$T_E XT1$ Goes Public Domain

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 $T_{E}XT1$ is a macro package for use with plain that has been available for purchase for several years. Beginning in January 1990, $T_{E}XT1$ went into the TFX public domain collection of macros.

In 1983, a decision was made at Washington State University to put time into creating a set of macros to be used with T_EX. This macro set was to provide many of the functions found in IAT_EX: multiple columns, table of contents, indexing^{*}, chapters, lists, boxes, margin notes, etc. Yet there were to be two important differences:

- 1. The PLAIN.TEX commands would be able to be used in $T_{E}XT1$.
- 2. Modifying the $T_E X T1$ formats would be considerably easier than modifying LATEX styles.

The resulting set of macros met the above criteria. One important exception was that no attempt was made to give $T_{E}XT1$ a picture environment such as the one in IATEX. The documentation for $T_{E}XT1$ consists of a 300 page Reference Manual and a 100 page Users Guide. These must still be purchased; see below for details.

Changing the Formats

As an example of how easy it is to modify the T_EXT1 formats, if you want to increase the bottom margin from 6 to 7 picas, you can simply specify:

```
\pageformat{\bottommargin{7pc}}
```

Or if you wanted your running head to contain the chapter title left-justified and the page number right-justified on odd pages, and the chapter title right-justified and the page number left-justified on even pages, you could say:

```
\runningheadformat{
  \oddpages{\line{\lft{\chaptertitle}
      \rt{\pagenumber}}}
  \evenpages{\line{\lft{\pagenumber}
      \rt{\chaptertitle}}}
}
```

For one last example, it is often desirable to change the text embedded within macros. For example, by default if you say:

\chapter{Introduction}

you would get "Chapter 1" at the top of the next page in bold, with "Introduction" centered below that. If you were using $T_{E}XT1$ in Germany, you would probably prefer "Kapitel" instead of "Chapter", so you could change the chapter's format to say:

```
\chapterformat{
   \titleformat{\newpage
      \centerline{%
        \bf Kapitel \chapternumber}
      \centerline{\bf\chaptertitle}
      \vs{1\bl}
   }
   \incontents{yes}}
```

Then in your text you would specify the introduction (first chapter) as:

\chapter{Einleitung}

Additional Products

Other products that came out of this project and are now going into the public domain are a typesetter driver for the Compugraphic 8600 and additional fonts.

□ Typesetter Driver. The Compugraphic driver is written in WEB. It has the ability to add line numbering to the DVI output as it is printed on the 8600. The program does include some Pascal statements unique to IBM's Pascal/VS, so a change file would be necessary for any operating system other than IBM's VM/CMS.

□ Additional Fonts. Extra fonts were created from the base Computer Modern. These were Computer Modern at 11, 12, 14, 18, 24 and 36 point sizes. I do not know yet if I can call these Computer Modern, but I have asked Professor Knuth for permission to do so.

In addition to the larger Computer Modern fonts, we also created an International Phonetic Alphabet in 9, 10, 11 and 12 point sizes. The IPA font is illustrated at the end of this article.

How to get T_EXT1

You can get any of the above T_{EXT1} products on diskette or by anonymous FTP. Also, I will be distributing T_{EXT1} to the various site coordinators who can determine whether to place it on their distribution.

To obtain $T_{E}XT1$ on diskette from Jon Radel, send a note to

^{*} The three different index styles illustrated in Appendix A in TUGboat 1, no. 1 can all be achieved with $T_{FX}T1$'s index macros.

TUGboat, Volume 11 (1990), No. 1

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and ask for $T_{E}XT1$ (4 disks). To cover postage and other expenses, if you are in North America, please enclose \$1.50/disk if you send blank disks or \$5.00/disk if you don't; if you are anywhere else in the world, enclose \$2.00/disk if you send blank disks or \$6.00/disk if you don't. μ T_EX and PC T_EX use different directories, so specify which of these two you are using. If you are using neither of these, then just specify PC T_EX. You should also specify whether you want pk (3 disks) or gf (5 disks) font files for the additional fonts (these do not include the IPA fonts).

You may also request T_EXT1 for a Macintosh from Jon (1 disk). It is set up to run with *Textures*.

To order the IPA fonts from Jon, request the WSU IPA font. This consists of two diskettes: 1) the IPA source files and Users Guide, and 2) pk or gf files.

To get T_EXT1 by anonymous FTP, you can connect to the machine BOBCAT.CSC.WSU.EDU. If that does not work, use 134.121.1.1. Bobcat is a VAX 11/785, and is prone to being a bit slow at times. Log on as ANONYMOUS, (the password *must* be GUEST), and change to the TEXT1 directory. You will see ten subdirectories from which you can GET files:

- 1. BLOCKS: this directory contains all of the default formats (or building "blocks" such as the chapterformat, runningheadformat, etc.)
- 2. CMS_HELP_FILES: these are some of the help files used on the CMS system at WSU. Some sites have taken these files and used them in creating help files on a PC or on a VAX.
- 3. COMPUGRAPHICS_8600: this is the Compugraphic 8600 phototypesetter driver program, and its various utilities. Not very much documentation here, so venture further on your own.
- FONTS: This is the source for the additional Computer Modern fonts generated, such as 11, 14, 18, 24 and 36pt sizes.
- 5. MACINTOSH: this contains the index sorting facility used with $T_{E}XT1$. It is written for Turbo Pascal. (The executable binary can be obtained from Jon Radel if you do not have Turbo Pascal yourself.)
- 6. MACROS: this contains the $T_E X T I$ macros. The file TEXT1.TEX is used with IniTEX to create a new fmt.

- 7. MODELS: contains various simple models such as letter, resume, etc. It also contains a model (MERGETXT) which can be used as a model for merge letters. For example, you could tell Dbase III to create an address list, merge it with a standard letter, and using the model print a copy for each person.
- 8. TEXIX: the sorted index program used with $T_{E}XT1$. Presently the only systems this is running on are CMS and Macintosh. TEXIX for VAX and PC systems is in the works.
- 9. VAX_VMS: when ready, this will have the sorted index for VMS users.
- 10. WSUIPA: This contains the source for the International Phonetic Alphabet, as well as the tfm and 300pk files.

T_EXT1 Documentation

The documentation for $T_E X T I$ is not free. At present, the documentation must be ordered through:

T_EXT1 Distribution Computing Service Center Washington State University Pullman, WA 99164-1220

The cost is \$35 for the Reference Manual and \$25 for the Users Guide. (Add \$5 postage if outside the U.S.) The manuals are not yet available through the TEX Users Group, but I hope to have them there as soon as I find a publisher.

If you have any questions, feel free to send me an email note on Bitnet at GUENTHER@WSUVM1 or to GUENTHER@WSUVM1.WSU.EDU on Internet.

> Dean Guenther Computer Service Center Washington State University Computer Science Building Pullman, WA 99164 Bitnet: GUENTHER@WSUVM1

See following page for display of IPA font.

	<i>`0</i>	<i>`1</i>	2	<i>`3</i>	<i>`</i> 4	- 15	<i>`6</i>	7		
	в	a	α.	σ	Λ	đ	b	þ	″0x	
	б	β	¢	ą	С	đ	đ	ø		
	ď	d	dз	ð	D	ə	ð	е	″1x	
	ε	3	3.	3	9	g	G	γ		
	γ	x	h	ħ	ĥ	ĥ	ч	i	″2x	
	ł	ι	I	÷.	J	t	ł	4		
	l	ł3	λ	χ	ŋ	ш	ų	n	″3x	
	ŋ	η	N	\odot	θ	Э.	ω	ω		
	ω	₽	þ	φ	ſ	r	t	L.	~4x	
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	t	ţſ	, J	θ	ť	уĭ	ប	U	″5x	
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WSUIPA10

IPA font available from Washington State (see previous article).

Solution to crossword of *TUGboat* 10, no. 3:

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⁸ A	С	А	D	Е	Μ	I	А		H	-	U		D	
R		Μ		К		R		°В	R	А	С	к	Е	Т
¹⁰ A	L	Ρ	Н	А		Е			U		Н		Ν	
D		0		М		M	12 A	G	Ν	Е	S	Ι	Т	Е
¹³ S	С	R	E	Е	Ν	E	D		κ				I	
		Т		Т			А		¹⁴ E	$\overset{15}{G}$	R	Е	Т	S
	E ¹⁶			¹⁷ E	18 N	D		¹⁹ G	Ν	۰U			Y	
20 S	Q	U	А	R	Е		G^{21}			Т		²² S		
	U				W		²³ A	²⁴ S	Т	Е	R	0	1	²⁵ D
$B^{^{26}}$	А	С	²⁷ K	S	L	Α	S	Н		Ν		R		0
	Т		N		1			Ę		²⁸ В	E	G	1	Ν
²⁹ M		Ν	U	E	N	D		А		Е		Н		А
	0		Т		E		³⁰ O	V	E	R	F	U	L	L
³¹	Ν	С	Н	E	S			Е		G		М		D