## **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>E</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- tom	unused
reset to defaults	reset to the values given by the $T_{\!E\!}X$ administrator	unused
unlock (optional)	unlocking of the (automatically) locked 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- 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 selection	select/input & change the directory select/input of the main file name 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,); select whether the editor is to be called in background or in foreground
quick&dirty	quick $T_EX$ run with the text passed by "mouse grab" and previewing of the result of the $T_EX$ run	unused (is set together wit the TEX format presettings)
	this button can be modified with "Shift": quick $T_EX$ run is then done with "edit file" instead of "mouse grab"	
TeX format etc.	call the program tex with the displayed $T_{EX}$ 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 $T_{EX}$ run	select the format (tex, latex, slitex,); eventually select the memory size (nor- mal/bigtex); select the max. number of tex runs (references!); setting to start T <sub>E</sub> X run automatically when main file or edit file is modified; setting to nonstop mode or to dialog mode at T <sub>E</sub> X syntax errors; settings to the display of hyphenations done by a T <sub>E</sub> X run; settings to the transcript analyze (after T <sub>E</sub> X run)
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
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 $\rightarrow$ printer or not; this button can be modified with"Shift": printing is then done directly without call of the "printing menu"	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
clean up	select the file suffixes of the files to be removed; you get a list of file names to be re- moved; if you click names from this list, these 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 (optional)	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 (optional)	starts the syntax check program with the displayed file	select the syntax check program and its ver- bose mode; if necessary: modify the program option string
make index (optional)	starts the index preparing program for the displayed file	select the index preparing program; select whether the index preparing program is to be started automatically after $T_EX$ run (if necessary) or not; if necessary: modify the program option string
bibliography (optional)	starts the bibliography preparing pro- gram with the displayed file	select the bibliography preparing program; select whether the bibliography preparing program is to be started automatically af- ter $T_EX$ run (if necessary) or not; if necessary: modify the program option string
additional programs (optional)	select a program from the list; at our installation there are programs for file converting such as: 'German umlaute' expanding $\rightarrow$ 'T <sub>E</sub> X' or 'German T <sub>E</sub> X' convention and vice versa, 8 bit ISO Code $\leftrightarrow$ IBM PC code, Unix format $\leftrightarrow$ DOS format, tabulator expansion, xfig,	unused
protocol file (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).

evit help clear text field reset to defaulte	sstern				
Lear ext neu	xtem settings				
personal (current) settings: display save lo	ad h LaTeX syntax local news				
~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	~i make index: makeindex sample				
~x TeX format: latex sample.tex	~b bibliography: bibtex sample				
~v preview: gv& sample.ps	~u additional programs (converting files etc.)				
~p print: dvips sample.dvi -> Prt1	~I transcript file: tla sample.log				
~c clean up					
This is xtem's top level menu (X11 Te	X menu)				
call: xtem [_llanguage][file	name[.tex] ]				
Menu items are started (using the dis left mouse button on the correspondin	played files, etc.) by clicking the g button.				
You can change the settings (file names, specifications for runs, etc.) in the setting menus. You can get to them by clicking the middle mouse button on the corresponding button.					
**************************************					
setting menus) you can use the scrollbar in order to position the text (up/down).					
Have fun with xtem – the authors a					
Copyright 1996 G. Lamprecht, W. Lotz, R. Weibezahn; LRW/IWD, Bremen University e-mail: weibezahn@iwd.uni-bremen.de WWW: http://www.iwd.uni-bremen.de/xtem/xtem_texmenu.html					
xtem:6.12–LRW Tcl:8.0 Tk:8.0 infox mkcommand.6 byteOrder littleEndian osVersion 5.6 machine i86pc platform unix os SunOS InstDir: /usr/local/xtem/xtem/locals_english					
xtem is free under the Gnu license conditions (public domain). It requires Tcl/Tk from John K. Ousterhout (also public domain).					
We thank Katherine Wipf for the caref (new errors may be introduced by ours	ful proofreading of the English texts elves in the course of updates!)				

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

F	xten:			
Ende Hilfen Löschen Text-Feld Grundstellur	ng ]			
	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] ]			
Drücken der linken Maustaste im entsprechenden Feld. Einstellungen (Dateinamen, genaue Spezifikationen zur Ausführung) ändert man in Untermenüs, die durch Anwahl des betreffenden Menüpunktes mit der mittleren Maustaste erscheinen. ***********************************				
kann man vorwarts/rückwärts mit Hilfe des zugehörigen Schiebebalkens (Scrollbar) positionieren. Viel Spaß, die Autoren @				
Copyright 1996 G. Lamprecht, W. Lotz, R. Weibezahn; LRW/IWD, Bremen University e-mail: weibezahn@iwd.uni-bremen.de WWW: http://www.iwd.uni-bremen.de/xtem/xtem_texmenu.html				
byteOrder littleEndian osVersion InstDir: /usr/local/xtem/xtem/locals_	ксоттала.ь 5.6 machine i86pc platform unix os SunOS german			
xtem ist unter den Gnu-Lizenzbedingun und setzt das ebenfalls frei verfügba	gen frei verfügbar (public domain) re Tcl/Tk von John K. Ousterhout voraus.			

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

	TeX settings	ere in de la constant de la constant 1100 - 2000 2000 - 2000				
exit help clear text field reset to def	aults					
personal (current) settings display						
format (TeX/LaTeX/):	# of TeX runs:	hyphenation check:				
♦ LaTeX2e	 ∖ 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	the transcript analyze.				
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 lex r	uns.					
A number > 1 means "this is	the maximum numbers of TeX rur	15".				
There will be several runs u TeX runs" is reached, or unt are complete.	ntil either the selected "max. il the table of contents, cros	number of ss references, etc.				
When the auxiliary files (". consistent (i.e. they no lon TeX runs are stopped. Thus	aux": table of contents, label ger change from one TeX run to no unnecessary TeX runs are ma	/ref, etc.) are the next), the de.				
For short tables of contents For long tables of contents,	, 2 (max. 3) TeX runs are usua 3-4 TeX runs may be necessary	ully necessary. '.				

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>				
avit hain along saus siated baansee	exit save changes file: testinc.tex / line.column: 6.34				
Text Treat text there is a set to	preceding error next error				
personal (current) settings display	Of course you don't want overfull boxes in your output, 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				
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. 1.6 Experiment~3, since \Tex \					
Underfull \hbox (badness 914) []\OT1/cmr/m/n/12 But first le		Ā			
Underfull \hbox (badness 184) \OT1/cmr/m/n/12 po-ten-tially	! Undefined control sequence. Experiment~3, since \Tex \ reported some potenti	ally			
) Underfull \hbox (badness 279) []\OT1/cmr/m/n/12 First no-tic [1] (testfile.aux) ) (see the transcript file for a Output written on testfile.dvi Transcript written on testfile	in paragraph at lines 2124 e that the con-text in-for-ma-tion dditional information) (1 page, 1380 bytes). .log.				
+15:14:12 finished!					
analyze of the TeX transcript	(''logfile'') will now be done				
*** transcriptfile: testfile.log (OverfullBoxes>0.0pt, UnderfullBoxes>200) *** left mouse click at a tag to edit the corresponding text in the TeX file (close possiblly existing editor windows before this!)					
<pre>Dverfull \hbox (10.27815pt too wide) in paragraph at lines 1214 (testfile.tex:12) ! Undefined control sequence. Experiment~3, since \Textrem \ reported some potentially (testinc.tex:6) Underfull \hbox (badness 914) in paragraph at lines 59 (testinc.tex:5) Underfull \hbox (badness 279) in paragraph at lines 2124 (testfile.tex:21) [1]</pre>					
this transcript analyze is sti if an error occurs, please sen .de	ll under development; 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	ults	cancel 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 'ytem teymen	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		
<'gunzip -c xtem_d_main.eps.gz> <'gunzip <'gunzip -c xtem_e_logtagedit.eps.gz> <'g <'gunzip -c xtem_e_drucker.eps.gz> <'gunz <'gunzip -c xtem_e_edithelp.eps.gz> <'gun ('gunzip -c xtem_e_sonstige.eps.gz) [6] [14] [15] (xtem_texmenu_eng5.tex) [16] (x (see the transcript file for additional i Output written on xtem_texmenu_eng.dvi (1 Transcript written on xtem_texmenu_eng.lo	-c xtem_e_tex.eps.gz> unzip -c xtem_e_files.eps.gz> ip -c xtem_e_druckersel.eps.gz> zip -c xtem_e_aufklaren.eps.gz> [7] [8] [9] [10] [11] [12] [13] tem_texmenu_eng.aux) ) nformation) 6 pages, 24504 bytes). g.	
+15:55:44 Check of hyphenations (under te hyphen_show -c OT1 xtem_texmenu_eng xtem_	st): texmenu_eng.hck	
hyphen_show V.CO1/4.7.97 coding: OT1 same words are given only once		
<pre>[1] Unix-computers. Ger-many [2][3] ad-ministrator com-mands/progr [4] re-moved; [5][6][7][8][9][10][11][12][13][14][15][1 number of hyphenations: 10 already known/multiple: 5 :15:55:45 finished!</pre>	ams 6]	
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").

- printer settings	2 I
exit help clear text field reset to defaults pr	rinter pre-selection
personal (current) settings display	
actual printer settings: HPLaserjet IV, Ip1, postscript:dvips, letter_landscape, single–sided, 300dpi, L	_RW, b&w
list of printers:	
HPLaserjet IV, lpl, postscript:dvips, A4_landscape, single-sided, 300dpi, LR HPLaserjet IV, lpl, postscript:dvips, A4_portrait, single-sided, 300dpi, LRW HPLaserjet IV, lpl, postscript:dvips, legal_landscape, single-sided, 300dpi, HPLaserjet IV, lpl, postscript:dvips, legal_portrait, single-sided, 300dpi, HPLaserjet IV, lpl, postscript:dvips, letter_landscape, single-sided, 300dpi, HPLaserjet IV, lpl, postscript:dvips, letter_landscape, single-sided, 300dpi	W, b&w () , b&w () LRW, b&w () LRW, b&w () , LRW, b&w () LRW, b&w ()
heldsenjet iv, ipi, postscript:dvips, letter_portrait, single_sided, soudpi,	LRW, DGW
printer driver option string (change it at your own risk!):	
@ @ -t letter -t landscape	
printer option string (change it at your own risk!):	
@ -c -dlp1 @	
at the moment the following items are valid:	A
HPLaserjet IV, lp1, postscript:dvips, letter_landscape, single-sided, 300dpi,	LRW, b&w
<pre>printer : lp1 driver : dvips print format : letter_landscape driver options : @ @ -t letter -t landscape print file suffix : .ps print command : lp printer options : @ -c -dlp1 @ printer selection: lp1 postscript:dvips * * 300dpi * b&amp;w</pre>	
Note: In order to match the format (just selected), the format of the currently selected previewer has been changed to: ghostview& (in background), letter_landscape	

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		4				
exit help clear	r text field reset	to defaults		printer p	pre-selection				
personal (current)	versonal (current) settings display								
actual printer sett	ings: HPLaserjet l	V, Ip1, postscript:dvips, le	etter_landscape, single-s	ided, 300dpi, LRW, b	•&w				
list of printers:									
HPLaserjet II HPLaserjet IV	IP, xlwl, pos , lpl, postsc	tscript:dvips, lette ript:dvips, letter_p	er_portrait, single− ortrait, single−sid	sided, 300dpi, L ed, 300dpi, LRW,	RW, b&w ∆ b&w				
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		A				
* postscript: exit help reset to defaults selected: 2 out of 27 combinations (printer/emulation,)									
	printer	emulation:driver	format	double-sided	resolution	department	color		
		<pre>◇ * (all) ◇ PCL:dvijep ◆ postscript:dvips</pre>	<pre>     * * (all)     &amp; A4_landscape     &amp; A4_portrait          d legal_landscape          legal_portrait          letter_landscape          letter_portrait</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	curren	t example windows			
	previous help window			syntax	help	footnote	1
	Fastnatag		exit	results of the examp	les to	o the current syntax window	' 
П			Foot	notes <sup>1</sup> are numbered <sup>2</sup> a	autor	iatically.	A
	<pre>Syntax: \footnote [integer]{footnote_text} \footnotemark[integer] footnotetext[integer]{footnote_text} integer: optional, to make numbering by the user himself automatically incremented footnote counter. More Commands/Counters Relating to Footnotes: \setcounter {footnote}{integer} \addtocounter{footnote}{integer}</pre>	instead of	1 In se aid c tecte Anin <sup>1</sup> A <sup>2</sup> C <sup>3</sup> T <sup>4</sup> S <sup>8</sup> L	Footnotes in ectional headings, footo of \footnotemark and ed by \protect. mals: Gnats <sup>4</sup> and eleph and this is the text of the fo Of course you can influence they are possible, of course mall insects arge animals	hea notes \foot nants <sup>5</sup> cootnot this! ; this e	ndings <sup>3</sup> must be produced with the tnotetext and must be pro- e example shows you how to do it.	
	\stepcounter {footnote} \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	text and footnotes	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, math-mode for example), in these cases the footnote marks are set with \footnotemark, the footnote text is produced "outside" with \footnotetext.						
	Hint: Some of these commands are "fragile commands", which \protect command if they are used in <u>"moving arguments</u>	must be p "].	orotecte	d with a			
	Examples:				******		
	$\label{eq:loss_loss} $$ \respective_{10mm}_{0.2mm} = \{-0.2mm\} \respective_{0.2mm} \r$	n}}					
	Footnotes\footnote{And this is the text of the footnote} are \footnote{Of course you can influence this!} 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)