of \TeX\-DVI files to ECMA/ODA. The software
developed by Oc\é contains:
1. the printer protocol
2. the symbiont
3. the conversion programs
4. the font management tools

1. **The printer protocol** The Low Level and
the High Level Printer Protocol (LLPP and HLPP)
take care of the cooperation between symbiont and
the IEEE 488 device driver. The printer protocol is
used for informing the host about the printer status
and setting the printer in a certain status. The
font downloading procedures are also implemented
in the printer protocol. Other typical tasks of the
printer protocol are:
- sending/receiving packets to/from the Oc\é 6750
- initialize the printer at start time
- converting messages to packets (two way)
- font management

2. **Symbiont** The standard symbiont of the VAX
was not applicable to control the conversion pro-grams and the communication between the user
and the printer (two input trays, 20 output bins,
setwise, sortwise or personal printing, handle mes-ages coming from the printer etc.). Oc\é developed
a symbiont specially for the 6750. The symbiont
controls all the conversion programs and interacts
with the job controller. Typical aspects of the
symbiont are:
- error handling
- starting and controlling the HLPP and conver-
sion programs
- communicates with the job controller
- interpretes the DCL extensions and options
- including burst/flag/trailer pages

3. **Conversion programs** The conversion pro-grams re-sort under the “umbrella” of the symbiont
and take care of several conversions to ECMA/ODA,
the input standard of the 6750 laser printer. There
are converters for:
- LNO3 Plus to ECMA/ODA
- Lineprinter to ECMA/ODA
- \TeX\-DVI to ECMA/ODA

4. **Font management tools** With an easy to use
font-tool it is possible to use Metafont to generate
PXL-fonts. These are transformed to the Oc\é
format and can be downloaded to the printer.

The combination of the high quality typesetting
program \TeX, the VAX/VMS computers and the
Oc\é 6750 laser printer is responsible for producing
high quality documents.

If you wish to receive an original set of printouts
or additional information, please contact:
Oc\é-Nederland B.V.
Marius Broeren
Office Automation
P.O. Box 101
5900 MA VENLO
The Netherlands
tel. (0)77 - 592222

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**Query**

Editor’s note: When answering a query, please
send a copy of your answer to the TUGboat editor
as well as to the author of the query. Answers
will be published in the next issue following their
receipt.

**Output driver for Xerox 4045 on IBM 3090**

At Intevep, the Venezuela government research
facility for the petroleum industry, we work with
several kinds of computers. We have an IBM 3090-
200, two VAX 11/780, one Data General MV4000,
and 71 Sun Workstations.

We are running \TeX\ on almost all these ma-chines, but especially on the IBM, for almost three
years now.

The output from the IBM 3090 is done on an
IBM 3820, an IBM 4250, and several QMS 800 laser
printers.

Last year we bought 50 Xerox 4045 laser
printers for our needs of distributed printing. All
our people are asking for a \TeX\ driver for the 4045,
for proofing their work. We obtained a driver for
a Xerox 4045 connected to the IBM by means of
a serial interface, but all our printers have a coax
interface to the IBM.

We hope to find someone who has or wants to
develop this driver for our environment. The use of
\TeX\ in our installation will increase if we can find
this driver.

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