The spooler is written in FORTRAN 77 mainly for two reasons: our institute is concerned with High Energy Physics research and FORTRAN is the official language (and practically the only well known one) and in this way the package can achieve a high degree of modularity through routine libraries both for general purpose routines and for drivers. Therefore it should be easy for other users to develop and include new drivers for output devices different from the distributed ones. In addition our software should have a high degree of portability, as the non-ANSI code is confined in a well defined and small number of routines. Furthermore some debug utilities that were developed at the early stage of the spooler implementation (i.e. programs to print DVI files and to display PXL contents) could be used as already debugged nucleus for the spooler itself and can be distributed with the whole package.

The spooler reads the DVI file keeping always a record ahead in storage and creates a full bit map for a standard TeX page at a maximum of 300 dots/inch. The bit map is stored in a common array. As PXL information is variable in size and number of PXL files required per run, we have developed a simple method to allocate virtual memory through VAX/VMS facilities. The method takes advantage of the directory structure used to store the same fonts at different magnification and for different resolution devices. For this to work in a most convenient way, we have created a pilot file with names and sizes of font information.

The spooler can accept a certain amount of options (i.e. page selection, output device, magnification, etc.) in the form of VMS qualifiers, both lower and upper case allowed for file names and options. A list of valid qualifiers is printed when HELP is typed at prompt. To change magnification the qualifier /MAG=value is provided (ex. /MAG=1500 will produce a page at 300 dots/inch). If TeX was run setting the magnification to some value different from 1000, then this value is used, and the /MAG qualifier is ignored. The default value for MAG is 1000, that is 200 dots/inch. By default the output is produced on a disk file (file type .BIT), then the user can plot the page on any of the forseen devices, using the stand-alone version of the related driver. As already pointed out, the main idea of keeping the driver inside and outside the spooler itself is to enable other users to implement their own drivers for new devices with small effort.

If a device allows two different resolutions (as Tektronix 4014), the driver is able to handle both, with default set to high resolution; if the device offers a sufficiently high resolution, a complete A4 page width can be displayed, thus providing a reasonable proofreading feature. In the case of VT displays, to speed up the drawing of one page the bit map is plotted using vectors, and the driver signals the end of one page using the bell and waits for the return key before going to the next one. For the printer the driver sets no limit to page length. As VT125 vertical resolution is 480 with odd y emulation (i.e. 240 pixels), the output may seem strange as some lines may look taller than others. The driver for the dot matrix printer has been written making use of the pin adressability feature. To enable the use of the program as a guide line for other similar devices, this driver makes use of one single pin.

# Site Reports

## HOW TO GET THE LATEST NEWS VIA TeXHAX

Between issues of TUGboat, TeX users who have access to the Arpanet, BITnet or CSNet can get up-to-the-minute news of what's happening in the TeX community via TeXhax. A number of sites, particularly universities with active local populations of TeX users, have TeX bulletin boards that are already plugged into TeXhax, and most, although not all, of the TUG Site Coordinators are also linked in. To get your name added to the distribution list, send a network message to

TeXhax-request@SU-Score.ARPA

giving your name, full net address, and perhaps an indication of the particular sorts of things you're interested in.

If you have a query, some news, or a response to an earlier TeXhax message that you want to announce to everyone on the list, send it to

TeXhax@SU-Score.ARPA

Your message will be digested, along with other communications, and broadcast, with occasional editorial comments in [square brackets], by the acting TeXhax editor, David Fuchs. An attempt will be made to report items of general interest in the next issue of TUGboat.

Recent TEXhax communications have dealt with the following topics:

- Use of the variable name **first** in TEX version 1.3; this name doesn't meet ISO Pascal standards, and will be changed.
- LATEX, both inquiries and announcements of additional style files, including one for view-graphs and several for memos.
- The possibility of using a tty for "preview" output or on-line documentation.
- Requests for more information about, or explanation of, various macros defined in the *TEXbook*, such as \raggedbottom, \obeylines, \obeyspaces.
- Persuading TEX to consider hyphenating the second part of an already-hyphenated word.
- Inquiries about ports of TEX to particular computers or drivers for particular output devices. (In this regard, see the charts and associated list of contacts on pages 13–14; these include the latest information from both TEXhax communications and the TUG records.)
- Announcement of a macro package, BoTeX, designed for formatting Lisp manuals; inquiries to George J. Carrette, GJC@MIT-MC.
- Announcement of a shell script (for use with UNIX 4.2) to automatically generate a preloaded version, equivalent to using INITEX and VIR-TEX to generate TEX from plain.tex, or LATEX from lplain.tex; inquiries to Stephan Bechtolsheim, SVB@Purdue.
- Inquiries about fonts, including questions about bugs in existing fonts, whether particular fonts exist (e.g. cyrillic, and text fonts with smaller capital letters for typesetting German), and a request for help with sample input for the new **METAFONT** to test a new port. (Sample MF input is on the distribution tapes beginning with the set containing TEX 1.3.)

## PRIME SITE REPORT

John M. Crawford
Ohio State University

Things here have been pretty lively with respect to TEX. Over the past several months, I have enjoyed discussing TEX with many Prime users. Several sites in the United States, as well as England, Ireland and Australia have received the OSU Primos implementation of TEX. While on vacation, I was pleased to follow-up a tape delivery with a personal visit to a Prime site in Paris. Professor Laurent Breyton (E.S.I.E.E.) and I spent a very pleasant afternoon discussing some of the general problems one encounters with text processing French. We also examined "TEX in Pascal" implementation concerns (his group was working with a different compiler). Although I can not visit all Prime TEX sites, I am interested in knowing how things are progressing and welcome feedback.

My TEX distribution tape has matured. I now have TEX 1.1 available. This latest Primos port of TEX also contains some general improvements; existing sites will likely want to obtain the latest tape. The current TEX (dated 12/17/84) has been enlarged for LATEX. It also has return code hooks tied to the TEX *history* variable, and removes an accidental "feature" pertaining to the level of file protection required by TEX system files. Some of the TEX utilities have been improved as well. If you are interested in "REVing up", please me know. One unambiguous way to express your interest is to send a tape, which will be returned in short order with the goodies.

I spent a very cold January weekend working on implementing the new **METAFONT**. Following further testing, I expect **METAFONT** in its present form will be included on my distribution tape. This should occur, fingers crossed, by the time this TUGboat hits the newsstands.

On the device driver scene, I have operational a driver which can be used on Diablo-like devices (limitations accepted). I plan to use it to drive the Texas Instruments TI855 matrix printer, with enhancements permitting the dynamic utilization of the various font modules supported by the printer.

I have not vigorously tried to obtain a device driver for the Printronix 300 LPM matrix printer, but expect one would generate a lot of interest in TEX at other Prime sites. (The printer is marketed with many Prime systems.) If any friendly TEX users would like to contribute a driver for this lumpy device, please consider me interested. (I can read most any tape format, but a nicely blocked tape is best).

## UNIX TEX SITE REPORT

Richard Furuta

We have made some administrative adjustments in our handling of Unix TEX orders. Requests for information about Unix TEX and orders for Unix TEX now are sent to Pierre MacKay, in his role as the other Unix TEX Site Coordinator. His address and telephone number are:

Pierre MacKay
Computer Science, FR-35
University of Washington
Seattle, WA 98195
Telephone: (206) 545-2386
Arpanet/CSNet: MacKay@Washington
UUCP: ihnp4!uw-beaver!uw-june!mackay

Pierre will only rarely be in on Tuesdays and Thursdays because of his obligations with other departments on campus.

We now have Unix TEX for 4.1 bsd and 4.2 bsd on the VAX and 4.2 bsd on the Sun. Some Ultrix sites have ordered the TEX tape and since they haven't complained, I believe that the distribution also runs there. Still no System III or System V versions. The distribution is available on a 2400 foot magnetic tape reel and is written in **tar** format at 1600 bpi. To get it, send Pierre a check for $75 made out to the University of Washington and a copy of your 4.1 bsd or 4.2 bsd source license. If you don't have the source license, please note that in a cover letter and instead of sending you the entire tape, we'll send you a partial distribution that will work for the 4.2 bsd (and Ultrix) computers. We cannot accept purchase orders—if your company won't issue a check, please call for alternate instructions.

As mentioned, the distribution is on standard magnetic tape. There is a possibility that we can write parts of it onto the Sun's streamer tapes for those sites that cannot read magnetic tapes. However, the ordering details will certainly be different from those involving the standard media. If you require this, contact Pierre MacKay first to make arrangements.

So much for administrative matters—on to the technical status of the distribution. Our previous report (in the November TUGboat) covered through the beginning of October, 1984. This report is being written near the beginning of February, 1985.

In October, Chris Torek of the University of Maryland contributed another whiz-bang device driver—this time for the Imagen 8/300. The new driver is built using most of the modules developed for his previously submitted Versatec driver and is written in C. Reports are that it is significantly

faster than the previous Imagen driver although it does not yet have some of the niceties provided in the previous driver such as extraction of individual pages for printing. Both of the Imagen drivers are now on the tape. Also in October, Samuel Bent of the University of Wisconsin sent us his device driver for Digital's LN01 laser printer. Scott Jones of MIT submitted changes that make this driver usable on the LN01S. (A revised version of the LN01/LN01S driver went onto the tape in late January.) We still don't have a QMS driver on the distribution tape but we do have a couple of experimental ones that we have been making available to people who ask. One, by Karl Berry of Dartmouth, is a port of the WEB VMS driver written by Jane Colman of Lawrence Berkeley Laboratory. Another QMS driver, written in C, was provided to us some time ago by Bill White of Megatest.

TEX 1.2 and LATEX 2.07 arrived at the beginning of November. At the same time, we merged in the changes needed to get TEX, **tangle**, and **weave** running on the Sun II. More discussion about our TEX on the Sun will be at the end of this report. As mentioned in the last report, these changes were provided by Steven Correll (Lawrence Livermore National Lab), Rusty Wright (U.C. San Diego), and Charles Perkins and Mike Harrison (U.C. Berkeley). Thanks also to Howard Trickey for taking time out from dissertation writing to track down a bug in the port.

TEX version 1.3 was placed on the distribution at the end of December. At that time, there were also some updates to LATEX although the version number remained at 2.07.

Van Jacobson of Lawrence Berkeley Laboratory sent along a Scribe to LATEX conversion program. This program, called **s2latex**, is expected to get about 90% of the translation right the first time it is run. You can then add translation rules and generally get almost all of the way to a document that LATEX will accept. Some hand editing will get you the rest of the way there. Jacobson has translated the Gosling Emacs manual with this program. **s2latex** is written using **lex** and **yacc** in C. It was added to the tape in late December.

During this period, there have also been small bugfixes to **detex** and **delatex**. Some missing font magnifications were included. A new version of Lou Salkind's programs to convert PXL format files to RST format was acquired. A fix to Chris Torek's Versatec and 8/300 drivers, which fixes a bug which TEX doesn't encounter, will be installed soon. We also included a copy of the **patch** program in the distribution. **patch**, written by Larry Wall and

acquired via Usenet, recognizes the various output formats produced by the Unix **diff** program and merges the changes into the original copy. This makes it a lot more convenient for people on our electronic mailing list to merge in the bugfixes that we send out.

LaTeX 2.08 was released in late January and was put onto the Unix TeX distribution tape.

Since there is usually a lag of about a month between when I write the site report and when you see it, I'd like to close this segment of the report with some predictions about what might be in the Unix TeX distribution by publication time.

I expect that we will be getting a Unix version of WEB METAFONT in the very near future. Paul Richards of the University of Illinois has been doing the development and the reports I have received indicate that all is going well. It's another question, of course, as to when we will have font descriptions for the new Metafont, but I imagine other articles in this issue of TUGboat will tell you about that!

I also expect that an improved version of the Sun DVI previewer will become available. Jeff McCarrell of U.C. Berkeley has been working to produce a version that works within a window on the Sun (previous versions have taken over the entire screen for their display).

We have been using a prerelease of Oren Patashnik's **bibtex**, which will be LaTeX's bibliography processor. The **bibtex** user will prepare bibliography files in a format that is very similar to that used by Scribe. Our perspective is a little different, however, as potential developers of bibliography descriptions, we are also interested in using the provided implementation language. I have been very impressed with the power and flexibility of the language (much more powerful than the equivalent language in Scribe) and look forward to its eventual release.

### TeX on the Sun

I began by merging together the changes to the VAX distribution submitted by the gentlemen named above. There were surprisingly few changes—the primary one was a change to a variable declaration to avoid problems created by the different ordering of bytes in the two machines. The Sun we used for this purpose is located in the Computer Science Department and is running version 1.2 of Sun's software. It is a diskless workstation with two megabytes of physical memory. Compilation and loading was uneventful—the primary trick needed was to break up the source into multiple pieces.

(This approach was suggested by both Steven Correll and by the people at Berkeley.) When the source wasn't divided up, the assembler seemed like it would be perfectly happy to run forever (more about this later in an even more hostile environment—a one megabyte Sun). I have noticed similar effects on VAXes with small amounts of physical memory. When we broke the source up in four pieces, the process took a much more reasonable amount of time—on the order of two to three hours, a time in the same range as that on the VAX (but note, below, how this time increases for the one megabyte Sun).

I have been very pleased with the speed of the implementation—astonished, actually. On an unloaded Sun, the implementation seems to run at about the same speed as on an unloaded VAX 11/780 (both running 4.2 bsd). While it is clear that with appropriate compilers, the VAX implementation could run at least several times faster than it does now, this comparison indicates to me that the Sun TeX is quite serviceable.

TeX's library areas take up about one megabyte of disk space (with LaTeX but without any font bitmaps). The binaries for **initex**, **virtex**, a preloaded TeX, and a preloaded LaTeX require another three megabytes of disk storage.

At the present time, we've only tried compiling **tangle**, **weave**, **undump**, and the various forms of TeX.

Pierre's Sun is a one megabyte configuration. He sends along some notes on his experiences with TeX:

### TeX on a Small Sun

In addition to the growing network of Sun workstations located in the Department of Computer Science, and linked in the appropriate manner through the Ethernet, there is an isolated installation at the Department of Near Eastern Languages, where "TeX for Arabic Script" will one day become a reality. This unit has an 84-megabyte disk and only one megabyte of on-board memory, and is linked by a slow 1200-baud UUCP line to Computer Science. Even if the challenge of compilation had not been attractive, there would be very good reasons for not attempting to pass TeX binaries across such a channel. But trying to compile on a 1-megabyte Sun is not a simple matter.

I began by taking the makefile just as it is distributed with our Unix TeX tapes. This breaks up the output from the **pxp** prettyprinter into four modules, and the result is successful on a 2-megabyte Sun. On a 1-megabyte Sun, the attempt

to compile even a quarter of TeX produces what has been referred to as pathological paging. I let an unloaded machine work on initex1.p for 36 clock hours before I stopped it, and determined that the CPU (judging from the times shown in a ps listing) was working about 60% of its time on TeX. When I shut it off, the assembler had accounted for about 12 hours, and the page daemon for about 11 hours. There was no indication that the job would ever be finished. The percentage of time used by the page daemon was growing, and I suspect that 12 hours later the page daemon would have been taking the larger share of time.

So the answer was to break down TeX into even smaller units, and the obvious units were the individual procedures and functions. I now have **sed** scripts which separate TeX into all 333 procedures and functions for individual compilation, and it looks as if this may be the best way to handle the problem of compiling TeX on a large variety of smaller Unix systems. The **sed** scripts depend on the complete reliability of the **pxp** reformating, so they are as yet rather dependent on some 4.2 bsd features. Separate compilation is of course a must, and the loader must be reasonably sophisticated since it is impossible to get the full dependency statement onto one "line" in a makefile. (In case you have ever wondered, the limit for continuation lines in **make** appears to be about 50 medium length lines—2500 characters seems to be a good guess.)

Total time for "make initex" was 11 hours, and for "make virtex" about 10 hours. That includes the laborious working of the **sed** script to do the separation.

The intermediate stages of compilation require a large amount of disk space. Ten megabytes seems to be safe, and 8 may just be enough. The villains are the *.o files, which take a minimum of 23 KBytes each. Considerable savings would be possible by loading the first half of the executable file and ruthlessly eliminating all the related *.o files before compiling the second half. Even so, I should imagine that five megabytes of free disk is the absolute lowest limit for compilation. The ultimate executable file is quite reasonable: 696 KBytes for **initex**, and 324 KBytes for **virtex**. A fully loaded TeX, with plain.fmt preloaded, occupies 900 KBytes of disk space and **size** shows that about the same amount of virtual memory will be occupied when it runs. But, since the vast preponderance of that space is the huge general

purpose working storage, I suspect that I will rarely need to page in the last 300 KBytes in any actual run. On short files, even my *small* Sun is FAST.

## VAX/VMS SITE REPORT

Barry Smith

VAX/VMS version 4.0 is the current hot topic for VMS users. If your copy of TeX doesn't run, and complains about a bad parameter, give me a call — there's a one-byte patch that will correct the problem. What does it do? Well, embedded in the Pascal run time library is an undocumented Open() parameter that would have been written as 'prompt := always', and caused output to that file to be written immediately, with no buffering. This is useful for keeping terminal output up-to-date, as when TeX is displaying the current output page number. This internal parameter has been removed from VMS 4.0 (DEC? Remove a feature?) and the easiest fix is to remove its use as well. (There is a better solution that runs on all current VMS versions, but it can't be patched into existing systems.)

Andrew Trevorrow, Adelaide University, Australia, reports that he has a screen driver for several common graphic terminals including the Tektronix 4010/4014 series. This has been requested by several people. He said he'll be sending it on to us to add to the tape; contact Andrew directly if you're in a hurry.

The Macintosh TeX implementation project is going well; we've solved (twice) the addressing limitations of the Apple Pascal compiler and should be running code "in a couple of weeks". Meanwhile, Apple has introduced the LaserWriter and the AppleTalk network; should be easily the best cost/performance TeX system available.

One final note — we've moved. Our new address is

Kellerman & Smith
534 SW Third Avenue
Portland, OR 97204
  503-222-4234

# TEX for Tourists!

*James A. Cumiskey*
*Irish Tourist Board*

## Introduction

In November, 1982 Bord Failte – Irish Tourist Board received Oregon Software's release tape of TEX (the Pascal version as existed in 1980). We installed the TEX, WEB, WEAVE and TANGLE systems and the TFtoPL and PLtoTF programs on a Vax 11/750 running under VMS. Our principal interest was to produce camera-ready copy in-house for our range of tourism information guides on accommodation and catering premises and other tourism facilities.

After some months of experimentation (mainly on an Anadex and a Diablo) and having done an in-depth analysis of the market, we purchased a Mergenthaler (Linotype) CRTronic 150 phototypesetter and also prepared a device driver (DviPtu).

## Mergenthaler CRTronic 150 phototypesetter

The CRTronic is a CRT phototypesetting device with its fonts stored in digitized form on disk — a total of sixteen fonts can be available on-line (8 in memory, 8 on floppy disk). The CRTronic's output resolution is 50 scan lines per mm and estimated speed is 40 news-column lines per minute.

Output is produced on photographic paper which is then chemically processed to produce high-quality, high-resolution, high-contrast output for printing.

The CRTronic includes a complete editing system of its own, but we have generally ignored this in favour of editing on the VAX and producing blocks of output which are then copied downline to the CRTronic's floppy disk.

The range of type sizes available is from 4.5pt to 72pt. A very large range of fonts is available from the manufacturer's own "font-shop". To cater for our range of requirements, we purchased Times Roman, Italic and Boldface, Univers 45, 55, 65, and 75, and a set of special character fonts including all the general range of symbols needed in text and four "tourist-symbols" fonts.

For each font we prepared a property-listing file and then converted each to TFM format using the PLtoTF program.

## Device Driver program – DviPtu

Having gone through the TUG users list and found that no installation had yet prepared a device driver for the CRTronic, we wrote our DviPtu program to translate each DVI command to CRTronic readable commands. Our earlier experience with the Diablo and Anadex and study of other drivers helped a lot. We built a set of checks into DviPtu to ensure that all device-dependent parameters are correct before the job is sent to the CRTronic (for instance, page width and depth must be within certain limits).

Once DviPtu was ready, we then designed and developed a system for the computerization of our principal tourism information for publishing. This included screen-entry forms, proofreading programs and programs to output verified data with embedded TEX commands (macros, control sequences or primitives as required). Sets of macros were also prepared for each accommodation and catering guide to allow for differing formats and fonts.

## Operation of the Device Driver

Experience has shown us that the size of batches which can be set on the CRTronic depends to a large extent on the complexity of the material sent from TEX. For each job, (for instance, a guide-book), we tell the program the size of the batch that is required. As DviPtu reads the DVI file, it prints batches of pages to an output directory with the same filename as the input file and a file extension from .AA - .ZZ in alphabetical order of sets of pages output. We have prepared a command procedure to ease the use of TEX and DviPtu and to queue the output batches in a "typesetting queue" on the VAX. Each job is then released in turn on to the CRTronic and typeset.

**Other uses for TEX**

We also use TEX at Bord Failte to produce reports, notices, staff manuals, directories, drafts of documents to be typeset on the CRTronic including drafts on paper of each of the accommodation guides mentioned previously. To do this, we have prepared a device driver for our standard word-processing printers – Toshiba TH2100H's. Time-consuming runs can first be checked out on the Toshiba and quite high quality work can also be produced for various purposes.

**Future trends**

Having just completed our second year of guides production using this system, we are extremely pleased at the results we have achieved. This applies as much to TEX as to the CRTronic, which has more than proved its worth to us.

Several interesting activities face us in this new year. First we intend converting to the latest version of TEX. This is being installed right at the moment, and we are looking forward to Version 1.0's many new features and changes in our somewhat out-dated version.

We also intend purchasing a much larger and faster machine, the Linotron 202, by April this year, and to have all the necessary changes made in our device drivers by that time. This should guarantee us both greater speed (reported speed is about 700 news-columns per minute), and also a much higher level of batch-control than we could attain with the CRTronic while maintaining the quality of work produced.

| Hotel/Guesthouse Grade | Name, Address, Amenities and Telephone No / Total number of rooms / Number of rooms with bath/shower | Seasons | Overnight (b = Breakfast extra) Per Person Sharing IR£ | Single IR£ | Private bathroom per person Sharing IR£ | Breakfast (p = plain; f = full) IR£ | Dinner/ IR£ High Tea | % Reduction for Children | % Service Charge | INCLUSIVE RATES Weekend | 3 day Partial Board | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **H B** | **RINN RONAIN**, Rushbrooke Tel: (021)811407 ▦↩🄿▦▭M 12↩ 10⊞ | 1Jan-31Dec | 14.00b | 18.00b | inc | 4.50f | 12.00 ✕ | 20 | | 40.00 | 80.00 | 1 |
| **CORK CITY** map D2 | | | | | | | | | | | | |
| **H A⋆** | **JURYS**, Western Road Tel: (021)966377 Tlx: 26073 ▦↩🄿🐎▦↖↱🔲▭☞⚛🗡 ⛴S M 140↩ 140⊞ | 1Jan-31Mar 1Apr-31Dec | 31.25b 33.00b | 53.50b 56.00b | inc inc | 6.75f 6.75f | 12.50 ✕ 12.50 ✕ | 33⅓ 33⅓ | 10 10 | | | |
| **H A** | **IMPERIAL**, South Mall Tel: (021)965333 Tlx: 75126 ▦↩🐎🄰▦🔲▭ M 80↩ 80⊞ | 1Jan-30Apr 1May-24Dec | 30.00 33.00 | 40.00 45.00 | inc inc | 6.00f 6.00f | 17.00 ✕ 17.00 ✕ | 25 25 | 10 10 | | | |
| **H A** | **METROPOLE**, Mac Curtain St Tel: (021)508122 Tlx: 75077 ▦↩🄿🐎🄰▦🔲▭ M 121↩ 93⊞ | 1Jan-31Mar 1Apr-31Dec | 23.00b 23.00b | 32.00b 32.00b | 4.00 4.00 | 6.50f 6.50f | 12.50 ✕ 12.50 ✕ | 50 50 | 10 10 | 44.00 49.00 | 100.00 110.00 | 2 2 |
| **H A** | **SILVER SPRINGS**, Tivoli Tel: (021)507533 Tlx: 26111 ▦↩🄿🐎🄰▦🔲▭⚛M 72↩ 72⊞ | 1Jan-31Mar 1Apr-31Oct 1Nov-31Dec | 27.00 30.00 29.00 | 38.50 39.90 39.90 | inc inc inc | 6.60f 6.60f 7.00f | 13.00 ✕ 13.00 ✕ 13.00 ✕ | 33⅓ 33⅓ 33⅓ | | 47.00 57.00 50.00 | | |
| **H B⋆** | **ARBUTUS LODGE**, Montenotte Tel: (021)501237 Tlx: 75079 ▦🄿🐎▦🔲▭20↩ 20⊞ | 1Jan-30Apr 1May-31Dec | 31.90 33.00 | 35.90 36.50 | inc inc | 6.50f 6.50f | 18.50 ✕ 18.50 ✕ | | | | | |
| **H B⋆** | **ASHBOURNE HOUSE** Tel: (021)953319 ▦↩🄿🐎▦↖🔲▭ ☞⚛●⚛ ⛴🍴M 26↩ 24⊞ | 1Jan-31May 1Jun-23Dec/27Dec-31Dec | 20.00 22.00 | 28.00 30.00 | inc inc | 5.00f 5.50f | 14.00 ✕ 15.00 ✕ | 50 50 | 10 10 | 50.00 55.00 | 84.00 90.00 | 1 1 |
| **H B⋆** | **JOHN BARLEYCORN**, Riverstown, Glanmire Tel: (021)821499 ▦↩🄿▦🔲▭ M 16↩ 16⊞ | 1Jan-30Apr 1May-30Sep 1Oct-31Dec | 14.80b 15.50b 15.50b | 18.70b 22.60b 22.60b | inc inc inc | 5.20f 5.20f 5.20f | 12.50 ✕ 12.50 ✕ 12.50 ✕ | 25 25 25 | 10 10 10 | 46.50 49.50 46.50 | 75.00 81.00 75.00 | 1 1 1 |

If you feel a restaurant is outstanding, please fill in this form and send it to:

**Accommodation and Catering Dept.**
**Bord Failte**
**Baggot Street Bridge**
**Dublin 2.**

As a result of my personal experience, I nominate the following restaurant from "Dining in Ireland" and/or "Tourist Menu" Scheme for a Bord Failte Distinction.

Name of Restaurant . . . . . . . .

Address . . . . . . . . . . . . . .
. . . . . . . . . . . . . . . . . . . .

I had Lunch/Dinner/Snack there on . .

I am not connected directly or indirectly ₁

"Dining in Ireland"          ☐
    Please indicate
"Tourist Menu"               ☐
                   Si

My Name and Home Address (block capi

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I consider this restaurant outstanding bec:

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(Please give reasons including food, servi₁
consider make this restaurant exceptional
**Nominations must be s**
**or before Septembei**

## CO. CARLOW

### CARLOW

**REDDY'S GRILLROOM, 67 Tullow Street, Carlow.** *Telephone* (0503)42224. *Special Value Menu Period:* 1 May-30 Sep. *Closed:* Good Friday, Christmas Day & St Stephen's Day.

★ 12:30-14:30          ■ 17:30-20:30

**ROYAL HOTEL, Dublin Street, Carlow.** *Telephone* (0503)31621/33728. *Special Value Menu Period:* 1 Jan-23 Dec. *Closed:* Sundays-Limited service.

★ 12:30-14:00          ■ 18:00-20:30

## CO. CAVAN

### CAVAN

**THE GALLEY, Main Street, Cavan.** *Telephone* (049)32205. *Special Value Menu Period:* 1 Jan-31 Dec.

★ 12:30-14:30; 19:30-24:00

### KILLESHANDRA

**LOUGH BAWN HOTEL, Killishandra, Co Cavan.** *Telephone* (049)34404/34423. *Special Value Menu Period:* 1 Jan-31 Dec. *Closed:* 24 to 27 December.

■ 12:45-15:00; 17:45-20:30

## CO. CLARE

**SEAFOOD HOUSE, Fanore, Coast Road, Lisdoonvarna-Ballyvaughan, Co Clare.** *Telephone* Craggagh 205. *Special Value Menu Period:* 1 May-30 Sep. *Closed:* 1 Jan-14 May, 16 Oct-31 Dec.

■ 12:00-22:00

### COROFIN

**BOFEY QUINN'S, Corofin, Co Clare.** *Telephone* (065)27627. *Special Value Menu Period:* 1 Jan-31 Dec.

★ 12:00-16:00          ■ 16:00-22:00

### COROFIN

**MARYSE & GILBERT'S RESTAURANT, Corofin, Co Clare.** *Telephone* (065)27660. *Special Value Menu Period:* 18 Apr-31 Aug. *Closed:* 1 Jan-19 Apr, 1 Oct-31 Dec; Sundays & Mondays (Mondays

only in July & August).

■ 19:00-22:00

### DOOLIN

**BRUACH NA HAILLE RESTAURANT, R₁ Doolin, Co Clare.** *Telephone* (065)74120. *Value Menu Period:* 1 Jun-30 Sep. *Closed:* May, 1 Nov-31 Dec.

■ 13:00-16:30; 18:00-21:30

### ENNIS

**AUBURN LODGE HOTEL, Galway Road Co Clare.** *Telephone* (065)21247. *Speci₁ Menu Period:* 1 May-31 Oct. *Closed:* C Day & St Stephen's Day.

■ 12:45-14:30; 18:30-20:30

**GOLDEN MOUNTAIN, 16 O'Connell St Co Clare.** *Telephone* (065)29491. *Speci₁ Menu Period:* 1 Jan-31 Dec. *Closed:* Christ₁ & New Year's Day.

★ 12:00-14:30          ■ 18:00-22:00

**LADY GREGORY'S RESTAURANT, Arcade, Abbey Street, Ennis, Co Clare.** *T₁ (065)24240. *Special Value Menu Period:* Dec. *Closed:* Sundays & Bank Holidays..

★ 12:15-14:30          ■ 12:15-14:30

**QUEENS HOTEL, Abbey Street, Ennis, C** *Telephone* (065)28963. *Special Value Men₁ 1 Jun-30 Sep. *Closed:* Christmas Day.

★ 12:30-15:00; 17:00-21:00 ■ 12:30-15:00; 17:₁

**SADDLE ROOM STEAK HOUSE, V Street, Kilrush, Co Clare.** *Telephone* Kil₁ *Special Value Menu Period:* 1 May-30 Sep. 25 & 26 December.

★ 12:45-14:30; 18:00-20:30

### LAHINCH

**ATLANTIC HOTEL, Lahinch, Co** *Telephone* (065)81049, *Telex* 28136. *Spec Menu Period:* 1 Jun-31 Oct. *Closed:* 1 Jan 1 Nov-31 Dec.

★ 12:30-14:30          ■ 18:00-19:00

**McINERNEYS SANCTA MARIA Lahinch, Co Clare.** *Telephone* (065)8104₁ *Value Menu Period:* 1 Jun-30 Sep. *Closed:*

★ **Three course meal at IR£4.00** ■ **Three course meal at IR£5.50**

CORPORATE SERVICES DIVISION

# Administrative Services Department

| Name and Title | Phones | Room | Job Description |
|---|---|---|---|
| MURRAY, NIALL<br>Clerical Assistant | 1180 | G12-B | Admin Assistance |
| MCGARRY, ROBERT<br>Clerical Assistant Postal | 1204 | B6-B | Post |
| HENNESSY, LIAM<br>Messenger | 1204 | B6-B | Motor-cycle Messenger |
| DOYLE, GERARD<br>Driver/Maintenance Assistant | 1286 | C | Van Driver/Security<br>Maint - Chancery |

**OFFICE SERVICES**

| Name and Title | Phones | Room | Job Description |
|---|---|---|---|
| BARRINGTON, NANCY (OSS)<br>Office Services Supervisor | 1390 | G7-B | Office Services<br>Telephone Faults |
| KING, BREDA<br>Services Supervisor | 1228 | B2-B | Sec Unit/Reception<br>Switch/Telex |
| DILLON, ROSEMARY<br>Typist | 1332 | B1-B | Typing/Reception &<br>Switch Reliefs |
| FITZPATRICK, ROSALEEN<br>Typist | 1332 | B1-B | Typing/Telex & Reception<br>Pembroke R |
| HAYDEN, MAUREEN<br>Typist | 1332 | B1-B | Typing/Alternate<br>Supervisor |
| KEOGH, NOREEN<br>Typist | 1332 | B1-B | Typing/Reception &<br>Switch Reliefs |
| KELLY, MARIE<br>Typist | 1332 | B1-B | Typ/W-Proces/Typesetting<br>Recep P Row |
| KILMARTIN, MARGARET<br>Typist | 1332 | B1-B | Typing and Reception<br>Pembroke Row |
| MCCABE, MARIE<br>Typist | 1391 | B1-B | Typing & Word Processing |
| MCKEVITT, CATHERINE | 1332 | B1-B | Typing/W-Proces/Switch & |

# Digital Equipment Computer Users Society

**VAX Special Interest Group**
**1983 Annual General Meeting**
**Panel Session with DEC Management**
**16 September 1983**

## Timetable

September 16, 1983

| Morning | 10:25 | VAX Special Interest Group – Introduction |
|---|---|---|
| | 10:30 | "All-in-One: End User Computing in the Bank of Ireland" by Charles Williams |
| | 11:30 | Open Forum for news and views of VAX users |
| | 12:30 | Lunch |
| Afternoon | 2:30 | AGM |
| | 3:00 | DEC New Products Presentation and Panel Session |
| | 4:30 | End of Meeting |

## Location

Room 128/129
Physics Building
University College
Belfield, DUBLIN 4

(parking available)

## Programme

There are two parts to the meeting, a VAX Special Interest Group meeting in the morning and a chance to air your views to DEC management in the afternoon. Senior managers of Digital Ireland Ltd will form a panel to accept views (and complaints) from DECUS members. Each of the major functional areas in DIGITAL will be represented.

Before the panel session there will be a short presentation on new DEC products and services.

## Annual General Meeting

The 1983 Annual General Meeting will be held at 2:30 pm. The following positions will be open for election:

Chairman – DECUS Ireland (the holder of this office is also the representative on the council of DECUS UK and Ireland)
Deputy Chairman
Treasurer
Newsletter Editor
Program Library Co-Ordinator

The following positions are automatically filled:

DECUS UK and Ireland Chapter Administrator (Ray Woodyear)
VAX Sig Chairman (Ken O'Brien)
CMG Sig Chairman (Rory O'Connor)

Nominations to the vacant positions may be made at the AGM or, in writing, to the DECUS Ireland secretary, *Elizabeth Crossan, c/o Digital Equipment Ltd, Park House, North Circular Road, DUBLIN 7*

Please bring this notice to the attention of all DECUS members and any others who might be interested in your organisation. Membership of the Digital Equipment Computer Users Society is open to any user of DEC computers and is free of charge.