot
6803
6804 \setslot{\uctop{Iacute}{iacute}}
6805     \comment{The letter '\u00e1 I'.}
6806 \endsetslot
6807
6808 \setslot{\uctop{Icircumflex}{icircumflex}}
6809     \comment{The letter '\^I'.}
6810 \endsetslot
6811
6812 \setslot{\uctop{Idieresis}{idieresis}}
6813     \comment{The letter '\u00c1 I'.}
6814 \endsetslot
```

```
6815 \setslot{\uc{Eth}{eth}}
6816   \comment{The uppercase Icelandic letter ‘Eth’ similar to a ‘D’
6817     with a horizontal bar through the stem. It is unavailable
6818     in \plain\ \TeX.}
6819 \endsetslot
6820
6821 \setslot{\uctop{Ntilde}{ntilde}}
6822   \comment{The letter ‘\~ N’.}
6823 \endsetslot
6824
6825 \setslot{\uctop{Ograve}{ograve}}
6826   \comment{The letter ‘\` O’.}
6827 \endsetslot
6828
6829 \setslot{\uctop{Oacute}{oacute}}
6830   \comment{The letter ‘\^ O’.}
6831 \endsetslot
6832
6833 \setslot{\uctop{Ocircumflex}{ocircumflex}}
6834   \comment{The letter ‘\~^ O’.}
6835 \endsetslot
6836
6837 \setslot{\uctop{Otilde}{otilde}}
6838   \comment{The letter ‘\~ O’.}
6839 \endsetslot
6840
6841 \setslot{\uctop{Odieresis}{odieresis}}
6842   \comment{The letter ‘\" O’.}
6843 \endsetslot
6844
6845 \setslot{\uc{OE}{oe}}
6846   \comment{The letter ‘\OE’. This is a single letter, and should not be
6847     faked with ‘OE’.}
6848 \endsetslot
6849
6850 \setslot{\uc{Oslash}{oslash}}
6851   \comment{The letter ‘\O’.}
6852 \endsetslot
6853
6854 \setslot{\uctop{Ugrave}{ugrave}}
6855   \comment{The letter ‘\` U’.}
6856 \endsetslot
6857
6858 \setslot{\uctop{Uacute}{uacute}}
6859   \comment{The letter ‘\^ U’.}
6860 \endsetslot
6861
6862 \setslot{\uctop{Ucircumflex}{ucircumflex}}
6863   \comment{The letter ‘\~^ U’.}
6864 \endsetslot
6865
6866 \setslot{\uctop{Udieresis}{udieresis}}
6867   \comment{The letter ‘\" U’.}
6868 \endsetslot
6869
```

```
6869 \endsetslot
6870
6871 \setslot{\uctop{Yacute}{yacute}}
6872   \comment{The letter '\` Y'.}
6873 \endsetslot
6874
6875 \setslot{\uc{Thorn}{thorn}}
6876   \comment{The Icelandic capital letter Thorn, similar to a 'P'
6877       with the bowl moved down. It is unavailable in \plain\ \TeX.}
6878 \endsetslot
6879
6880 \setslot{\uclig{SS}{germandbls}}
6881   \comment{The ligature 'SS', used to give an upper case '\ss'.
6882       In a monowidth font it should be two letters wide.}
6883 \endsetslot
6884
6885 \setslot{\lctop{Agrave}{agrave}}
6886   \comment{The letter '\` a'.}
6887 \endsetslot
6888
6889 \setslot{\lctop{Aacute}{aacute}}
6890   \comment{The letter '\` a'.}
6891 \endsetslot
6892
6893 \setslot{\lctop{Acircumflex}{acircumflex}}
6894   \comment{The letter '\^ a'.}
6895 \endsetslot
6896
6897 \setslot{\lctop{Atilde}{atilde}}
6898   \comment{The letter '\~ a'.}
6899 \endsetslot
6900
6901 \setslot{\lctop{Adieresis}{adieresis}}
6902   \comment{The letter '\" a'.}
6903 \endsetslot
6904
6905 \setslot{\lctop{Aring}{aring}}
6906   \comment{The letter '\r a'.}
6907 \endsetslot
6908
6909 \setslot{\lc{AE}{ae}}
6910   \comment{The letter '\ae'. This is a single letter, and should not be
6911       faked with 'ae'.}
6912 \endsetslot
6913
6914 \setslot{\lc{Ccedilla}{ccedilla}}
6915   \comment{The letter '\c c'.}
6916 \endsetslot
6917
6918 \setslot{\lctop{Egrave}{egrave}}
6919   \comment{The letter '\` e'.}
6920 \endsetslot
6921
6922 \setslot{\lctop{Eacute}{eacute}}
```

```
6923     \comment{The letter '\` e'.}
6924 \endsetslot
6925
6926 \setslot{\lctop{Ecircumflex}{ecircumflex}}
6927     \comment{The letter '\^ e'.}
6928 \endsetslot
6929
6930 \setslot{\lctop{Edieresis}{edieresis}}
6931     \comment{The letter '\\" e'.}
6932 \endsetslot
6933
6934 \setslot{\lctop{Igrave}{igrave}}
6935     \comment{The letter '\`i'.}
6936 \endsetslot
6937
6938 \setslot{\lctop{Iacute}{iacute}}
6939     \comment{The letter '\`i'.}
6940 \endsetslot
6941
6942 \setslot{\lctop{Icircumflex}{icircumflex}}
6943     \comment{The letter '\^i'.}
6944 \endsetslot
6945
6946 \setslot{\lctop{Idieresis}{idieresis}}
6947     \comment{The letter '\\"i'.}
6948 \endsetslot
6949
6950 \setslot{\lc{Eth}{eth}}
6951     \comment{The Icelandic lowercase letter 'eth' similar to
6952         a '$\partial$' with an oblique bar through the stem.
6953         It is unavailable in \plain\ TeX.}
6954 \endsetslot
6955
6956 \setslot{\lctop{Ntilde}{ntilde}}
6957     \comment{The letter '\~ n'.}
6958 \endsetslot
6959
6960 \setslot{\lctop{Ograve}{ograve}}
6961     \comment{The letter '\` o'.}
6962 \endsetslot
6963
6964 \setslot{\lctop{Oacute}{oacute}}
6965     \comment{The letter '\` o'.}
6966 \endsetslot
6967
6968 \setslot{\lctop{Ocircumflex}{ocircumflex}}
6969     \comment{The letter '\^ o'.}
6970 \endsetslot
6971
6972 \setslot{\lctop{Otilde}{otilde}}
6973     \comment{The letter '\~ o'.}
6974 \endsetslot
6975
6976 \setslot{\lctop{Odieresis}{odieresis}}
```

```

6977     \comment{The letter '\o'.}
6978     \endsetslot
6979
6980     \setslot{\lc{OE}{oe}}
6981         \comment{The letter '\oe'. This is a single letter, and should not be
6982             faked with 'oe'.}
6983     \endsetslot
6984
6985     \setslot{\lc{0slash}{oslash}}
6986         \comment{The letter '\o'.}
6987     \endsetslot
6988
6989     \setslot{\lctop{Ugrave}{ugrave}}
6990         \comment{The letter '\u'.}
6991     \endsetslot
6992
6993     \setslot{\lctop{Uacute}{uacute}}
6994         \comment{The letter '\u'.}
6995     \endsetslot
6996
6997     \setslot{\lctop{Ucircumflex}{ucircumflex}}
6998         \comment{The letter '\^u'.}
6999     \endsetslot
7000
7001     \setslot{\lctop{Udieresis}{udieresis}}
7002         \comment{The letter '\u'.}
7003     \endsetslot
7004
7005     \setslot{\lctop{Yacute}{yacute}}
7006         \comment{The letter '\y'.}
7007     \endsetslot
7008
7009     \setslot{\lc{Thorn}{thorn}}
7010         \comment{The Icelandic lowercase letter 'thorn', similar to a 'p'
7011             with an ascender rising from the stem. It is unavailable
7012             in \plain\ \TeX.}
7013     \endsetslot
7014
7015     \setslot{\lc{SS}{germandbls}}
7016         \comment{The letter '\ss'.}
7017     \endsetslot
7018
7019     \endencoding

```

6.3.11 t1-dotsuperior.etx

t1-dotsuperior.etx (*etx*)

```

7020 %%
7021 %% - The original notices at the top of that file concerning authors,
7022 %% maintenance etc. are replaced by this notice.
7023 %% - The file is renamed.
7024 %% - The encoding name is modified.

```



```

7079   \setint{interword}{333}
7080   \Fi\Fi
7081
7082 \ifisint{monowidth}\then
7083   \setint{stretchword}{0}
7084   \setint{shrinkword}{0}
7085   \setint{extraspace}{\int{interword}}
7086 \Else
7087   \setint{stretchword}{\scale{\int{interword}}{600}}
7088   \setint{shrinkword}{\scale{\int{interword}}{240}}
7089   \setint{extraspace}{\scale{\int{interword}}{240}}
7090 \Fi
7091
7092 \ifisglyph{X}\then
7093   \setint{capheight}{\height{X}}
7094 \Else
7095   \setint{capheight}{750}
7096 \Fi
7097
7098 \ifisglyph{d}\then
7099   \setint{ascender}{\height{d}}
7100 \Else\ifisint{capheight}\then
7101   \setint{ascender}{\int{capheight}}
7102 \Else
7103   \setint{ascender}{750}
7104 \Fi\Fi
7105
7106 \ifisglyph{Aring}\then
7107   \setint{acccapheight}{\height{Aring}}
7108 \Else
7109   \setint{acccapheight}{999}
7110 \Fi
7111
7112 \ifisint{descender_neg}\then
7113   \setint{descender}{\neg{\int{descender_neg}}}
7114 \Else\ifisglyph{p}\then
7115   \setint{descender}{\depth{p}}
7116 \Else
7117   \setint{descender}{250}
7118 \Fi\Fi
7119
7120 \ifisglyph{Aring}\then
7121   \setint{maxheight}{\height{Aring}}
7122 \Else
7123   \setint{maxheight}{1000}
7124 \Fi
7125
7126 \ifisint{maxdepth_neg}\then
7127   \setint{maxdepth}{\neg{\int{maxdepth_neg}}}
7128 \Else\ifisglyph{j}\then
7129   \setint{maxdepth}{\depth{j}}
7130 \Else
7131   \setint{maxdepth}{250}
7132 \Fi\Fi

```

```

7133 \ifisglyph{six}\then
7134   \setint{digitwidth}{\width{six}}
7135 \Else
7136   \setint{digitwidth}{500}
7138 \Fi
7139
7140 \setint{capstem}{0} % not in AFM files
7141
7142 \setfontdimen{1}{italicslant}      % italic slant
7143 \setfontdimen{2}{interword}        % interword space
7144 \setfontdimen{3}{stretchword}     % interword stretch
7145 \setfontdimen{4}{shrinkword}      % interword shrink
7146 \setfontdimen{5}{xheight}         % x-height
7147 \setfontdimen{6}{quad}            % quad
7148 \setfontdimen{7}{extraspace}      % extra space after .
7149 \setfontdimen{8}{capheight}       % cap height
7150 \setfontdimen{9}{ascender}        % ascender
7151 \setfontdimen{10}{accapheight}    % accented cap height
7152 \setfontdimen{11}{descender}      % descender's depth
7153 \setfontdimen{12}{maxheight}      % max height
7154 \setfontdimen{13}{maxdepth}       % max depth
7155 \setfontdimen{14}{digitwidth}     % digit width
7156 \setfontdimen{15}{verticalstem}   % dominant width of vertical stems
7157 \setfontdimen{16}{baselineskip}   % baselineskip
7158
7159 \ifnumber{\int{ligaturing}}<{0}\then
7160   \comment{In this case, the codingscheme can be different from the
7161   default, and therefore we refrain from setting it.}
7162 \Else
7163   \setstr{codingscheme}{EXTENDED TEX FONT ENCODING - DOTSUPERIOR}
7164 \Fi
7165
7166 \setslot{\lc{Grave}{grave}}
7167   \comment{The grave accent '\{}.\}
7168 \endsetslot
7169
7170 \setslot{\lc{Acute}{acute}}
7171   \comment{The acute accent '\{}.\}
7172 \endsetslot
7173
7174 \setslot{\lc{Circumflex}{circumflex}}
7175   \comment{The circumflex accent '\^{}.\}
7176 \endsetslot
7177
7178 \setslot{\lc{Tilde}{tilde}}
7179   \comment{The tilde accent '\~{}.\}
7180 \endsetslot
7181
7182 \setslot{\lc{Dieresis}{dieresis}}
7183   \comment{The umlaut or dieresis accent '\\"{}.\}
7184 \endsetslot
7185
7186 \setslot{\lc{Hungarumlaut}{hungarumlaut}}

```

```

7187     \comment{The long Hungarian umlaut '\H{}' .}
7188 \endsetslot
7189
7190 \setslot{\lc{Ring}{ring}}
7191     \comment{The ring accent '\r{}' .}
7192 \endsetslot
7193
7194 \setslot{\lc{Caron}{caron}}
7195     \comment{The caron or h\`a\v cek accent '\v{}' .}
7196 \endsetslot
7197
7198 \setslot{\lc{Breve}{breve}}
7199     \comment{The breve accent '\u{}' .}
7200 \endsetslot
7201
7202 \setslot{\lc{Macron}{macron}}
7203     \comment{The macron accent '\={}' .}
7204 \endsetslot
7205
7206 \setslot{\lc{Dotaccent}{dotaccent}}
7207     \comment{The dot accent '\.{}' .}
7208 \endsetslot
7209
7210 \setslot{\lc{Cedilla}{cedilla}}
7211     \comment{The cedilla accent '\c {}' .}
7212 \endsetslot
7213
7214 \setslot{\lc{Ogonek}{ogonek}}
7215     \comment{The ogonek accent '\k {}' .}
7216 \endsetslot
7217
7218 \setslot{quotesinglbase.superior}
7219     \comment{A German single quote mark '\quotesinglbase' similar to a comma,
7220         but with different sidebearings.}
7221 \endsetslot
7222
7223 \setslot{guilsinglleft.superior}
7224     \comment{A French single opening quote mark '\guilsinglleft',
7225         unavailable in \plain\ \TeX.}
7226 \endsetslot
7227
7228 \setslot{guilsinglright.superior}
7229     \comment{A French single closing quote mark '\guilsinglright',
7230         unavailable in \plain\ \TeX.}
7231 \endsetslot
7232
7233 \setslot{quotedblleft.superior}
7234     \comment{The English opening quote mark '\,\textquotedblleft\,' .}
7235 \endsetslot
7236
7237 \setslot{quotedblright.superior}
7238     \comment{The English closing quote mark '\,\textquotedblright\,' .}
7239 \endsetslot
7240

```

```

7241 \setslot{quotedblbase.superior}
7242   \comment{A German double quote mark ‘\quotedblbase’ similar to two commas,
7243     but with tighter letterspacing and different sidebearings.}
7244 \endsetslot
7245
7246 \setslot{guillemotleft.superior}
7247   \comment{A French double opening quote mark ‘\guillemotleft’,
7248     unavailable in \plain\ \TeX.}
7249 \endsetslot
7250
7251 \setslot{guillemotright.superior}
7252   \comment{A French closing opening quote mark ‘\guillemotright’,
7253     unavailable in \plain\ \TeX.}
7254 \endsetslot
7255
7256 \setslot{endash.superior}
7257   \ligature[LIG]{hyphen.superior}{emdash.superior}
7258   \comment{The number range dash ‘1--9’.
7259     This is called ‘rangedash’ by fontinst’s t1.etx, but it needs to be
7260     called ‘endash’ to work right.
7261     The ‘\textendash’. In a monowidth font, this might be set as
7262     ‘\texttt{\textendash}’.}
7263 \endsetslot
7264
7265 \setslot{emdash.superior}
7266   \comment{The punctuation dash ‘Oh---boy.’
7267     This is calle ‘punctdash’ by fontinst’s t1.etx, but needs to be called
7268     ‘emdash’ to work right.
7269     The ‘\textemdash’. In a monowidth font, this might be set as
7270     ‘\texttt{\textemdash}’}
7271 \endsetslot
7272
7273 \setslot{compwordmark.superior}
7274   \comment{An invisible glyph, with zero width and depth, but the
7275     height of lowercase letters without ascenders.
7276     It is used to stop ligaturing in words like ‘shelf{}ful’.}
7277 \endsetslot
7278
7279 \setslot{perthousandzero.superior}
7280   \comment{A glyph which is placed after ‘\%’ to produce a
7281     ‘per-thousand’, or twice to produce ‘per-ten-thousand’.
7282     Your guess is as good as mine as to what this glyph should look
7283     like in a monowidth font.}
7284 \endsetslot
7285
7286 \setslot{\lc{dotlessI}{dotlessi}}
7287   \comment{A dotless i ‘\i’, used to produce accented letters such as
7288     ‘\=\i’.}
7289 \endsetslot
7290
7291 \setslot{\lc{dotlessJ}{dotlessj}}
7292   \comment{A dotless j ‘\j’, used to produce accented letters such as
7293     ‘\=\j’. Most non-\TeX\ fonts do not have this glyph.}
7294 \endsetslot

```

```

7295 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{5}\Else
7296   \setslot{\lclig{FF}{ff}}
7297     \ifnumber{\int{ligaturing}}>{0}\then
7298       \ligature{LIG}{\lc{I}{i}}{\lclig{FFI}{ffi}}
7299       \ligature{LIG}{\lc{L}{l}}{\lclig{FFL}{ffl}}
7300     \F
7301     \comment{The 'ff' ligature. It should be two characters wide in a
7302       monowidth font.}
7303   \endsetslot
7304
7305 \setslot{\lclig{FI}{fi}}
7306   \comment{The 'fi' ligature. It should be two characters wide in a
7307       monowidth font.}
7308 \endsetslot
7309
7310 \setslot{\lclig{FL}{fl}}
7311   \comment{The 'fl' ligature. It should be two characters wide in a
7312       monowidth font.}
7313 \endsetslot
7314
7315 \setslot{\lclig{FFI}{ffi}}
7316   \comment{The 'ffi' ligature. It should be three characters wide in a
7317       monowidth font.}
7318 \endsetslot
7319
7320 \setslot{\lclig{FFL}{ffl}}
7321   \comment{The 'ffl' ligature. It should be three characters wide in a
7322       monowidth font.}
7323 \endsetslot
7324
7325 \F
7326
7327 \setslot{visiblespace.superior}
7328   \comment{A visible space glyph '\textvisiblespace'.}
7329 \endsetslot
7330
7331 \setslot{exclam.superior}
7332   \ligature{LIG}{quotelleft.superior}{exclamdown.superior}
7333   \comment{The exclamation mark '!'.}
7334 \endsetslot
7335
7336 \setslot{quotedbl.superior}
7337   \comment{The 'neutral' double quotation mark '\textquotedbl',,
7338     included for use in monowidth fonts, or for setting computer
7339     programs. Note that the inclusion of this glyph in this slot
7340     means that \TeX documents which used '{\tt\char"} as an
7341     input character will no longer work.}
7342 \endsetslot
7343
7344 \setslot{numbersign.superior}
7345   \comment{The hash sign '#'.}
7346 \endsetslot
7347
7348 \endsetslot

```

```

7349 \setslot{dollar.superior}
7350   \comment{The dollar sign '\$'.}
7351 \endsetslot
7353
7354 \setslot{percent.superior}
7355   \comment{The percent sign '%'.}
7356 \endsetslot
7357
7358 \setslot{ampersand.superior}
7359   \comment{The ampersand sign '&'.}
7360 \endsetslot
7361
7362 \setslot{quoteright.superior}
7363   \ligature[LIG]{quoteright.superior}{quotedblright.superior}
7364   \comment{The English closing single quote mark '\,\textquoteright\,'.}
7365 \endsetslot
7366
7367 \setslot{parenleft.superior}
7368   \comment{The opening parenthesis '('.}
7369 \endsetslot
7370
7371 \setslot{parenright.superior}
7372   \comment{The closing parenthesis ')'.}
7373 \endsetslot
7374
7375 \setslot{asterisk.superior}
7376   \comment{The raised asterisk '*'.}
7377 \endsetslot
7378
7379 \setslot{plus.superior}
7380   \comment{The addition sign '+'.}
7381 \endsetslot
7382
7383 \setslot{comma.superior}
7384   \ligature[LIG]{comma.superior}{quotedblbase.superior}
7385   \comment{The comma ','.}
7386 \endsetslot
7387
7388 \setslot{hyphen.superior}
7389   \ligature[LIG]{hyphen.superior}{endash.superior}
7390   \ligature[LIG]{hyphenchar.superior}{hyphenchar.superior}
7391   \comment{The hyphen '-'.}
7392 \endsetslot
7393
7394 \setslot{period.superior}
7395   \comment{The period '.'.}
7396 \endsetslot
7397
7398 \setslot{slash.superior}
7399   \comment{The forward oblique '/'.}
7400 \endsetslot
7401
7402 \setslot{\digit{zero}}

```

```
7403     \comment{The number '0'. This (and all the other numerals) may be
7404         old style or ranging digits.}
7405 \endsetslot
7406
7407 \setslot{\digit{one}}
7408     \comment{The number '1'.}
7409 \endsetslot
7410
7411 \setslot{\digit{two}}
7412     \comment{The number '2'.}
7413 \endsetslot
7414
7415 \setslot{\digit{three}}
7416     \comment{The number '3'.}
7417 \endsetslot
7418
7419 \setslot{\digit{four}}
7420     \comment{The number '4'.}
7421 \endsetslot
7422
7423 \setslot{\digit{five}}
7424     \comment{The number '5'.}
7425 \endsetslot
7426
7427 \setslot{\digit{six}}
7428     \comment{The number '6'.}
7429 \endsetslot
7430
7431 \setslot{\digit{seven}}
7432     \comment{The number '7'.}
7433 \endsetslot
7434
7435 \setslot{\digit{eight}}
7436     \comment{The number '8'.}
7437 \endsetslot
7438
7439 \setslot{\digit{nine}}
7440     \comment{The number '9'.}
7441 \endsetslot
7442
7443 \setslot{colon.superior}
7444     \comment{The colon punctuation mark ':' .}
7445 \endsetslot
7446
7447 \setslot{semicolon.superior}
7448     \comment{The semi-colon punctuation mark ';' .}
7449 \endsetslot
7450
7451 \setslot{less.superior}
7452     \ligature{LIG}{less.superior}{guillemotleft.superior}
7453     \comment{The less-than sign '\textless' .}
7454 \endsetslot
7455
7456 \setslot{equal.superior}
```

```

7457     \comment{The equals sign '='.}
7458 \endsetslot
7459
7460 \setslot{greater.superior}
7461     \ligature{LIG}{greater.superior}{guillemotright.superior}
7462     \comment{The greater-than sign '\textgreater'.}
7463 \endsetslot
7464
7465 \setslot{question.superior}
7466     \ligature{LIG}{quotefont.superior}{questiondown.superior}
7467     \comment{The question mark '?'.}
7468 \endsetslot
7469
7470 \setslot{at.superior}
7471     \comment{The at sign '@'.}
7472 \endsetslot
7473
7474 \setslot{\uc{A}{a}}
7475     \comment{The letter '{A}'.}
7476 \endsetslot
7477
7478 \setslot{\uc{B}{b}}
7479     \comment{The letter '{B}'.}
7480 \endsetslot
7481
7482 \setslot{\uc{C}{c}}
7483     \comment{The letter '{C}'.}
7484 \endsetslot
7485
7486 \setslot{\uc{D}{d}}
7487     \comment{The letter '{D}'.}
7488 \endsetslot
7489
7490 \setslot{\uc{E}{e}}
7491     \comment{The letter '{E}'.}
7492 \endsetslot
7493
7494 \setslot{\uc{F}{f}}
7495     \comment{The letter '{F}'.}
7496 \endsetslot
7497
7498 \setslot{\uc{G}{g}}
7499     \comment{The letter '{G}'.}
7500 \endsetslot
7501
7502 \setslot{\uc{H}{h}}
7503     \comment{The letter '{H}'.}
7504 \endsetslot
7505
7506 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
7507
7508 \setslot{\uc{I}{i}}
7509     \comment{The letter '{I}'.}
7510 \endsetslot

```

```
7511 \Fi
7512
7513 \setslot{\uc{J}{j}}
7514     \comment{The letter '{J}'.}
7515 \endsetslot
7516
7517 \setslot{\uc{K}{k}}
7518     \comment{The letter '{K}'.}
7519 \endsetslot
7520
7521 \setslot{\uc{L}{l}}
7522     \comment{The letter '{L}'.}
7523 \endsetslot
7524
7525 \setslot{\uc{M}{m}}
7526     \comment{The letter '{M}'.}
7527 \endsetslot
7528
7529 \setslot{\uc{N}{n}}
7530     \comment{The letter '{N}'.}
7531 \endsetslot
7532
7533 \setslot{\uc{O}{o}}
7534     \comment{The letter '{O}'.}
7535 \endsetslot
7536
7537 \setslot{\uc{P}{p}}
7538     \comment{The letter '{P}'.}
7539 \endsetslot
7540
7541 \setslot{\uc{Q}{q}}
7542     \comment{The letter '{Q}'.}
7543 \endsetslot
7544
7545 \setslot{\uc{R}{r}}
7546     \comment{The letter '{R}'.}
7547 \endsetslot
7548
7549 \setslot{\uc{S}{s}}
7550     \comment{The letter '{S}'.}
7551 \endsetslot
7552
7553 \setslot{\uc{T}{t}}
7554     \comment{The letter '{T}'.}
7555 \endsetslot
7556
7557 \setslot{\uc{U}{u}}
7558     \comment{The letter '{U}'.}
7559 \endsetslot
7560
7561 \setslot{\uc{V}{v}}
7562     \comment{The letter '{V}'.}
7563 \endsetslot
7564
```

```
7565 \setslot{\uc{W}{w}}
7566   \comment{The letter '{W}'.}
7567 \endsetslot
7568
7569 \setslot{\uc{X}{x}}
7570   \comment{The letter '{X}'.}
7571 \endsetslot
7572
7573 \setslot{\uc{Y}{y}}
7574   \comment{The letter '{Y}'.}
7575 \endsetslot
7576
7577 \setslot{\uc{Z}{z}}
7578   \comment{The letter '{Z}'.}
7579 \endsetslot
7580
7581 \setslot{bracketleft.superior}
7582   \comment{The opening square bracket '['.}
7583 \endsetslot
7584
7585 \setslot{backslash.superior}
7586   \comment{The backwards oblique '\textbackslash'.}
7587 \endsetslot
7588
7589 \setslot{bracketright.superior}
7590   \comment{The closing square bracket ']'.}
7591 \endsetslot
7592
7593 \setslot{asciicircum.superior}
7594   \comment{The ASCII upward-pointing arrow head '\textasciicircum'.
7595     This is included for compatibility with typewriter fonts used
7596     for computer listings.}
7597 \endsetslot
7598
7599 \setslot{underscore.superior}
7600   \comment{The ASCII underline character '\textunderline', usually
7601     set on the baseline.
7602     This is included for compatibility with typewriter fonts used
7603     for computer listings.}
7604 \endsetslot
7605
7606 \setslot{quotyleft.superior}
7607   \ligature{LIG}{quotyleft.superior}{quotedblleft.superior}
7608   \comment{The English opening single quote mark '\textquotyleft\,'.}
7609 \endsetslot
7610
7611 \setslot{\lc{A}{a}}
7612   \comment{The letter '{a}'.}
7613 \endsetslot
7614
7615 \setslot{\lc{B}{b}}
7616   \comment{The letter '{b}'.}
7617 \endsetslot
7618
```

```

7619 \ifnumber{\int{ligaturing}}<-1\then \skipslots{1}\Else
7620   \setslot{\lc{C}{c}}
7621     \comment{The letter '{c}'.}
7622   \endsetslot
7623
7624 \Fi
7625
7626 \setslot{\lc{D}{d}}
7627   \comment{The letter '{d}'.}
7628 \endsetslot
7629
7630 \setslot{\lc{E}{e}}
7631   \comment{The letter '{e}'.}
7632 \endsetslot
7633
7634 \setslot{\lc{F}{f}}
7635   \ifnumber{\int{ligaturing}}<-1\then \skipslots{1}\Else
7636     \setslot{\lc{I}{i}}
7637       \ifnumber{\int{ligaturing}}>0\then
7638         \ligature{LIG}{\lc{I}{i}}{\lclig{FI}{fi}}
7639         \ligature{LIG}{\lc{F}{f}}{\lclig{FF}{ff}}
7640         \ligature{LIG}{\lc{L}{l}}{\lclig{FL}{fl}}
7641       \Fi
7642       \comment{The letter '{f}'.}
7643     \endsetslot
7644
7645 \setslot{\lc{G}{g}}
7646   \comment{The letter '{g}'.}
7647 \endsetslot
7648
7649 \setslot{\lc{H}{h}}
7650   \comment{The letter '{h}'.}
7651 \endsetslot
7652
7653 \setslot{\lc{I}{i}}
7654   \comment{The letter '{i}'.}
7655 \endsetslot
7656
7657 \ifnumber{\int{ligaturing}}<-1\then \skipslots{1}\Else
7658   \setslot{\lc{I}{i}}
7659     \comment{The letter '{i}'.}
7660   \endsetslot
7661
7662 \Fi
7663
7664 \setslot{\lc{J}{j}}
7665   \comment{The letter '{j}'.}
7666 \endsetslot
7667
7668 \setslot{\lc{K}{k}}
7669   \comment{The letter '{k}'.}
7670 \endsetslot
7671
7672

```

```

7673 \setslot{\lc{L}{l}}
7674   \comment{The letter '{l}'.}
7675 \endsetslot
7676
7677 \setslot{\lc{M}{m}}
7678   \comment{The letter '{m}'.}
7679 \endsetslot
7680
7681 \setslot{\lc{N}{n}}
7682   \comment{The letter '{n}'.}
7683 \endsetslot
7684
7685 \setslot{\lc{O}{o}}
7686   \comment{The letter '{o}'.}
7687 \endsetslot
7688
7689 \setslot{\lc{P}{p}}
7690   \comment{The letter '{p}'.}
7691 \endsetslot
7692
7693 \setslot{\lc{Q}{q}}
7694   \comment{The letter '{q}'.}
7695 \endsetslot
7696
7697 \setslot{\lc{R}{r}}
7698   \comment{The letter '{r}'.}
7699 \endsetslot
7700
7701 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
7702
7703   \setslot{\lc{S}{s}}
7704     \comment{The letter '{s}'.}
7705   \endsetslot
7706
7707 \Fi
7708
7709 \setslot{\lc{T}{t}}
7710   \comment{The letter '{t}'.}
7711 \endsetslot
7712
7713 \setslot{\lc{U}{u}}
7714   \comment{The letter '{u}'.}
7715 \endsetslot
7716
7717 \setslot{\lc{V}{v}}
7718   \comment{The letter '{v}'.}
7719 \endsetslot
7720
7721 \setslot{\lc{W}{w}}
7722   \comment{The letter '{w}'.}
7723 \endsetslot
7724
7725 \setslot{\lc{X}{x}}
7726   \comment{The letter '{x}'.}

```

```
7727 \endsetslot
7728
7729 \setslot{\lc{Y}{y}}
7730   \comment{The letter '{y}'.}
7731 \endsetslot
7732
7733 \setslot{\lc{Z}{z}}
7734   \comment{The letter '{z}'.}
7735 \endsetslot
7736
7737 \setslot{braceleft.superior}
7738   \comment{The opening curly brace '\textbraceleft'.}
7739 \endsetslot
7740
7741 \setslot{bar.superior}
7742   \comment{The ASCII vertical bar '\textbar'.
7743     This is included for compatibility with typewriter fonts used
7744     for computer listings.}
7745 \endsetslot
7746
7747 \setslot{braceright.superior}
7748   \comment{The closing curly brace '\textbraceright'.}
7749 \endsetslot
7750
7751 \setslot{asciitilde.superior}
7752   \comment{The ASCII tilde '\textasciitilde'.
7753     This is included for compatibility with typewriter fonts used
7754     for computer listings.}
7755 \endsetslot
7756
7757 \setslot{hyphenchar.superior}
7758   \comment{The glyph used for hyphenation in this font, which will
7759     almost always be the same as 'hyphen'.}
7760 \endsetslot
7761
7762 \setslot{\uctop{Abreve}{abreve}}
7763   \comment{The letter '\u A'.}
7764 \endsetslot
7765
7766 \setslot{\uc{Aogonek}{aogonek}}
7767   \comment{The letter '\k A'.}
7768 \endsetslot
7769
7770 \setslot{\uctop{Cacute}{cacute}}
7771   \comment{The letter '\ C'.}
7772 \endsetslot
7773
7774 \setslot{\uctop{Ccaron}{ccaron}}
7775   \comment{The letter '\v C'.}
7776 \endsetslot
7777
7778 \setslot{\uctop{Dcaron}{dcaron}}
7779   \comment{The letter '\v D'.}
7780 \endsetslot
```

```

7781 \setslot{\uctop{Ecaron}{ecaron}}
7782   \comment{The letter '\v E'.}
7783 \endsetslot
7785
7786 \setslot{\uc{Eogonek}{eogonek}}
7787   \comment{The letter '\k E'.}
7788 \endsetslot
7789
7790 \setslot{\uctop{Gbreve}{gbreve}}
7791   \comment{The letter '\u G'.}
7792 \endsetslot
7793
7794 \setslot{\uctop{Lacute}{lacute}}
7795   \comment{The letter '\L'.}
7796 \endsetslot
7797
7798 \setslot{\uc{Lcaron}{lcaron}}
7799   \comment{The letter '\v L'.}
7800 \endsetslot
7801
7802 \setslot{\uc{Lslash}{lslash}}
7803   \comment{The letter '\L'.}
7804 \endsetslot
7805
7806 \setslot{\uctop{Nacute}{nacute}}
7807   \comment{The letter '\N'.}
7808 \endsetslot
7809
7810 \setslot{\uctop{Ncaron}{ncaron}}
7811   \comment{The letter '\v N'.}
7812 \endsetslot
7813
7814 \setslot{\uc{Eng}{eng}}
7815   \comment{The Sami letter '\NG'. It is unavailable in \plain\ \TeX. This needs
    to be called 'Eng'/'eng' rather than 'Ng'/'ng' as in t1.etx in most cases, it
    seems.}
7816 \endsetslot
7817
7818 \setslot{\uctop{Ohungarumlaut}{ohungarumlaut}}
7819   \comment{The letter '\H O'.}
7820 \endsetslot
7821
7822 \setslot{\uctop{Racute}{racute}}
7823   \comment{The letter '\R'.}
7824 \endsetslot
7825
7826 \setslot{\uctop{Rcaron}{rcaron}}
7827   \comment{The letter '\v R'.}
7828 \endsetslot
7829
7830 \setslot{\uctop{Sacute}{sacute}}
7831   \comment{The letter '\S'.}
7832 \endsetslot

```

```

7833 \setslot{\uctop{Scaron}{scaron}}
7834   \comment{The letter '\v S'.}
7835 \endsetslot
7836
7837 \setslot{\uc{Scedilla}{scedilla}}
7838   \comment{The letter '\c S'.}
7839 \endsetslot
7840
7841 \setslot{\uctop{Tcaron}{tcaron}}
7842   \comment{The letter '\v T'.}
7843 \endsetslot
7844
7845 \setslot{\uc{Tcedilla}{tcedilla}}
7846   \comment{The letter '\c T'.}
7847 \endsetslot
7848
7849 \setslot{\uctop{Uhungarumlaut}{uhungarumlaut}}
7850   \comment{The letter '\H U'.}
7851 \endsetslot
7852
7853 \setslot{\uctop{Uring}{uring}}
7854   \comment{The letter '\r U'.}
7855 \endsetslot
7856
7857 \setslot{\uctop{Ydieresis}{ydieresis}}
7858   \comment{The letter '\Y'.}
7859 \endsetslot
7860
7861 \setslot{\uctop{Zacute}{zacute}}
7862   \comment{The letter '\ Z'.}
7863 \endsetslot
7864
7865 \setslot{\uctop{Zcaron}{zcaron}}
7866   \comment{The letter '\v Z'.}
7867 \endsetslot
7868
7869 \setslot{\uctop{Zdotaccent}{zdotaccent}}
7870   \comment{The letter '\. Z'.}
7871 \endsetslot
7872
7873 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{1}\Else
7874
7875 \setslot{\uclig{IJ}{ij}}
7876   \comment{The letter 'IJ'. This is a single letter, and in a
7877     monowidth font should ideally be one letter wide.}
7878 \endsetslot
7879
7880 \Fi
7881
7882 \setslot{\uctop{Idotaccent}{idotaccent}}
7883   \comment{The letter '\. I'.}
7884 \endsetslot
7885
7886

```

```
7887 \setslot{\lc{Dbar}{dbar}}
7888   \comment{The letter '\dj'.}
7889 \endsetslot
7890
7891 \setslot{section.superior}
7892   \comment{The section mark '\textsection'.}
7893 \endsetslot
7894
7895 \setslot{\lctop{Abreve}{abreve}}
7896   \comment{The letter '\u a'.}
7897 \endsetslot
7898
7899 \setslot{\lc{Aogonek}{aogonek}}
7900   \comment{The letter '\k a'.}
7901 \endsetslot
7902
7903 \setslot{\lctop{Cacute}{cacute}}
7904   \comment{The letter '\c c'.}
7905 \endsetslot
7906
7907 \setslot{\lctop{Ccaron}{ccaron}}
7908   \comment{The letter '\v c'.}
7909 \endsetslot
7910
7911 \setslot{\lctop{Dcaron}{dcaron}}
7912   \comment{The letter '\v d'.}
7913 \endsetslot
7914
7915 \setslot{\lctop{Ecaron}{ecaron}}
7916   \comment{The letter '\v e'.}
7917 \endsetslot
7918
7919 \setslot{\lc{Eogonek}{eogonek}}
7920   \comment{The letter '\k e'.}
7921 \endsetslot
7922
7923 \setslot{\lctop{Gbreve}{gbreve}}
7924   \comment{The letter '\u g'.}
7925 \endsetslot
7926
7927 \setslot{\lctop{Lacute}{lacute}}
7928   \comment{The letter '\l'.}
7929 \endsetslot
7930
7931 \setslot{\lc{Lcaron}{lcaron}}
7932   \comment{The letter '\v l'.}
7933 \endsetslot
7934
7935 \setslot{\lc{Lslash}{lslash}}
7936   \comment{The letter '\l'.}
7937 \endsetslot
7938
7939 \setslot{\lctop{Nacute}{nacute}}
7940   \comment{The letter '\n'.
```

```

7941 \endsetslot
7942
7943 \setslot{\lctop{Ncaron}{ncaron}}
7944   \comment{The letter '\v n'.}
7945 \endsetslot
7946
7947 \setslot{\lc{Eng}{eng}}
7948   \comment{The Sami letter '\ng'. It is unavailable in \plain\ \TeX. This needs
    to be called 'Eng'/'eng' rather than 'Ng'/'ng' as it is in t1.tex in most cases,
    it seems.}
7949 \endsetslot
7950
7951 \setslot{\lctop{Ohungarumlaut}{ohungarumlaut}}
7952   \comment{The letter '\H o'.}
7953 \endsetslot
7954
7955 \setslot{\lctop{Racute}{racute}}
7956   \comment{The letter '\r'.}
7957 \endsetslot
7958
7959 \setslot{\lctop{Rcaron}{rcaron}}
7960   \comment{The letter '\v r'.}
7961 \endsetslot
7962
7963 \setslot{\lctop{Sacute}{sacute}}
7964   \comment{The letter '\s'.}
7965 \endsetslot
7966
7967 \setslot{\lctop{Scaron}{scaron}}
7968   \comment{The letter '\v s'.}
7969 \endsetslot
7970
7971 \setslot{\lc{Scedilla}{scedilla}}
7972   \comment{The letter '\c s'.}
7973 \endsetslot
7974
7975 \setslot{\lctop{Tcaron}{tcaron}}
7976   \comment{The letter '\v t'.}
7977 \endsetslot
7978
7979 \setslot{\lc{Tcedilla}{tcedilla}}
7980   \comment{The letter '\c t'.}
7981 \endsetslot
7982
7983 \setslot{\lctop{Uhungarumlaut}{uhungarumlaut}}
7984   \comment{The letter '\H u'.}
7985 \endsetslot
7986
7987 \setslot{\lctop{Uring}{uring}}
7988   \comment{The letter '\r u'.}
7989 \endsetslot
7990
7991 \setslot{\lctop{Ydieresis}{ydieresis}}
7992   \comment{The letter '\y'.}

```

```
7993 \endsetslot
7994
7995 \setslot{\lctop{Zacute}{zacute}}
7996     \comment{The letter '\` z'.}
7997 \endsetslot
7998
7999 \setslot{\lctop{Zcaron}{zcaron}}
8000     \comment{The letter '\v z'.}
8001 \endsetslot
8002
8003 \setslot{\lctop{Zdotaccent}{zdotaccent}}
8004     \comment{The letter '\. z'.}
8005 \endsetslot
8006
8007 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{1}\Else
8008
8009 \setslot{\lclig{IJ}{ij}}
8010     \comment{The letter 'ij'. This is a single letter, and in a
8011         monowidth font should ideally be one letter wide.}
8012 \endsetslot
8013
8014 \Fi
8015
8016 \setslot{exclamdown.superior}
8017     \comment{The Spanish punctuation mark '!' .}
8018 \endsetslot
8019
8020 \setslot{questiondown.superior}
8021     \comment{The Spanish punctuation mark '?' .}
8022 \endsetslot
8023
8024 \setslot{sterling.superior}
8025     \comment{The British currency mark '\textsterling'.}
8026 \endsetslot
8027
8028 \setslot{\uctop{Agrave}{agrave}}
8029     \comment{The letter '\` A'.}
8030 \endsetslot
8031
8032 \setslot{\uctop{Aacute}{aacute}}
8033     \comment{The letter '\` A'.}
8034 \endsetslot
8035
8036 \setslot{\uctop{Acircumflex}{acircumflex}}
8037     \comment{The letter '\^ A'.}
8038 \endsetslot
8039
8040 \setslot{\uctop{Atilde}{atilde}}
8041     \comment{The letter '\~ A'.}
8042 \endsetslot
8043
8044 \setslot{\uctop{Adieresis}{adieresis}}
8045     \comment{The letter '\" A'.}
8046 \endsetslot
```

```
8047 \setslot{\uctop{Aring}{aring}}
8048     \comment{The letter '\r A'.}
8049 \endsetslot
8050
8051 \setslot{\uc{AE}{ae}}
8052     \comment{The letter '\AE'. This is a single letter, and should not be
8053         faked with 'AE'.}
8054 \endsetslot
8055
8056 \setslot{\uc{Ccedilla}{ccedilla}}
8057     \comment{The letter '\c C'.}
8058 \endsetslot
8059
8060 \setslot{\uctop{Egrave}{egrave}}
8061     \comment{The letter '\` E'.}
8062 \endsetslot
8063
8064 \setslot{\uctop{Eacute}{eacute}}
8065     \comment{The letter '\^ E'.}
8066 \endsetslot
8067
8068 \setslot{\uctop{Ecircumflex}{ecircumflex}}
8069     \comment{The letter '\^ E'.}
8070 \endsetslot
8071
8072 \setslot{\uctop{Edieresis}{edieresis}}
8073     \comment{The letter '\\" E'.}
8074 \endsetslot
8075
8076 \setslot{\uctop{Igrave}{igrave}}
8077     \comment{The letter '\` I'.}
8078 \endsetslot
8079
8080 \setslot{\uctop{Iacute}{iacute}}
8081     \comment{The letter '\^ I'.}
8082 \endsetslot
8083
8084 \setslot{\uctop{Icircumflex}{icircumflex}}
8085     \comment{The letter '\^ I'.}
8086 \endsetslot
8087
8088 \setslot{\uctop{Idieresis}{idieresis}}
8089     \comment{The letter '\\" I'.}
8090 \endsetslot
8091
8092 \setslot{\uc{Eth}{eth}}
8093     \comment{The uppercase Icelandic letter 'Eth' similar to a 'D'
8094         with a horizontal bar through the stem. It is unavailable
8095         in \plain\ \TeX.}
8096 \endsetslot
8097
8098 \setslot{\uctop{Ntilde}{ntilde}}
8099     \comment{The letter '\~ N'.}
8100 \endsetslot
```

```

8101 \endsetslot
8102
8103 \setslot{\uctop{0grave}{ograve}}
8104   \comment{The letter '\`0'.}
8105 \endsetslot
8106
8107 \setslot{\uctop{0acute}{oacute}}
8108   \comment{The letter '\^0'.}
8109 \endsetslot
8110
8111 \setslot{\uctop{0circumflex}{ocircumflex}}
8112   \comment{The letter '\~0'.}
8113 \endsetslot
8114
8115 \setslot{\uctop{0tilde}{otilde}}
8116   \comment{The letter '\~0'.}
8117 \endsetslot
8118
8119 \setslot{\uctop{0dieresis}{odieresis}}
8120   \comment{The letter '\\"0'.}
8121 \endsetslot
8122
8123 \setslot{\uc{OE}{oe}}
8124   \comment{The letter '\OE'. This is a single letter, and should not be
8125     faked with 'OE'.}
8126 \endsetslot
8127
8128 \setslot{\uc{0slash}{oslash}}
8129   \comment{The letter '\O'.}
8130 \endsetslot
8131
8132 \setslot{\uctop{Ugrave}{ugrave}}
8133   \comment{The letter '\`U'.}
8134 \endsetslot
8135
8136 \setslot{\uctop{Uacute}{uacute}}
8137   \comment{The letter '\^U'.}
8138 \endsetslot
8139
8140 \setslot{\uctop{Ucircumflex}{ucircumflex}}
8141   \comment{The letter '\~U'.}
8142 \endsetslot
8143
8144 \setslot{\uctop{Udieresis}{udieresis}}
8145   \comment{The letter '\\"U'.}
8146 \endsetslot
8147
8148 \setslot{\uctop{Yacute}{yacute}}
8149   \comment{The letter '\^Y'.}
8150 \endsetslot
8151
8152 \setslot{\uc{Thorn}{thorn}}
8153   \comment{The Icelandic capital letter Thorn, similar to a 'P'
8154     with the bowl moved down. It is unavailable in \plain\ \TeX.}

```

```

8155 \endsetslot
8156
8157 \setslot{\uclig{SS}{germandbls}}
8158   \comment{The ligature 'SS', used to give an upper case '\ss'.
8159     In a monowidth font it should be two letters wide.}
8160 \endsetslot
8161
8162 \setslot{\lctop{Agrave}{agrave}}
8163   \comment{The letter '\`a'.}
8164 \endsetslot
8165
8166 \setslot{\lctop{Aacute}{aacute}}
8167   \comment{The letter '\^a'.}
8168 \endsetslot
8169
8170 \setslot{\lctop{Acircumflex}{acircumflex}}
8171   \comment{The letter '\~a'.}
8172 \endsetslot
8173
8174 \setslot{\lctop{Atilde}{atilde}}
8175   \comment{The letter '\~a'.}
8176 \endsetslot
8177
8178 \setslot{\lctop{Adieresis}{adieresis}}
8179   \comment{The letter '\u00e4'.}
8180 \endsetslot
8181
8182 \setslot{\lctop{Aring}{aring}}
8183   \comment{The letter '\r a'.}
8184 \endsetslot
8185
8186 \setslot{\lc{AE}{ae}}
8187   \comment{The letter '\ae'. This is a single letter, and should not be
8188     faked with 'ae'.}
8189 \endsetslot
8190
8191 \setslot{\lc{Ccedilla}{ccedilla}}
8192   \comment{The letter '\c c'.}
8193 \endsetslot
8194
8195 \setslot{\lctop{Egrave}{egrave}}
8196   \comment{The letter '\`e'.}
8197 \endsetslot
8198
8199 \setslot{\lctop{Eacute}{eacute}}
8200   \comment{The letter '\^e'.}
8201 \endsetslot
8202
8203 \setslot{\lctop{Ecircumflex}{ecircumflex}}
8204   \comment{The letter '\~e'.}
8205 \endsetslot
8206
8207 \setslot{\lctop{Edieresis}{edieresis}}
8208   \comment{The letter '\u00e4'.}

```

```

8209 \endsetslot
8210
8211 \setslot{\lctop{Igrave}{igrave}}
8212   \comment{The letter '\`i'.}
8213 \endsetslot
8214
8215 \setslot{\lctop{Iacute}{iacute}}
8216   \comment{The letter '\^i'.}
8217 \endsetslot
8218
8219 \setslot{\lctop{Icircumflex}{icircumflex}}
8220   \comment{The letter '\~i'.}
8221 \endsetslot
8222
8223 \setslot{\lctop{Idieresis}{idieresis}}
8224   \comment{The letter '\u00f6'.}
8225 \endsetslot
8226
8227 \setslot{\lc{Eth}{eth}}
8228   \comment{The Icelandic lowercase letter 'eth' similar to
8229     a '$\partial$' with an oblique bar through the stem.
8230     It is unavailable in \plain\ \TeX.}
8231 \endsetslot
8232
8233 \setslot{\lctop{Ntilde}{ntilde}}
8234   \comment{The letter '\~n'.}
8235 \endsetslot
8236
8237 \setslot{\lctop{Ograve}{ograve}}
8238   \comment{The letter '\`o'.}
8239 \endsetslot
8240
8241 \setslot{\lctop{Oacute}{oacute}}
8242   \comment{The letter '\^o'.}
8243 \endsetslot
8244
8245 \setslot{\lctop{Ocircumflex}{ocircumflex}}
8246   \comment{The letter '\~o'.}
8247 \endsetslot
8248
8249 \setslot{\lctop{Otilde}{otilde}}
8250   \comment{The letter '\~o'.}
8251 \endsetslot
8252
8253 \setslot{\lctop{Odieresis}{odieresis}}
8254   \comment{The letter '\u00f6'.}
8255 \endsetslot
8256
8257 \setslot{\lc{OE}{oe}}
8258   \comment{The letter '\oe'. This is a single letter, and should not be
8259     faked with 'oe'.}
8260 \endsetslot
8261
8262 \setslot{\lc{Oslash}{oslash}}

```

```

8263   \comment{The letter '\o'.}
8264   \endsetslot
8265
8266 \setslot{\lctop{Ugrave}{ugrave}}
8267   \comment{The letter '\` u'.}
8268 \endsetslot
8269
8270 \setslot{\lctop{Uacute}{uacute}}
8271   \comment{The letter '\^ u'.}
8272 \endsetslot
8273
8274 \setslot{\lctop{Ucircumflex}{ucircumflex}}
8275   \comment{The letter '\~ u'.}
8276 \endsetslot
8277
8278 \setslot{\lctop{Udieresis}{udieresis}}
8279   \comment{The letter '\u00f1 u'.}
8280 \endsetslot
8281
8282 \setslot{\lctop{Yacute}{yacute}}
8283   \comment{The letter '\` y'.}
8284 \endsetslot
8285
8286 \setslot{\lc{Thorn}{thorn}}
8287   \comment{The Icelandic lowercase letter 'thorn', similar to a 'p'
8288       with an ascender rising from the stem. It is unavailable
8289       in \plain\ \TeX.}
8290 \endsetslot
8291
8292 \setslot{\lc{SS}{germandbls}}
8293   \comment{The letter '\ss'.}
8294 \endsetslot
8295
8296 \endencoding

```

6.3.12 t1-f_f.etx

t1-f_f.etx (*etx*)

```

8297 %%
8298 %% - The commentary in the original is deleted in this version. For
8299 %% information about the T1 etc., typeset the original t1.etx
8300 %% included with fontinst.
8301 %% - Slots are altered to accommodate characters which are named
8302 %% differently. For example, this encoding uses "endash" and "emdash"
8303 %% whereas t1.etx called for "rangedash" and "punctdash".
8304 %% - The original notices at the top of that file concerning authors,
8305 %% maintenance etc. are replaced by this notice.
8306 %% - The file is renamed.
8307 %% - The encoding name is modified.
8308 %% - f_f, f_f_i and f_f_l replace ff, ffi and ffl.
8309 %%
8310 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

```

```

8311 \relax
8312 \encoding
8313
8314 \needsfontinstversion{1.910}
8315
8316 \setcommand\lc#1#2{#2}
8317 \setcommand\uc#1#2{#1}
8318 \setcommand\lctop#1#2{#2}
8319 \setcommand\uctop#1#2{#1}
8320 \setcommand\lclig#1#2{#2}
8321 \ifisint{letterspacing}\then
8322   \ifnumber{\int{letterspacing}}={0}\then \Else
8323     \setcommand\uclig#1#2{#1spaced}
8324     \comment{Here we set \verb|\uclig#1#2| to \verb|\verb|#1spaced|, but
8325       you can't see it as \verb|\verb|\setcommand| commands are invisible in
8326       the typeset output.}
8327   \Fi
8328 \Fi
8329 \setcommand\uclig#1#2{#1}
8330 \setcommand\digit#1{#1}
8331
8332 \ifisint{monowidth}\then
8333   \setint{ligaturing}{0}
8334 \Else
8335   % The following empty line is *important* to get the formatting
8336   % right here (sigh)! (Remember that it is a \par token.)
8337
8338 \ifisint{letterspacing}\then
8339   \ifnumber{\int{letterspacing}}={0}\then \Else
8340     \setint{ligaturing}{0}
8341   \Fi
8342   \Fi
8343   \setint{ligaturing}{1}
8344 \Fi
8345
8346 \setint{italicslant}{0}
8347 \setint{quad}{1000}
8348 \setint{baselineskip}{1200}
8349
8350 \ifisglyph{x}\then
8351   \setint{xheight}{\height{x}}
8352 \Else
8353   \setint{xheight}{500}
8354 \Fi
8355
8356 \ifisglyph{space}\then
8357   \setint{interword}{\width{space}}
8358 \Else\ifisglyph{i}\then
8359   \setint{interword}{\width{i}}
8360 \Else
8361   \setint{interword}{333}
8362 \Fi\Fi
8363
8364 \ifisint{monowidth}\then

```

```

8365     \setint{stretchword}{0}
8366     \setint{shrinkword}{0}
8367     \setint{extraspace}{\int{interword}}
8368 \Else
8369     \setint{stretchword}{\scale{\int{interword}}{600}}
8370     \setint{shrinkword}{\scale{\int{interword}}{240}}
8371     \setint{extraspace}{\scale{\int{interword}}{240}}
8372 \Fi
8373
8374 \ifisglyph{X}\then
8375     \setint{capheight}{\height{X}}
8376 \Else
8377     \setint{capheight}{750}
8378 \Fi
8379
8380 \ifisglyph{d}\then
8381     \setint{ascender}{\height{d}}
8382 \Else\ifisint{capheight}\then
8383     \setint{ascender}{\int{capheight}}
8384 \Else
8385     \setint{ascender}{750}
8386 \Fi\Fi
8387
8388 \ifisglyph{Aring}\then
8389     \setint{accicapheight}{\height{Aring}}
8390 \Else
8391     \setint{accicapheight}{999}
8392 \Fi
8393
8394 \ifisint{descender_neg}\then
8395     \setint{descender}{\neg{\int{descender_neg}}}
8396 \Else\ifisglyph{p}\then
8397     \setint{descender}{\depth{p}}
8398 \Else
8399     \setint{descender}{250}
8400 \Fi\Fi
8401
8402 \ifisglyph{Aring}\then
8403     \setint{maxheight}{\height{Aring}}
8404 \Else
8405     \setint{maxheight}{1000}
8406 \Fi
8407
8408 \ifisint{maxdepth_neg}\then
8409     \setint{maxdepth}{\neg{\int{maxdepth_neg}}}
8410 \Else\ifisglyph{j}\then
8411     \setint{maxdepth}{\depth{j}}
8412 \Else
8413     \setint{maxdepth}{250}
8414 \Fi\Fi
8415
8416 \ifisglyph{six}\then
8417     \setint{digitwidth}{\width{six}}
8418 \Else

```

```

8419   \setint{digitwidth}{500}
8420   \Fi
8421
8422   \setint{capstem}{0} % not in AFM files
8423
8424   \setfontdimen{1}{italicslant}      % italic slant
8425   \setfontdimen{2}{interword}        % interword space
8426   \setfontdimen{3}{stretchword}      % interword stretch
8427   \setfontdimen{4}{shrinkword}       % interword shrink
8428   \setfontdimen{5}{xheight}         % x-height
8429   \setfontdimen{6}{quad}            % quad
8430   \setfontdimen{7}{extraspace}       % extra space after .
8431   \setfontdimen{8}{capheight}        % cap height
8432   \setfontdimen{9}{ascender}         % ascender
8433   \setfontdimen{10}{accicapheight}    % accented cap height
8434   \setfontdimen{11}{descender}        % descender's depth
8435   \setfontdimen{12}{maxheight}        % max height
8436   \setfontdimen{13}{maxdepth}         % max depth
8437   \setfontdimen{14}{digitwidth}        % digit width
8438   \setfontdimen{15}{verticalstem}      % dominant width of vertical stems
8439   \setfontdimen{16}{baselineskip}      % baselineskip
8440
8441 \ifnumber{\int{ligaturing}}<{0}\then
8442   \comment{In this case, the codingscheme can be different from the
8443   default, and therefore we refrain from setting it.}
8444 \Else
8445   \setstr{codingscheme}{EXTENDED TEX ENC - F_F}
8446 \Fi
8447
8448 \setslot{\lc{Grave}{grave}}
8449   \comment{The grave accent '\{} .}
8450 \endsetslot
8451
8452 \setslot{\lc{Acute}{acute}}
8453   \comment{The acute accent '\{} .}
8454 \endsetslot
8455
8456 \setslot{\lc{Circumflex}{circumflex}}
8457   \comment{The circumflex accent '\^{} .}
8458 \endsetslot
8459
8460 \setslot{\lc{Tilde}{tilde}}
8461   \comment{The tilde accent '\~{} .}
8462 \endsetslot
8463
8464 \setslot{\lc{Dieresis}{dieresis}}
8465   \comment{The umlaut or dieresis accent '\\"{} .}
8466 \endsetslot
8467
8468 \setslot{\lc{Hungarumlaut}{hungarumlaut}}
8469   \comment{The long Hungarian umlaut '\H{} .}
8470 \endsetslot
8471
8472 \setslot{\lc{Ring}{ring}}

```

```

8473   \comment{The ring accent '\r{}'.}
8474   \endsetslot
8475
8476 \setslot{\lc{Caron}{caron}}
8477   \comment{The caron or h'a\v cek accent '\v{}'.}
8478 \endsetslot
8479
8480 \setslot{\lc{Breve}{breve}}
8481   \comment{The breve accent '\u{}'.}
8482 \endsetslot
8483
8484 \setslot{\lc{Macron}{macron}}
8485   \comment{The macron accent '\={}'.}
8486 \endsetslot
8487
8488 \setslot{\lc{Dotaccent}{dotaccent}}
8489   \comment{The dot accent '\.{}'.}
8490 \endsetslot
8491
8492 \setslot{\lc{Cedilla}{cedilla}}
8493   \comment{The cedilla accent '\c {}'.}
8494 \endsetslot
8495
8496 \setslot{\lc{Ogonek}{ogonek}}
8497   \comment{The ogonek accent '\k {}'.}
8498 \endsetslot
8499
8500 \setslot{quotesinglbase}
8501   \comment{A German single quote mark 'quotesinglbase' similar to a comma,
8502       but with different sidebearings.}
8503 \endsetslot
8504
8505 \setslot{guilsinglleft}
8506   \comment{A French single opening quote mark 'guilsinglleft',
8507       unavailable in \plain\ \TeX.}
8508 \endsetslot
8509
8510 \setslot{guilsinglright}
8511   \comment{A French single closing quote mark 'guilsinglright',
8512       unavailable in \plain\ \TeX.}
8513 \endsetslot
8514
8515 \setslot{quotedblleft}
8516   \comment{The English opening quote mark '\,\textquotedblleft\,'.}
8517 \endsetslot
8518
8519 \setslot{quotedblright}
8520   \comment{The English closing quote mark '\,\textquotedblright\,'.}
8521 \endsetslot
8522
8523 \setslot{quotedblbase}
8524   \comment{A German double quote mark 'quotedblbase' similar to two commas,
8525       but with tighter letterspacing and different sidebearings.}
8526 \endsetslot

```

```

8527 \setslot{guillemotleft}
8528   \comment{A French double opening quote mark ‘\guillemotleft’,
8529     unavailable in \plain\ \TeX.}
8530 \endsetslot
8532
8533 \setslot{guillemotright}
8534   \comment{A French closing opening quote mark ‘\guillemotright’,
8535     unavailable in \plain\ \TeX.}
8536 \endsetslot
8537
8538 \setslot{endash}
8539   \ligature[LIG]{hyphen}{emdash}
8540   \comment{The number range dash ‘1--9’.
8541     This is called ‘rangedash’ by fontinst’s t1.etx, but it needs to be
8542     called ‘endash’ to work right.
8543     The ‘\textendash’. In a monowidth font, this might be set as
8544     ‘\texttt{1{-}9}’.}
8545 \endsetslot
8546
8547 \setslot{emdash}
8548   \comment{The punctuation dash ‘Oh---boy.’
8549     This is calle ‘punctdash’ by fontinst’s t1.etx, but needs to be
8550     called ‘emdash’ to work right.
8551     The ‘\textemdash’.
8552     In a monowidth font, this might be set as ‘\texttt{Oh{-}{-}boy.}’}
8553 \endsetslot
8554
8555 \setslot{compwordmark}
8556   \comment{An invisible glyph, with zero width and depth, but the
8557     height of lowercase letters without ascenders.
8558     It is used to stop ligaturing in words like ‘shelf{}ful’.}
8559 \endsetslot
8560
8561 \setslot{perthousandzero}
8562   \comment{A glyph which is placed after ‘\%’ to produce a
8563     ‘per-thousand’, or twice to produce ‘per-ten-thousand’.
8564     Your guess is as good as mine as to what this glyph should look
8565     like in a monowidth font.}
8566 \endsetslot
8567
8568 \setslot{\lc{dotlessI}{dotlessi}}
8569   \comment{A dotless i ‘\i’, used to produce accented letters such as
8570     ‘\=\i’.}
8571 \endsetslot
8572
8573 \setslot{\lc{dotlessJ}{dotlessj}}
8574   \comment{A dotless j ‘\j’, used to produce accented letters such as
8575     ‘\=\j’. Most non-\TeX\ fonts do not have this glyph.}
8576 \endsetslot
8577
8578 \ifnumber{\int{ligaturing}}<0\then \skipslots{5}\Else
8579
8580 \setslot{\lc{lig{FF}{f_f}}}

```

```

8581     \ifnumber{\int{ligaturing}}>{0}\then
8582         \ligature{LIG}{\lc{I}{i}}{\lclig{FFI}{f_f_i}}
8583         \ligature{LIG}{\lc{L}{l}}{\lclig{FFL}{f_f_l}}
8584     \Fi
8585     \comment{The ‘ff’ ligature. It should be two characters wide in a
8586     monowidth font.}
8587 \endsetslot
8588
8589 \setslot{\lclig{FI}{fi}}
8590     \comment{The ‘fi’ ligature. It should be two characters wide in a
8591     monowidth font.}
8592 \endsetslot
8593
8594 \setslot{\lclig{FL}{fl}}
8595     \comment{The ‘fl’ ligature. It should be two characters wide in a
8596     monowidth font.}
8597 \endsetslot
8598
8599 \setslot{\lclig{FFI}{f_f_i}}
8600     \comment{The ‘ffi’ ligature. It should be three characters wide in a
8601     monowidth font.}
8602 \endsetslot
8603
8604 \setslot{\lclig{FFL}{f_f_l}}
8605     \comment{The ‘ffl’ ligature. It should be three characters wide in a
8606     monowidth font.}
8607 \endsetslot
8608
8609 \Fi
8610
8611 \setslot{visiblespace}
8612     \comment{A visible space glyph ‘\textvisiblespace’.}
8613 \endsetslot
8614
8615 \setslot{exclam}
8616     \ligature{LIG}{quotelleft}{exclamdown}
8617     \comment{The exclamation mark ‘!’.}
8618 \endsetslot
8619
8620 \setslot{quotedbl}
8621     \comment{The ‘neutral’ double quotation mark ‘\,\textquotedbl\,’,
8622     included for use in monowidth fonts, or for setting computer
8623     programs. Note that the inclusion of this glyph in this slot
8624     means that \TeX documents which used ‘{\tt\char"}’ as an
8625     input character will no longer work.}
8626 \endsetslot
8627
8628 \setslot{numbersign}
8629     \comment{The hash sign ‘#’.}
8630 \endsetslot
8631
8632 \setslot{dollar}
8633     \comment{The dollar sign ‘$’.}
8634 \endsetslot

```

```
8635 \setslot{percent}
8636   \comment{The percent sign '\%'.}
8637 \endsetslot
8638
8639 \setslot{ampersand}
8640   \comment{The ampersand sign '&'.}
8641 \endsetslot
8642
8643 \setslot{quoteright}
8644   \ligature{LIG}{quoteright}{quotedblright}
8645   \comment{The English closing single quote mark '\textquoteright,'.}
8646 \endsetslot
8647
8648 \setslot{parenleft}
8649   \comment{The opening parenthesis '('.}
8650 \endsetslot
8651
8652 \setslot{parenright}
8653   \comment{The closing parenthesis ')'.}
8654 \endsetslot
8655
8656 \setslot{asterisk}
8657   \comment{The raised asterisk '*'.}
8658 \endsetslot
8659
8660 \setslot{plus}
8661   \comment{The addition sign '+'.}
8662 \endsetslot
8663
8664 \setslot{comma}
8665   \ligature{LIG}{comma}{quotedblbase}
8666   \comment{The comma ','.}
8667 \endsetslot
8668
8669 \setslot{hyphen}
8670   \ligature{LIG}{hyphen}{endash}
8671   \ligature{LIG}{hyphenchar}{hyphenchar}
8672   \comment{The hyphen '-'.}
8673 \endsetslot
8674
8675 \setslot{period}
8676   \comment{The period '.'.}
8677 \endsetslot
8678
8679 \setslot{slash}
8680   \comment{The forward oblique '/'.}
8681 \endsetslot
8682
8683 \setslot{\digit{zero}}
8684   \comment{The number '0'. This (and all the other numerals) may be
8685       old style or ranging digits.}
8686 \endsetslot
8687
8688
```

```
8689 \setslot{\digit{one}}
8690   \comment{The number '1'.}
8691 \endsetslot
8692
8693 \setslot{\digit{two}}
8694   \comment{The number '2'.}
8695 \endsetslot
8696
8697 \setslot{\digit{three}}
8698   \comment{The number '3'.}
8699 \endsetslot
8700
8701 \setslot{\digit{four}}
8702   \comment{The number '4'.}
8703 \endsetslot
8704
8705 \setslot{\digit{five}}
8706   \comment{The number '5'.}
8707 \endsetslot
8708
8709 \setslot{\digit{six}}
8710   \comment{The number '6'.}
8711 \endsetslot
8712
8713 \setslot{\digit{seven}}
8714   \comment{The number '7'.}
8715 \endsetslot
8716
8717 \setslot{\digit{eight}}
8718   \comment{The number '8'.}
8719 \endsetslot
8720
8721 \setslot{\digit{nine}}
8722   \comment{The number '9'.}
8723 \endsetslot
8724
8725 \setslot{colon}
8726   \comment{The colon punctuation mark ':' .}
8727 \endsetslot
8728
8729 \setslot{semicolon}
8730   \comment{The semi-colon punctuation mark ';' .}
8731 \endsetslot
8732
8733 \setslot{less}
8734   \ligature{LIG}{less}{guillemotleft}
8735   \comment{The less-than sign '\textless'.}
8736 \endsetslot
8737
8738 \setslot{equal}
8739   \comment{The equals sign '=' .}
8740 \endsetslot
8741
8742 \setslot{greater}
```

```

8743     \ligature{LIG}{greater}{guillemotright}
8744     \comment{The greater-than sign '\textgreater'.}
8745 \endsetslot
8746
8747 \setslot{question}
8748   \ligature{LIG}{quotelleft}{questiondown}
8749   \comment{The question mark '?'.}
8750 \endsetslot
8751
8752 \setslot{at}
8753   \comment{The at sign '@'.}
8754 \endsetslot
8755
8756 \setslot{\uc{A}{a}}
8757   \comment{The letter '{A}'.}
8758 \endsetslot
8759
8760 \setslot{\uc{B}{b}}
8761   \comment{The letter '{B}'.}
8762 \endsetslot
8763
8764 \setslot{\uc{C}{c}}
8765   \comment{The letter '{C}'.}
8766 \endsetslot
8767
8768 \setslot{\uc{D}{d}}
8769   \comment{The letter '{D}'.}
8770 \endsetslot
8771
8772 \setslot{\uc{E}{e}}
8773   \comment{The letter '{E}'.}
8774 \endsetslot
8775
8776 \setslot{\uc{F}{f}}
8777   \comment{The letter '{F}'.}
8778 \endsetslot
8779
8780 \setslot{\uc{G}{g}}
8781   \comment{The letter '{G}'.}
8782 \endsetslot
8783
8784 \setslot{\uc{H}{h}}
8785   \comment{The letter '{H}'.}
8786 \endsetslot
8787
8788 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
8789
8790 \setslot{\uc{I}{i}}
8791   \comment{The letter '{I}'.}
8792 \endsetslot
8793
8794 \Fi
8795
8796 \setslot{\uc{J}{j}}

```

```
8797     \comment{The letter '{J}'.}
8798 \endsetslot
8799
8800 \setslot{\uc{K}{k}}
8801     \comment{The letter '{K}'.}
8802 \endsetslot
8803
8804 \setslot{\uc{L}{l}}
8805     \comment{The letter '{L}'.}
8806 \endsetslot
8807
8808 \setslot{\uc{M}{m}}
8809     \comment{The letter '{M}'.}
8810 \endsetslot
8811
8812 \setslot{\uc{N}{n}}
8813     \comment{The letter '{N}'.}
8814 \endsetslot
8815
8816 \setslot{\uc{O}{o}}
8817     \comment{The letter '{O}'.}
8818 \endsetslot
8819
8820 \setslot{\uc{P}{p}}
8821     \comment{The letter '{P}'.}
8822 \endsetslot
8823
8824 \setslot{\uc{Q}{q}}
8825     \comment{The letter '{Q}'.}
8826 \endsetslot
8827
8828 \setslot{\uc{R}{r}}
8829     \comment{The letter '{R}'.}
8830 \endsetslot
8831
8832 \setslot{\uc{S}{s}}
8833     \comment{The letter '{S}'.}
8834 \endsetslot
8835
8836 \setslot{\uc{T}{t}}
8837     \comment{The letter '{T}'.}
8838 \endsetslot
8839
8840 \setslot{\uc{U}{u}}
8841     \comment{The letter '{U}'.}
8842 \endsetslot
8843
8844 \setslot{\uc{V}{v}}
8845     \comment{The letter '{V}'.}
8846 \endsetslot
8847
8848 \setslot{\uc{W}{w}}
8849     \comment{The letter '{W}'.}
8850 \endsetslot
```

```
8851 \setslot{\uc{X}{x}}
8852   \comment{The letter '{X}'.}
8853 \endsetslot
8854
8855 \setslot{\uc{Y}{y}}
8856   \comment{The letter '{Y}'.}
8857 \endsetslot
8858
8859 \setslot{\uc{Z}{z}}
8860   \comment{The letter '{Z}'.}
8861 \endsetslot
8862
8863 \setslot{bracketleft}
8864   \comment{The opening square bracket '['.}
8865 \endsetslot
8866
8867 \setslot{backslash}
8868   \comment{The backwards oblique '\textbackslash'.}
8869 \endsetslot
8870
8871 \setslot{bracketright}
8872   \comment{The closing square bracket ']'.}
8873 \endsetslot
8874
8875 \setslot{asciicircum}
8876   \comment{The ASCII upward-pointing arrow head '\textasciicircum'.
8877     This is included for compatibility with typewriter fonts used
8878     for computer listings.}
8879 \endsetslot
8880
8881 \setslot{underscore}
8882   \comment{The ASCII underline character '\textunderline', usually
8883     set on the baseline.
8884     This is included for compatibility with typewriter fonts used
8885     for computer listings.}
8886 \endsetslot
8887
8888 \setslot{quotyleft}
8889   \ligature{LIG}{quotyleft}{quotedblleft}
8890   \comment{The English opening single quote mark '\textquotyleft\,'.}
8891 \endsetslot
8892
8893 \setslot{\lc{A}{a}}
8894   \comment{The letter '{a}'.}
8895 \endsetslot
8896
8897 \setslot{\lc{B}{b}}
8898   \comment{The letter '{b}'.}
8899 \endsetslot
8900
8901 \ifnumber{\int{ligaturing}}<-1\then \skipslots{1}\Else
8902
8903 \setslot{\lc{C}{c}}
```

```
8905      \comment{The letter '{c}'.}
8906      \endsetslot
8907
8908  \Fi
8909
8910  \setslot{\lc{D}{d}}
8911      \comment{The letter '{d}'.}
8912  \endsetslot
8913
8914  \setslot{\lc{E}{e}}
8915      \comment{The letter '{e}'.}
8916  \endsetslot
8917
8918  \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
8919
8920  \setslot{\lc{F}{f}}
8921      \ifnumber{\int{ligaturing}}>{0}\then
8922          \ligature{LIG}{\lc{I}{i}}{\lc{I}{f_i}}
8923          \ligature{LIG}{\lc{F}{f}}{\lc{F}{f_f}}
8924          \ligature{LIG}{\lc{L}{l}}{\lc{L}{f_l}}
8925  \Fi
8926      \comment{The letter '{f}'.}
8927  \endsetslot
8928
8929  \Fi
8930
8931  \setslot{\lc{G}{g}}
8932      \comment{The letter '{g}'.}
8933  \endsetslot
8934
8935  \setslot{\lc{H}{h}}
8936      \comment{The letter '{h}'.}
8937  \endsetslot
8938
8939  \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
8940
8941  \setslot{\lc{I}{i}}
8942      \comment{The letter '{i}'.}
8943  \endsetslot
8944
8945  \Fi
8946
8947  \setslot{\lc{J}{j}}
8948      \comment{The letter '{j}'.}
8949  \endsetslot
8950
8951  \setslot{\lc{K}{k}}
8952      \comment{The letter '{k}'.}
8953  \endsetslot
8954
8955  \setslot{\lc{L}{l}}
8956      \comment{The letter '{l}'.}
8957  \endsetslot
8958
```

```

8959 \setslot{\lc{M}{m}}
8960   \comment{The letter '{m}'.}
8961 \endsetslot
8962
8963 \setslot{\lc{N}{n}}
8964   \comment{The letter '{n}'.}
8965 \endsetslot
8966
8967 \setslot{\lc{O}{o}}
8968   \comment{The letter '{o}'.}
8969 \endsetslot
8970
8971 \setslot{\lc{P}{p}}
8972   \comment{The letter '{p}'.}
8973 \endsetslot
8974
8975 \setslot{\lc{Q}{q}}
8976   \comment{The letter '{q}'.}
8977 \endsetslot
8978
8979 \setslot{\lc{R}{r}}
8980   \comment{The letter '{r}'.}
8981 \endsetslot
8982
8983 \ifnumber{\int{ligaturing}}<{-1}\then \skipslots{1}\Else
8984
8985   \setslot{\lc{S}{s}}
8986     \comment{The letter '{s}'.}
8987 \endsetslot
8988
8989 \Fi
8990
8991 \setslot{\lc{T}{t}}
8992   \comment{The letter '{t}'.}
8993 \endsetslot
8994
8995 \setslot{\lc{U}{u}}
8996   \comment{The letter '{u}'.}
8997 \endsetslot
8998
8999 \setslot{\lc{V}{v}}
9000   \comment{The letter '{v}'.}
9001 \endsetslot
9002
9003 \setslot{\lc{W}{w}}
9004   \comment{The letter '{w}'.}
9005 \endsetslot
9006
9007 \setslot{\lc{X}{x}}
9008   \comment{The letter '{x}'.}
9009 \endsetslot
9010
9011 \setslot{\lc{Y}{y}}
9012   \comment{The letter '{y}'.}

```

```
9013 \endsetslot
9014
9015 \setslot{\lc{Z}{z}}
9016   \comment{The letter '{z}'.}
9017 \endsetslot
9018
9019 \setslot{braceleft}
9020   \comment{The opening curly brace '\textbraceleft'.}
9021 \endsetslot
9022
9023 \setslot{bar}
9024   \comment{The ASCII vertical bar '\textbar'.
9025     This is included for compatibility with typewriter fonts used
9026     for computer listings.}
9027 \endsetslot
9028
9029 \setslot{braceright}
9030   \comment{The closing curly brace '\textbraceright'.}
9031 \endsetslot
9032
9033 \setslot{asciitilde}
9034   \comment{The ASCII tilde '\textasciitilde'.
9035     This is included for compatibility with typewriter fonts used
9036     for computer listings.}
9037 \endsetslot
9038
9039 \setslot{hyphenchar}
9040   \comment{The glyph used for hyphenation in this font, which will
9041     almost always be the same as 'hyphen'.}
9042 \endsetslot
9043
9044 \setslot{\uctop{Abreve}{abreve}}
9045   \comment{The letter '\u A'.}
9046 \endsetslot
9047
9048 \setslot{\uc{Aogonek}{aogonek}}
9049   \comment{The letter '\k A'.}
9050 \endsetslot
9051
9052 \setslot{\uctop{Cacute}{cacute}}
9053   \comment{The letter '\' C'.}
9054 \endsetslot
9055
9056 \setslot{\uctop{Ccaron}{ccaron}}
9057   \comment{The letter '\v C'.}
9058 \endsetslot
9059
9060 \setslot{\uctop{Dcaron}{dcaron}}
9061   \comment{The letter '\v D'.}
9062 \endsetslot
9063
9064 \setslot{\uctop{Ecaron}{ecaron}}
9065   \comment{The letter '\v E'.}
9066 \endsetslot
```

```
9067 \setslot{\uc{Eogonek}{eogonek}}
9068   \comment{The letter '\k E'.}
9069 \endsetslot
9070
9071 \setslot{\uctop{Gbreve}{gbreve}}
9072   \comment{The letter '\u G'.}
9073 \endsetslot
9074
9075 \setslot{\uctop{Lacute}{lacute}}
9076   \comment{The letter '\ L'.}
9077 \endsetslot
9078
9079 \setslot{\uc{Lcaron}{lcaron}}
9080   \comment{The letter '\v L'.}
9081 \endsetslot
9082
9083 \setslot{\uc{Lslash}{lslash}}
9084   \comment{The letter '\L'.}
9085 \endsetslot
9086
9087 \setslot{\uctop{Nacute}{nacute}}
9088   \comment{The letter '\ N'.}
9089 \endsetslot
9090
9091 \setslot{\uctop{Ncaron}{ncaron}}
9092   \comment{The letter '\v N'.}
9093 \endsetslot
9094
9095 \setslot{\uc{Eng}{eng}}
9096   \comment{The Sami letter '\NG'. It is unavailable in \plain\ \TeX. This needs
9097     to be called 'Eng'/'eng' rather than 'Ng'/'ng' as in t1.etx in most cases, it
9098     seems.}
9099 \endsetslot
9100
9101 \setslot{\uctop{Ohungarumlaut}{ohungarumlaut}}
9102   \comment{The letter '\H O'.}
9103 \endsetslot
9104
9105 \setslot{\uctop{Racute}{racute}}
9106   \comment{The letter '\ R'.}
9107 \endsetslot
9108
9109 \setslot{\uctop{Rcaron}{rcaron}}
9110   \comment{The letter '\v R'.}
9111 \endsetslot
9112
9113 \setslot{\uctop{Sacute}{sacute}}
9114   \comment{The letter '\ S'.}
9115 \endsetslot
9116
9117 \setslot{\uctop{Scaron}{scaron}}
9118   \comment{The letter '\v S'.}
9119 \endsetslot
```

```

9119
9120 \setslot{\uc{Scedilla}{scedilla}}
9121   \comment{The letter '\c S'.}
9122 \endsetslot
9123
9124 \setslot{\uctop{Tcaron}{tcaron}}
9125   \comment{The letter '\v T'.}
9126 \endsetslot
9127
9128 \setslot{\uc{Tcedilla}{tcedilla}}
9129   \comment{The letter '\c T'.}
9130 \endsetslot
9131
9132 \setslot{\uctop{Uhungarumlaut}{uhungarumlaut}}
9133   \comment{The letter '\H U'.}
9134 \endsetslot
9135
9136 \setslot{\uctop{Uring}{uring}}
9137   \comment{The letter '\r U'.}
9138 \endsetslot
9139
9140 \setslot{\uctop{Ydieresis}{ydieresis}}
9141   \comment{The letter '\Y'.}
9142 \endsetslot
9143
9144 \setslot{\uctop{Zacute}{zacute}}
9145   \comment{The letter '\Z'.}
9146 \endsetslot
9147
9148 \setslot{\uctop{Zcaron}{zcaron}}
9149   \comment{The letter '\v Z'.}
9150 \endsetslot
9151
9152 \setslot{\uctop{Zdotaccent}{zdotaccent}}
9153   \comment{The letter '\. Z'.}
9154 \endsetslot
9155
9156 \ifnumber{\int{ligaturing}}<{0}\then \skipslots{1}\Else
9157
9158 \setslot{\uclig{IJ}{ij}}
9159   \comment{The letter 'IJ'. This is a single letter, and in a
9160     monowidth font should ideally be one letter wide.}
9161 \endsetslot
9162
9163 \Fi
9164
9165 \setslot{\uctop{Idotaccent}{idotaccent}}
9166   \comment{The letter '\. I'.}
9167 \endsetslot
9168
9169 \setslot{\lc{Dbar}{dbar}}
9170   \comment{The letter '\dj'.}
9171 \endsetslot
9172

```

```
9173 \setslot{section}
9174   \comment{The section mark '\textsection'.}
9175 \endsetslot
9176
9177 \setslot{\lctop{Abreve}{abreve}}
9178   \comment{The letter '\u a'.}
9179 \endsetslot
9180
9181 \setslot{\lc{Aogonek}{aogonek}}
9182   \comment{The letter '\k a'.}
9183 \endsetslot
9184
9185 \setslot{\lctop{Cacute}{cacute}}
9186   \comment{The letter '\c c'.}
9187 \endsetslot
9188
9189 \setslot{\lctop{Ccaron}{ccaron}}
9190   \comment{The letter '\v c'.}
9191 \endsetslot
9192
9193 \setslot{\lctop{Dcaron}{dcaron}}
9194   \comment{The letter '\v d'.}
9195 \endsetslot
9196
9197 \setslot{\lctop{Ecaron}{ecaron}}
9198   \comment{The letter '\v e'.}
9199 \endsetslot
9200
9201 \setslot{\lc{Eogonek}{eogonek}}
9202   \comment{The letter '\k e'.}
9203 \endsetslot
9204
9205 \setslot{\lctop{Gbreve}{gbreve}}
9206   \comment{The letter '\u g'.}
9207 \endsetslot
9208
9209 \setslot{\lctop{Lacute}{lacute}}
9210   \comment{The letter '\l'.}
9211 \endsetslot
9212
9213 \setslot{\lc{Lcaron}{lcaron}}
9214   \comment{The letter '\v l'.}
9215 \endsetslot
9216
9217 \setslot{\lc{Lslash}{lslash}}
9218   \comment{The letter '\l'.}
9219 \endsetslot
9220
9221 \setslot{\lctop{Nacute}{nacute}}
9222   \comment{The letter '\n'.}
9223 \endsetslot
9224
9225 \setslot{\lctop{Ncaron}{ncaron}}
9226   \comment{The letter '\v n'.}
```

```

9227 \endsetslot
9228
9229 \setslot{\lc{Eng}{eng}}
9230   \comment{The Sami letter '\ng'.
9231   It is unavailable in \plain\ TeX.
9232   This needs to be called 'Eng'/'eng' rather than 'Ng'/'ng' as it is in
9233   t1.etc in most cases, it seems.}
9234 \endsetslot
9235
9236 \setslot{\lctop{Ohungarumlaut}{ohungarumlaut}}
9237   \comment{The letter '\H o'.}
9238 \endsetslot
9239
9240 \setslot{\lctop{Racute}{racute}}
9241   \comment{The letter '\r'.}
9242 \endsetslot
9243
9244 \setslot{\lctop{Rcaron}{rcaron}}
9245   \comment{The letter '\v r'.}
9246 \endsetslot
9247
9248 \setslot{\lctop{Sacute}{sacute}}
9249   \comment{The letter '\s'.}
9250 \endsetslot
9251
9252 \setslot{\lctop{Scaron}{scaron}}
9253   \comment{The letter '\v s'.}
9254 \endsetslot
9255
9256 \setslot{\lc{Scedilla}{scedilla}}
9257   \comment{The letter '\c s'.}
9258 \endsetslot
9259
9260 \setslot{\lctop{Tcaron}{tcaron}}
9261   \comment{The letter '\v t'.}
9262 \endsetslot
9263
9264 \setslot{\lc{Tcedilla}{tcedilla}}
9265   \comment{The letter '\c t'.}
9266 \endsetslot
9267
9268 \setslot{\lctop{Uhungarumlaut}{uhungarumlaut}}
9269   \comment{The letter '\H u'.}
9270 \endsetslot
9271
9272 \setslot{\lctop{Uring}{uring}}
9273   \comment{The letter '\r u'.}
9274 \endsetslot
9275
9276 \setslot{\lctop{Ydieresis}{ydieresis}}
9277   \comment{The letter '\y'.}
9278 \endsetslot
9279
9280 \setslot{\lctop{Zacute}{zacute}}

```

```

9281     \comment{The letter '\ z'.}
9282     \endsetslot
9283
9284     \setslot{\lctop{Zcaron}{zcaron}}
9285         \comment{The letter '\v z'.}
9286     \endsetslot
9287
9288     \setslot{\lctop{Zdotaccent}{zdotaccent}}
9289         \comment{The letter '\. z'.}
9290     \endsetslot
9291
9292     \ifnumber{\int{ligaturing}}<{0}\then \skipslots{1}\Else
9293
9294     \setslot{\lclig{IJ}{ij}}
9295         \comment{The letter 'ij'. This is a single letter, and in a
9296             monowidth font should ideally be one letter wide.}
9297     \endsetslot
9298
9299     \Fi
9300
9301     \setslot{exclamdown}
9302         \comment{The Spanish punctuation mark '!'.}
9303     \endsetslot
9304
9305     \setslot{questiondown}
9306         \comment{The Spanish punctuation mark '?'.}
9307     \endsetslot
9308
9309     \setslot{sterling}
9310         \comment{The British currency mark '\textsterling'.}
9311     \endsetslot
9312
9313     \setslot{\uctop{Agrave}{agrave}}
9314         \comment{The letter '\` A'.}
9315     \endsetslot
9316
9317     \setslot{\uctop{Aacute}{aacute}}
9318         \comment{The letter '\^ A'.}
9319     \endsetslot
9320
9321     \setslot{\uctop{Acircumflex}{acircumflex}}
9322         \comment{The letter '\~ A'.}
9323     \endsetslot
9324
9325     \setslot{\uctop{Atilde}{atilde}}
9326         \comment{The letter '\~\ A'.}
9327     \endsetslot
9328
9329     \setslot{\uctop{Adieresis}{adieresis}}
9330         \comment{The letter '\u00f6 A'.}
9331     \endsetslot
9332
9333     \setslot{\uctop{Aring}{aring}}
9334         \comment{The letter '\r A'.}

```

```
9335 \endsetslot
9336
9337 \setslot{\uc{AE}{ae}}
9338   \comment{The letter '\AE'. This is a single letter, and should not be
9339     faked with 'AE'.}
9340 \endsetslot
9341
9342 \setslot{\uc{Ccedilla}{ccedilla}}
9343   \comment{The letter '\c C'.}
9344 \endsetslot
9345
9346 \setslot{\uctop{Egrave}{egrave}}
9347   \comment{The letter '\` E'.}
9348 \endsetslot
9349
9350 \setslot{\uctop{Eacute}{eacute}}
9351   \comment{The letter '\^ E'.}
9352 \endsetslot
9353
9354 \setslot{\uctop{Ecircumflex}{ecircumflex}}
9355   \comment{The letter '\~ E'.}
9356 \endsetslot
9357
9358 \setslot{\uctop{Edieresis}{edieresis}}
9359   \comment{The letter '\u00f4 E'.}
9360 \endsetslot
9361
9362 \setslot{\uctop{Igrave}{igrave}}
9363   \comment{The letter '\` I'.}
9364 \endsetslot
9365
9366 \setslot{\uctop{Iacute}{iacute}}
9367   \comment{The letter '\^ I'.}
9368 \endsetslot
9369
9370 \setslot{\uctop{Icircumflex}{icircumflex}}
9371   \comment{The letter '\~ I'.}
9372 \endsetslot
9373
9374 \setslot{\uctop{Idieresis}{idieresis}}
9375   \comment{The letter '\u00f4 I'.}
9376 \endsetslot
9377
9378 \setslot{\uc{Eth}{eth}}
9379   \comment{The uppercase Icelandic letter 'Eth' similar to a 'D'
9380     with a horizontal bar through the stem. It is unavailable
9381     in \plain\ \TeX.}
9382 \endsetslot
9383
9384 \setslot{\uctop{Ntilde}{ntilde}}
9385   \comment{The letter '\~ N'.}
9386 \endsetslot
9387
9388 \setslot{\uctop{Ograve}{ograve}}
```

```

9389     \comment{The letter '\` O'.}
9390     \endsetslot
9391
9392     \setslot{\uctop{Oacute}{oacute}}
9393         \comment{The letter '\` O'.}
9394     \endsetslot
9395
9396     \setslot{\uctop{Ocircumflex}{ocircumflex}}
9397         \comment{The letter '\^ O'.}
9398     \endsetslot
9399
9400     \setslot{\uctop{Otilde}{otilde}}
9401         \comment{The letter '\~ O'.}
9402     \endsetslot
9403
9404     \setslot{\uctop{Odieresis}{odieresis}}
9405         \comment{The letter '\\" O'.}
9406     \endsetslot
9407
9408     \setslot{\uc{OE}{oe}}
9409         \comment{The letter '\OE'. This is a single letter, and should not be
9410             faked with 'OE'.}
9411     \endsetslot
9412
9413     \setslot{\uc{Oslash}{oslash}}
9414         \comment{The letter '\O'.}
9415     \endsetslot
9416
9417     \setslot{\uctop{Ugrave}{ugrave}}
9418         \comment{The letter '\` U'.}
9419     \endsetslot
9420
9421     \setslot{\uctop{Uacute}{uacute}}
9422         \comment{The letter '\` U'.}
9423     \endsetslot
9424
9425     \setslot{\uctop{Ucircumflex}{ucircumflex}}
9426         \comment{The letter '\^ U'.}
9427     \endsetslot
9428
9429     \setslot{\uctop{Udieresis}{udieresis}}
9430         \comment{The letter '\\" U'.}
9431     \endsetslot
9432
9433     \setslot{\uctop{Yacute}{yacute}}
9434         \comment{The letter '\` Y'.}
9435     \endsetslot
9436
9437     \setslot{\uc{Thorn}{thorn}}
9438         \comment{The Icelandic capital letter Thorn, similar to a 'P'
9439             with the bowl moved down. It is unavailable in \plain\ \TeX.}
9440     \endsetslot
9441
9442     \setslot{\uclig{SS}{germandbls}}

```

```
9443     \comment{The ligature 'SS', used to give an upper case '\ss'.  
9444         In a monowidth font it should be two letters wide.}  
9445 \endsetslot  
9446  
9447 \setslot{\lctop{Agrave}{agrave}}  
9448     \comment{The letter '\` a'.}  
9449 \endsetslot  
9450  
9451 \setslot{\lctop{Aacute}{aacute}}  
9452     \comment{The letter '\^ a'.}  
9453 \endsetslot  
9454  
9455 \setslot{\lctop{Acircumflex}{acircumflex}}  
9456     \comment{The letter '\~ a'.}  
9457 \endsetslot  
9458  
9459 \setslot{\lctop{Atilde}{atilde}}  
9460     \comment{The letter '\~ a'.}  
9461 \endsetslot  
9462  
9463 \setslot{\lctop{Adieresis}{adieresis}}  
9464     \comment{The letter '\\" a'.}  
9465 \endsetslot  
9466  
9467 \setslot{\lctop{Aring}{aring}}  
9468     \comment{The letter '\r a'.}  
9469 \endsetslot  
9470  
9471 \setslot{\lc{AE}{ae}}  
9472     \comment{The letter '\ae'. This is a single letter, and should not be  
9473         faked with 'ae'.}  
9474 \endsetslot  
9475  
9476 \setslot{\lc{Ccedilla}{ccedilla}}  
9477     \comment{The letter '\c c'.}  
9478 \endsetslot  
9479  
9480 \setslot{\lctop{Egrave}{egrave}}  
9481     \comment{The letter '\` e'.}  
9482 \endsetslot  
9483  
9484 \setslot{\lctop{Eacute}{eacute}}  
9485     \comment{The letter '\^ e'.}  
9486 \endsetslot  
9487  
9488 \setslot{\lctop{Ecircumflex}{ecircumflex}}  
9489     \comment{The letter '\~ e'.}  
9490 \endsetslot  
9491  
9492 \setslot{\lctop{Edieresis}{edieresis}}  
9493     \comment{The letter '\\" e'.}  
9494 \endsetslot  
9495  
9496 \setslot{\lctop{Igrave}{igrave}}
```

```
9497     \comment{The letter '\i'.}
9498 \endsetslot
9499
9500 \setslot{\lctop{Iacute}{iacute}}
9501     \comment{The letter '\i'.}
9502 \endsetslot
9503
9504 \setslot{\lctop{Icircumflex}{icircumflex}}
9505     \comment{The letter '\^i'.}
9506 \endsetslot
9507
9508 \setslot{\lctop{Idieresis}{idieresis}}
9509     \comment{The letter '\"i'.}
9510 \endsetslot
9511
9512 \setslot{\lc{Eth}{eth}}
9513     \comment{The Icelandic lowercase letter 'eth' similar to
9514         a '$\partial$' with an oblique bar through the stem.
9515         It is unavailable in \plain\ TeX.}
9516 \endsetslot
9517
9518 \setslot{\lctop{Ntilde}{ntilde}}
9519     \comment{The letter '\~n'.}
9520 \endsetslot
9521
9522 \setslot{\lctop{Ograve}{ograve}}
9523     \comment{The letter '\`o'.}
9524 \endsetslot
9525
9526 \setslot{\lctop{Oacute}{oacute}}
9527     \comment{The letter '\o'.}
9528 \endsetslot
9529
9530 \setslot{\lctop{Ocircumflex}{ocircumflex}}
9531     \comment{The letter '\^o'.}
9532 \endsetslot
9533
9534 \setslot{\lctop{Otilde}{otilde}}
9535     \comment{The letter '\~o'.}
9536 \endsetslot
9537
9538 \setslot{\lctop{Odieresis}{odieresis}}
9539     \comment{The letter '\"o'.}
9540 \endsetslot
9541
9542 \setslot{\lc{OE}{oe}}
9543     \comment{The letter '\oe'. This is a single letter, and should not be
9544         faked with 'oe'.}
9545 \endsetslot
9546
9547 \setslot{\lc{Oslash}{oslash}}
9548     \comment{The letter '\o'.}
9549 \endsetslot
9550
```

```

9551 \setslot{\lctop{Ugrave}{ugrave}}
9552   \comment{The letter '\` u'.}
9553 \endsetslot
9554
9555 \setslot{\lctop{Uacute}{uacute}}
9556   \comment{The letter '\u u'.}
9557 \endsetslot
9558
9559 \setslot{\lctop{Ucircumflex}{ucircumflex}}
9560   \comment{The letter '\^ u'.}
9561 \endsetslot
9562
9563 \setslot{\lctop{Udieresis}{udieresis}}
9564   \comment{The letter '\u u'.}
9565 \endsetslot
9566
9567 \setslot{\lctop{Yacute}{yacute}}
9568   \comment{The letter '\` y'.}
9569 \endsetslot
9570
9571 \setslot{\lc{Thorn}{thorn}}
9572   \comment{The Icelandic lowercase letter 'thorn', similar to a 'p'
9573     with an ascender rising from the stem. It is unavailable
9574     in \plain\ \TeX.}
9575 \endsetslot
9576
9577 \setslot{\lc{SS}{germandbls}}
9578   \comment{The letter '\ss'.}
9579 \endsetslot
9580
9581 \endencoding

```

6.3.13 t1j-f_f.etx

t1j-f_f.etx (etx)

```

9582 \relax
9583

```

t1j-f_f.etx – install a T1-encoded roman font with oldstyle and f-ligatures named f_f etc.

We do not need to distinguish between roman and italic in T1, hence we simply call t1-f_f.etx with oldstyle parameters.

```

9584
9585 \encoding
9586
9587 \setcommand{\lc#1#2{#2}}
9588 \setcommand{\uc#1#2{#1}}
9589 \setcommand{\lctop#1#2{#2}}
9590 \setcommand{\uctop#1#2{#1}}
9591 \setcommand{\lclig#1#2{#2}}
9592 \setcommand{\uclig#1#2{#1}}
9593 \setcommand{\digit#1{#1oldstyle}}

```

```
9594  
9595 \input{tex/t1-f_f}  
9596  
9597 \end{encoding}
```

6.3.14 ts1-dotinf.etx

ts1-dotinf.etc (etc)

```

9598 %% 
9599 %% - The commentary in the original is deleted in this version. For
9600 %% information about the TS1 etc., typeset the original ts1.etx
9601 %% included with fontinst.
9602 %% - The original notices at the top of that file concerning authors,
9603 %% maintenance etc. are replaced by this notice.
9604 %% - The file is renamed.
9605 %% - The encoding name is modified.
9606 %% - The file is modified to accommodate differences in glyph names.
9607 %% - The file may be modified for use in encoding other characters.
9608 %%
9609 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
9610 \relax

9611
9612 \encoding
9613
9614 \setstr{codingscheme}{TEX TEXT COMPANION 1---TS1 DOTINF}
9615
9616 \ifisglyph{x}\then
9617   \setint{xheight}{\height{x}}
9618 \else
9619   \setint{xheight}{500}
9620 \fi
9621
9622 \ifisglyph{space}\then
9623   \setint{interword}{\width{space}}
9624 \else\ifisglyph{i}\then
9625   \setint{interword}{\width{i}}
9626 \else
9627   \setint{interword}{333}
9628 \fi\fi
9629
9630 \setint{italicslant}{0}
9631
9632 \setint{fontdimen(1)}{\int{italicslant}} % italic slant
9633 \setint{fontdimen(2)}{\int{interword}} % interword space
9634 \setint{fontdimen(3)}{0} % interword stretch
9635 \setint{fontdimen(4)}{0} % interword shrink
9636 \setint{fontdimen(5)}{\int{xheight}} % x-height
9637 \setint{fontdimen(6)}{1000} % quad
9638 \setint{fontdimen(7)}{\int{interword}} % extra space after .
9639
9640
9641 \nextslot{0}

```

```
9642 \setslot{capitalgrave.inferior}
9643   \comment{The grave accent '\capitalgrave{}', intended for use with
9644     capital letters.}
9645 \endsetslot
9646
9647 \setslot{capitalacute.inferior}
9648   \comment{The acute accent '\capitalacute{}', intended for use with
9649     capital letters.}
9650 \endsetslot
9651
9652 \setslot{capitalcircumflex.inferior}
9653   \comment{The circumflex accent '\capitalcircumflex{}', intended for
9654     use with capital letters.}
9655 \endsetslot
9656
9657 \setslot{capitaltilde.inferior}
9658   \comment{The tilde accent '\capitaltilde{}', intended for use with
9659     capital letters.}
9660 \endsetslot
9661
9662 \setslot{capitaldieresis.inferior}
9663   \comment{The umlaut or dieresis accent '\capitaldieresis{}',
9664     intended for use with capital letters.}
9665 \endsetslot
9666
9667 \setslot{capitalhungarumlaut.inferior}
9668   \comment{The long Hungarian umlaut '\capitalhungarumlaut{}',
9669     intended for use with capital letters.}
9670 \endsetslot
9671
9672 \setslot{capitalring.inferior}
9673   \comment{The ring accent '\capitalring{}', intended for use with
9674     capital letters.}
9675 \endsetslot
9676
9677 \setslot{capitalcaron.inferior}
9678   \comment{The caron or h\`a\v cek accent '\capitalcaron{}', intended
9679     for use with capital letters.}
9680 \endsetslot
9681
9682 \setslot{capitalbreve.inferior}
9683   \comment{The breve accent '\capitalbreve{}', intended for use with
9684     capital letters.}
9685 \endsetslot
9686
9687 \setslot{capitalmacron.inferior}
9688   \comment{The macron accent '\capitalmacron{}', intended for use with
9689     capital letters.}
9690 \endsetslot
9691
9692 \setslot{capitaldotaccent.inferior}
9693   \comment{The dot accent '\capitaldotaccent{}', intended for use with
9694     capital letters.}
9695 \endsetslot
```

```
9696 \setslot{cedilla.inferior}
9697   \comment{The cedilla accent '\capitalcedilla{}', intended for use
9698     with capital letters.}
9699 \endsetslot
9700
9701 \setslot{ogonek.inferior}
9702   \comment{The ogonek accent '\capitalogonek{}', intended for use with
9703     capital letters.}
9704 \endsetslot
9705
9706 \nextslot{13}
9707 \setslot{quotesinglbase.inferior}
9708   \comment{A straight single quote mark on the baseline,
9709     '\textquotestraightbase'.}
9710 \endsetslot
9711
9712 \nextslot{18}
9713 \setslot{quotedblbase.inferior}
9714   \comment{A straight double quote mark on the baseline,
9715     '\textquotestraightdblbase'.}
9716 \endsetslot
9717
9718 \nextslot{21}
9719 \setslot{twelveudash.inferior}
9720   \comment{A 2/3-em dash, '\texttwelveudash'.}
9721 \endsetslot
9722
9723 \setslot{threequartersemdash.inferior}
9724   \comment{A 3/4-em dash, '\textthreequartersemdash'.}
9725 \endsetslot
9726
9727 \nextslot{23}
9728 \setslot{capitalcompwordmark.inferior}
9729   \comment{An invisible glyph, with zero width and depth, but the
9730     height of capital letters.
9731     It is used to stop ligaturing in words like 'shelf{}ful'.}
9732 \endsetslot
9733
9734 \nextslot{24}
9735 \setslot{arrowleft.inferior}
9736   \comment{A left pointing arrow, '\textleftarrow', unavailable in
9737     most PostScript fonts.}
9738 \endsetslot
9739
9740 \setslot{arrowright.inferior}
9741   \comment{A right pointing arrow, '\rightarrow', unavailable in
9742     most PostScript fonts.}
9743 \endsetslot
9744
9745 \nextslot{26}
9746 \setslot{tieaccentlowercase.inferior}
9747   \comment{The original tie accent '\t{}', intended for use with
9748     lowercase letters.}
```

```
9750 \endsetslot
9751
9752 \setslot{tieaccentcapital.inferior}
9753   \comment{The tie accent '\capitaltie{}', intended for use with
9754     capital letters.}
9755 \endsetslot
9756
9757 \setslot{newtieaccentlowercase.inferior}
9758   \comment{A new tie accent '\newtie{}', intended for use with
9759     lowercase letters.}
9760 \endsetslot
9761
9762 \setslot{newtieaccentcapital.inferior}
9763   \comment{A new tie accent '\capitalnewtie{}', intended for use
9764     with capital letters.}
9765 \endsetslot
9766
9767 \nextslot{31}
9768 \setslot{ascendercompwordmark.inferior}
9769   \comment{An invisible glyph, with zero width and depth, but the
9770     height of lowercase letters with ascenders.
9771     It is used to stop ligaturing in words like 'shelf{}ful'.}
9772 \endsetslot
9773
9774 \nextslot{32}
9775 \setslot{blank.inferior}
9776   \comment{The blank indicator '\textblank', similar to the letter 'b'
9777     with an oblique bar through the stem.}
9778 \endsetslot
9779
9780 \nextslot{36}
9781 \setslot{dollar.inferior}
9782   \comment{The dollar sign '\textdollar'.}
9783 \endsetslot
9784
9785 \nextslot{39}
9786 \setslot{quotesingle.inferior}
9787   \comment{A straight single quote mark, '\textquotesingle'.}
9788 \endsetslot
9789
9790 \nextslot{42}
9791 \setslot{asteriskcentered.inferior}
9792   \comment{The centered asterisk, '\textasteriskcentered'.}
9793 \endsetslot
9794
9795 \nextslot{44}
9796 \setslot{comma.inferior}
9797   \comment{The decimal comma ','.}
9798 \endsetslot
9799
9800 \nextslot{45}
9801 \setslot{hyphendbl.inferior}
9802   \comment{An alternate double hyphen, '\textdblhyphen'.}
9803 \endsetslot
```

```
9804 \nextslot{46}
9805 \setslot{period.inferior}
9806   \comment{The decimal point ‘.’.}
9807 \endsetslot
9808
9809 \nextslot{47}
9810 \setslot{fraction.inferior}
9811   \comment{The fraction slash ‘\textfractionsolidus’.}
9812 \endsetslot
9813
9814 \nextslot{48}
9815 \setslot{zerooldstyle.inferior}
9816   \comment{The oldstyle number ‘\oldstylenums{0}’.}
9817 \endsetslot
9818
9819 \setslot{oneoldstyle.inferior}
9820   \comment{The oldstyle number ‘\oldstylenums{1}’.}
9821 \endsetslot
9822
9823 \setslot{twooldstyle.inferior}
9824   \comment{The oldstyle number ‘\oldstylenums{2}’.}
9825 \endsetslot
9826
9827 \setslot{threeoldstyle.inferior}
9828   \comment{The oldstyle number ‘\oldstylenums{3}’.}
9829 \endsetslot
9830
9831 \setslot{fouroldstyle.inferior}
9832   \comment{The oldstyle number ‘\oldstylenums{4}’.}
9833 \endsetslot
9834
9835 \setslot{fiveoldstyle.inferior}
9836   \comment{The oldstyle number ‘\oldstylenums{5}’.}
9837 \endsetslot
9838
9839 \setslot{sixoldstyle.inferior}
9840   \comment{The oldstyle number ‘\oldstylenums{6}’.}
9841 \endsetslot
9842
9843 \setslot{sevenoldstyle.inferior}
9844   \comment{The oldstyle number ‘\oldstylenums{7}’.}
9845 \endsetslot
9846
9847 \setslot{eightoldstyle.inferior}
9848   \comment{The oldstyle number ‘\oldstylenums{8}’.}
9849 \endsetslot
9850
9851 \setslot{nineoldstyle.inferior}
9852   \comment{The oldstyle number ‘\oldstylenums{9}’.}
9853 \endsetslot
9854
9855 \nextslot{60}
9856 \setslot{angbracketleft.inferior}
```

```
9858     \comment{The opening angle bracket ‘\textlangle’, unavailable in
9859         most PostScript fonts.}
9860 \endsetslot
9861
9862 \nextslot{61}
9863 \setslot{minus.inferior}
9864     \comment{The subtraction sign ‘\textminus’.}
9865 \endsetslot
9866
9867 \nextslot{62}
9868 \setslot{angbracketright.inferior}
9869     \comment{The closing angle bracket ‘\textrangle’, unavailable in
9870         most PostScript fonts.}
9871 \endsetslot
9872
9873 \nextslot{77}
9874 \setslot{Omegainv.inferior}
9875     \comment{The inverted Ohm sign ‘\textmho’, unavailable in most fonts.}
9876 \endsetslot
9877
9878 \nextslot{79}
9879     \comment{A circle ‘\textbigcircle’, big enough to enclose a letter
9880         as in ‘\textcopyright’ or ‘\textregistered’.}
9881 \setslot{bigcircle.inferior}
9882 \endsetslot
9883
9884 \nextslot{87}
9885 \setslot{Omega.inferior}
9886     \comment{The upright Ohm sign ‘\textohm’, unavailable in most fonts.
9887         Even if it is available in Mac-encoded fonts, it isn’t directly
9888         accessible in the 8r or 8y encodings.}
9889 \endsetslot
9890
9891 \nextslot{91}
9892 \setslot{openbracketleft.inferior}
9893     \comment{The opening double square bracket ‘\textlbrackdbl’,
9894         unavailable in most PostScript fonts.}
9895 \endsetslot
9896
9897 \nextslot{93}
9898 \setslot{openbracketright.inferior}
9899     \comment{The closing double square bracket ‘\textrbrackdbl’,
9900         unavailable in most PostScript fonts.}
9901 \endsetslot
9902
9903 \nextslot{94}
9904 \setslot{arrowup.inferior}
9905     \comment{An upwards pointing arrow ‘\textuparrow’, unavailable in
9906         most PostScript fonts.}
9907 \endsetslot
9908
9909 \nextslot{95}
9910 \setslot{arrowdown.inferior}
9911     \comment{An downwards pointing arrow ‘\textdownarrow’, unavailable
```

```
9912      in most PostScript fonts.}
9913 \endsetslot
9914
9915 \nextslot{96}
9916 \setslot{asciigrave.inferior}
9917   \comment{An ASCII-style grave '\textasciigrave'. This is supposed
9918     to be a character by itself rather than a combining accents.}
9919 \endsetslot
9920
9921 \nextslot{98}
9922 \setslot{born.inferior}
9923   \comment{The born symbol '\textborn', unavailable in most PostScript
9924     fonts.}
9925 \endsetslot
9926
9927 \nextslot{99}
9928 \setslot{divorced.inferior}
9929   \comment{The divorced symbol '\textdivorced', unavailable in most
9930     PostScript fonts.}
9931 \endsetslot
9932
9933 \nextslot{100}
9934 \setslot{died.inferior}
9935   \comment{The died symbol '\textdied', unavailable in most PostScript
9936     fonts.}
9937 \endsetslot
9938
9939 \nextslot{108}
9940 \setslot{leaf.inferior}
9941   \comment{The leaf symbol '\textleaf', unavailable in most PostScript
9942     fonts.}
9943 \endsetslot
9944
9945 \nextslot{109}
9946 \setslot{married.inferior}
9947   \comment{The married symbol '\textmarried', unavailable in most
9948     PostScript fonts.}
9949 \endsetslot
9950
9951 \nextslot{110}
9952 \setslot{musicalnote.inferior}
9953   \comment{A musical note symbol '\textmusicalnote', unavailable in
9954     most PostScript fonts.}
9955 \endsetslot
9956
9957 \nextslot{126}
9958 \setslot{tildelow.inferior}
9959   \comment{A lowered tilde '\texttildelow'. In most PostScript fonts
9960     it can be substituted by 'asciitilde', while '\textasciitilde'
9961     is supposed to be a raised 'tilde'.}
9962 \endsetslot
9963
9964 \nextslot{127}
9965 \setslot{hyphendblchar.inferior}
```

```
9966     \comment{The glyph used for hyphenation in this font, which will
9967         almost always be the same as 'hyphendbl'.}
9968 \endsetslot
9969
9970 \nextslot{128}
9971 \setslot{asciibreve.inferior}
9972     \comment{An ASCII-style breve '\textasciibreve'. This is supposed
9973         to be a character by itself rather than a combining accents.}
9974 \endsetslot
9975
9976 \setslot{asciicaron.inferior}
9977     \comment{An ASCII-style caron '\textasciicaron'. This is supposed
9978         to be a character by itself rather than a combining accents.}
9979 \endsetslot
9980
9981 \setslot{asciacutedbl.inferior}
9982     \comment{An ASCII-style double tick mark, '\textacutedbl'.}
9983 \endsetslot
9984
9985 \setslot{asciigravedbl.inferior}
9986     \comment{An ASCII-style double backtick mark, '\textgravedbl'.}
9987 \endsetslot
9988
9989 \setslot{dagger.inferior}
9990     \comment{The single dagger '\textdagger'.}
9991 \endsetslot
9992
9993 \setslot{daggerdbl.inferior}
9994     \comment{The double dagger '\textdaggerdbl'.}
9995 \endsetslot
9996
9997 \setslot{bardbl.inferior}
9998     \comment{The double vertical bar '\textbardbl'.}
9999 \endsetslot
10000
10001 \setslot{perthousand.inferior}
10002     \comment{The perthousand sign '\textperthousand'.}
10003 \endsetslot
10004
10005 \setslot{bullet.inferior}
10006     \comment{The centered bullet '\textbullet'.}
10007 \endsetslot
10008
10009 \setslot{centigrade.inferior}
10010     \comment{The degree centigrade symbol '\textcelsius'.}
10011 \endsetslot
10012
10013 \setslot{dollaroldstyle.inferior}
10014     \comment{An oldstyle dollar sign '\textdollaroldstyle'.}
10015 \endsetslot
10016
10017 \setslot{centoldstyle.inferior}
10018     \comment{An oldstyle cent sign '\textcentoldstyle'.}
10019 \endsetslot
```

```
10020 \setslot{florin.inferior}
10021   \comment{The florin sign '\textflorin'.}
10022 \endsetslot
10024
10025 \setslot{colonmonetary.inferior}
10026   \comment{The Colon currency sign '\textcolonmonetary', similar to
10027     a capital 'C' with a vertical bar through the middle.}
10028 \endsetslot
10029
10030 \setslot{won.inferior}
10031   \comment{The Won currency sign '\textwon', similar to a capital 'W'
10032     with two horizontal bars.}
10033 \endsetslot
10034
10035 \setslot{naira.inferior}
10036   \comment{The Naira currency sign '\textnaira', similar to a
10037     capital 'N' with two horizontal bars.}
10038 \endsetslot
10039
10040 \setslot{guarani.inferior}
10041   \comment{The Guarani currency sign '\textguarani', similar to
10042     a capital 'G' with a vertical bar through the middle.}
10043 \endsetslot
10044
10045 \setslot{peso.inferior}
10046   \comment{The Peso currency sign '\textpeso', similar to a capital 'P'
10047     with a horizontal bar through the bowl or below the bowl.}
10048 \endsetslot
10049
10050 \setslot{lira.inferior}
10051   \comment{The Lira currency sign '\textlira', similar to a sterling
10052     sign '\textsterling' with two horizontal bars.}
10053 \endsetslot
10054
10055 \setslot{recipe.inferior}
10056   \comment{The recipe symbol '\textrecipe', similar to a capital 'R'
10057     with an oblique bar through the tail.}
10058 \endsetslot
10059
10060 \setslot{interrobang.inferior}
10061   \comment{The interrobang symbol '\textinterrobang', similar to
10062     a combination of an exclamation mark and a question mark.}
10063 \endsetslot
10064
10065 \setslot{interrobangdown.inferior}
10066   \comment{The inverted interrobang symbol '\textinterrobangdown',
10067     similar to a combination of an inverted exclamation mark
10068     and an inverted question mark.}
10069 \endsetslot
10070
10071 \setslot{dong.inferior}
10072   \comment{The Dong currency sign '\textdong', similar to a lowercase
10073     'd' with a horizontal bar through the stem and another bar below}
```

```
10074     the letter.}
10075 \endsetslot
10076
10077 \setslot{trademark.inferior}
10078   \comment{The trademark sign ‘\texttrademark’, similar to the raised
10079   letters ‘TM’.}
10080 \endsetslot
10081
10082 \setslot{pertenthousand.inferior}
10083   \comment{The pertenthousand sign ‘\textpertenthousand’, unavailable
10084   in most PostScript fonts.}
10085 \endsetslot
10086
10087 \setslot{pilcrow.inferior}
10088   \comment{The pilcrow mark ‘\textpilcrow’, similar to a paragraph
10089   mark ‘\textparagraph’ with a single stem.}
10090 \endsetslot
10091
10092 \setslot{baht.inferior}
10093   \comment{The Baht currency sign ‘\textbaht’, similar to a capital ‘B’
10094   with a vertical bar through the middle.}
10095 \endsetslot
10096
10097 \setslot{numero.inferior}
10098   \comment{The numero sign ‘\textnumero’, similar to the letter ‘N’
10099   with a raised ‘o’, unavailable in most PostScript fonts.}
10100 \endsetslot
10101
10102 \setslot{discount.inferior}
10103   \comment{The discount sign ‘\textdiscount’, similar to a stylized
10104   percent sign, unavailable in most PostScript fonts.}
10105 \endsetslot
10106
10107 \setslot{estimated.inferior}
10108   \comment{The estimated sign ‘\textestimated’, similar to an enlarged
10109   lowercase ‘e’, unavailable in most PostScript fonts.}
10110 \endsetslot
10111
10112 \setslot{openbullet.inferior}
10113   \comment{The centered open bullet ‘\textopenbullet’, unavailable
10114   in most PostScript fonts.}
10115 \endsetslot
10116
10117 \setslot{servicemark.inferior}
10118   \comment{The service mark sign ‘\textservicemark’, similar to the
10119   raised letters ‘SM’, unavailable in most PostScript fonts.}
10120 \endsetslot
10121
10122 \nextslot{160}
10123 \setslot{quillbracketleft.inferior}
10124   \comment{The opening quill bracket ‘\textlquill’, unavailable in
10125   most PostScript fonts.}
10126 \endsetslot
10127
```

```
10128 \setslot{quillbracketright.inferior}
10129   \comment{The closing quill bracket '\textrquill', unavailable in
10130     most PostScript fonts.}
10131 \endsetslot
10132
10133 \setslot{cent.inferior}
10134   \comment{The cent sign '\textcent'.}
10135 \endsetslot
10136
10137 \setslot{sterling.inferior}
10138   \comment{The British currency sign, '\textsterling'.}
10139 \endsetslot
10140
10141 \setslot{currency.inferior}
10142   \comment{The international currency sign, '\textcurrency'.}
10143 \endsetslot
10144
10145 \setslot{yen.inferior}
10146   \comment{The Japanese currency sign, '\textyen'.}
10147 \endsetslot
10148
10149 \setslot{brokenbar.inferior}
10150   \comment{A broken vertical bar, '\textbrokenbar', similar to
10151     '\textbar' with a gap through the middle.}
10152 \endsetslot
10153
10154 \setslot{section.inferior}
10155   \comment{The section mark '\textsection'.}
10156 \endsetslot
10157
10158 \setslot{asciidieresis.inferior}
10159   \comment{An ASCII-style dieresis '\textasciidieresis'. This is
10160     supposed to be character by itself rather than an accents.}
10161 \endsetslot
10162
10163 \setslot{copyright.inferior}
10164   \comment{The copyright sign '\textcopyright', similar to a small
10165     letter 'C' enclosed by a circle.}
10166 \endsetslot
10167
10168 \setslot{ordfeminine.inferior}
10169   \comment{The raised letter '\textordfeminine'.}
10170 \endsetslot
10171
10172 \setslot{copyleft.inferior}
10173   \comment{The reversed copyright sign '\textcopyleft', similar to
10174     a small reversed 'C' enclosed by a circle.}
10175 \endsetslot
10176
10177 \setslot{logicalnot.inferior}
10178   \comment{The logical not sign '\textlnot'.}
10179 \endsetslot
10180
10181 \setslot{circledP.inferior}
```

```
10182     \comment{A small letter ‘P’ enclosed by a circle, ‘\textcircledP’,  
10183         unavailable in most fonts.}  
10184 \endsetslot  
10185  
10186 \setslot{registered.inferior}  
10187     \comment{The registered trademark sign ‘\textregistered’, similar to  
10188         a small letter ‘R’ enclosed by a circle.}  
10189 \endsetslot  
10190  
10191 \setslot{asciimacron.inferior}  
10192     \comment{An ASCII-style macron ‘\textasciimacron’. This is supposed  
10193         to be a character by itself rather than a combining accents.}  
10194 \endsetslot  
10195  
10196 \setslot{degree.inferior}  
10197     \comment{The degree sign ‘\textdegree’.}  
10198 \endsetslot  
10199  
10200 \setslot{plusminus.inferior}  
10201     \comment{The plus or minus sign ‘\textpm’.}  
10202 \endsetslot  
10203  
10204 \setslot{two.superior}  
10205     \comment{The raised digit ‘\texttwosuperior’.}  
10206 \endsetslot  
10207  
10208 \setslot{three.superior}  
10209     \comment{The raised digit ‘\textthreesuperior’.}  
10210 \endsetslot  
10211  
10212 \setslot{asciiacute.inferior}  
10213     \comment{An ASCII-style acute ‘\textasciiacute’. This is supposed  
10214         to be a character by itself rather than a combining accents.}  
10215 \endsetslot  
10216  
10217 \setslot{mu.inferior}  
10218     \comment{The lowercase Greek letter ‘\textmu’, intended for use as  
10219         a prefix ‘micro’ in physical units.}  
10220 \endsetslot  
10221  
10222 \setslot{paragraph.inferior}  
10223     \comment{The paragraph mark ‘\textparagraph’.}  
10224 \endsetslot  
10225  
10226 \setslot{periodcentered.inferior}  
10227     \comment{The centered period ‘\textperiodcentered’.}  
10228 \endsetslot  
10229  
10230 \setslot{referencemark.inferior}  
10231     \comment{The reference mark ‘\textreferencemark’, similar to  
10232         a combination of the ‘multiply’ and ‘divide’ symbols.}  
10233 \endsetslot  
10234  
10235 \setslot{one.superior}
```

```

10236     \comment{The raised digit ‘\textonesuperior’.}
10237     \endsetslot
10238
10239 \setslot{ordmasculine.inferior}
10240     \comment{The raised letter ‘\textordmasculine’.}
10241 \endsetslot
10242
10243 \setslot{radical.inferior}
10244     \comment{The radical sign ‘\textsurd’, unavailable in most fonts.
10245         Even if it is available in Mac-encoded fonts, it isn’t directly
10246         accessible in the 8r or 8y encodings.}
10247 \endsetslot
10248
10249 \setslot{onequarter.inferior}
10250     \comment{The fraction ‘\textonequarter’.}
10251 \endsetslot
10252
10253 \setslot{onehalf.inferior}
10254     \comment{The fraction ‘\textonehalf’.}
10255 \endsetslot
10256
10257 \setslot{threequarters.inferior}
10258     \comment{The fraction ‘\textthreequarters’.}
10259 \endsetslot
10260
10261 \setslot{Euro.inferior}
10262     \comment{The European currency sign, similar to ‘\texteuro’.}
10263 \endsetslot
10264
10265
10266 \nextslot{214}
10267 \setslot{multiply.inferior}
10268     \comment{The multiplication sign ‘\texttimes’.
10269         This symbol was originally intended to be put into slot~215,
10270         but ended up in this slot by mistake, at which time it was
10271         considered too late to change it.}
10272 \endsetslot
10273
10274 \nextslot{246}
10275 \setslot{divide.inferior}
10276     \comment{The division sign ‘\textdiv’.
10277         This symbol was originally intended to be put into slot~247,
10278         but ended up in this slot by mistake, at which time it was
10279         considered too late to change it.}
10280 \endsetslot
10281
10282 \endencoding
10283

```

6.3.15 ts1-dotsup.etx

ts1-dotsup.etx (etx)

```

10284 %%
10285 %% - The commentary in the original is deleted in this version. For
10286 %% information about the TS1 etc., typeset the original ts1.etx
10287 %% included with fontinst.
10288 %% - The original notices at the top of that file concerning authors,
10289 %% maintenance etc. are replaced by this notice.
10290 %% - The file is renamed.
10291 %% - The encoding name is modified.
10292 %% - The file is modified to accommodate differences in glyph names.
10293 %% - The file may be modified for use in encoding other characters.
10294 %%
10295 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
10296 \relax
10297
10298 \encoding
10299
10300 \setstr{codingscheme}{TEX TEXT COMPANION 1---TS1 DOTSUP}
10301
10302 \ifisglyph{x}\then
10303   \setint{xheight}{\height{x}}
10304 \else
10305   \setint{xheight}{500}
10306 \fi
10307
10308 \ifisglyph{space}\then
10309   \setint{interword}{\width{space}}
10310 \else\ifisglyph{i}\then
10311   \setint{interword}{\width{i}}
10312 \else
10313   \setint{interword}{333}
10314 \fi\fi
10315
10316 \setint{italicslant}{0}
10317
10318
10319 \setint{fontdimen(1)}{\int{italicslant}} % italic slant
10320 \setint{fontdimen(2)}{\int{interword}} % interword space
10321 \setint{fontdimen(3)}{0} % interword stretch
10322 \setint{fontdimen(4)}{0} % interword shrink
10323 \setint{fontdimen(5)}{\int{xheight}} % x-height
10324 \setint{fontdimen(6)}{1000} % quad
10325 \setint{fontdimen(7)}{\int{interword}} % extra space after .
10326
10327 \nextslot{0}
10328 \setslot{capitalgrave.superior}
10329   \comment{The grave accent '\capitalgrave{}', intended for use with
10330     capital letters.}
10331 \endsetslot
10332
10333 \setslot{capitalacute.superior}
10334   \comment{The acute accent '\capitalacute{}', intended for use with
10335     capital letters.}
10336 \endsetslot
10337

```

```
10338 \setslot{capitalcircumflex.superior}
10339   \comment{The circumflex accent '\capitalcircumflex{}', intended for
10340     use with capital letters.}
10341 \endsetslot
10342
10343 \setslot{capitaltilde.superior}
10344   \comment{The tilde accent '\capitaltilde{}', intended for use with
10345     capital letters.}
10346 \endsetslot
10347
10348 \setslot{capitaldieresis.superior}
10349   \comment{The umlaut or dieresis accent '\capitaldieresis{}',
10350     intended for use with capital letters.}
10351 \endsetslot
10352
10353 \setslot{capitalhungarumlaut.superior}
10354   \comment{The long Hungarian umlaut '\capitalhungarumlaut{}',
10355     intended for use with capital letters.}
10356 \endsetslot
10357
10358 \setslot{capitalring.superior}
10359   \comment{The ring accent '\capitalring{}', intended for use with
10360     capital letters.}
10361 \endsetslot
10362
10363 \setslot{capitalcaron.superior}
10364   \comment{The caron or h'á\v cek accent '\capitalcaron{}', intended
10365     for use with capital letters.}
10366 \endsetslot
10367
10368 \setslot{capitalbreve.superior}
10369   \comment{The breve accent '\capitalbreve{}', intended for use with
10370     capital letters.}
10371 \endsetslot
10372
10373 \setslot{capitalmacron.superior}
10374   \comment{The macron accent '\capitalmacron{}', intended for use with
10375     capital letters.}
10376 \endsetslot
10377
10378 \setslot{capitaldotaccent.superior}
10379   \comment{The dot accent '\capitaldotaccent{}', intended for use with
10380     capital letters.}
10381 \endsetslot
10382
10383 \setslot{cedilla.superior}
10384   \comment{The cedilla accent '\capitalcedilla{}', intended for use
10385     with capital letters.}
10386 \endsetslot
10387
10388 \setslot{ogonek.superior}
10389   \comment{The ogonek accent '\capitalogonek{}', intended for use with
10390     capital letters.}
10391 \endsetslot
```

```
10392 \nextslot{13}
10393 \setslot{quotesinglbase.superior}
10394     \comment{A straight single quote mark on the baseline,
10395         '\textquotestraightbase'.}
10396 \endsetslot
10398
10399 \nextslot{18}
10400 \setslot{quotedblbase.superior}
10401     \comment{A straight double quote mark on the baseline,
10402         '\textquotestraightdblbase'.}
10403 \endsetslot
10404
10405 \nextslot{21}
10406 \setslot{twelveudash.superior}
10407     \comment{A 2/3~em dash, '\texttwelveudash'.}
10408 \endsetslot
10409
10410 \setslot{threequartersemdash.superior}
10411     \comment{A 3/4~em dash, '\textthreequartersemdash'.}
10412 \endsetslot
10413
10414 \nextslot{23}
10415 \setslot{capitalcompwordmark.superior}
10416     \comment{An invisible glyph, with zero width and depth, but the
10417         height of capital letters.
10418         It is used to stop ligaturing in words like 'shelf{}ful'.}
10419 \endsetslot
10420
10421 \nextslot{24}
10422 \setslot{arrowleft.superior}
10423     \comment{A left pointing arrow, '\textleftarrow', unavailable in
10424         most PostScript fonts.}
10425 \endsetslot
10426
10427 \setslot{arrowright.superior}
10428     \comment{A right pointing arrow, '\rightarrow', unavailable in
10429         most PostScript fonts.}
10430 \endsetslot
10431
10432 \nextslot{26}
10433 \setslot{tieaccentlowercase.superior}
10434     \comment{The original tie accent '\t{}', intended for use with
10435         lowercase letters.}
10436 \endsetslot
10437
10438 \setslot{tieaccentcapital.superior}
10439     \comment{The tie accent '\capitaltie{}', intended for use with
10440         capital letters.}
10441 \endsetslot
10442
10443 \setslot{newtieaccentlowercase.superior}
10444     \comment{A new tie accent '\newtie{}', intended for use with
10445         lowercase letters.}
```

```
10446 \endsetslot
10447
10448 \setslot{newtieaccentcapital.superior}
10449   \comment{A new tie accent '\capitalnewtie{}', intended for use
10450   with capital letters.}
10451 \endsetslot
10452
10453 \nextslot{31}
10454 \setslot{ascendercompwordmark.superior}
10455   \comment{An invisible glyph, with zero width and depth, but the
10456   height of lowercase letters with ascenders.
10457   It is used to stop ligaturing in words like 'shelf{}ful'.}
10458 \endsetslot
10459
10460 \nextslot{32}
10461 \setslot{blank.superior}
10462   \comment{The blank indicator '\textblank', similar to the letter 'b'
10463   with an oblique bar through the stem.}
10464 \endsetslot
10465
10466 \nextslot{36}
10467 \setslot{dollar.superior}
10468   \comment{The dollar sign '\textdollar'.}
10469 \endsetslot
10470
10471 \nextslot{39}
10472 \setslot{quotesingle.superior}
10473   \comment{A straight single quote mark, '\textquotesingle'.}
10474 \endsetslot
10475
10476 \nextslot{42}
10477 \setslot{asteriskcentered.superior}
10478   \comment{The centered asterisk, '\textasteriskcentered'.}
10479 \endsetslot
10480
10481 \nextslot{44}
10482 \setslot{comma.superior}
10483   \comment{The decimal comma ','.}
10484 \endsetslot
10485
10486 \nextslot{45}
10487 \setslot{hyphendbl.superior}
10488   \comment{An alternate double hyphen, '\textdblhyphen'.}
10489 \endsetslot
10490
10491 \nextslot{46}
10492 \setslot{period.superior}
10493   \comment{The decimal point '.'.}
10494 \endsetslot
10495
10496 \nextslot{47}
10497 \setslot{fraction.superior}
10498   \comment{The fraction slash '\textfractionsolidus'.}
10499 \endsetslot
```

```
10500 \nextslot{48}
10501 \setslot{zerooldstyle.superior}
10502   \comment{The oldstyle number '\oldstylenums{0}'.}
10503 \endsetslot
10505
10506 \setslot{oneoldstyle.superior}
10507   \comment{The oldstyle number '\oldstylenums{1}'.}
10508 \endsetslot
10509
10510 \setslot{twooldstyle.superior}
10511   \comment{The oldstyle number '\oldstylenums{2}'.}
10512 \endsetslot
10513
10514 \setslot{threeoldstyle.superior}
10515   \comment{The oldstyle number '\oldstylenums{3}'.}
10516 \endsetslot
10517
10518 \setslot{fouroldstyle.superior}
10519   \comment{The oldstyle number '\oldstylenums{4}'.}
10520 \endsetslot
10521
10522 \setslot{fiveoldstyle.superior}
10523   \comment{The oldstyle number '\oldstylenums{5}'.}
10524 \endsetslot
10525
10526 \setslot{sixoldstyle.superior}
10527   \comment{The oldstyle number '\oldstylenums{6}'.}
10528 \endsetslot
10529
10530 \setslot{sevenoldstyle.superior}
10531   \comment{The oldstyle number '\oldstylenums{7}'.}
10532 \endsetslot
10533
10534 \setslot{eightoldstyle.superior}
10535   \comment{The oldstyle number '\oldstylenums{8}'.}
10536 \endsetslot
10537
10538 \setslot{nineoldstyle.superior}
10539   \comment{The oldstyle number '\oldstylenums{9}'.}
10540 \endsetslot
10541
10542 \nextslot{60}
10543 \setslot{angbracketleft.superior}
10544   \comment{The opening angle bracket '\textlangle', unavailable in
most PostScript fonts.}
10545 \endsetslot
10547
10548 \nextslot{61}
10549 \setslot{minus.superior}
10550   \comment{The subtraction sign '\textminus'.}
10551 \endsetslot
10552
10553 \nextslot{62}
```

```
10554 \setslot{angbracketright.superior}
10555   \comment{The closing angle bracket ‘\texttriangle’, unavailable in
10556   most PostScript fonts.}
10557 \endsetslot
10558
10559 \nextslot{77}
10560 \setslot{Omegainv.superior}
10561   \comment{The inverted Ohm sign ‘\textmho’, unavailable in most fonts.}
10562 \endsetslot
10563
10564 \nextslot{79}
10565   \comment{A circle ‘\textbigcircle’, big enough to enclose a letter
10566   as in ‘\textcopyright’ or ‘\textregistered’.}
10567 \setslot{bigcircle.superior}
10568 \endsetslot
10569
10570 \nextslot{87}
10571 \setslot{Omega.superior}
10572   \comment{The upright Ohm sign ‘\textohm’, unavailable in most fonts.
10573   Even if it is available in Mac-encoded fonts, it isn’t directly
10574   accessible in the 8r or 8y encodings.}
10575 \endsetslot
10576
10577 \nextslot{91}
10578 \setslot{openbracketleft.superior}
10579   \comment{The opening double square bracket ‘\textlbrackdbl’,
10580   unavailable in most PostScript fonts.}
10581 \endsetslot
10582
10583 \nextslot{93}
10584 \setslot{openbracketright.superior}
10585   \comment{The closing double square bracket ‘\textrbrackdbl’,
10586   unavailable in most PostScript fonts.}
10587 \endsetslot
10588
10589 \nextslot{94}
10590 \setslot{arrowup.superior}
10591   \comment{An upwards pointing arrow ‘\textuparrow’, unavailable in
10592   most PostScript fonts.}
10593 \endsetslot
10594
10595 \nextslot{95}
10596 \setslot{arrowdown.superior}
10597   \comment{An downwards pointing arrow ‘\textdownarrow’, unavailable
10598   in most PostScript fonts.}
10599 \endsetslot
10600
10601 \nextslot{96}
10602 \setslot{asciigrave.superior}
10603   \comment{An ASCII-style grave ‘\textasciigrave’. This is supposed
10604   to be a character by itself rather than a combining accents.}
10605 \endsetslot
10606
10607 \nextslot{98}
```

```
10608 \setslot{born.superior}
10609   \comment{The born symbol ‘\textborn’, unavailable in most PostScript
10610     fonts.}
10611 \endsetslot
10612
10613 \nextslot{99}
10614 \setslot{divorced.superior}
10615   \comment{The divorced symbol ‘\textdivorced’, unavailable in most
10616     PostScript fonts.}
10617 \endsetslot
10618
10619 \nextslot{100}
10620 \setslot{died.superior}
10621   \comment{The died symbol ‘\textdied’, unavailable in most PostScript
10622     fonts.}
10623 \endsetslot
10624
10625 \nextslot{108}
10626 \setslot{leaf.superior}
10627   \comment{The leaf symbol ‘\textleaf’, unavailable in most PostScript
10628     fonts.}
10629 \endsetslot
10630
10631 \nextslot{109}
10632 \setslot{married.superior}
10633   \comment{The married symbol ‘\textmarried’, unavailable in most
10634     PostScript fonts.}
10635 \endsetslot
10636
10637 \nextslot{110}
10638 \setslot{musicalnote.superior}
10639   \comment{A musical note symbol ‘\textmusicalnote’, unavailable in
10640     most PostScript fonts.}
10641 \endsetslot
10642
10643 \nextslot{126}
10644 \setslot{tildelow.superior}
10645   \comment{A lowered tilde ‘\texttildelow’. In most PostScript fonts
10646     it can be substituted by ‘asciitilde’, while ‘\textasciitilde’
10647     is supposed to be a raised ‘tilde’.}
10648 \endsetslot
10649
10650 \nextslot{127}
10651 \setslot{hyphendblchar.superior}
10652   \comment{The glyph used for hyphenation in this font, which will
10653     almost always be the same as ‘hyphendbl’.}
10654 \endsetslot
10655
10656 \nextslot{128}
10657 \setslot{asciibreve.superior}
10658   \comment{An ASCII-style breve ‘\textasciibreve’. This is supposed
10659     to be a character by itself rather than a combining accents.}
10660 \endsetslot
10661
```

```
10662 \setslot{asciicaron.superior}
10663   \comment{An ASCII-style caron '\textasciicaron'. This is supposed
10664     to be a character by itself rather than a combining accents.}
10665 \endsetslot
10666
10667 \setslot{asciiacutedbl.superior}
10668   \comment{An ASCII-style double tick mark, '\textacutedbl'.}
10669 \endsetslot
10670
10671 \setslot{asciigravedbl.superior}
10672   \comment{An ASCII-style double backtick mark, '\textgravedbl'.}
10673 \endsetslot
10674
10675 \setslot{dagger.superior}
10676   \comment{The single dagger '\textdagger' .}
10677 \endsetslot
10678
10679 \setslot{daggerdbl.superior}
10680   \comment{The double dagger '\textdaggerdbl' .}
10681 \endsetslot
10682
10683 \setslot{bardbl.superior}
10684   \comment{The double vertical bar '\textbardbl' .}
10685 \endsetslot
10686
10687 \setslot{perthousand.superior}
10688   \comment{The perthousand sign '\textperthousand' .}
10689 \endsetslot
10690
10691 \setslot{bullet.superior}
10692   \comment{The centered bullet '\textbullet' .}
10693 \endsetslot
10694
10695 \setslot{centigrade.superior}
10696   \comment{The degree centigrade symbol '\textcelsius' .}
10697 \endsetslot
10698
10699 \setslot{dollaroldstyle.superior}
10700   \comment{An oldstyle dollar sign '\textdollaroldstyle' .}
10701 \endsetslot
10702
10703 \setslot{centoldstyle.superior}
10704   \comment{An oldstyle cent sign '\textcentoldstyle' .}
10705 \endsetslot
10706
10707 \setslot{florin.superior}
10708   \comment{The florin sign '\textflorin' .}
10709 \endsetslot
10710
10711 \setslot{colonmonetary.superior}
10712   \comment{The Colon currency sign '\textcolonmonetary', similar to
10713     a capital 'C' with a vertical bar through the middle.}
10714 \endsetslot
10715
```

```
10716 \setslot{won.superior}
10717   \comment{The Won currency sign ‘\textwon’, similar to a capital ‘W’
10718     with two horizontal bars.}
10719 \endsetslot
10720
10721 \setslot{naira.superior}
10722   \comment{The Naira currency sign ‘\textnaira’, similar to a
10723     capital ‘N’ with two horizontal bars.}
10724 \endsetslot
10725
10726 \setslot{guarani.superior}
10727   \comment{The Guarani currency sign ‘\textguarani’, similar to
10728     a capital ‘G’ with a vertical bar through the middle.}
10729 \endsetslot
10730
10731 \setslot{peso.superior}
10732   \comment{The Peso currency sign ‘\textpeso’, similar to a capital ‘P’
10733     with a horizontal bar through the bowl or below the bowl.}
10734 \endsetslot
10735
10736 \setslot{lira.superior}
10737   \comment{The Lira currency sign ‘\textlira’, similar to a sterlina
10738     sign ‘\textsterling’ with two horizontal bars.}
10739 \endsetslot
10740
10741 \setslot{recipe.superior}
10742   \comment{The recipe symbol ‘\textrecipe’, similar to a capital ‘R’
10743     with an oblique bar through the tail.}
10744 \endsetslot
10745
10746 \setslot{interrobang.superior}
10747   \comment{The interrobang symbol ‘\textinterrobang’, similar to
10748     a combination of an exclamation mark and a question mark.}
10749 \endsetslot
10750
10751 \setslot{interrobangdown.superior}
10752   \comment{The inverted interrobang symbol ‘\textinterrobangdown’,
10753     similar to a combination of an inverted exclamation mark
10754     and an inverted question mark.}
10755 \endsetslot
10756
10757 \setslot{dong.superior}
10758   \comment{The Dong currency sign ‘\textdong’, similar to a lowercase
10759     ‘d’ with a horizontal bar through the stem and another bar below
10760     the letter.}
10761 \endsetslot
10762
10763 \setslot{trademark.superior}
10764   \comment{The trademark sign ‘\texttrademark’, similar to the raised
10765     letters ‘TM’.}
10766 \endsetslot
10767
10768 \setslot{pertenthousand.superior}
10769   \comment{The pertenthousand sign ‘\textpertenthousand’, unavailable}
```

```
10770     in most PostScript fonts.}
10771 \endsetslot
10772
10773 \setslot{pilcrow.superior}
10774     \comment{The pilcrow mark ‘\textpilcrow’, similar to a paragraph
10775         mark ‘\textparagraph’ with a single stem.}
10776 \endsetslot
10777
10778 \setslot{baht.superior}
10779     \comment{The Baht currency sign ‘\textbaht’, similar to a capital ‘B’
10780         with a vertical bar through the middle.}
10781 \endsetslot
10782
10783 \setslot{numero.superior}
10784     \comment{The numero sign ‘\textnumero’, similar to the letter ‘N’
10785         with a raised ‘o’, unavailable in most PostScript fonts.}
10786 \endsetslot
10787
10788 \setslot{discount.superior}
10789     \comment{The discount sign ‘\textdiscount’, similar to a stylized
10790         percent sign, unavailable in most PostScript fonts.}
10791 \endsetslot
10792
10793 \setslot{estimated.superior}
10794     \comment{The estimated sign ‘\textestimated’, similar to an enlarged
10795         lowercase ‘e’, unavailable in most PostScript fonts.}
10796 \endsetslot
10797
10798 \setslot{openbullet.superior}
10799     \comment{The centered open bullet ‘\textopenbullet’, unavailable
10800         in most PostScript fonts.}
10801 \endsetslot
10802
10803 \setslot{servicemark.superior}
10804     \comment{The service mark sign ‘\textservicemark’, similar to the
10805         raised letters ‘SM’, unavailable in most PostScript fonts.}
10806 \endsetslot
10807
10808 \nextslot{160}
10809 \setslot{quillbracketleft.superior}
10810     \comment{The opening quill bracket ‘\textlquill’, unavailable in
10811         most PostScript fonts.}
10812 \endsetslot
10813
10814 \setslot{quillbracketright.superior}
10815     \comment{The closing quill bracket ‘\textrquill’, unavailable in
10816         most PostScript fonts.}
10817 \endsetslot
10818
10819 \setslot{cent.superior}
10820     \comment{The cent sign ‘\textcent’.}
10821 \endsetslot
10822
10823 \setslot{sterling.superior}
```

```
10824     \comment{The British currency sign, '\textsterling'.}
10825     \endsetslot
10826
10827     \setslot{currency.superior}
10828         \comment{The international currency sign, '\textcurrency'.}
10829     \endsetslot
10830
10831     \setslot{yen.superior}
10832         \comment{The Japanese currency sign, '\textyen'.}
10833     \endsetslot
10834
10835     \setslot{brokenbar.superior}
10836         \comment{A broken vertical bar, '\textbrokenbar', similar to
10837             '\textbar' with a gap through the middle.}
10838     \endsetslot
10839
10840     \setslot{section.superior}
10841         \comment{The section mark '\textsection'.}
10842     \endsetslot
10843
10844     \setslot{asciidieresis.superior}
10845         \comment{An ASCII-style dieresis '\textasciidieresis'. This is
10846             supposed to be character by itself rather than an accents.}
10847     \endsetslot
10848
10849     \setslot{copyright.superior}
10850         \comment{The copyright sign '\textcopyright', similar to a small
10851             letter 'C' enclosed by a circle.}
10852     \endsetslot
10853
10854     \setslot{ordfeminine.superior}
10855         \comment{The raised letter '\textordfeminine'.}
10856     \endsetslot
10857
10858     \setslot{copyleft.superior}
10859         \comment{The reversed copyright sign '\textcopyleft', similar to
10860             a small reversed 'C' enclosed by a circle.}
10861     \endsetslot
10862
10863     \setslot{logicalnot.superior}
10864         \comment{The logical not sign '\textlnot'.}
10865     \endsetslot
10866
10867     \setslot{circledP.superior}
10868         \comment{A small letter 'P' enclosed by a circle, '\textcircledP',
10869             unavailable in most fonts.}
10870     \endsetslot
10871
10872     \setslot{registered.superior}
10873         \comment{The registered trademark sign '\textregistered', similar to
10874             a small letter 'R' enclosed by a circle.}
10875     \endsetslot
10876
10877     \setslot{asciimacron.superior}
```

```
10878     \comment{An ASCII-style macron '\textasciimacron'. This is supposed
10879         to be a character by itself rather than a combining accents.}
10880 \endsetslot
10881
10882 \setslot{degree.superior}
10883     \comment{The degree sign '\textdegree'.}
10884 \endsetslot
10885
10886 \setslot{plusminus.superior}
10887     \comment{The plus or minus sign '\textpm'.}
10888 \endsetslot
10889
10890 \setslot{two.superior}
10891     \comment{The raised digit '\texttwosuperior'.}
10892 \endsetslot
10893
10894 \setslot{three.superior}
10895     \comment{The raised digit '\textthreesuperior'.}
10896 \endsetslot
10897
10898 \setslot{asciiacute.superior}
10899     \comment{An ASCII-style acute '\textasciiacute'. This is supposed
10900         to be a character by itself rather than a combining accents.}
10901 \endsetslot
10902
10903 \setslot{mu.superior}
10904     \comment{The lowercase Greek letter '\textmu', intended for use as
10905         a prefix 'micro' in physical units.}
10906 \endsetslot
10907
10908 \setslot{paragraph.superior}
10909     \comment{The paragraph mark '\textparagraph'.}
10910 \endsetslot
10911
10912 \setslot{periodcentered.superior}
10913     \comment{The centered period '\textperiodcentered'.}
10914 \endsetslot
10915
10916 \setslot{referencemark.superior}
10917     \comment{The reference mark '\textreferencemark', similar to
10918         a combination of the 'multiply' and 'divide' symbols.}
10919 \endsetslot
10920
10921 \setslot{one.superior}
10922     \comment{The raised digit '\textonesuperior'.}
10923 \endsetslot
10924
10925 \setslot{ordmasculine.superior}
10926     \comment{The raised letter '\textordmasculine'.}
10927 \endsetslot
10928
10929 \setslot{radical.superior}
10930     \comment{The radical sign '\textsurd', unavailable in most fonts.
10931         Even if it is available in Mac-encoded fonts, it isn't directly
```

```

10932      accessible in the 8r or 8y encodings.}
10933  \endsetslot
10934
10935  \setslot{onequarter.superior}
10936      \comment{The fraction ‘\textonequarter’.}
10937  \endsetslot
10938
10939  \setslot{onehalf.superior}
10940      \comment{The fraction ‘\textonehalf’.}
10941  \endsetslot
10942
10943  \setslot{threequarters.superior}
10944      \comment{The fraction ‘\textthreequarters’.}
10945  \endsetslot
10946
10947  \setslot{Euro.superior}
10948      \comment{The European currency sign, similar to ‘\texteuro’.}
10949  \endsetslot
10950
10951
10952  \nextslot{214}
10953  \setslot{multiply.superior}
10954      \comment{The multiplication sign ‘\texttimes’.
10955      This symbol was originally intended to be put into slot-215,
10956      but ended up in this slot by mistake, at which time it was
10957      considered too late to change it.}
10958  \endsetslot
10959
10960  \nextslot{246}
10961  \setslot{divide.superior}
10962      \comment{The division sign ‘\textdiv’.
10963      This symbol was originally intended to be put into slot-247,
10964      but ended up in this slot by mistake, at which time it was
10965      considered too late to change it.}
10966  \endsetslot
10967
10968  \endencoding
10969

```

6.3.16 ts1-euro.etx

ts1-euro.etx (etx)

```

10970  %%
10971  %% - The original notices at the top of that file concerning authors,
10972  %% maintenance etc. are replaced by this notice.
10973  %% - The file is renamed.
10974  %% - The encoding is modified to accommodate euro/Euro.%
10975  %%
10976  %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
10977  \relax
10978  \encoding
10979

```

```

10980 \setstr{codingscheme}{TEX TEXT COMPANION 1---TS1 - EURO}
10981
10982 \ifisglyph{x}\then
10983   \setint{xheight}{\height{x}}
10984 \else
10985   \setint{xheight}{500}
10986 \fi
10987
10988 \ifisglyph{space}\then
10989   \setint{interword}{\width{space}}
10990 \else\ifisglyph{i}\then
10991   \setint{interword}{\width{i}}
10992 \else
10993   \setint{interword}{333}
10994 \fi\fi
10995
10996
10997 \setint{italicslant}{0}
10998
10999
11000 \setint{fontdimen(1)}{\int{italicslant}} % italic slant
11001 \setint{fontdimen(2)}{\int{interword}} % interword space
11002 \setint{fontdimen(3)}{0} % interword stretch
11003 \setint{fontdimen(4)}{0} % interword shrink
11004 \setint{fontdimen(5)}{\int{xheight}} % x-height
11005 \setint{fontdimen(6)}{1000} % quad
11006 \setint{fontdimen(7)}{\int{interword}} % extra space after .
11007
11008
11009 \nextslot{0}
11010 \setslot{capitalgrave}
11011   \comment{The grave accent ‘\capitalgrave{}’, intended for use with
11012     capital letters.}
11013 \endsetslot
11014
11015 \setslot{capitalacute}
11016   \comment{The acute accent ‘\capitalacute{}’, intended for use with
11017     capital letters.}
11018 \endsetslot
11019
11020 \setslot{capitalcircumflex}
11021   \comment{The circumflex accent ‘\capitalcircumflex{}’, intended for
11022     use with capital letters.}
11023 \endsetslot
11024
11025 \setslot{capitaltilde}
11026   \comment{The tilde accent ‘\capitaltilde{}’, intended for use with
11027     capital letters.}
11028 \endsetslot
11029
11030 \setslot{capitaldieresis}
11031   \comment{The umlaut or dieresis accent ‘\capitaldieresis{}’,
11032     intended for use with capital letters.}
11033 \endsetslot

```

```
11034 \setslot{capitalhungarumlaut}
11035   \comment{The long Hungarian umlaut ‘\capitalhungarumlaut{}’,
11036     intended for use with capital letters.}
11037 \endsetslot
11038
11039 \setslot{capitalring}
11040   \comment{The ring accent ‘\capitalring{}’, intended for use with
11041     capital letters.}
11042 \endsetslot
11043
11044 \setslot{capitalcaron}
11045   \comment{The caron or h\`a\v cek accent ‘\capitalcaron{}’, intended
11046     for use with capital letters.}
11047 \endsetslot
11048
11049 \setslot{capitalbreve}
11050   \comment{The breve accent ‘\capitalbreve{}’, intended for use with
11051     capital letters.}
11052 \endsetslot
11053
11054 \setslot{capitalmacron}
11055   \comment{The macron accent ‘\capitalmacron{}’, intended for use with
11056     capital letters.}
11057 \endsetslot
11058
11059 \setslot{capitaldotaccent}
11060   \comment{The dot accent ‘\capitaldotaccent{}’, intended for use with
11061     capital letters.}
11062 \endsetslot
11063
11064 \setslot{cedilla}
11065   \comment{The cedilla accent ‘\capitalcedilla{}’, intended for use
11066     with capital letters.}
11067 \endsetslot
11068
11069 \setslot{ogonek}
11070   \comment{The ogonek accent ‘\capitalogonek{}’, intended for use with
11071     capital letters.}
11072 \endsetslot
11073
11074 \nextslot{13}
11075 \setslot{quotesinglbase}
11076   \comment{A straight single quote mark on the baseline,
11077     ‘\textquotestraightbase’.}
11078 \endsetslot
11079
11080 \nextslot{18}
11081 \setslot{quotedblbase}
11082   \comment{A straight double quote mark on the baseline,
11083     ‘\textquotestraightdblbase’.}
11084 \endsetslot
11085
11086 \nextslot{21}
```

```
11088 \setslot{twelveudash}
11089   \comment{A 2/3~em dash, '\texttwelveudash'.}
11090 \endsetslot
11091
11092 \setslot{threequartersemdash}
11093   \comment{A 3/4~em dash, '\textthreequartersemdash'.}
11094 \endsetslot
11095
11096 \nextslot{23}
11097 \setslot{capitalcompwordmark}
11098   \comment{An invisible glyph, with zero width and depth, but the
11099     height of capital letters.
11100   It is used to stop ligaturing in words like 'shelf{}ful'.}
11101 \endsetslot
11102
11103 \nextslot{24}
11104 \setslot{arrowleft}
11105   \comment{A left pointing arrow, '\textleftarrow', unavailable in
11106     most PostScript fonts.}
11107 \endsetslot
11108
11109 \setslot{arrowright}
11110   \comment{A right pointing arrow, '\rightarrow', unavailable in
11111     most PostScript fonts.}
11112 \endsetslot
11113
11114 \nextslot{26}
11115 \setslot{tieaccentlowercase}
11116   \comment{The original tie accent '\t{}', intended for use with
11117     lowercase letters.}
11118 \endsetslot
11119
11120 \setslot{tieaccentcapital}
11121   \comment{The tie accent '\capitaltie{}', intended for use with
11122     capital letters.}
11123 \endsetslot
11124
11125 \setslot{newtieaccentlowercase}
11126   \comment{A new tie accent '\newtie{}', intended for use with
11127     lowercase letters.}
11128 \endsetslot
11129
11130 \setslot{newtieaccentcapital}
11131   \comment{A new tie accent '\capitalnewtie{}', intended for use
11132     with capital letters.}
11133 \endsetslot
11134
11135 \nextslot{31}
11136 \setslot{ascendercompwordmark}
11137   \comment{An invisible glyph, with zero width and depth, but the
11138     height of lowercase letters with ascenders.
11139   It is used to stop ligaturing in words like 'shelf{}ful'.}
11140 \endsetslot
11141
```

```
11142 \nextslot{32}
11143 \setslot{blank}
11144   \comment{The blank indicator ‘\textblank’, similar to the letter ‘b’
11145   with an oblique bar through the stem.}
11146 \endsetslot
11147
11148 \nextslot{36}
11149 \setslot{dollar}
11150   \comment{The dollar sign ‘\textdollar’.}
11151 \endsetslot
11152
11153 \nextslot{39}
11154 \setslot{quotesingle}
11155   \comment{A straight single quote mark, ‘\textquotesingle’.}
11156 \endsetslot
11157
11158 \nextslot{42}
11159 \setslot{asteriskcentered}
11160   \comment{The centered asterisk, ‘\textasteriskcentered’.}
11161 \endsetslot
11162
11163 \nextslot{44}
11164 \setslot{comma}
11165   \comment{The decimal comma ‘,’.}
11166 \endsetslot
11167
11168 \nextslot{45}
11169 \setslot{hyphendbl}
11170   \comment{An alternate double hyphen, ‘\textdblhyphen’.}
11171 \endsetslot
11172
11173 \nextslot{46}
11174 \setslot{period}
11175   \comment{The decimal point ‘.’.}
11176 \endsetslot
11177
11178 \nextslot{47}
11179 \setslot{fraction}
11180   \comment{The fraction slash ‘\textfractionsolidus’.}
11181 \endsetslot
11182
11183 \nextslot{48}
11184 \setslot{zerooldstyle}
11185   \comment{The oldstyle number ‘\oldstylenums{0}’.}
11186 \endsetslot
11187
11188 \setslot{oneoldstyle}
11189   \comment{The oldstyle number ‘\oldstylenums{1}’.}
11190 \endsetslot
11191
11192 \setslot{twooldstyle}
11193   \comment{The oldstyle number ‘\oldstylenums{2}’.}
11194 \endsetslot
11195
```

```
11196 \setslot{threeoldstyle}
11197   \comment{The oldstyle number '\oldstylenums{3}' .}
11198 \endsetslot
11199
11200 \setslot{fouroldstyle}
11201   \comment{The oldstyle number '\oldstylenums{4}' .}
11202 \endsetslot
11203
11204 \setslot{fiveoldstyle}
11205   \comment{The oldstyle number '\oldstylenums{5}' .}
11206 \endsetslot
11207
11208 \setslot{sixoldstyle}
11209   \comment{The oldstyle number '\oldstylenums{6}' .}
11210 \endsetslot
11211
11212 \setslot{sevenoldstyle}
11213   \comment{The oldstyle number '\oldstylenums{7}' .}
11214 \endsetslot
11215
11216 \setslot{eightoldstyle}
11217   \comment{The oldstyle number '\oldstylenums{8}' .}
11218 \endsetslot
11219
11220 \setslot{nineoldstyle}
11221   \comment{The oldstyle number '\oldstylenums{9}' .}
11222 \endsetslot
11223
11224 \nextslot{60}
11225 \setslot{angbracketleft}
11226   \comment{The opening angle bracket '\textlangle', unavailable in
11227   most PostScript fonts.}
11228 \endsetslot
11229
11230 \nextslot{61}
11231 \setslot{minus}
11232   \comment{The subtraction sign '\textminus'.}
11233 \endsetslot
11234
11235 \nextslot{62}
11236 \setslot{angbracketright}
11237   \comment{The closing angle bracket '\textrangle', unavailable in
11238   most PostScript fonts.}
11239 \endsetslot
11240
11241 \nextslot{77}
11242 \setslot{Omegainv}
11243   \comment{The inverted Ohm sign '\textmho', unavailable in most fonts.}
11244 \endsetslot
11245
11246 \nextslot{79}
11247   \comment{A circle '\textbigcircle', big enough to enclose a letter
11248   as in '\textcopyright' or '\textregistered'.}
11249 \setslot{bigcircle}
```

```
11250 \endsetslot
11251
11252 \nextslot{87}
11253 \setslot{Omega}
11254 \comment{The upright Ohm sign ‘\textohm’, unavailable in most fonts.
11255 Even if it is available in Mac-encoded fonts, it isn’t directly
11256 accessible in the 8r or 8y encodings.}
11257 \endsetslot
11258
11259 \nextslot{91}
11260 \setslot{openbracketleft}
11261 \comment{The opening double square bracket ‘\textlbrackdbl’,
11262 unavailable in most PostScript fonts.}
11263 \endsetslot
11264
11265 \nextslot{93}
11266 \setslot{openbracketright}
11267 \comment{The closing double square bracket ‘\textrbrackdbl’,
11268 unavailable in most PostScript fonts.}
11269 \endsetslot
11270
11271 \nextslot{94}
11272 \setslot{arrowup}
11273 \comment{An upwards pointing arrow ‘\textuparrow’, unavailable in
11274 most PostScript fonts.}
11275 \endsetslot
11276
11277 \nextslot{95}
11278 \setslot{arrowdown}
11279 \comment{An downwards pointing arrow ‘\textdownarrow’, unavailable
11280 in most PostScript fonts.}
11281 \endsetslot
11282
11283 \nextslot{96}
11284 \setslot{asciigrave}
11285 \comment{An ASCII-style grave ‘\textasciigrave’. This is supposed
11286 to be a character by itself rather than a combining accents.}
11287 \endsetslot
11288
11289 \nextslot{98}
11290 \setslot{born}
11291 \comment{The born symbol ‘\textborn’, unavailable in most PostScript
11292 fonts.}
11293 \endsetslot
11294
11295 \nextslot{99}
11296 \setslot{divorced}
11297 \comment{The divorced symbol ‘\textdivorced’, unavailable in most
11298 PostScript fonts.}
11299 \endsetslot
11300
11301 \nextslot{100}
11302 \setslot{died}
11303 \comment{The died symbol ‘\textdied’, unavailable in most PostScript}
```

```

11304     fonts.)
11305 \endsetslot
11306
11307 \nextslot{108}
11308 \setslot{leaf}
11309   \comment{The leaf symbol '\textleaf', unavailable in most PostScript
11310   fonts.}
11311 \endsetslot
11312
11313 \nextslot{109}
11314 \setslot{married}
11315   \comment{The married symbol '\textmarried', unavailable in most
11316   PostScript fonts.}
11317 \endsetslot
11318
11319 \nextslot{110}
11320 \setslot{musicalnote}
11321   \comment{A musical note symbol '\textmusicalnote', unavailable in
11322   most PostScript fonts.}
11323 \endsetslot
11324
11325 \nextslot{126}
11326 \setslot{tildelow}
11327   \comment{A lowered tilde '\texttildelow'. In most PostScript fonts
11328   it can be substituted by 'asciitilde', while '\textasciitilde'
11329   is supposed to be a raised 'tilde'.}
11330 \endsetslot
11331
11332 \nextslot{127}
11333 \setslot{hyphendblchar}
11334   \comment{The glyph used for hyphenation in this font, which will
11335   almost always be the same as 'hyphendbl'.}
11336 \endsetslot
11337
11338 \nextslot{128}
11339 \setslot{asciibreve}
11340   \comment{An ASCII-style breve '\textasciibreve'. This is supposed
11341   to be a character by itself rather than a combining accents.}
11342 \endsetslot
11343
11344 \setslot{asciicaron}
11345   \comment{An ASCII-style caron '\textasciicaron'. This is supposed
11346   to be a character by itself rather than a combining accents.}
11347 \endsetslot
11348
11349 \setslot{asciiacutedbl}
11350   \comment{An ASCII-style double tick mark, '\textacutedbl'.}
11351 \endsetslot
11352
11353 \setslot{asciigravedbl}
11354   \comment{An ASCII-style double backtick mark, '\textgravedbl'.}
11355 \endsetslot
11356
11357 \setslot{dagger}

```

```
11358     \comment{The single dagger ‘\textdagger’.}
11359     \endsetslot
11360
11361     \setslot{daggerdbl}
11362         \comment{The double dagger ‘\textdaggerdbl’.}
11363     \endsetslot
11364
11365     \setslot{bardbl}
11366         \comment{The double vertical bar ‘\textbardbl’.}
11367     \endsetslot
11368
11369     \setslot{perthousand}
11370         \comment{The perthousand sign ‘\textperthousand’.}
11371     \endsetslot
11372
11373     \setslot{bullet}
11374         \comment{The centered bullet ‘\textbullet’.}
11375     \endsetslot
11376
11377     \setslot{centigrade}
11378         \comment{The degree centigrade symbol ‘\textcelsius’.}
11379     \endsetslot
11380
11381     \setslot{dollaroldstyle}
11382         \comment{An oldstyle dollar sign ‘\textdollaroldstyle’.}
11383     \endsetslot
11384
11385     \setslot{centoldstyle}
11386         \comment{An oldstyle cent sign ‘\textcentoldstyle’.}
11387     \endsetslot
11388
11389     \setslot{florin}
11390         \comment{The florin sign ‘\textflorin’.}
11391     \endsetslot
11392
11393     \setslot{colonmonetary}
11394         \comment{The Colon currency sign ‘\textcolonmonetary’, similar to
11395             a capital ‘C’ with a vertical bar through the middle.}
11396     \endsetslot
11397
11398     \setslot{won}
11399         \comment{The Won currency sign ‘\textwon’, similar to a capital ‘W’
11400             with two horizontal bars.}
11401     \endsetslot
11402
11403     \setslot{naira}
11404         \comment{The Naira currency sign ‘\textnaira’, similar to a
11405             capital ‘N’ with two horizontal bars.}
11406     \endsetslot
11407
11408     \setslot{guarani}
11409         \comment{The Guarani currency sign ‘\textguarani’, similar to
11410             a capital ‘G’ with a vertical bar through the middle.}
11411     \endsetslot
```

```
11412 \setslot{peso}
11413   \comment{The Peso currency sign ‘\textpeso’, similar to a capital ‘P’
11414     with a horizontal bar through the bowl or below the bowl.}
11415   \endsetslot
11416
11417 \setslot{lira}
11418   \comment{The Lira currency sign ‘\textlira’, similar to a sterling
11419     sign ‘\textsterling’ with two horizontal bars.}
11420   \endsetslot
11421
11422 \setslot{recipe}
11423   \comment{The recipe symbol ‘\textrecipe’, similar to a capital ‘R’
11424     with an oblique bar through the tail.}
11425   \endsetslot
11426
11427 \setslot{interrobang}
11428   \comment{The interrobang symbol ‘\textinterrobang’, similar to
11429     a combination of an exclamation mark and a question mark.}
11430   \endsetslot
11431
11432 \setslot{interrobangdown}
11433   \comment{The inverted interrobang symbol ‘\textinterrobangdown’,
11434     similar to a combination of an inverted exclamation mark
11435     and an inverted question mark.}
11436   \endsetslot
11437
11438 \setslot{dong}
11439   \comment{The Dong currency sign ‘\textdong’, similar to a lowercase
11440     ‘d’ with a horizontal bar through the stem and another bar below
11441     the letter.}
11442   \endsetslot
11443
11444 \setslot{trademark}
11445   \comment{The trademark sign ‘\texttrademark’, similar to the raised
11446     letters ‘TM’.}
11447   \endsetslot
11448
11449 \setslot{pertenthousand}
11450   \comment{The pertenthousand sign ‘\textpertenthousand’, unavailable
11451     in most PostScript fonts.}
11452   \endsetslot
11453
11454 \setslot{pilcrow}
11455   \comment{The pilcrow mark ‘\textpilcrow’, similar to a paragraph
11456     mark ‘\textparagraph’ with a single stem.}
11457   \endsetslot
11458
11459 \setslot{baht}
11460   \comment{The Baht currency sign ‘\textbaht’, similar to a capital ‘B’
11461     with a vertical bar through the middle.}
11462   \endsetslot
11463
11464 \setslot{numero}
```

```
11466     \comment{The numero sign ‘\textnumero’, similar to the letter ‘N’
11467         with a raised ‘o’, unavailable in most PostScript fonts.}
11468 \endsetslot
11469
11470 \setslot{discount}
11471     \comment{The discount sign ‘\textdiscount’, similar to a stylized
11472         percent sign, unavailable in most PostScript fonts.}
11473 \endsetslot
11474
11475 \setslot{estimated}
11476     \comment{The estimated sign ‘\textestimated’, similar to an enlarged
11477         lowercase ‘e’, unavailable in most PostScript fonts.}
11478 \endsetslot
11479
11480 \setslot{openbullet}
11481     \comment{The centered open bullet ‘\textopenbullet’, unavailable
11482         in most PostScript fonts.}
11483 \endsetslot
11484
11485 \setslot{servicemark}
11486     \comment{The service mark sign ‘\textservicemark’, similar to the
11487         raised letters ‘SM’, unavailable in most PostScript fonts.}
11488 \endsetslot
11489
11490 \nextslot{160}
11491 \setslot{quillbracketleft}
11492     \comment{The opening quill bracket ‘\textlquill’, unavailable in
11493         most PostScript fonts.}
11494 \endsetslot
11495
11496 \setslot{quillbracketright}
11497     \comment{The closing quill bracket ‘\textrquill’, unavailable in
11498         most PostScript fonts.}
11499 \endsetslot
11500
11501 \setslot{cent}
11502     \comment{The cent sign ‘\textcent’.}
11503 \endsetslot
11504
11505 \setslot{sterling}
11506     \comment{The British currency sign, ‘\textsterling’.}
11507 \endsetslot
11508
11509 \setslot{currency}
11510     \comment{The international currency sign, ‘\textcurrency’.}
11511 \endsetslot
11512
11513 \setslot{yen}
11514     \comment{The Japanese currency sign, ‘\textyen’.}
11515 \endsetslot
11516
11517 \setslot{brokenbar}
11518     \comment{A broken vertical bar, ‘\textbrokenbar’, similar to
11519         ‘\textbar’ with a gap through the middle.}
```

```
11520 \endsetslot
11521
11522 \setslot{section}
11523   \comment{The section mark ‘\textsection’.}
11524 \endsetslot
11525
11526 \setslot{asciidieresis}
11527   \comment{An ASCII-style dieresis ‘\textasciidieresis’. This is
11528     supposed to be character by itself rather than an accents.}
11529 \endsetslot
11530
11531 \setslot{copyright}
11532   \comment{The copyright sign ‘\textcopyright’, similar to a small
11533     letter ‘C’ enclosed by a circle.}
11534 \endsetslot
11535
11536 \setslot{ordfeminine}
11537   \comment{The raised letter ‘\textordfeminine’.}
11538 \endsetslot
11539
11540 \setslot{copyleft}
11541   \comment{The reversed copyright sign ‘\textcopyleft’, similar to
11542     a small reversed ‘C’ enclosed by a circle.}
11543 \endsetslot
11544
11545 \setslot{logicalnot}
11546   \comment{The logical not sign ‘\textlnot’.}
11547 \endsetslot
11548
11549 \setslot{circledP}
11550   \comment{A small letter ‘P’ enclosed by a circle, ‘\textcircledP’,
11551     unavailable in most fonts.}
11552 \endsetslot
11553
11554 \setslot{registered}
11555   \comment{The registered trademark sign ‘\textregistered’, similar to
11556     a small letter ‘R’ enclosed by a circle.}
11557 \endsetslot
11558
11559 \setslot{asciimacron}
11560   \comment{An ASCII-style macron ‘\textasciimacron’. This is supposed
11561     to be a character by itself rather than a combining accents.}
11562 \endsetslot
11563
11564 \setslot{degree}
11565   \comment{The degree sign ‘\textdegree’.}
11566 \endsetslot
11567
11568 \setslot{plusminus}
11569   \comment{The plus or minus sign ‘\textpm’.}
11570 \endsetslot
11571
11572 \setslot{twosuperior}
11573   \comment{The raised digit ‘\texttwosuperior’.}
```

```
11574 \endsetslot
11575
11576 \setslot{threesuperior}
11577     \comment{The raised digit '\textthreesuperior'.}
11578 \endsetslot
11579
11580 \setslot{asciiacute}
11581     \comment{An ASCII-style acute '\textasciiacute'. This is supposed
11582         to be a character by itself rather than a combining accents.}
11583 \endsetslot
11584
11585 \setslot{mu}
11586     \comment{The lowercase Greek letter '\textmu', intended for use as
11587         a prefix 'micro' in physical units.}
11588 \endsetslot
11589
11590 \setslot{paragraph}
11591     \comment{The paragraph mark '\textparagraph'.}
11592 \endsetslot
11593
11594 \setslot{periodcentered}
11595     \comment{The centered period '\textperiodcentered'.}
11596 \endsetslot
11597
11598 \setslot{referencemark}
11599     \comment{The reference mark '\textreferencemark', similar to
11600         a combination of the 'multiply' and 'divide' symbols.}
11601 \endsetslot
11602
11603 \setslot{onesuperior}
11604     \comment{The raised digit '\textonesuperior'.}
11605 \endsetslot
11606
11607 \setslot{ordmasculine}
11608     \comment{The raised letter '\textordmasculine'.}
11609 \endsetslot
11610
11611 \setslot{radical}
11612     \comment{The radical sign '\textsurd', unavailable in most fonts.
11613         Even if it is available in Mac-encoded fonts, it isn't directly
11614         accessible in the 8r or 8y encodings.}
11615 \endsetslot
11616
11617 \setslot{onequarter}
11618     \comment{The fraction '\textonequarter'.}
11619 \endsetslot
11620
11621 \setslot{onehalf}
11622     \comment{The fraction '\textonehalf'.}
11623 \endsetslot
11624
11625 \setslot{threequarters}
11626     \comment{The fraction '\textthreequarters'.}
11627 \endsetslot
```

```

11628
11629 \ifisglyph{euro}\then
11630   \setslot{euro}
11631     \comment{The European currency sign, similar to '\texteuro'.}
11632   \endsetslot
11633 \Else
11634   \setslot{Euro}
11635     \comment{The European currency sign, similar to '\texteuro'.}
11636   \endsetslot
11637 \Fi
11638
11639 \setslot{Euro}
11640   \comment{This just makes sure that any glyph labelled 'Euro' in the font gets
11641     encoded.
11642     The TS1 encoding will use the previous slot when the font is actually used by
11643     tex.
11644     At least, I think so.
11645     That is, since we've got spare slots in this encoding, we can use them to enable
11646     'either... or...' encoding options both for reencoding the fonts for fontinst and
11647     for the tex encodings. (?!)}
11648   \endsetslot
11649
11650 \setslot{euro}
11651   \comment{This just makes sure that any glyph labelled 'euro' in the font gets
11652     encoded.
11653     The TS1 encoding will use the previous slot when the font is actually used by
11654     tex.
11655     At least, I think so.
11656     That is, since we've got spare slots in this encoding, we can use them to enable
11657     'either... or...' encoding options both for reencoding the fonts for fontinst and
11658     for the tex encodings. (?!)}
11659   \endsetslot
11660
11661 \nextslot{214}
11662   \setslot{multiply}
11663     \comment{The multiplication sign '\texttimes'.
11664       This symbol was originally intended to be put into slot~215,
11665       but ended up in this slot by mistake, at which time it was
11666       considered too late to change it.}
11667   \endsetslot
11668
11669 \endencoding
11670
11671

```

6.3.17 ucdotalt.etx

`ucdotalt.etx` (*etx*)

```

11672 \relax
11673 \encoding
11674
11675 \setcommand\uc{#1}{#1.alt}
11676 \setcommand\uctop{#1}{#1.alt}
11677 \ifisint{letterspacing}\then
11678   \ifnumber{\int{letterspacing}}=0\then \Else
11679     \setcommand\uclig{#1}{#1.altspaced}
11680     \comment{Here we set \verb|\uclig{#1}| to \verb|\verb|#1.altspaced|, but
11681       you can't see it as \verb|\verb|\setcommand| commands are invisible in
11682       the typeset output.}
11683   \Fi
11684 \Fi
11685 \setcommand\uclig{#1}{#1.alt}
11686
11687 \endencoding

```

Change History

v0.1	New variable: <code>fnt.buildfiles</code> 12
General: First public release. 1	New variable: <code>fnt.buildsearch</code> 9
v0.2	New variable:
General: <code>fnttarg</code> may now be 'sandboxed'. The default build recipes (based on <code>fontinst</code> and <code>afm2tfm</code>) are configured to do this and <code>fnt.buildsearch</code> is disabled by default. At present, isolation only affects TeX-based build tools. FontForge and GNU <code>make</code> are unaffected, for example. 4	<code>fnt.buildsuppfiles_sys</code> 12
<code>fontinst.lua</code> renamed to <code>fntbuild.lua</code> 4	New variable: <code>fnt.checksuppfiles_add</code> 12
Default templates. Simplified template configuration and search. 14	New variable: <code>fnt.checksuppfiles_sys</code> 12
Disable <code>checksearch</code> by default. 7	New variable: <code>fnt.fntdir</code> 12
New function: <code>fnt.afm2tfm()</code> 4	New variable: <code>fnt.mapfiles_add</code> 12
New function: <code>fnt.build_fnt()</code> 5	New variable: <code>fnt.mapfiles_sys</code> 12
New function: <code>fnt.buildinit()</code> 4	New variable: <code>fnt.regress</code> 13
New function: <code>fnt.buildinit_hook()</code> 5	New variable: <code>fnt.subsetdefns</code> 13
New function: <code>fnt.fntsubsetter()</code> 6	New variable: <code>fnt.subsetfiles</code> 13
New function: <code>fnt.lsrdir()</code> 7	New variable: <code>fnt.subsettemplate</code> 13
New variable: <code>fnt.afmtotfm</code> 9	New variable: <code>fnt.subset</code> 13
New variable: <code>fnt.builddeps</code> 12	New variable: <code>fnt.tabletemp</code> 14
	New variable: <code>fnt.testtemp</code> 14
	Newly documented variable: <code>fnt.pkgbase</code> 13
	Renamed function: <code>fnt.finst()</code> (was <code>finst()</code>). 5
	Renamed function: <code>fnt.fntkeeper()</code> (was <code>fntkeeper()</code>). 7
	Renamed function: <code>fnt.fontinst()</code> (was <code>fontinst()</code>). 5

Renamed function: <code>fnt.test()</code> (was <code>fnt_test()</code>)	7
Renamed variable:	
<code>fnt.autotestfds</code> (was <code>autotestfds</code>)	9
Renamed variable: <code>fnt.binmakers</code> (was <code>binmakers</code>)	9
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<code>fnt.familymakers</code> (was <code>familymakers</code>)	12
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Renamed variable: <code>fnt.keepdir</code> (was <code>keepdir</code>)	12
Renamed variable: <code>fnt.keepfiles</code> (was <code>keepfiles</code>)	12
Renamed variable:	
<code>fnt.keeptempdir</code> (was <code>keeptempdir</code>)	12
Renamed variable:	
<code>fnt.mapmakers</code> (was <code>mapmakers</code>)	13
Renamed variable: <code>fnt.vendor</code> (was <code>vendor</code>)	14
Split most of <code>fntbuild.lua</code> into other files, similar to the existing <code>fntbuild-ctan.lua</code>	25
Support for configuration files. See section 3	14
Use <code>fnt</code> prefix in Lua scripts.	1
<code>dotscmisc.mtx</code> : Re-remove spurious kerning adjustments for triple ligatures	64
<code>newlatin-dotsc.mtx</code> : Re-remove load of <code>lsfake</code>	63

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t1-dotinf.etx (etx)	3189
t1-dotinferior.etx (etx)	4466
t1-dotsup.etx (etx)	5743
t1-dotsuperior.etx (etx)	7020
t1-f_f.etx (etx)	8297
t1j-f_f.etx (etx)	9582
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