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"small" T<sub>E</sub>X

Lance Carnes

The world of small T<sub>E</sub>X is growing up. There are several new versions on small systems, as well as some exciting prospects for future versions.

The main news you have all been waiting for is, yes indeed folks, T<sub>E</sub>X is about to become available on your favorite home computer. There are three known projects underway to implement T<sub>E</sub>X on the IBM PC (8088 PC-DOS), and one possible version to be available for the Apple MacIntosh and Lisa.

I am working on one version for the IBM PC. At the time of writing, the project is well under way. The prototype version is targeted to run on the PC with maximum memory (640Kb). I am using the MS-Pascal compiler, running under MS-DOS.

David Fuchs is also working on T<sub>E</sub>X for the PC,

and is attacking the problem in a slightly different way. His first step was to take the Pascal code produced by TANGLE and translate it into C. At the present he has a running version, but with a minimal memory model.

David claims he will win the race to bring up the first full prototype. Read the next column to find out who won.

The third effort is by Ronny Bar-Gadda of Phillips Research Laboratory in Sunnyvale. I have no further details on his project at the time of this writing.

I would appreciate a note from anyone else working on T<sub>E</sub>X for a small system.

Dave Kellerman and Barry Smith are working on a version for the Apple MacIntosh and Lisa systems.

Jaap van 't Ooster of Océ in Holland has T<sub>E</sub>X running on the PERQ.

Below is the grid showing all known implementations on small systems, both existing and in development. If there are any corrections or additions, kindly get in touch.

"small" T <sub>E</sub> X implementations				
Manufacturer and model	Processor	T <sub>E</sub> X version	CPU secs. per page	Contact, organization
Hewlett-Packard 3000	16-bit	T <sub>E</sub> X82	10-30	Lance Carnes, T <sub>E</sub> X $\epsilon$ T
Hewlett-Packard 1000	16-bit	T <sub>E</sub> X82	10-30	John Johnson, JDJ Wordware
DEC PDP-11/44	16-bit	T <sub>E</sub> X80	10-20	Dick Gauthier, TYX
Plexus, Onyx	Z8000		10-30	
IBM PC	8086/88		10-30	
Apollo	MC68000	T <sub>E</sub> X82	2-10	Thom Hickey, OCLC; Bill Grop, Yale; Pierre Clouthier, COS Information
Hewlett-Packard 9836	MC68000	T <sub>E</sub> X82	6-10	Jim Crumly, HP Boise Div.
Sun	MC68000	T <sub>E</sub> X82		Jim Sterken, Textset; Rich Furuta, U of Washington
Corvus	MC68000	T <sub>E</sub> X82 <sup>2</sup>		
Cyb	MC68000	T <sub>E</sub> X82 <sup>1</sup>		Norman Naugle, Texas A&M
Apple MacIntosh, Lisa	MC68000	T <sub>E</sub> X82 <sup>1</sup>		Barry Smith, Dave Kellerman, Kellerman & Smith
Masscomp	MC68000	T <sub>E</sub> X82		Bart Childs, Texas A&M
Sage	MC68000	T <sub>E</sub> X82 <sup>2</sup>		
Synapse	MC68000	T <sub>E</sub> X82	10-30	Dick Wallenstein, Comcon
PERQ/ICL		T <sub>E</sub> X82		Jaap van 't Ooster, Océ, Holland
IBM PC, XT, AT	8088, 80286	T <sub>E</sub> X82 <sup>1</sup>		Lance Carnes, T <sub>E</sub> X $\epsilon$ T
IBM XT, AT	8088, 80286	T <sub>E</sub> X82 <sup>1</sup>		David Fuchs, Stanford
IBM PC, XT, AT	8088, 80286	T <sub>E</sub> X82 <sup>1</sup>		Ronny Bar-Gadda, Phillips Research Laboratory

<sup>1</sup> in progress or recently completed      <sup>2</sup> currently unimplementable