xtem — TeX-Menu for X-Windows

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We developed a user interface that allows you to prepare documents using TeX/LaTeX more comfortably: `xtem`. With `xtem` you can edit and format at the same time, you can use a spell check and preview your layout, and you can do many other things. A list of all possibilities that are available is given in Figure 1 and may also be seen from Table 1.

The program is written in Tcl and has been developed on a SUN SPARC 10 under Solaris 2.3. By now `xtem` is installed on several other computer platforms: Linux, IBM RS6000/AIX, SGI Indigo, SGI Challenge, SGI Irix, Sun OS4, DEC 3000, DEC 5000/Ultrix, HP Apollo Domain/HP-UX, HP 9000/HP-UX. At least one installation was done in using Open Windows 3.0 in place of X11R4/5. Thus `xtem` can be expected to be implementable without problems on other Unix-computers.

`xtem` allows for **different languages**: Calling the program the user can decide which language to use. Menu and online helps will appear in the chosen language. Right now English and German are available (Figures 1, 2). Further languages can be added easily by providing `xtem` with pure text files.

`xtem` is **self explanatory** and easy to use. Without hardly any knowledge of LaTeX and the operating system it enables users to edit text, including tables (after only a brief instruction). This is provided by extensive explanations and examples for the LaTeX-syntax. LaTeX commands can be searched for in an alphabetical list or in lists grouped by contents. Figure 6 shows a window with the syntax description and examples for the `footnote` commands, all syntax helps are presented using hypertext. During an edit-session you can look at the syntax of a LaTeX command and can copy the examples into the text being edited with the known mouse functions.

In addition interactive context sensitive help can be activated by the right mouse button for every field of `xtem`.

A click with the left mouse button executes a menu function. For every menu item you can select amongst several pre**settings**. Using the middle mouse button (with the cursor on a menu item) a list of available presettings will be displayed. They can be selected by a double click of the left mouse button. Figure 3 shows the available presettings of the `TeX settings` field.

This list of presettings available for each menu function is designed as an "open list". It can be easily adjusted by the TeX administrator to meet local requirements. All our versions of these lists are enclosed in the `xtem` installation package.

Figure 4 shows the presetting of the available **printers**. Specifications for the printer drivers (like TeX zero point, dpi etc.) are automatically set as specified by the TeX administrator. The user can change these options but usually should not do so.

For printing several comfortable features have been developed. You can choose — from a menu that comes up automatically after clicking the print function in the main menu — whether you want to print: "absolute" or "relative", even or odd or all pages, several pages in reduced size

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on one page, “a5booklet”. You can also specify whether the print file should be permanent or temporary and the number of copies (a maximum number is set by the TEX administrator).

In a network there might be many printers available. To find quickly the appropriate printer in the list of printers, you can search selectively. You can reduce the number of printers included in the list of printers by specifying criteria like format of the paper, printer resolution (dpi), location of the printer (Figure 5). The number and the kinds of criteria are set by the TEX administrator in a file of presettings (“open list”).

We designed `xtem` as smart as possible to avoid “conflict situations”. For example, when you start a spelling check program that enables you to modify possible mistakes (e.g. ispell), `xtem` makes sure that you do not have an open edit window (started by `xtem`) at the same time. If an edit window is open `xtem` asks whether you want to run the spell check “at you own risk”.

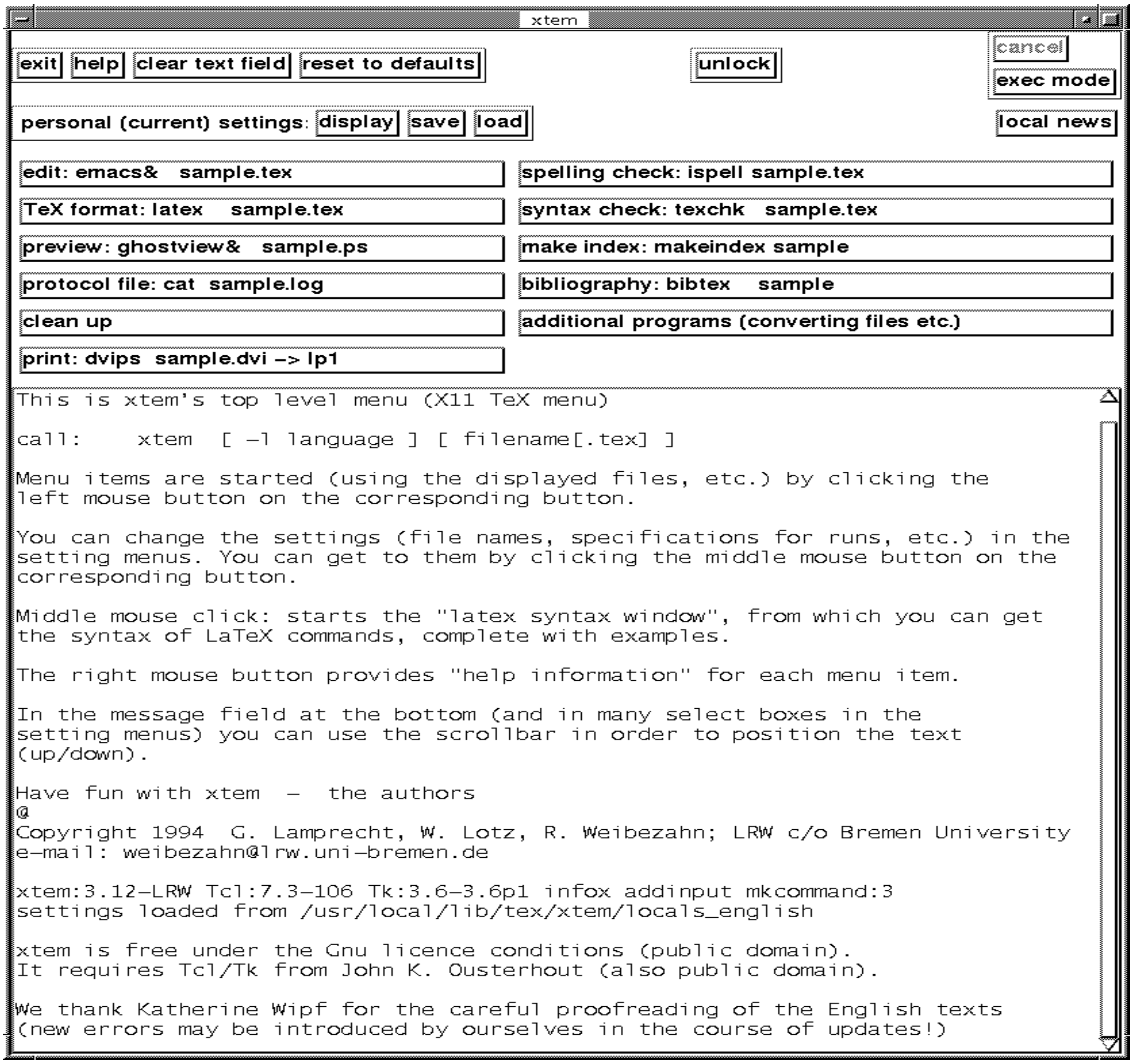

Figure 1: the main menu of `xtem`, after clicking at "help"

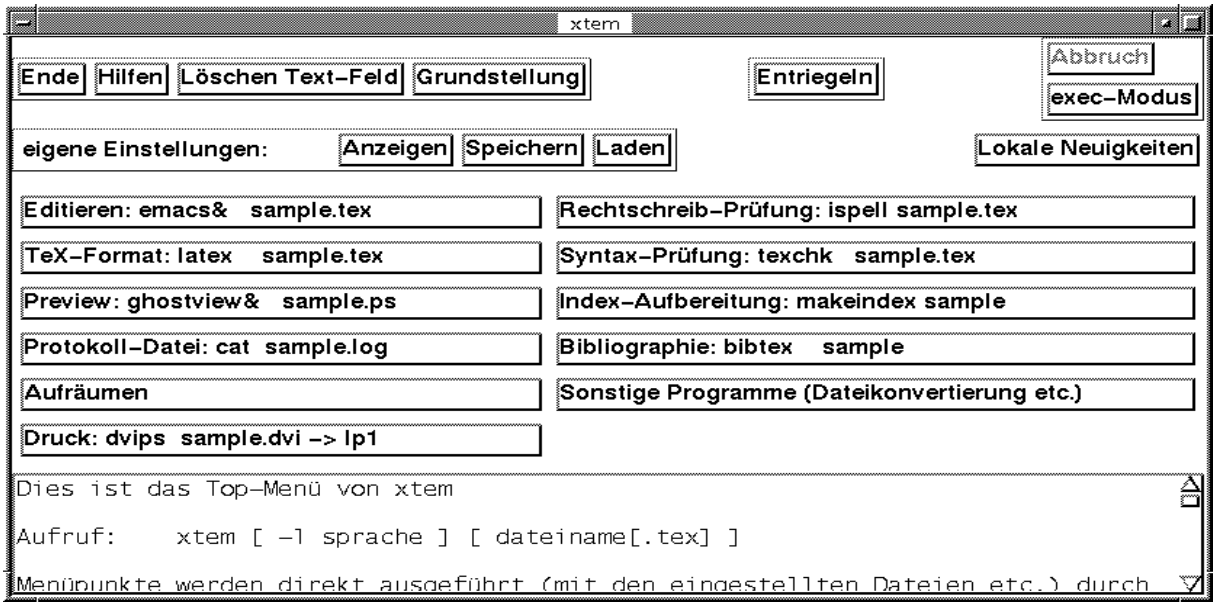

Figure 2: the main menu of `xtem` in German mode

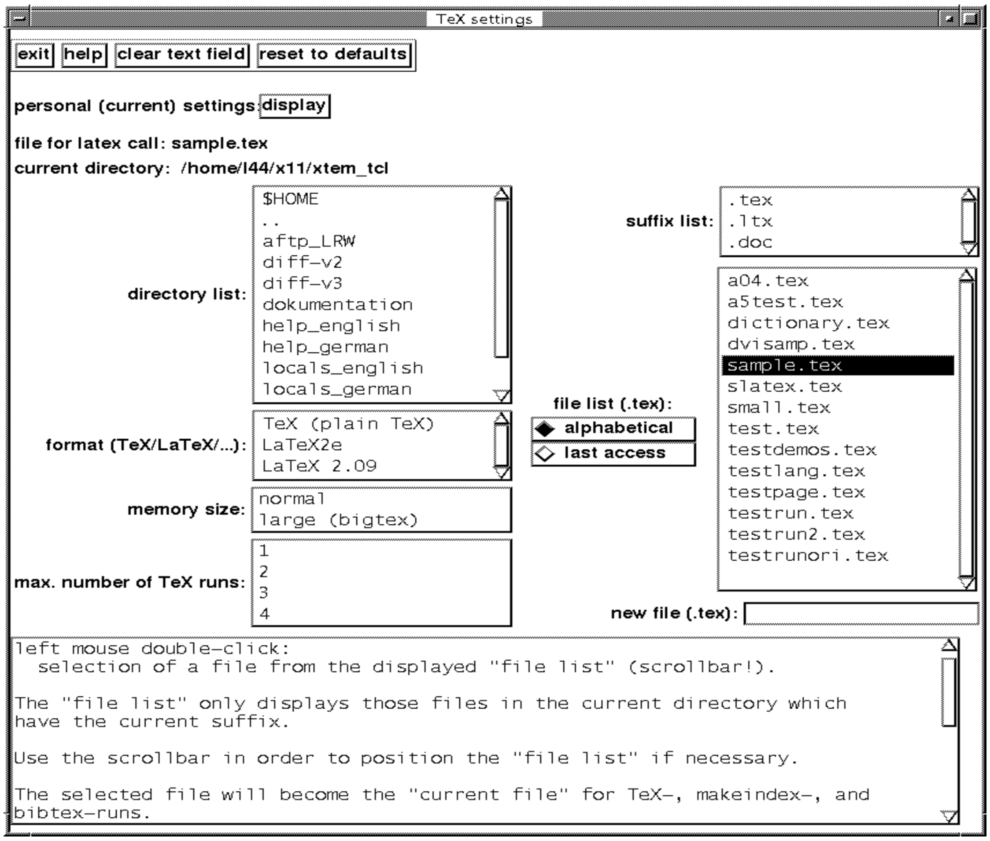

Figure 3: the TEX settings menu, after demanding helps to the file selection (right mouse click at "file list").

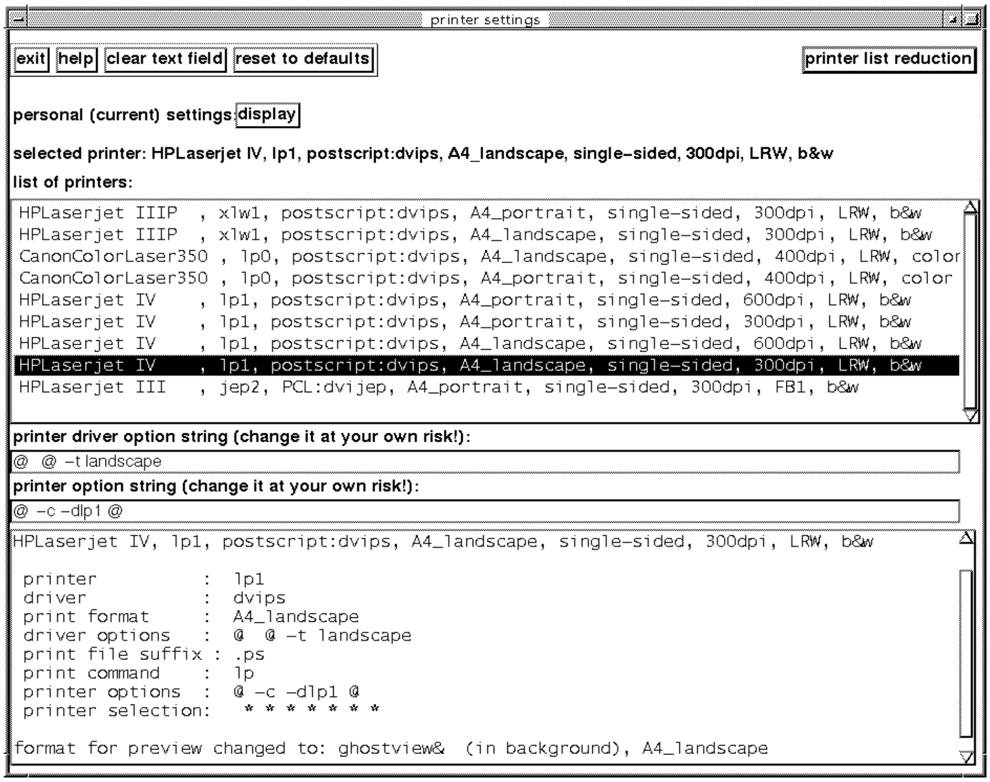

Figure 4: the printer settings menu, after selection of printer `lp1` with postscript/printer driver `dvips` and format landscape (the format was set for the previewer automatically too).

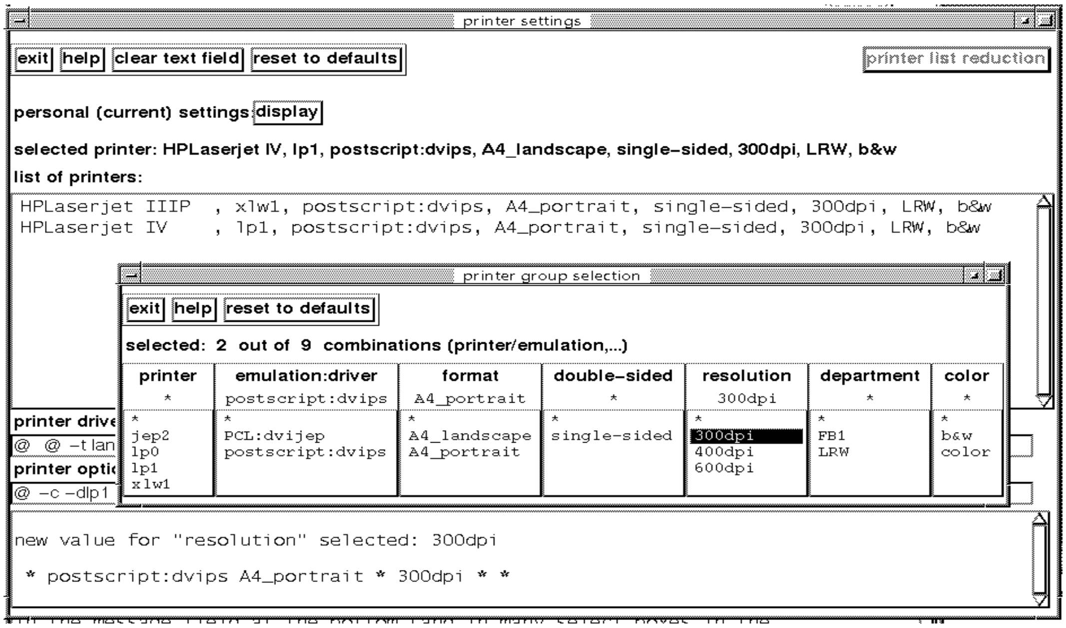

Figure 5: the printer group selection menu, after selection of postscript, A4_portrait and 300dpi.

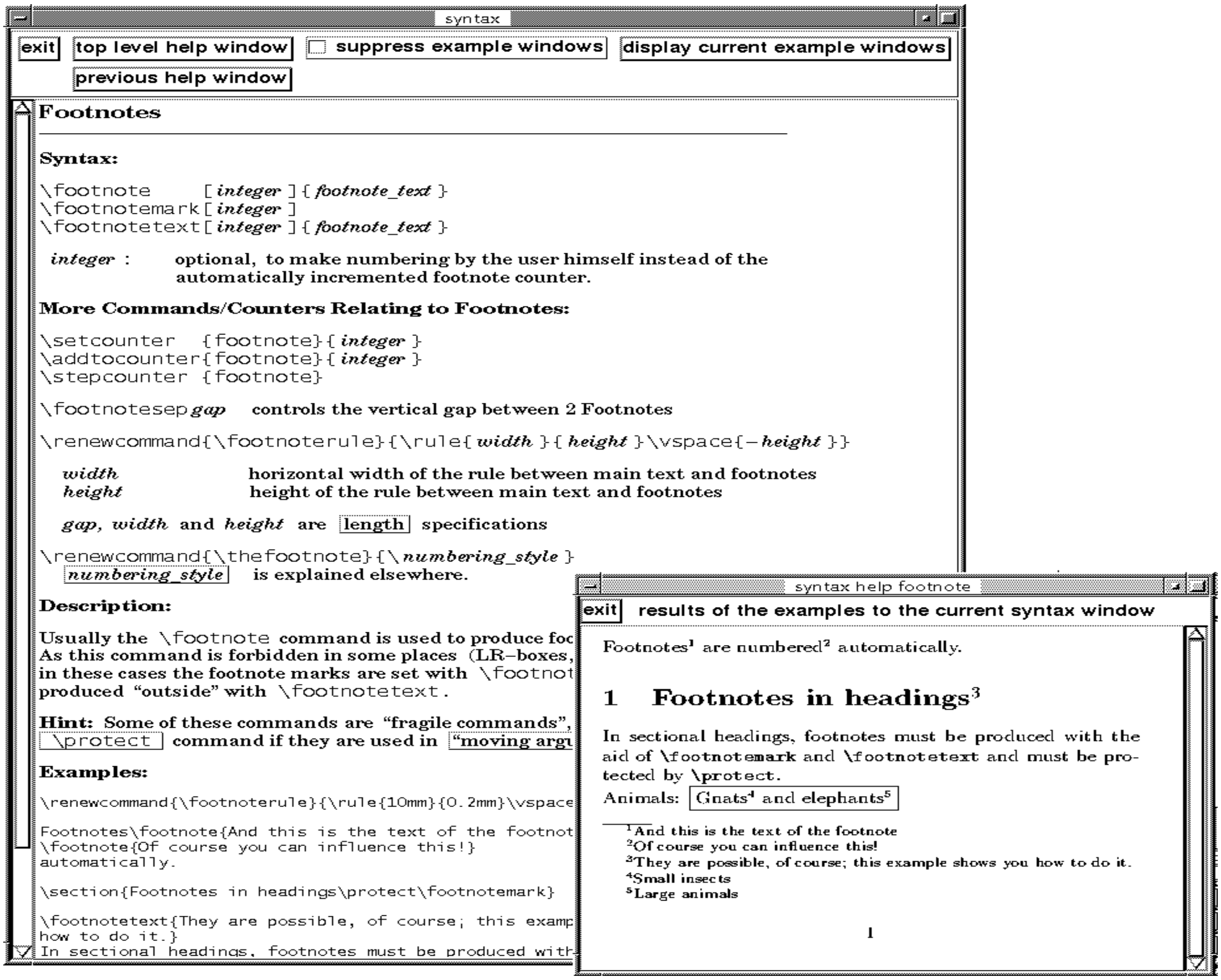

Figure 6: the LaTeX syntax helps.

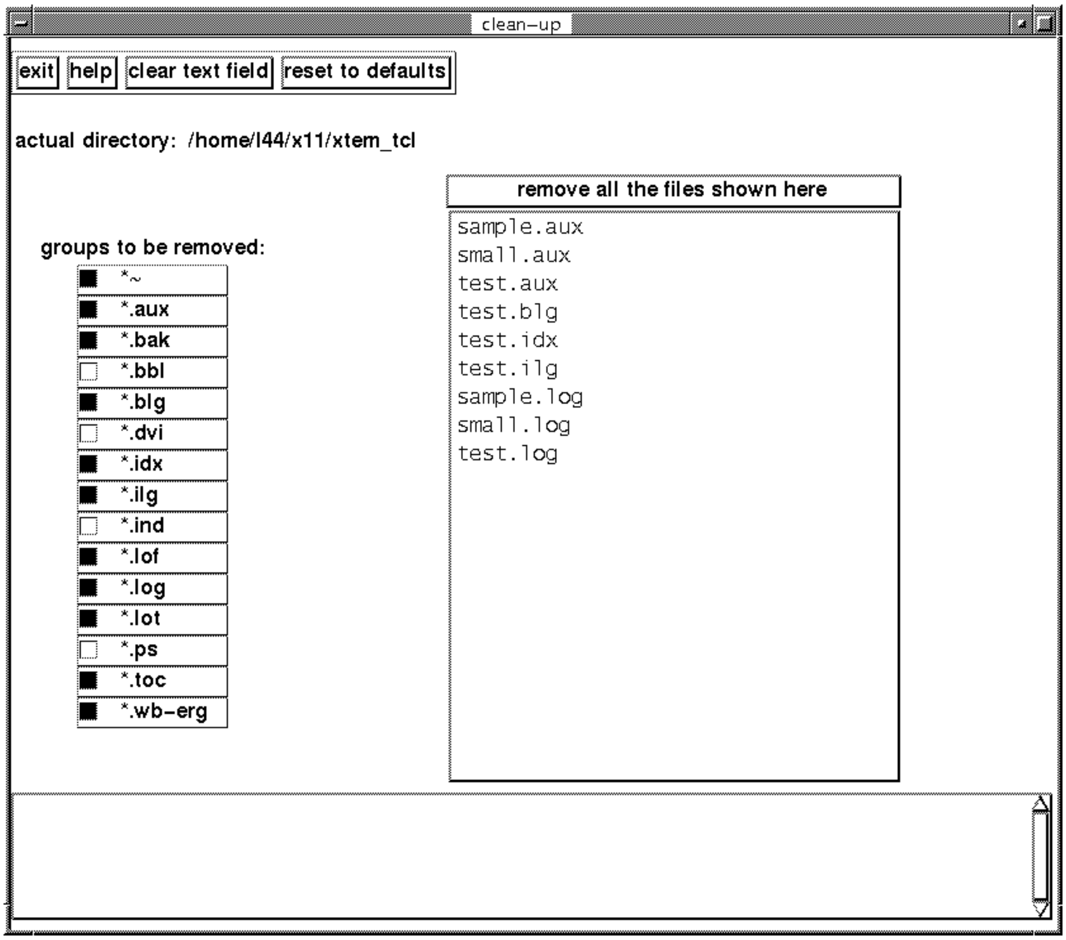

Figure 7: clean up.

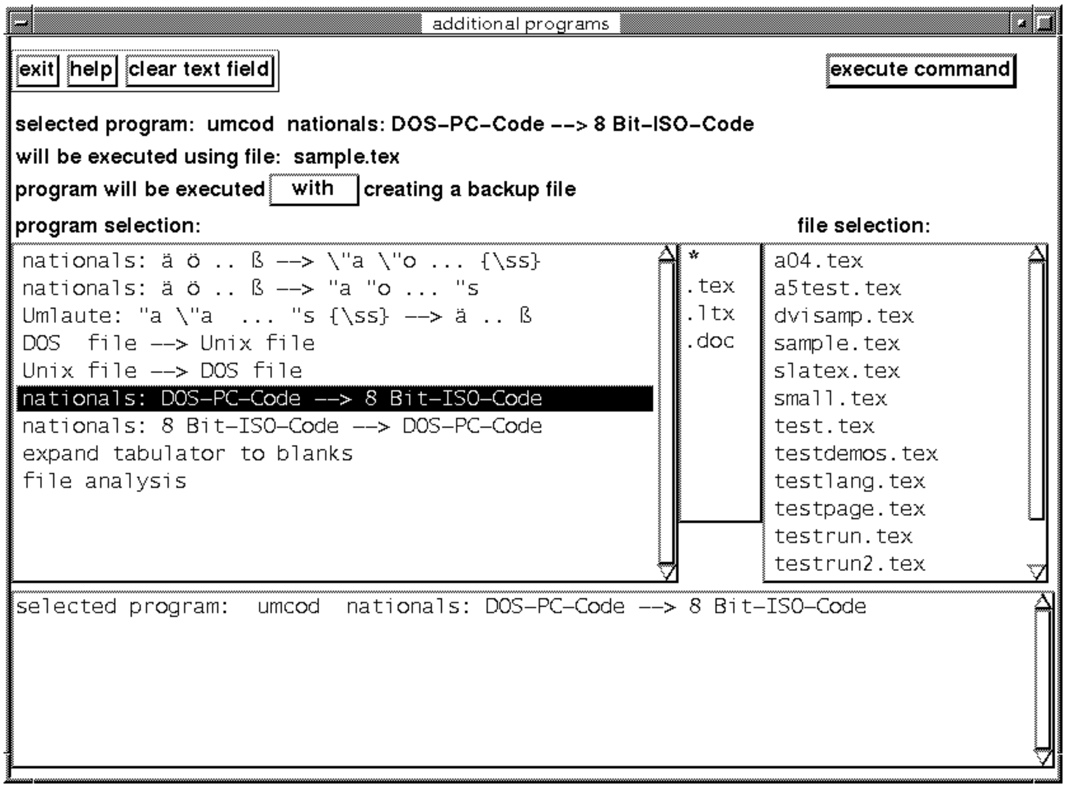

Figure 8: the menu for execution of additional auxiliary programs

button	**left mouse button (execution)**	**middle mouse button (presettings)**
exit	exit `xtem`	unused
help	first information to `xtem`	same as left mouse button
clear text field	clean up the output text field at the bottom	unused
reset to defaults	reset to the values given by the TEX administrator	unused
unlock	unlocking of the (automatically) locked buttons (for "hackers" only)	unused
cancel	cancel an active program (e.g. `tex` run, `makeindex` run)	unused
exec mode	select another form for execution of commands/programs	unused
local news	display informations provided by the TEX administrator	unused
personal settings	you may save and load your personal (current) settings	unused
edit	call the editor with the displayed file (if you use LATEX the syntax helps are presented at the same time)	select an editor (`emacs`, `vi`, ...); select whether the editor is to be called in background or in foreground; select/input a file name for editing
TeX format	call the program `tex` with the displayed TEX format and the displayed main file	change the directory (may be done only in this menu); select/input of the main file name; select the format (`tex`, `latex`, `slitex`, ...); select the memory size (`normal/bigtex`); select the max. number of `tex` runs (references!).
preview	starts previewing with the displayed main file	select a previewer (`ghostview`, `xdvi`, ...); select whether the previewer is to be called in background or in foreground; setting of the format for preview and printing; if necessary: change the options used by the preview program
protocol file	display the contents of the indicated protocol file	select the protocol file (....`log`, ...`ilg`, ...); select the mode for displaying (`cat`, `pg`, `emacs`, `vi`, ...).
clean up	select the file suffixes of the files to be removed; you get a list of file names to be removed; if you click names from this list, these files will not be removed	unused
print	printing the displayed file; starts the "printing menu": you may specify page selection (even/odd pages, pages from ... to ..., 2/4 pages reduced on 1 sheet, `a5booklet`, number of copies, ...; after generating the print file: decide whether file → printer or not.	select the combination: printer – printer driver – paper format etc.; setting of the format for preview and printing; reduction of the printer list by means of selection criteria. if necessary: modification of the printer (driver) options

Table 1: Summary of the facilities of `xtem`

button	left mouse button (execution)	middle mouse button (presettings)
spelling check	starts the spelling check program with the displayed file	select the spelling check program and the dictionary (language); if necessary: modify the program option string
syntax check	starts the syntax check program with the displayed file	select the syntax check program and its verbose mode; if necessary: modify the program option string
make index	starts the index preparing program for the displayed file	select the index preparing program; if necessary: modify the program option string
bibliography	starts the bibliography preparing program with the displayed file	unused
additional programs	select a program from the list; at our installation there are programs for file converting such as: 'German umlaute' expanding → 'TEX' or 'German TEX' convention and vice versa, 8 bit ISO Code ↔ IBM PC code, Unix format ↔ DOS format, tabulator expansion, ...	unused

Table 1: Summary of the facilities of `xtem` (continued).

Acknowledgment

We want to express our thanks to many `xtem` users, who gave us valuable hints and suggestions.

Especially we thank Peter-Klaus Schilling (Hamburg), who has accompanied our work in particular manner by positive critics and suggestions.

We thank Katherine Wipf for the careful proofreading of the English texts (new errors may be introduced by ourselves in the course of updates!)

Basis for the use of `xtem`:

- Hardware: X11 screen (black&white or colour),
  keyboard, 3 button mouse.
- Software:
  - Unix system,
  - Tcl version 7.3 or newer with Tk and TclX (extended Tcl) (author: J. Ousterhout) (public domain, available by `aftp` — see `xtem_texmenu.README`).
- Application software:
  - `xtem` available under GNU licence conditions
  - from: `aftp` server of LRW: `ftp.lrw.uni-bremen.de`
    (login as `anonymous` with RFC conform e-mail address for password).
  - files: `/pub/tex/xtem/xtem_texmenu.README` (installation guide)
    `/pub/tex/xtem/xtem_texmenu_ger.ps.gz` (German description)
    `/pub/tex/xtem/xtem_texmenu_eng.ps.gz` ((this) English description)
    `/pub/tex/xtem/xtem_texmenu.3.12.tar.gz` (or version newer than 3.12)