## **xtem** — T<sub>E</sub>X-Menu for X Window System

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We developed a user interface that allows you to prepare documents using  $T_EX/IAT_EX$  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 2.6/x86. By now xtem is installed on several other computer platforms: Linux, IBM RS6000/AIX, SGI Indigo, SGI Challenge, SGI Irix, Sun OS4, Sun SPARC10 Solaris 2.5, 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 IATEX 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 IATEX-syntax. IATEX commands can be searched for in an alphabetical list or in lists grouped by contents. Figure 9 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 IATEX 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 presettings. 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.

In this menu you can do all setting concerning  $T_{EX}$  runs:

- format selection,
- memory size (eventually),

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- the maximum number of T<sub>E</sub>X runs (to make consistent cross references etc.; there will be no unnecessary T<sub>F</sub>X run by checking the .aux-files!),
- setting, whether TEX program run is to be started automatically after the user has saved modifications in the main file / edit file or TEX is not to be started automatically,
- setting for dialog mode or nonstop mode is case of T<sub>F</sub>X errors, and
- setting, whether the hyphenations done at this  $T_EX$  run are to be displayed or not. You can move this list by simple mouse click into a file containing checked hyphenations (this file is a pure text file and can be edited by the user); at future  $T_EX$  runs only those hyphenations are displayed, which are not found in this file.
- Furthermore you can set in this menu whether a transcript analyze is to be done automatically after the T<sub>E</sub>X run or not and in which form. This analyze gives a short list of error messages and warnings (including "overfull boxes" and "underfull boxes"). Clicking at on of these error messages creates an edit window into which the file concerned is loaded. The line(s) in which T<sub>E</sub>X located the error are displayed inversely and the cursor is put as close as possible to the error position (line and column), see figure 4. Error analyzing can also be started by clicking at "transcript file ..." in the main menu.

The index preparing program (e.g. makeindex) is started automatically after  $T_EX$  run(s) if necessary (i.e. when the .idx-file has changed during the  $T_EX$  run). Whether the bibliography preparing program (e.g. bibtex) is started automatically (in case of 'undefined references') after  $T_EX$  run(s) or not can be set by the user in the bibliography setting menu.

Figure 6 shows the menu to select/input directories and files, in addition you can also create new directories with this menu.

Figure 7 shows the presetting of the available **printers**. Specifications for the printer drivers (like  $T_EX$  zero point, dpi etc.) are automatically set as specified by the  $T_EX$  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 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  $T_{\rm FX}$  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 8). The number and the kinds of criteria are set by the  $T_{\rm E}X$  administrator in a file of presettings.

These presetting files available for each menu function are designed as "open lists". They can be easily adjusted by the  $T_{E}X$  administrator to meet local requirements. All our presetting files are enclosed in the **xtem** installation package.

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".

| button               | left mouse button (execution)   | middle mouse button (presettings) |
|----------------------|---|-----------------------------------|
| exit                 | exit xtem   | unused                            |
| help                 | first information to xtem   | unused                            |
| clear text field     | clean up the output text field at the bot-<br>tom                       | unused                            |
| reset to defaults    | reset to the values given by the $T_{\! E}\! X$ administrator           | unused                            |
| unlock<br>(optional) | unlocking of the (automatically) locked<br>buttons (for "hackers" only) | unused                            |
| cancel               | cancel an active program (e.g. tex run, makeindex run)                  | unused                            |
| xtem settings        | select another form for execution of com-<br>mands/programs etc.        | unused                            |
| personal settings    | you may save and load your personal (current) settings                  | unused                            |
| LaTeX syntax         | the $(IAT_EX)$ syntax helps are presented                               | unused                            |
| local news           | display informations provided by the $T_E X$ administrator              | unused                            |

Table 1: Summary of the facilities of **xtem**.

| button                      | left mouse button (execution)   | middle mouse button (presettings)   |
|-----------------------------|---|---|
| file/directory<br>selection | select/input & change the directory<br>select/input of the main file name<br>select/input a file name for editing   | unused  |
| edit                        | call the editor with the displayed file (if you use $LAT_EX$ the syntax helps are presented at the same time)   | select an editor (emacs, vi,);<br>select whether the editor is to be called in<br>background or in foreground   |
| quick&dirty                 | quick TEX run with the text passed by<br>"mouse grab" and previewing of the re-<br>sult of the TEX run  | unused (is set together wit the TEX format presettings)   |
|                             | this button can be modified with<br>"Shift": quick $T_EX$ run is then done with "edit file" instead of "mouse grab"   |   |
| TeX format<br>etc.          | call the program tex with the displayed $T_{\rm E} X$ format and the displayed main file this button can be modified with "Shift": in this case the preview is started automatically after termination of the $T_{\rm E} X$ run   | select the format (tex, latex, slitex,);<br>eventually select the memory size (nor-<br>mal/bigtex);<br>select the max. number of tex runs<br>(references!);<br>setting to start T <sub>E</sub> X run automatically when<br>main file or edit file is modified;<br>setting to nonstop mode or to dialog mode<br>at T <sub>E</sub> X syntax errors;<br>settings to the display of hyphenations done<br>by a T <sub>E</sub> X run;<br>settings to the transcript analyze (after T <sub>E</sub> X<br>run) |
| preview                     | starts previewing with the displayed main file  | select a previewer (ghostview, xdvi,);<br>select whether the previewer is to be called<br>in background or in foreground;<br>setting of the format for preview and<br>printing;<br>if necessary: change the options used by the<br>preview program  |
| print                       | printing the displayed file; starts the<br>"printing menu":<br>you may specify page selection<br>(even/odd pages, pages from to<br>, $2/4$ pages reduced on 1 sheet,<br>a5booklet, number of copies,;<br>after generating the print file: decide<br>whether file $\rightarrow$ printer or not;<br>this button can be modified with"Shift":<br>printing is then done directly without<br>call of the "printing menu" | select the combination:<br>printer – printer driver – paper format etc.;<br>setting of the format for preview and<br>printing;<br>reduction of the printer list by means of<br>selection criteria;  |
| clean up                    | select the file suffixes of the files to be<br>removed;<br>you get a list of file names to be re-<br>moved;<br>if you click names from this list, these<br>files will not be removed  | unused  |

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

| button                               | left mouse button (execution)  | middle mouse button (presettings)   |
|--------------------------------------|--|---|
| spelling check<br>(optional)         | starts the spelling check program with<br>the displayed file   | select the spelling check program and the<br>dictionary (language);<br>if necessary: modify the program option<br>string  |
| syntax check<br>(optional)           | starts the syntax check program with<br>the displayed file   | select the syntax check program and its ver-<br>bose mode;<br>if necessary: modify the program option<br>string   |
| make index<br>(optional)             | starts the index preparing program for<br>the displayed file   | select the index preparing program;<br>select whether the index preparing program<br>is to be started automatically after $T_EX$ run<br>(if necessary) or not;<br>if necessary: modify the program option<br>string                 |
| bibliography<br>(optional)           | starts the bibliography preparing pro-<br>gram with the displayed file   | select the bibliography preparing program;<br>select whether the bibliography preparing<br>program is to be started automatically af-<br>ter $T_EX$ run (if necessary) or not;<br>if necessary: modify the program option<br>string |
| additional<br>programs<br>(optional) | select a program from the list; at our installation there are programs for file converting such as:<br>'German umlaute' expanding $\rightarrow$ 'T <sub>E</sub> X' or 'German T <sub>E</sub> X' convention and vice versa,<br>8 bit ISO Code $\leftrightarrow$ IBM PC code,<br>Unix format $\leftrightarrow$ DOS format,<br>tabulator expansion, xfig, | unused  |
| protocol file<br>(optional)          | display the contents of the indicated protocol file  | <pre>select the protocol file (log,ilg,); select the mode for displaying (tla (= transcript analyze), cat, pg, emacs, vi,)</pre>  |

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

| personal (current) settings: display save  | load ~h LaTeX syntax local nev  |
|--|---|
| ~f file/directory selection  | ~o spelling check: ispell sample.tex  |
| ~e edit: xemacs& sample.tex  | ~s syntax check: lacheck sample.tex   |
| ~q quick&dirty: latex sample -> XtemQuickDir   |   |
|  | ~b bibliography: bibtex sample  |
| ~v preview: gv& sample.ps  | ~u additional programs (converting files etc.)  |
| ~p print: dvips sample.dvi -> Prt1   | -l transcript file: tla sample.log  |
| ~c clean up  | <u>]</u>  |
| This is xtem's top level menu (X11 <sup>-</sup>  | TeX menu)   |
| call: xtem [ –l language ] [ fi  | lename[.tex] ]  |
| Many itams and stanted fusing the de   |   |
|  | icployed files ate 2 by clicking the  |
| left mouse button on the correspond  | isplayed files, etc.) by clicking the<br>ing button.  |
| left mouse button on the correspond  | ing button.   |
| left mouse button on the correspond <sup>.</sup><br>You can change the settings (file na   | isplayed files, etc.) by clicking the<br>ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the |
| left mouse button on the correspond <sup>-</sup><br>You can change the settings (file na<br>setting menus. You can get to them b   | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the  |
| left mouse button on the correspond <sup>-</sup><br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides   | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.   | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides<br>* context sensitive "help informatio  | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides<br>* context sensitive "help informatio<br>************************************                  | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides<br>* context sensitive "help informatio  | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides<br>* context sensitive "help informatic<br>************************************                  | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides<br>* context sensitive "help informatic<br>************************************                  | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides<br>* context sensitive "help informatic<br>************************************                  | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides<br>* context sensitive "help informatic<br>************************************                  | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides<br>* context sensitive "help informatic<br>************************************                  | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>************************************   | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| left mouse button on the correspond<br>You can change the settings (file na<br>setting menus. You can get to them b<br>corresponding button.<br>* The right mouse button provides<br>* context sensitive "help informatic<br>************************************                  | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |
| <pre>left mouse button on the correspond<br/>You can change the settings (file na<br/>setting menus. You can get to them b<br/>corresponding button.<br/>* The right mouse button provides<br/>* context sensitive "help informatic<br/>************************************</pre> | ing button.<br>ames, specifications for runs, etc.) in the<br>by clicking the middle mouse button on the<br>************************************  |

Figure 1: the main menu of  $\verb+xtem, after clicking at "help"$ 

| F   | xten:   |  |  |  |  |
|---|---|--|--|--|--|
| Ende Hilfen Löschen Text-Feld Grundstellur  | ng j  |  |  |  |  |
|   | xtem-Einstellunge   |  |  |  |  |
| eigene Einstellungen: Anzeigen Speichern La   | den LaTeX- Syntax Lokale Neuigkeite   |  |  |  |  |
| ~f Datei/Dateiverzeichnis-Auswahl   | ~o Rechtschreib-Prüfung: ispell sample.tex  |  |  |  |  |
| ~e Editieren: xemacs& sample.tex  | ~s Syntax-Prüfung: lacheck sample.tex   |  |  |  |  |
| ~q Quick&Dirty: latex sample -> XtemQuickDir  | ≁i Index-Aufbereitung: makeindex sample   |  |  |  |  |
| ~x TeX-Format: latex sample.tex   | ~b Bibliographie: bibtex sample   |  |  |  |  |
| ~v Preview: gv& sample.ps   | ~u Sonstige Programme (Dateikonvertierung etc.)   |  |  |  |  |
| ~p Druck: dvips sample.dvi -> Prt1  | ~! Protokoll-Datei: tla sample.log  |  |  |  |  |
| ~c Aufräumen  |   |  |  |  |  |
| Dies ist das Top-Menü von xtem  |   |  |  |  |  |
| Aufruf: xtem [ –] sprache ] [ date  | iname[.tex] ]   |  |  |  |  |
| in Untermenüs, die durch Anwahl des b<br>mittleren Maustaste erscheinen.<br>***********************************   | zifikationen zur Ausführung) ändert man<br>etreffenden Menüpunktes mit der<br>man durch Drücken der *<br>em jeweiligen Menüpunkt. *<br>******************** |  |  |  |  |
| kann man vorwärts/rückwärts mit Hilfe<br>(Scrollbar) positionieren.<br>Viel Spaß, die Autoren<br>@  |   |  |  |  |  |
| Copyright 1996 G. Lamprecht, W. Lotz, R. Weibezahn; LRW/IWD, Bremen University<br>e-mail: weibezahn@iwd.uni-bremen.de<br>WWW: http://www.iwd.uni-bremen.de/xtem/xtem_texmenu.html |   |  |  |  |  |
| InstDir: /usr/local/xtem/xtem/locals_   | 5.6 machine i86pc platform unix os SunOS<br>german  |  |  |  |  |
| xtem ist unter den Gnu-Lizenzbedingun<br>und setzt das ebenfalls frei verfügba  | gen frei verfügbar (public domain)<br>re Tcl/Tk von John K. Ousterhout voraus.  |  |  |  |  |

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

|  | TeX settings   | ere in de la de la definie de la definie<br>1100 - 2000 |  |  |  |
|--|--|---|--|--|--|
| exit help clear text field reset to def  | aults  |   |  |  |  |
|  |  |   |  |  |  |
| personal (current) settings display  |  |   |  |  |  |
| format (TeX/LaTeX/):   | # of TeX runs:   | hyphenation check:  |  |  |  |
| ✤ LaTeX2e  | <br>∖_: 1  | yes (T1)  |  |  |  |
| 👾 TeX (plain TeX)  | 👾 max. 2   | * yes (OT1)   |  |  |  |
|  | * max. 3   | .,,⊨ no   |  |  |  |
|  | 👾 max. 4   | transcript analyze:   |  |  |  |
|  | autom. TeX run:  | 🔹 yes   |  |  |  |
|  | 👾 yes  | Ner no  |  |  |  |
|  | 🌞 no   |   |  |  |  |
|  | options:   |   |  |  |  |
|  | 👾 TeX stops at error   |   |  |  |  |
|  | TeX in \nonstopmode  |   |  |  |  |
|  |  |   |  |  |  |
|  |  |   |  |  |  |
| overfull boxes exceeding 0.0 pt (  | lpt = 0.35mm) are taken into account in the t  | ranscript analyze.  |  |  |  |
| underfull boxes exceeding 'hbadness' 500   | (0 10000) are taken into account in t  |   |  |  |  |
| up to 500 lines of the transcript file   | (xtem_texmenu_ger.log) will be analyzed.   |   |  |  |  |
| middle mouse click:  |  | de termineted   |  |  |  |
| left mouse click:  | additionally the setting menu  | is terminated   |  |  |  |
| select the number of TeX r   |  |   |  |  |  |
| A number > 1 means "this is  | the maximum numbers of TeX rur   | 15".  |  |  |  |
| There will be several runs u<br>TeX runs" is reached, or unt<br>are complete.              | ntil either the selected "max.<br>il the table of contents, cros                                   | number of<br>ss references, etc.  |  |  |  |
| When the auxiliary files (".<br>consistent (i.e. they no lon<br>TeX runs are stopped. Thus | aux": table of contents, label<br>ger change from one TeX run to<br>no unnecessary TeX runs are ma | /ref, etc.) are<br>the next), the<br>de.  |  |  |  |
| For short tables of contents<br>For long tables of contents,                               | , 2 (max. 3) TeX runs are usua<br>3-4 TeX runs may be necessary                                    | ully necessary.<br>'.   |  |  |  |
|  |  |   |  |  |  |

Figure 3: the T<sub>E</sub>X settings menu, after demanding helps to the "number of TeX runs" (right mouse click at "# of TeX runs").

If necessary (i.e. if the setting file texsiz.vst has more than one entry), in this menu automatically one more select box is generated in which you can select the  $T_{E}X$  memory size.

| 7  | <ul> <li>editing of TeX files (error corrections)</li> </ul>  |                |
|--|---|----------------|
| exit help clear text field reset to  | exit save changes file: testinc.tex / line.column: 6.34   | ŀ              |
|  | preceding error next error  |                |
| personal (current) settings display  | Of course you don't want overfull boxes in your output,<br>so \TeX\ provides several ways to remove them; that  | $\neg \square$ |
| file/directory selection   | will be the subject of our Experiment~4.  |                |
| edit: emacs& testfile.tex  | But first let's look more closely at the results of<br>Experiment~3, since \Tex\ reported some potentially  |                |
| TeX format: latex testfile.tex   | valuable information when it was forced to make those   |                |
| preview: xdvi testfile.dvi   | boxes too full; you should learn how to read this data:   |                |
| clean up   |   |                |
| print: dvips_testfile.dvi -> lp1   |   |                |
| ! Undefined control sequence.<br>1.6 Experiment~3, since \Tex<br>\   |   |                |
| Underfull \hbox (badness 914)<br>[]\OT1/cmr/m/n/12 But first le  |   | Ā              |
| Underfull \hbox (badness 184)<br>\OT1/cmr/m/n/12 po-ten-tially   |   | ally           |
| )<br>Underfull \hbox (badness 279)<br>[]\OT1/cmr/m/n/12 First no-tic<br>[1] (testfile.aux) )<br>(see the transcript file for a<br>Output written on testfile.dvi<br>Transcript written on testfile | e that the con-text in-for-ma-tion<br>dditional information)<br>(1 page, 1380 bytes).   |                |
| +15:14:12 finished!  |   |                |
| analyze of the TeX transcript  | (''logfile'') will now be done  |                |
|  | og (OverfullBoxes>0.0pt, UnderfullBoxes>200) ***<br>dit the corresponding text in the TeX file<br>or windows before this!)  |                |
| ! Undefined control sequence. Experin<br>Underfull \hbox (badness 914) in par  | in paragraph at lines 1214 (testfile.tex: 12)<br>ment~3, since \Textor \ reported some potentially (testinc.tex: 6)<br>ragraph at lines 59 (testinc.tex: 5)<br>ragraph at lines 2124 (testfile.tex: 21) |                |
| this transcript analyze is sti<br>if an error occurs, please sen<br>.de  | ll under development;<br>d the transcript file to: weibezahn@lrw.uni-bremen   |                |

Figure 4: Analyze of the transcript file was done after the  $IAT_EX$  run (see  $T_EX$  settings menu, figure 3) and the second of the generated errors/warnings was clicked at. By this the editor window was opened and filled with the text-file: the erroneous line is inverted and the cursor is positioned at the error position. Take into aspect that a value of 200 was set in the  $T_EX$  settings menu for the underfull boxes to be taken into account!

| -  | xtem  | 1                       |
|--|---|-------------------------|
| exit help clear text field reset to defa   |   | cancel<br>xtem settings |
| personal (current) settings: display sa  | – confirm   | E k                     |
| ~f file/directory selection  | All hyphenations correct  | ct?                     |
| ~e edit: emacs& xtem_texmenu_eng.tex   | i.e. move to file 'xtem_texmenı   | u ena bok'              |
| ~q quick&dirty: latex xtem_texmenu_eng   | i.e. move to me stem_texment  | I_eng.nek               |
| ~x TeX format: latex xtem_texmenu_eng.   | yes no  |                         |
| ~v preview: xdvi& xtem_texmenu_eng.dv  |   |                         |
| ~p print: dvips xtem_texmenu_eng.dvi ->  |   |                         |
| ∼c clean up  |   |                         |
| <pre>&lt;'gunzip -c xtem_d_main.eps.gz&gt; &lt;'gunzip<br/>&lt;'gunzip -c xtem_e_logtagedit.eps.gz&gt; &lt;'g<br/>&lt;'gunzip -c xtem_e_drucker.eps.gz&gt; &lt;'gunz<br/>&lt;'gunzip -c xtem_e_edithelp.eps.gz&gt; &lt;'gun<br/>&lt;'gunzip -c xtem_e_sonstige.eps.gz&gt;) [6]<br/>[14] [15] (xtem_texmenu_eng5.tex) [16] (x<br/>(see the transcript file for additional i<br/>Output written on xtem_texmenu_eng.dvi (1<br/>Transcript written on xtem_texmenu_eng.lo</pre> | unzip -c xtem_e_files.eps.gz><br>ip -c xtem_e_druckersel.eps.gz><br>zip -c xtem_e_aufklaren.eps.gz><br>[7] [8] [9] [10] [11] [12] [13]<br>tem_texmenu_eng.aux) )<br>nformation)<br>6 pages, 24504 bytes). |                         |
| +15:55:44 Check of hyphenations (under te<br>hyphen_show -c OT1 xtem_texmenu_eng xtem_   |   |                         |
| hyphen_show V.CO1/4.7.97<br>coding: OT1<br>same words are given only once  |   |                         |
| <pre>[1]<br/>Unix-computers.<br/>Ger-many<br/>[2][3]<br/>ad-ministrator<br/>com-mands/progr<br/>[4]<br/>re-moved;<br/>[5][6][7][8][9][10][11][12][13][14][15][1<br/>number of hyphenations: 10<br/>already known/multiple: 5<br/>+15:55:45 finished!</pre>   |   |                         |
| already known/multiple: 5<br>+15:55:45 finished!<br>   |   |                         |
| K  |   |                         |

Figure 5: According to the settings (see  $T_EX$  settings menu, figure 3) after the  $IAT_EX$  run the hyphenations are looked for. 10 hyphenations are found, 5 of them are displayed; the other hyphenations were formerly inlcuded in a file with "hyphenations already checked to be correct". The hyphenations currently displayed can easily be added to this file by clicking at "yes". If necessary the user can directly edit this file.



Figure 6: the menu for the selection of files and directories, after demanding helps to input a new directory (right mouse click at "new directory").

| exit help clear text field reset to defaults   | printer settings printer pre-selection  |
|--|---|
| ersonal (current) settings display   |   |
| ctual printer settings: HPLaserjet IV, Ip1, postso<br>ist of printers:   | ript:dvips, letter_landscape, single-sided, 300dpi, LRW, b&w  |
| HPLaserjet IV, lpl, postscript:dvips<br>HPLaserjet IV, lpl, postscript:dvips<br>HPLaserjet IV, lpl, postscript:dvips<br>HPLaserjet IV, lpl, postscript:dvips   | , A4_landscape, single-sided, 300dpi, LRW, b&w<br>, A4_portrait, single-sided, 300dpi, LRW, b&w<br>, legal_landscape, single-sided, 300dpi, LRW, b&w<br>, legal_portrait, single-sided, 300dpi, LRW, b&w<br>, letter_landscape, single-sided, 300dpi, LRW, b&w<br>, letter_portrait, single-sided, 300dpi, LRW, b&w |
| rinter driver option string (change it at your own ) @ -t letter -t landscape rinter option string (change it at your own risk!) ) -c -dlp1 @  | -   |
| at the moment the following items are  |   |
| printer : lp1<br>driver : dvips<br>print format : letter_landscape<br>driver options : @ @ -t letter -1<br>print file suffix : .ps<br>print command : lp<br>printer options : @ -c -dlp1 @<br>printer selection: lp1 postscript:dv | /ips * * 300dpi * b&w   |
| Note: In order to match the format (ju<br>currently selected previewer has been<br>ghostview& (in background), letter_1  | changed to:   |

Figure 7: 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).

| -                    |   | printer se   | ttings                    |   |   |   |   |
|----------------------|---|--|---------------------------|---|---|---|---|
| exit help clear      | r text field reset  | to defaults  |                           | printer p   | pre-selection   |   |   |
| personal (current)   | settings display  |  |                           |   |   |   |   |
| 1 .                  | ings: HPLaserjet l  | V, Ip1, postscript:dvips, le                                 | etter_landscape, single-s | ided, 300dpi, LRW, b                                | %w  |   |   |
| list of printers:    |   |  |                           |   |   |   |   |
|                      |   | tscript:dvips, lette<br>ript:dvips, letter_p                 |                           |   |   |   |   |
| printer driver optio | on string (change   | it at your own risk!):                                       |                           |   |   |   |   |
| @ @ -t letter -t la  | andscape  |  |                           |   |   |   |   |
| printer option stri  | ng (change it at yo   | our own risk!):  |                           |   |   |   |   |
| @ -c -dlp1 @         |   |  |                           |   |   |   |   |
| new value for        | "resolution" :  | selected: 300dpi   | printer pr                | e-selection   | A   |   | 4   |
| * postscript:        | exit help res   | et to defaults<br>of 27 combinations (prir                   |                           |   |   |   |   |
|                      | printer   | emulation:driver   | format                    | double-sided  | resolution  | department  | color   |
|                      | <ul> <li>★ (all)</li> <li>↓ jep2</li> <li>↓ lp0</li> <li>↓ lp1</li> <li>↓ xlw1</li> </ul> | <pre>◇ * (all)<br/>◇ PCL:dvijep<br/>◆ postscript:dvips</pre> | <pre>   * (all)</pre>     | <ul> <li>★ (all)</li> <li>♦ single-sided</li> </ul> | <ul> <li>♦ * (all)</li> <li>♦ 300dpi</li> <li>♦ 400dpi</li> <li>♦ 600dpi</li> </ul> | <ul> <li>★ (all)</li> <li>♦ FB1</li> <li>♦ LRW</li> </ul> | <ul> <li>★ (all)</li> <li>↓ b&amp;w</li> <li>↓ color</li> </ul> |

Figure 8: the printer pre-selection menu, after selection of postscript, letter\_portrait and 300dpi.

|   | syntax   |            |  |   | 4   |  |       |
|---|--|------------|--|---|---|--|-------|
| e | tit top level help window  | display    | current                                  | t example windows   |   |  |       |
|   | previous help window   |            |  |   |   |  | 1     |
|   | Footnotes  |            | exit                                     | results of the examp  | les to  | o the current syntax window  | '<br> |
| П |  |            | Foot                                     | notes <sup>1</sup> are numbered <sup>2</sup> a  | autor   | iatically.   | A     |
|   | <pre>Syntax:<br/>\footnote [integer]{footnote_text}<br/>\footnotemark[integer]<br/>footnotetext[integer]{footnote_text}<br/>integer: optional, to make numbering by the user himself<br/>automatically incremented footnote counter.<br/>More Commands/Counters Relating to Footnotes:<br/>\setcounter {footnote}{integer}<br/>\addtocounter{footnote}{integer}</pre>  | instead of | 1<br>In se<br>aid o<br>tecte<br>Anic<br> | Footnotes in<br>ectional headings, foot<br>of \footnotemark and<br>ed by \protect.<br>mals: Gnats <sup>4</sup> and eleph<br>and this is the text of the fo<br>Of course you can influence | hea<br>notes<br>\foot<br>nants <sup>5</sup><br>cootnot<br>this! | ndings <sup>3</sup><br>must be produced with the<br>tnotetext and must be pro- |       |
|   | \stepcounter {footnote}<br>\footnotesep <i>gap</i> controls the vertical gap between 2 Footnot   | otes       |  |   | 1   |  |       |
|   | \renewcommand{\footnoterule}{\rule{ <i>width</i> }{ <i>height</i> ]  | ⊦\vspace   | e { – heig                               | ht }}   |   |  |       |
|   | width         horizontal width of the rule between main           height         height of the rule between main text and  |            | footnote                                 | es  |   |  |       |
|   | gap, width and height are length specifications  |            |  |   |   |  |       |
|   | <pre>\renewcommand{\thefootnote}{\numbering_style }     [numbering_style] is explained elsewhere.</pre>  |            |  |   |   |  |       |
|   | Description:   |            |  |   |   |  |       |
|   | Usually the $footnote$ command is used to produce footnotes. As this command is forbidden in some places (LR-boxes, tables in these cases the footnote marks are set with $footnotemark$ produced "outside" with $footnotetext$ .  | , math-n   |  |   |   |  |       |
|   | Hint: Some of these commands are "fragile commands", which<br>\protect command if they are used in <u>"moving arguments</u>  |            | orotecte                                 | d with a  |   |  |       |
|   | Examples:  |            |  |   | ******  |  |       |
|   | $\label{eq:logitht} $$ \renewcommand{footnoterule}{rule{10mm}{0.2mm}} $$ $$ -0.2mm \renewcommand{footnoterule} $$ $$ -0.2mm renewcommand{renewcomm$ | n}}        |  |   |   |  |       |
|   | Footnotes\footnote{And this is the text of the footnote} are<br>\footnote{Of course you can influence this!}<br>automatically.   | numbered%  | 6  |   |   |  |       |

Figure 9: the  $\ensuremath{\mathbb{A}}\ensuremath{\mathrm{T}_{E}}\ensuremath{\mathrm{X}}$  syntax helps.



Figure 10: clean up.



Figure 11: the menu for execution of additional auxiliary programs

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## Basis for the use of xtem:

- Hardware: X11 screen (black&white or colour), keyboard, 3 button mouse.
- Software:
  - Unix system,
  - Tcl version  $\geq 8.0$  with Tk by J. Ousterhout
- Application software:
  - xtem available under GNU licence conditions
  - from CTAN servers
  - files: /pub/tex/xtem/xtem\_texmenu\_ger.pdf (German description)
     /pub/tex/xtem/xtem\_texmenu\_eng.pdf ((this) English description)
     /pub/tex/xtem/xtem\_texmenu.8.00.tar.gz (or version newer than 8.00)