

Report from the DVI Driver Standards Committee

Don Hosek

The newly-constituted T_EX Users Group DVI driver standards committee has been working on the development of standards for device drivers since the fall of 1988. This article is a first report on our status to the membership of T_EX Users Group.

At the time of this writing, we are in the midst of discussion of `\special` standards for device drivers. By the T_EX Users Group meeting this August, we should have a preliminary report on this topic available for distribution to all interested parties. We welcome all input from members of the T_EX community; if you have any suggestions, comments, etc. regarding the issue of `\special` handling, we would appreciate it if you could send these to Robert McGaffey (internet: `McGaffey%Orn.Mfenet@Nmfecce.Arpa`) for distribution to the members of the committee.

The members of the committee are: Robert McGaffey, chair, Oak Ridge National Laboratory; David P. Babcock, Hewlett-Packard; Elizabeth Barnhart, TV Guide; Stephan v. Bechtolsheim, Integrated Computer Software Inc.; Nelson Beebe, University of Utah; Jackie Damrau, University of New Mexico; Donald Goldhammer, University of Chicago; Don Hosek, University of Illinois at Chicago; David Ness, TV Guide; Thomas J. Reid, Texas A&M University; David Rodgers, Arbortext, Inc.; Brian Skidmore, Addison-Wesley Publishing Co.; Glenn Vanderburg, Texas A&M University; and Ralph Youngen, American Mathematical Society.

Editor's note: Earlier TUGboat articles dealing with the subject of DVI driver standards include the following:

Robert McGaffey, The ideal T_EX driver, 8#2, 161-163.

Thomas J. Reid, DVI driver considerations for high-volume printing systems, 8#3, 287-291.

Glenn L. Vanderburg and Thomas J. Reid, `\special` issues, 8#3, 291-300.

Shane Dunne, Why T_EX should NOT output PostScript — yet, 9#1, 37-39; addendum, 9#2, 178.

High Quality Printing of T_EX - DVI Output Files in the VAX/VMS Environment

Marius Broeren & Jan van Knippenberg
Océ-Nederland B.V.

Océ-van der Grinten N.V. is the parent of an international group of companies, the Océ Group, which distributes, produces and develops a large range of copiers and copying supplies as well as office automation products, including word processors and laser printers, for both commercial and design engineering offices.

Océ-Nederland B.V. has developed the Océ 6750 laser printer. This printer is based on the well-known engine of the Océ 1900 copier family. The laser printer has a resolution of 508 dpi (20 dots/mm). The printspeed is 23 pages per minute. The heavy duty engine prints a target load of up to 200,000 pages per month. Paper input and paper output are as advanced as usual for the Océ copiers. The level of quality printing of the Océ 6750 laser printer is perfectly suited for printing the output of the high quality typesetting program T_EX. For this reason Océ has developed software for connecting the Océ 6750 laser printer to a wide range of VAX/VMS computers. On these VAX/VMS computers T_EX runs as an application and the T_EX-DVI files are converted to the ECMA/ODA protocol of the Océ 6750 laser printer. The combination of the high quality typesetting program T_EX, the VAX/VMS computer and the Océ 6750 laser printer is responsible for a high level of quality printing.

The Océ 6750 laser printer

In this part we will describe the printing process. The information of the VAX/VMS computer is received via an IEEE 488 interface. This information has the ECMA/ODA format and is processed in the Raster Image Electronics. Here the information is converted into pixels, a processable form for the Laser Scan Module. The electrophotographic process consists of six steps:

1. charging
2. exposure
3. developing
4. transferring
5. fusing
6. cleaning

1. Charging. The 370-inch continuous photoconductor is a polyester belt coated with a thin layer of zinc-oxide. Zinc-oxide has the following characteristics: in the dark it is not electrically conductive. It is an insulator. But when you expose