that case, tex will announce itself as "TeXk" and print an additional banner line saying that %&-line parsing is enabled.

We may encounter more places where the default behaviour is not what it should be, and proceed to make this optional (and by default off) in future versions of Web2C.

4 Release notes for teTEX 3.0

This section briefly describes what has changed since the last major release.

4.1 New programs / font support / macro packages

Two programs (see section 1) have been added with this release: Aleph and dvipng. Many macro packages have been added, too. The largest additions are the packages beamer and memoir. In the fonts sections, some additions and updates have happened, too. The largest change in this area is the addition of the Latin Modern Fonts (`lmodern`) in Postscript Type 1 format. These fonts are not as exhausive as the `cmsuper` fonts, but they are of very good quality and sufficient for languages which use latin characters. Using the Latin Modern Fonts is in most cases preferable over using the `ae` fonts (e.g. PDF files with accents are searchable, text extraction works better).

4.2 Changes to web2c

- TEX now uses the new `tex.web` (version 3.141592) from December 2002 (fixed `\xleaders`, glueset, weird alignments).
- encTEX (see `texdoc encdoc-e`)), a TEX extension by Petr Olšák for input reencoding is now available (for non Omega based engines). The new functionality is enabled by setting the `-enc` switch at format generation time. It defines 10 new primitives which can be used to control TEX's internal character translation tables and proper multibyte input (e.g. for handling UTF-8).
- The `\input` primitive in `tex` (and `mf` and `mpost`) now accepts double quotes containing spaces and other special characters. Typical examples:

  ```
  \input "filename with spaces"   % plain
  \input{"filename with spaces"}  % latex
  ```

  See the Web2C manual for more: `texdoc web2c`.

4.3 Modifications to the directory structure and file searching

split of texmf trees The instruction of installing teTEX from the sources that I provide have been changed. The unpacked texmf tarball (`$prefix/share/texmf-dist`, set up as `$TEXMFDIST` in `texmf.cnf`) is no longer mixed with the files that are installed via "`make install`" from building and installing the program sources.

These files (e. g. format files) that are more tied up with the programs end up in the directory `$prefix/share/texmf` (`$TEXMFMAIN`).

So, the content of the texmf tarball remains completely unclanged in `$TEXMFDIST` and can easily be replaced with a new version without loosing other runtime files that are not provided elsewhere.

changed location for font map files Following a change introduced with version 1.1 of the TEX Directory Structure (see `texdoc tds`), font map files (`.map`) are now only searched in subdirectories of `fonts/map` in each `texmf` tree. The subdirectories of `fontname`, `dvips` and `pdftex` are no longer searched for these files. The `texmf` trees from this distribution follows this convention, but you might need to rearrange some files if you maintain a local `texmf` tree.

Within the `fonts/map` tree the files are organized by syntax and package. Known map file syntaxes are `dvips` (this is the most common one), `pdftex` (a superset of the `dvips` syntax, e. g. the psname field is optional), `dvipdfm` and `vtex`. If some file is stored within the `fonts/map/dvips` subtree, this does not mean that `dvips` is the only program that accesses these files. Other programs which support the same syntax can use these files as well. It's just that the program `dvips` has given its name for this syntax.

The next directory level specifies the package that the map file belongs to. Example: the file `charter.map` of the `psnfss` package follows the syntax of `dvips`, so it is stored in `fonts/map/dvips/psnfss/charter.map`.

If you happen to see that some application cannot find a map file which is stored in a wrong location, you have to move that file to the right location. Try to find out the syntax and the package that the file belongs to. If unsure, you can always choose "unknown", since the only restriction for the directory tree below `fonts/map` is that all file names are unique. The precise `<syntax>/<package>` subdirectory does not affect searching. Do not forget to update the filename database (`ls-R`) by running the command `mktexlsr` (resp. `texhash` which is the same).

changed search path for map files Map files used to be searched along the `$TEXCONFIG` variable ("dvips config" format in terms of kpathsea internals). This has been changed to the `$TEXFONTMAPS` variable ("map" format). The new location of the font map files is included in the new default setting of `$TEXFONTMAPS`, but not in the default setting of `$TEXCONFIG`. The result is that an old application that searches font map files along the "dvips config" format will not work.

For the "C" API of kpathsea this change means that map files should be accessed using `kpse_fontmap_format` instead of `kpse_dvips_config_format`. For scripts that use kpsewhich, one has to make sure that `--format=map` is used to search font map files.

changed location for font encoding files Together with font map files (see above), the font encoding files have been given a new location, too. The new location is

`fonts/enc/<syntax>/<package>`. So, if you happen to see some application to fail finding a font encoding file, just move it to the right location in the texmf tree and update the filename database.

omission of "engine" directories Within the texmf trees, the directory trees associated with the names of TEX engines (e. g. `etex`, `pdftex`, `omega`, `mltex`) are no longer searched for TEX macro packages. This means that the `$TEXINPUTS` search path now lies completely within the `tex` subtree.

If you are using the above mentioned "obsolete" locations for TEX macro packages, you have to move them into the `tex` directory tree.

4.4 Changes to pdfTEX

- All parameters previously set through the special configuration file `pdftex.cfg` must now be set through primitives; `pdftex.cfg` is no longer supported. Some settings (e.g. the default papersize) are loaded via `pdftexconfig.tex` into the format files.
- `\pdfmapfile` and `\pdfmapline` provide font map support from within a document.
- Microtypographic font expansion can be used more easily.
  http://www.ntg.nl/pipermail/ntg-pdftex/2004-May/000504.html
- See the pdfTEX manual for more: `texdoc pdftex-a`.

4.5 pdfetex: the new default TEX engine

teTEX uses `pdfetex` for all formats except "good-old" `tex`. So, if you run `latex`, the underlying engine will be `pdfetex`. Some (broken) TEX macros assume that pdfTEX is running in PDF generation mode if they detect primitives that pdfTEX has introduced (e.g. `\pdfoutput`). This is wrong, since pdfTEX can also be used (and is used) to generate DVI output. A reliable way of detecting PDF output mode is implemented in `ifpdf.sty` which works for plain TEX as well as LATEX.

4.6 Changes to xdvik

- On supported platforms the default toolkit of `xdvi` is now Motif. The GUIs for both toolkits (Motif and Xaw) have been updated: There is a page list for easier navigation and improved menus. The Motif version now has a toolbar and a 'Preferences' dialog for advanced customizations.

  User preferences that are set via this dialog, the 'Options' menu and other dialogs are now saved in a file `~/.xdvirc`. This file overrides other X defaults, but not the command-line options. (The option '`-q`' and the X resource '`.noInitFile`' can be used to disable this feature).