key*notes*

1997-1998 Budget

What it means for you

Also in this Issue:

Computing Service Open Day

Windows 95 in Classrooms

Netscape Communicator

key *notes*

contents

feature articles:

From the Editor

Another academic year starts, and there is a lot to tell you about.

First off, *Keynotes* has changed its look and focus. Not only do we intend on keeping you up-to-date with news, but we also now provide more feature-oriented articles. In each release of *Keynotes* we hope to provide you with a special report, which will examine an issue in-depth. This issue's special report affects you directly: it tells you about the Computing Service's 1997-98 budget. At present, the budget has been effectively halved from its 1995-96 level. While this state is likely to change in the course of the year, you will not reap the benefits of a larger budget until next academic year.

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In happier news, the University of York's Windows 95 Service can now be used in the classrooms! Andrew Smith has written a feature article about using the Windows 95 Service for the first time.

With the Windows 95 Service, the Computing Service offers the newest web browser from Netscape, Communicator, and the newest word processor from Corel, WordPerfect 8. The mail program for Communicator, Messenger, is now the default mailer for the Windows 95 Service, and John Byrne has written an article to tell you all about it. John Robinson also tells you about compatibility issues between documents written in WordPerfect 8 and earlier versions of the word processor.

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Finally, please note that the Computing Service is having an Open Day on 22 September. We hope you can attend!

Ray Drainville

Computing Service Open Day

Keep your diaries open: the Computing Service is very happy to announce that it is holding a day-long Open Day on Monday 22 September 1997.

Located in the Physics Concourse, the Open Day will be your chance to see what the Computing Service has been doing, and what we plan to do, for the University.

Computing Service
Open Day

We plan to show you all of the improvements we've made to meet the University's computing needs—from research and teaching to enhanced networking capabilities and the Windows 95 service. At the Open Day, you can ask us questions, see demonstrations, and even have a spot of lunch (we think of everything, don't we?). Stop by and see what we can offer you.

Ray Drainville

Staff News
Mike Jinks tells you about the latest comings and goings in the Computing Service

Several staff have moved on to new posts during the summer leaving us with vacancies which we hope will be filled by the time this edition of Keynotes is published.

Laurence Tyler left at the beginning of August to take a Masters degree at De Montfort University with the intention of moving more into a research support role. Laurence has been our longstanding UNIX systems manager and computer security expert, involving not only implementing the security systems but also tracking attempts to 'hack' systems both on the campus and elsewhere. His conscientious approach to some of the difficult issues, together with his concern for environmental and social issues, will be much missed by his colleagues and we wish him well in his temporary role as a 'user'.

Heather Swithenbank left at the end of August to take up a Project Leader post in the MIS function at Leicester University. During the 4½ years she has been with the University, Heather has made a major impact on the delivery of administrative computing systems and has done much

to make the most of MAC. Heather's background was in the commercial sector and her focussed, professional approach has been much appreciated throughout the University. We wish her well in her new role at Leicester.

Richard Jardine left us at the end of August to take up a post as a Physics teacher at Harrogate Grammar School. Richard's background is in physics but he worked for us first as a partial cover for the maternity leave of our previous Information Officer and subsequently as cover for the MIS Trainer. Richard will be embarking on what he really wishes to do and we are grateful for his conscientious work in the time he has been with us.

Matt Dowdy joined us just over two years ago as an Information Assistant and his cheerful and helpful approach to the varied requests at the Information Desk will be much missed. The experience on the Information Desk in the very diverse environment of a University has provided Matt with wide knowledge of computing problems and he will be

putting this to good use as an IT 'troubleshooter' with Yorkshire Electricity. We wish him well in the next step of his career.

At the time of writing, only one of the above vacancies has been filled, though it is hoped that by the time of publication more staff will have been appointed. Unfortunately the IT market is very competitive at present, and a recent attempt to fill an MIS post failed with only 5 applications being received. Nonetheless, we have appointed a replacement for Laurence Tyler. Chris Joy has joined us from Photarc Surveys of Harrogate where he has been involved with developing the IT infrastructure for the company and managing the systems comprising UNIX and NT servers supporting PCs and UNIX workstations. Previously he was a PhD student at Nottingham University in Engineering Surveying and Geodesy, having taken a BEng in Civil Engineering as his first degree, and is completing the writing up of his PhD work. We give Chris a warm welcome to the Service and hope he will enjoy his time with us in the challenges which lie ahead.

Information Desk News
Brian Souter explains the implications of the staff changes.

With the departure of Matt Dowdy from the Information Desk we will be left a little short-staffed at the start of the busy autumn term. It will take several months to recruit and train someone to replace Matt and our service will have to be cut during this period. It is likely that the Information Desk will close over lunch and

close early at 4pm but, at the time of writing, it is too early to be precise. We will make every effort to minimise the disruption and broadcast any changes nearer the time.

The timing of Matt's departure is a little unfortunate as we are currently working on plans to provide greater

flexibility within the Operations Group. Keeping the Information Desk open is a priority and we are looking at ways of providing backup. We would not expect to have to reduce the opening hours in the future during a period of recruitment and training.

Implementation of the Computing Service Review

Mike Jinks tells you what's in store for the coming year.

After detailed and careful consideration during the year, Information Committee approved a final version of the general definitions of the core services to be offered by the Computing Service. Copies of this document have been distributed to Heads of Department, Chairs of Boards of Study and Computing Forum Representatives.

The Computing Service is now engaged in drafting service definitions for the core services and these will be considered by the Computing and Information Committees during the coming year. In parallel, the Computing Service will draft basic service definitions for standard non-core, chargeable services, together with costings. These basic definitions will serve as the starting point for service level agreements with departments, though it is expected that a small number of standard service definitions will satisfy the majority of requirements.

The continuing non-core services, eg PC support, training and documentation, will continue to be provided free at the point of delivery on a best endeavours basis until service definitions for the relevant core and non-core services have been agreed, at which point they will become chargeable. Information Committee agreed that charges for one-off non-core services, eg upgrading the memory in PCs, installing software on PCs and customised training for departments, will be implemented with immediate effect. These services will also be provided on a best endeavours basis.

Printing will be the first continuing, non-core service to be implemented and Information Committee has agreed that monochrome printing on Computing Service printers will be charged at 7p per sheet. This charge will apply to work submitted to the current chargeable queues (student work and staff personal work) from

1 October, and printing for staff will be charged to departments when the mechanisms to do this are in place. Details will be provided to departments when available.

The implementation of a charging system and agreeing the service definitions is a major task for the Service which will need to be phased in competition with other demands on the resources of the Service. From the experience of universities which have moved in this direction in the past, this is likely to take at least a year of elapsed time. Although we hope to avoid most of the pitfalls encountered by other universities, such a major change in the delivery of services by the Computing Service will require goodwill on all sides if the new way of working is to deliver its full potential.

Phoning the Desk? Please hang on!

Brian Souter tells you about what's going on at our end of the phone.

Having trouble getting through to the Information Desk by phone? If so, you might be interested in the following question from a user in the Finance department and the reply from the Computing Service, which explains how the telephone queuing system works.

Q. I am writing to congratulate the staff who operate the desk. The service we receive is excellent.

Unfortunately during the past 2-3 months it has not been possible to take advantage of this excellent service as the answerphone is always switched on. This is not just my own experience; I know that other Finance users have been equally frustrated.

Is there a reason? Should we continue to ring? Will it improve?

PS. I was being sincere when I said that the standard of service was excellent!

A. Thank you for your complimentary remarks about the quality of the

service. I appreciate your problem with telephone access, and offer the following explanation of how the phone system works.

First of all, there is always at least one person and usually two or three at the Information Desk during the published hours of 9am to 5.15pm, except for training time on Wednesdays between 2pm and 3pm.

The staff take personal callers and phone enquiries as joint top priority. Email, recorded messages and paper mail take a lower priority.

Whenever you phone 3838 you are answered by the call management system and an announcement telling you that you are in a queue. This is true however many calls are queued and however busy the desk staff are.

An illuminated number in front of each desk staff member shows the number of calls in the queue. Staff will answer outstanding calls when they have finished with the current personal caller. They will neither interrupt a session with a personal caller to answer the phone, nor interrupt a phone call to deal with a person at the desk.

If your enquiry is not urgent, you may use the answering machine, ext 4343. These recorded messages are dealt with once a day. This is also true of email enquiries.

The advice to phone callers is hang on! There *is* someone there but they may be dealing with a personal caller or another phone call. Even if you are the only call in the queue and a member of staff is free, you will *still* get the announcement. Remember that internal phone calls are not a charge on your department.

Although we are limited to 3 desk staff, which puts an upper limit on how much the service may be improved, we are always trying to make the system more efficient, and you may expect marginal improvements.

Corel WordPerfect Suite for Windows 95

John Robinson **tells you about the new update.**

The academic version of Corel's WordPerfect 8 suite arrived at the Computing Service just in time for us to install it before the start of the academic year. This version is available only on the Windows 95 service (in classrooms and some office PCs). The suite's main applications are WordPerfect 8, Quattro 8 and Presentations 8.

Whilst all documents, macros, worksheets and slide shows from the previous versions of the applications should convert without problems, there are some new features and new menu layouts that users should take note of.

New menu layouts

Corel have re-arranged a number of menus—don't panic, the features have not been deleted, just moved to somewhere else. So **Edit | Preferences** (for tailoring your setup) is now **Tools | Settings**, and in WordPerfect the Tables and Graphics menus are now sub-menus of the main **Insert** menu, and **Insert | Abbreviations** have become **Tools | QuickWords**, and so on.

WordPerfect Multiple and dynamic toolbars

The toolbar concept has been extended to encompass the existing status line (now called the application bar) and power bar. There is a new 'Property bar' which gives function buttons appropriate for whatever object the cursor is currently positioned in, so this changes dynamically as the cursor moves across normal text, tables or graphics.

WordPerfect Visual Equation Editor

For the first time, WordPerfect now has a visual equation editor to complement the text-based editor available since version 5.1. This equation editor is almost identical to the one in Microsoft Word, and is a trimmed down version of the MathType system (which was available but not fully integrated on the Windows 3.1 service). It is possible to use both editors in the same document, and to set WordPerfect up so that one or other editor is the default, or to have WordPerfect prompt you to select an editor for each equation. One prob-lem we have seen is that the default equation placement is now Inline (ie, an equation embedded in the text of a paragraph), so that to use the old editor with a display (separate paragraph) equation, you need to select **Insert | Graphics**, **Custom box**, **Equation**, then double click the box to enter the equation text.

Templates

Existing WordPerfect templates can be used with the new version, but the (fairly) simple use of templates from a system or personal directory has been extended to hold a database of projects and template categories covering all the applications of the suite.

> # Don't panic—features have not been deleted, just moved.

Quattro formula enhancements

There are some interesting new features in the Quattro spreadsheet.

When you edit a formula, the cells which are used in calculating the value are highlighted. Rather more impressive is what happens when you copy a formula from one cell to another—any relative (default) cell references which point to empty cells show a warning dialog, and a reasonably intelligent fixer for correcting the problem.

Personal purchases

The agreement under which we licence networked PCs to use this suite does not allow us to sell copies for individual staff or student use. You can purchase the academic version of the suite (which consists of a CD with the software, but no support or printed manuals [although the CD has facsimile manuals for on-line use].

Thesis writing

If you are a novice user of word-processing, or are familiar with a different system, it is easy to get going with WordPerfect for typing simple documents such as letters or small essays. If you are planning to type up a more complex document, such as a project report, a dissertation or a full thesis, then there are a host of features (automatic paragraph numbering, graphics, table of contents etc) which can make the task of producing the document easier, and give the document itself a more polished coherent appearance.

Many of these features have been incorporated into a WordPerfect document template which allows you to concentrate on the content text without worrying about the fine detail of the layout. There are occasional courses on using the template, or you can work through the notes yourself (see *http://www.york.ac.uk/services/cserv/hints/wp/wpwin61/thestemp.htm*). **k*n***

GIS

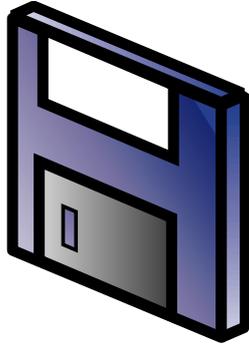*Peter Halls* brings you up-to-date.

Arc/Info

The latest release of Arc/Info, 7.1.1, has now been installed. Users should note that the help system has been replaced with a Microsoft-style presentation. 7.1.1 is running on all the managed SGI systems. Its main benefits to us are a rewritten and extended menu interface system, ArcTools, and the new help system.

Digital Map Data

We have received the 1997 release of the Bartholomew digital map data for the United Kingdom. This is now the version available. By the time this appears in print, the European and World datasets should have been upgraded to the 1996 release.

ArcView

A reminder that ArcView release 3.0 is available on the UNIX and Windows 95 systems. Although there is no problem in moving from ArcView release 2.1 (the version running on Windows 3.1) to release 3.0, it is not possible to reverse this step. Users are strongly recommended to make the transition to the newer release (and thus, on a PC, to Windows 95) if they possibly can; release 3.0 is markedly more stable and has many new and useful facilities. One of the improvements is that the tutorial system now works, but it is necessary to follow the instructions in the help system. It is hoped to introduce a simplified way of invoking the tutorial.

IRIX version 6

Dave Atkin explains the timetable and the implications of the upgrade.

The planned upgrade of the central UNIX systems to Irix 6.2 has been postponed. This is largely due to the departure of Laurence Tyler who was the primary IRIX support person. We now hope to do this upgrade over the Christmas vacation. The Indigo workstations in D/104 will be unaffected since they cannot run IRIX 6.

Meanwhile, you should check your executable files to ensure that they will run under the new system. If you use the UNIX 'file' command on an executable file and it reports:

```
MIPSEB COFF executable (paged)
```

you must recompile the program since COFF files will not run under IRIX 6. Acceptable files are reported as:

```
ELF 32-bit MSB dynamic executable MIPS
```

This problem affects only files compiled several years ago, under IRIX version 4.

TeX news

John Robinson relates the latest information.

TeX is a markup-style document formatting system, used particularly by the mathematical sciences. Over the summer we have revised the TeX implementation on the central UNIX systems, and put up an initial TeX system on the Windows 95 service. We are indebted to Simon Eveson in the Mathematics department for much expertise and effort in this area.
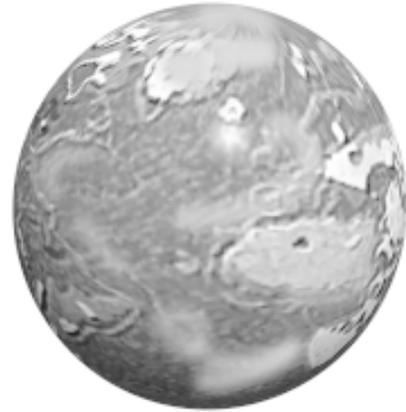
Central UNIX systems

We have removed the old TeX system, and made teTeX (which has been available for some time as an alternative) the default. We have incorporated updated versions of various optional packages that were in the old TeX system.

Windows 95

We have set up a Windows 95 TeX system, using the same file tree as the central UNIX systems teTeX system. We expect this to make it much easier to move between the two systems, without differences in fonts or available packages. To support this we have put up versions of microEmacs and GhostView—the latter is needed as we have not yet found a Windows 95 version of dviwin which will work with the teTeX files.

There is also a front end program similar to the emTeX GUI which has been available on the Windows 3.1 service, which gives a Windows-friendly way of working through the stages needed for document preparation using TeX and LaTeX.

Further details

For more details of how to use TeX and LaTeX on these systems, see *http://www.york.ac.uk/services/cserv/sw/tex/topic.htm*.

The 1997-98 Computing Service Budget

Mike Jinks explains what it means to you.

Capital expenditure plans

The budget of the Computing Service consists of three parts:

- Staff and operating costs;
- Administrative computing costs;
- Funding for new equipment and services.

Hitherto the funding for new equipment and services, together with some of the operating costs eg hardware maintenance and some software licence fees, have come from an 'equipment grant' with the remainder being funded from the University's block grant. For 1997/8 onwards, the funding council no longer identifies a separate equipment grant and hence the University has been considering how to operate under the new regime, both in the longer term and defining the transitional arrangements. As the issues are complex and it is important that resulting framework is robust and equitable, the discussions at Planning Committee have resulted in departments, including the Computing Service, receiving an interim allocation of 80% of what had previously been distributed as equipment grant in 1996/7. Planning Committee will make final allocations in the Autumn term. Thus, although the first two of the above areas of the Computing Service budget have been decided, the funding for capital expenditure is currently severely constrained.

The Information Committee agreed priorities for capital expenditure on the advice of Computing Committee which is, in turn, advised by the Computing Service. The interim funding has been employed to achieve these priorities as far is possible, given that some activities need to be undertaken during the summer vacation or deferred until next year

as they would cause major disruption to all staff and students. This has resulted in the inability to undertake some important enhancements which were expected to be implemented over the summer and hence the service for the start of term in some areas will not be at the levels which could have been expected.

Much of this year's proposed capital expenditure was associated with infrastructure enhance-

The funding for capital expenditure is severely constrained.

ments and improvements to the PC classrooms, including additional PCs in Goodricke and Alcuin Colleges.

What you will see

With the available funding we have been able to implement the following (further details are given in separate articles elsewhere in this issue):

- Improvements to the speed and resilience of the mail, WWW, printing, and news service through installation of 3 powerful new servers;
- New central filestore with higher capacity, improved re-

silience, and the ability to serve files as both UNIX and Windows NT filestores;
- Installation of hard drives on classroom PCs to provide a Windows 95 service;
- Enhancements to the network infrastructure to provide increased bandwidth, building on the 2 successful bids to the funding council's LAN/MAN initiative.

What you won't see

The main area where there might have been a reasonable expectation of improved facilities, had funding been available at the traditional level, relate to improved teaching facilities, both bookable classrooms and the 24-hour study centres. This is particularly important as this will be the third year when no additional PCs have been made available; there were plans to provide additional PCs in G/169 and to equip the 24-hour study centre in Alcuin with PCs rather than the old VT terminals. There were also planned improvements to the Information Desk telephone system and memory upgrades to the central Unix systems. It is hoped that at least some of these will be possible when the final distribution of 'equipment grant' has been agreed, but most of these changes, particularly the PC classroom enhancements, need to be undertaken during the vacations when there is less contention for the available PCs and disruption to students is minimised.

With the generation of the University's Information Strategy, the associated implementation plans should provide a firm basis on which funding can be allocated to enable more advance notice to be provided on what facilities will be available at the start of an academic year.

Launch of the full Windows 95 service

Dave Atkin tells you about the next wave at the University of York.

A considerable amount of effort has gone into Windows 95 development this summer, and from 1 October, Windows 95 will no longer be a 'trial' service. It is now supported in the classrooms (see following article), and you now have a common password between Windows 95, Windows 3.11 and the central UNIX systems.

Recent enhancements include:

- Netscape Communicator 4.01, which includes a user-friendly mailer
- WordPerfect version 8
- An Information Resources menu, including access to electronic journals and Medline via ARC

The absolute minimum specification for a PC to run Windows 95 is:

    486sx 33MHz processor
    16MB RAM
    80Mb free disk space
    VESA Localbus

All users with Supported PCs are now encouraged to move to Windows 95 as soon as possible.

Contact the Information Desk for a Supported Windows 95 PC application form.

Further information is available in the Computing Service section of YorkWeb.

Windows 95 in the Classrooms

Andrew Smith tells you how to get started using the new operating system.

Windows 95 is now available in the majority of Computing Service PC classrooms around campus. In order to offer the service we have had to install hard disk drives in all these PCs. Until this time the DOS and Windows service ran on 'diskless' PCs. This had a number of advantages in that the system was easily maintainable from a master copy that was distributed to every PC on campus. This gave the user the confidence that when they logged in the PC would be in the same physical state as when they used it the day before. Even if the previous user had accidentally or maliciously damaged the files on the PC the next user would not be the subject of any bad effects. One disadvantage of running diskless PCs is a loss in performance. This is due to the network causing a 'bottleneck' between the PC and the file system.

Running Windows 95 on a diskless PC is a possible option, but it would require vast amounts of time and money to invest in a completely new server infrastructure in order to support the service. Even with this investment we are unsure how a diskless Windows 95 service would perform on a site of our size. We are not even confident that Microsoft have invested enough effort in producing a diskless Windows 95 operating system that performs reliably. There are no other organisations, to our knowledge, that are running Windows 95 diskless, and a number (including us!) have reported failure in their attempts to do so.

Running Windows 95 from a hard disk completely turns the tables on performance and security over the diskless system. System performance increases as both the operating system and applications run faster from the local hard disk than over the network. A large proportion of the operating system is written to run on a 32-bit architecture (as against the 16-bit Windows 3.1) and this leads to the majority of applications running significantly faster. On the downside the security of the hard disk and file system now becomes an issue. Windows 95 offers little in the way of security and is wide open to accidental or malicious

damage. A university Computing Service probably operates in one of the most hostile user environments, and Microsoft products seem not designed to stand up to this type of use! We have therefore designed a classroom PC service that we hope will provide a significant degree of security for the user. This security is achieved by providing a secure boot sequence which checks that the PC is in a consistent and safe format—if this is not the case the contents of the hard disk are refreshed to a known working state. For piece of mind every PC is rebuilt automatically during the early hours of the morning.

How to use the Windows 95 Service

On booting a classroom PC the user is now presented with a menu of options:

```
Computing Service, University of York

=====================================

Please Select the Operating System you
wish to use:

     1—DOS / Windows 3.1 Service

     2—Windows 95 Service

     9—Windows 95 Service (System
     Reload)

     4—Help

Menu Choice:
```

From all the choices the user has two basic options, they can run the old DOS and Windows 3.1 service, or the new Windows 95 service. To run the DOS and Windows 3.1 service the user must choose option 1. The PC will then boot as 'normal' and the login prompt will appear.

Option 2 allows Windows 95 to be started. This will take about a minute, after which a dialog box will appear on the screen welcoming the user to the Computing Service

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Windows 95 Service. On pressing 'OK' the user is presented with a login box. All the user has to do is enter their Computing Service username, password, and press 'OK'. If successful the login sequence then continues and the Windows 95 desktop appears.

Option 9 allows the copy of Windows 95 on the PC hard disk to be rebuilt. Normally this should not be required but there are a few instances when a user may feel this is necessary. The most common reason for rebuilding Windows 95 is if the automatic nightly rebuild of Windows 95 has failed—the PC may have been switched off all night and so the rebuild may not have taken place.

There may be a few cases when Windows 95 will not load and an error message is displayed. There are two types of error. The first is of the form:

```
This PC requires reinitialising, please select option 9 from the
Menu
```

This is the error given when the PC has not been rebuilt overnight. The other error:

```
This computer has been tampered with
```

is a serious error and should be reported to the Information Desk so the problem can be solved.

During the rebuilding of Windows 95 the user should not switch off or attempt to 'reboot' the PC. This will result in the PC failing to run Windows 95 and the user will have no choice except to choose option 9 again and wait for the rebuild to finish.

If you have any problems using a PC please report them to the Information Desk (ext 3838 or email *infodesk@york.ac.uk*). Please provide as much information as you can including the room you are in, the name of the PC, and the exact error message.

k*n*

Printing Labels

A new printer queue will be set up to print A4 sheets of adhesive labels. The sheets have 21 labels (7 rows of 3 columns), each 70mm wide by 37.8mm high. These sheets have a top and bottom selvedge strip, so it is possible to print to the top and bottom of each label, and to within 7mm of the left and right edges of each label.

The UNIX labels program will be modified to produce output files suitable for this printer queue (see *http://www.york.ac.uk/services/cserv/ print/label.htm* for details).

A label definition (A4-21 Computing Service Standard) will also incorporated into the standard labels file. For more details of how to use this (which on Windows 3.1 involves creating an output file and using a UNIX print command to send it to the right queue), see *http:// www.york.ac.uk/services/cserv/print/wplabel.htm*.

The Computing Service will issue a notice in the Message of the Day when this system is installed.

John Robinson

Printing News

Central Lineprinter
The central lineprinter (UNIX print queue 'central') will be withdrawn on 30 September. If you wish to obtain laser printer output in a similar format, you can use the UNIX command:

```
% print -q ps -o
"landscape,tm=0,lpp=66,cpi=15"
filename
```

This specifies landscape mode with small top margin, 66 lines per page and a smaller character size to improve legibility.

Black-and-white A4 Printing
The Information Committee has decided that the cost of all A4 laser printed output should be increased to 7p per page from 1 October.

Colour Printing
We are currently evaluating a range of colour printers. The old QMS colour printer will be available until the replacement is brought into service.

Classroom Printing
In order to save paper, trailer pages will no longer appear on successful jobs on the remote classroom printers from 1 October. A trailer will still be printed if an error is detected whilst the job is printing.

Labels
The UNIX labels printing system will continue to be available, with a single size of label (38mm x 70mm), and it should be possible to access them from Supported Windows 95 PCs. See the article at the left for more details.

Billing
Although it has been agreed that all departments will be recharged for usage by its staff and research graduates, the software to do this has not yet been implemented. The new charging scheme will be phased in during the 1997-98 academic year.

Dave Atkin

Netscape Communicator for Windows 95

John Byrne tells you about Netscape's newest product.

Communicator is a new integrated set of tools from Netscape. It includes **Navigator** for Web browsing, **Messenger** for sending and receiving mail, **Collabra** for news and discussion groups, **Composer** for creating Web pages, **Conference** for live communication with other users, and **Netcaster** for automatic delivery of selected Web sites. This article gives a brief description of the first four components which are now available with our Windows 95 service. Full details can be found in the Communicator help system.

Navigator

This is release 4.01 of Netscape's popular web browser. User interface features include more efficient organisation of menus and toolbars with a new custom toolbar, a new bookmarks organiser with drag and drop facilities, a new Help system, and context-sensitive menus when viewing web pages. Plugins include Shockwave (for Flash and Director formats), QuickTime, Acrobat Reader (for PDF formats), Cosmo (VRML), CHIME (Chemical display formats) and Live Audio. Major helper applications include viewers for WordPerfect, Word, Excel, PowerPoint and PostScript. Other features include enhanced security, Java 1.1.2 capability, and enhanced HTML features.

Starting Navigator

Navigator can be run from the Windows Start menu using the following sequence:

Start | Programs | Network Access | Netscape Navigator

After a short delay the main Navigator window will appear containing the University's Welcome page.

Important user settings

Communicator has been configured to integrate into our current central services. This means that the various components will use existing bookmarks, news groups, and mail folders. Please note however that you **must** customize Communicator with your user name and email address before doing any significant work. This needs to be carried out once and can be done from Navigator as follows:

a) Select **Edit | Preferences** from the menu bar to open the Preferences dialog.
b) In the left window expand the **Mail&Groups** section then single-click the **Identity** key.
c) In the right panel enter your name and email address in the appropriate windows.
d) Return to the **Mail&Groups** section and single-click the **Mail Server** key.
e) Enter your username in the **Mail server user name** window.
f) Press OK to close the Preferences dialog.

Communicator is now ready for general use.

Messenger

Messenger is a fully functional mail client which is integrated into the University's mail system. Standard features such as compose, reply, forward, print and delete, are available from the toolbar. Multimedia objects can be incuded as attachments. Folders are easy to access and manage using a variety of toolbar and menu facilties. Additional features include user-defined filters for assiging priorities to incoming messages and sending them to specified folders, poweful search facilties and message encryption.

Unfortunately Messenger's address book facility does not integrate well with other systems, however it is possible to import address books using a simple menu selection.

Starting Messenger

Messenger can be started from the Windows Start menu (**Start | Pro-grams | Network Access | Netscape Messenger**) or from other Communicator components by selecting **Communicator | Messenger Mailbox** or by pressing the Messenger icon at the bottom right of the component's window.

After some delay the main Messenger window will appear displaying an index of messages from your INBOX in the upper section and the contents of a selected message in the lower section. The drop-down menu in the location bar gives you access to your other folders. These are under the section with heading **Mail on imap.york.ac.uk**

User Settings

If you haven't already configured your personal settings you will see a **Mail and Discussion Groups Setup** wizard which will take you through the required steps. You should only fill in the blank entries. These are:
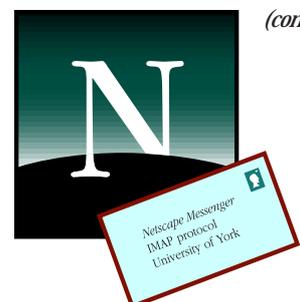
• Your Name
• Email Address
• Mail server user name (ie your username)

Messenger should appear after you have finished the setup.

Collabra

Collabra is a fully featured news client which allows you to take part in discussion groups from your selected news feeds. The main news

(continued)

feed is via the University's central news server. Collabra uses the same user interface as Messenger for handling news items.

Starting Collabra

Collabra can be started from the Start menu (**Start | Programs | Network Access | Netscape Collabra**) and from other Communicator components. You will be asked for your personal settings if you haven't already entered them (see above). After a short delay the **Message Center** window will appear. The Message Center is a utility which coordinates both mail and news groups. From here you can attach to news servers, subscribe to discussion groups, or go to one of your current discussion groups by expanding a news server list (eg news.york.ac.uk) and double-clicking the relevant news group.

Composer

Composer is a visual editor for Web pages, email and news. It has many features normally associated with a word-processor such as font selection, indentation, spell checking and table editing. It can also automatically convert native graphics formats such as BMP, PICT and XBMP into internet standards for publishing. Further details about this component will appear in a subsequent article.

Starting Composer

Composer can be started from the Start menu (**Start | Programs | Network Access | Netscape Composer**) and from other Communicator components. **k**

At the tip of your fingers
At the bottom right of the Communicator window, there are four icons which give you push-button access to different components of the program. From left to right, the symbols are for Navigator, Mailbox (Messenger), Discussions (Collabra) and Composer.

ATM Networking

Work is progessing apace on migrating most of the campus network from the existing backbone technology based on an FDDI ring to a high performance ATM (Asynchronous Transfer Mode) fabric, using equipment supplied by Newbridge Networks Limited. Based on the ATM Forum's MPOA (Multi Protocol over ATM) standard, their virtual router architecture, known as VIVID (Video Voice Image Data), offers the significant advantages of high throughput and low latency across the campus. As an indication, the network is currently capable of routing over 2 million packets per second, while a packet will typically take around 76 microseconds (millionths of a second) to traverse between, say, Music and Electronics.

The performance gains will be of particular benefit to groups such as Music Technology who require real-time audio transfer over the network, but other users should see a reduction in the time taken to load some applications for example. The ability of ATM to offer guaranteed chunks of network capacity, known as Quality of Service, means that the University will be able to exploit its potential in the development of multimedia teaching and learning across campus.

The rapid deployment of ATM has been made possible by successful bids for funding from the HEFCE in both 1996 and 1997, which have contributed some £130K towards the cost of the project.

Robert Demaine
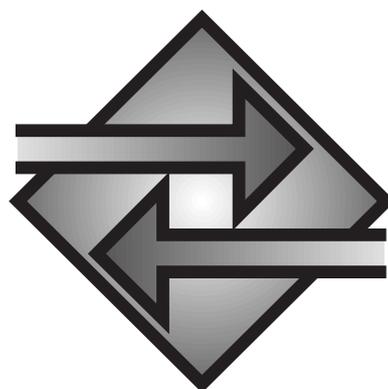
New Servers

Three new servers are being installed over the summer vacation to handle the following tasks:

- Web server
- Mail server
- Print server
- News server
- Authentication (NIS) server
- Network Name (DNS) server

These servers are based on Sun Ultrasparcs and replace the old servers castle, mailer, johnbull and netty.

In addition, the central filestore is being moved from the Auspex file server (goodram) onto two new Network Appliance filers, with capacities of 36Gb and 72Gb respectively.

These major changes, coupled with the increased bandwidth of the new ATM network (see above) should result in much improved performance, especially at peak times.

Dave Atkin

Regional Networking (YHMAN)

The contract to provide high speed networking between the Yorkshire and Humberside Universities has been awarded and is scheduled to be fully operational by March 1998. York will be connected at 155 Mbit/s to the SuperJANET connection point at Leeds, though the initial connection will be a 34 Mbit/s radio link until optical fibre has been laid to the University early in 1998. The network will provide a substantial increase in network capacity compared with the present link which provides 4 Mbit/s for outward traffic and opens up new opportunities for collaboration between the Yorkshire and Humberside Universities in areas requiring high data transmission rates, as well as providing higher speed access to SuperJANET.

Mike Jinks

Keeping up with the world

Ray Drainville **tells you a little about on-line news.**

Your gentle editor is an American expatriate. Perhaps this is why I find all the news sites on the World-Wide Web so addictive. It gives me (and anyone else who is so inclined) an immediate and free manner in which to keep current with all sorts of events, whether political, cultural, or technical.

These days, journalists often write up news on the World-Wide Web first; and only afterwards does that information start reaching more traditional media outlets such as radio, newspapers and television. It is one of the ways in which the Web displays its power: news is updated so quickly that traditional media struggle to catch up. Read *PC Week* on-line, and then read a magazine that appears a week later: the print medium is still woefully behind.

A representation of this power of immediacy has been the Web's effect upon the American stock market. This summer, federal trading authorities demanded that stock price updates be delayed for fifteen minutes before being presented upon the Web, because the immediate updates were creating unfair competitive advantages in favour of those companies that had Web connections.

News on the World-Wide Web spans a wide range of interests. These interests can be quite specific. There are many sites, for example, which cater to commentary upon politics and other forms of current and cultural events. *Salon* is one of the best examples of this. It is an insightful and very well-written Web-only magazine. Microsoft-sponsored *Slate* follows the format of more traditional journals, but what it lacks in immediacy it gains in the quality of its coverage.

It comes as no surprise that there are several computer-related sites on the World-Wide Web. It is also no surprise that PCs are well-served, since Microsoft-based products dominate the globe. However, Apple Macs are also well-served, and since the Computing Service no longer supports them, I've supplied the addresses of some sites at the bottom of this page.

Many sites now require that you register before you view their contents. Usually this entails providing your email address and a few other facts in order to generate revenue from advertisers who will try to sell you their wares. If you do not wish to receive such unsolicited email, look at the registration form closely: US-based sites at least are required to ask your permission to forward your name to advertisers. There is usually a box you can tick in order to remove your name from an advertiser's list.

A final caveat about news sites: as ever, it is important to be aware of your source. Some people present false information, whether intentionally or not. After an airplane exploded over the skies of near New York, the respected journalist Pierre Salinger ruined his reputation by recounting a spurious conspiracy theory about the explosion that he read on the Internet. But even in less dramatic cases, news can be updated so quickly that journalists sometimes do not investigate stories to the fullest extent, and inaccuracies can creep in. k*n*

Current events:
BBC: *http://www.bbc.co.uk*—a good starting place for local news. Its election coverage was excellent.
CNN: *http://cnn.com*—many video clips and images, including the recent Mars mission.
Reuters On-Line: *http://beta.yahoo.com/headlines/current/news/summary.html*—brief headlines (albeit American-centred) with links to financial, technical, sports and health headlines.

Education:
Times Higher Education Supplement: *http://www.timeshigher.newsint.co.uk/*—you are required to register (for free), but the site contains a lot of information, including an on-line job search for all you budding PhDs.
Chronicle of Higher Education: *http://chronicle.merit.edu/*—another good site with information for academia.
New Scientist: *http://www.newscientist.com/*—a fantastic, huge site. Visit it and see.
Journals Online: *http://www.journalsonline.bids.ac.uk/JournalsOnline/*—a graphical front-end for BIDS searches. A very helpful utility.

Computer-related:
News.com: *http://www.news.com/*—run by CNet, this site contains a wealth of up-to-date information. It also has links to convenient locations for the latest software, including the lastest versions (and bug fixes) of web browsers.
PC Week: *http://www.pcweek.com/*—Good articles which help point out trends in computing; best suited for the commercial sphere, but a good source nonetheless.
PC World: *http://www.pcworld.com/*—a site devoted to a more general audience, it contains some news, but many feature articles and hardware and software reviews.
MacWeek: *http://www.macweek.com*—keep up with the latest goings-on in the soap opera from Cupertino.

MacWorld: *http://www.macworld.com* while there is a British version of this magazine on-line, the American version is far more generous in the amount of information it provides, including news, hardware and software reviews, and downloadable software.

Culture and commentary:
Salon: *http://www.salon1999.com/*—a wonderful site with well-written articles.
Feed: *http://www.feedmag.com/*—cultural commentary with a postmodern edge.
Slate: *http://www.slate.com/*—respectable journalism sponsored by Microsoft; American-biased, but worth a look.

To find out more:
Yahoo!: *http://www.yahoo.com/*—what I haven't covered here can be found at this site.

National Computing Resources

As well as local resources, staff and students in UK universities can use resources provided by national funding bodies for projects that require especially fast or large computers, or access to large datasets.

High-speed supercomputers

There are high speed vector and parallel computers at Rutherford-Appleton Laboratories and Edinburgh Parallel Computing Centre. These are available to specific projects after an application has been peer-reviewed. If you think you need to use one of these centres, first check out *http://www.epsrc.ac.uk/hpc/*.

National Datasets service (MIDAS)

This service maintains a number of large datasets of interest to many different disciplines. The range includes the UK 1991 Census (and other social surveys), satellite images, economics time series, the Beilstein chemical database, and many others. See *http://midas.ac.uk/datasets.html* for a full list of what is available.

If you want to have access to these datasets you need to register as a user of the Manchester Computing MIDAS service.

Depending on which datasets you want to use, you may also have to fill out other application forms for the organisations which originally provided the data (MIDAS is just a repository service). There are special facilities which allow a member of staff to register all students on a particular course for access to certain data.

For general details of the MIDAS service and registration forms, contact John S Robinson (ext 3833, email *jsr1*), or for the Beilstein system, contact Adrian Whitwood (ext 4535, email *acw1*).

John Robinson

If you contact the Information Desk with a problem, there's a good chance that you'll be talking to him. *James Walker* tells us a little about his day, and possibly a few things you didn't know about support.

Until recently the Information Desk was staffed by a team of three—James, Paul and Matt. However Matt left the University at the end of August to take up a post at another establishment, so that leaves myself and Paul to deal with the desk's increasing workload.

The three main ways to contact the desk are by telephone, email and of course in person.

If you contact us via the telephone (the infamous '3838' number) you will more than likely, unless you're really lucky and catch us at a quiet time, hear a message that informs you that all the desk staff are busy and that your call has been logged in a queue. This is completely true! We are busy, maybe with another call or dealing with somebody that has called at the desk in person, and yes you have been placed in a queue, your call hasn't disappeared down a black hole. We know that your call is waiting because a big red number comes up on the LCD panel of our telephone queue displays.

We try to answer every call as soon as we can but sometimes this isn't possible and you may be left in the queue for several minutes. This may seem annoying to you if you have a problem that's stopping you working but remember that there may be another five people waiting in the queue and ten people waiting in person at the desk, all of them experiencing a wide-range of problems and with just two members of desk staff available to answer and help them you've got to expect delays.

If your problem isn't really that urgent and you don't really need to wait for an immediate reply you have two alternatives. The first one is to use our answerphone (ext 4344) to which we give a twenty-four hour response time. The other is to use email. The response time for email is usually within the current working day but if we are extremely busy or short-staffed the response time goes up. For us email can be one of the best forms of communication because the sender can include all the problem details which help us to either fix it or make it easier to log in our UHL problem-logging software. Coming to the desk in person is basically the same as using the telephone—if we're busy you have to wait in a queue to be seen. As you can imagine it can get very hectic at the desk, especially at the beginning and end of term.

A lot of people on campus do not realise that the Computing Service does not offer applications support to Undergraduate and Taught Graduate members of the University and that the student's own department should be offering them support. This is a departmental policy that was introduced a couple of years ago, it causes a lot of confusion as some departments still tell their students to come to the desk with any problems that they have; and once we have established that they are students we have to point them back to their departments. This isn't very satisfactory for the student but due to the staffing levels of the desk we have no option.

Another problem we have is with users requesting help and advice with software applications that we don't support even though they may have purchased the package from us, such as Microsoft Word. We have no experience with most of these packages and it's also against departmental policy to support them.

The same could be said for the dialup service. We maintain that the modems are working ok at this end but we don't have the resources to offer users help and advice with their own particular setups at home.

As an example of how busy the desk is, I started typing this one-page *Keynotes* article on Tuesday of this week and have finished it today, Friday as I've still had my other desk duties to perform and even out of term we still have a lot to do. But all said and done Paul and myself have between us been working here for twenty years now so we must enjoy it... k*n*

spotlight

Computing Service Address

Computing Service
University of York
Heslington
YORK YO1 5DD

Telephone: Switchboard (01904) 430000
Direct dialling (01904) 43 followed by ext no.
Fax: (01904) 433740
Email: *username*@york.ac.uk

Information Desk

Telephone: ext 3838
Email: *infodesk*

The Information Desk is open from 9am to 5.15pm Monday to Friday (*closed for training Wednesdays 2pm-3pm*), for problem solving, advice and information, fault reporting, network connections, file conversion, sales, course bookings, registration and documentation. Printed output can be collected from the lobby entrance which is open from 8am to midnight.

Contacting Computing Service Staff:

Role	Name	Ext	Username
Director:	Mike Jinks	3801	*kmj1*
Deputy Director:	Peter Roberts	3802	*pdr1*
Departmental Secretary:	Lorraine Moor	3801	*lsm1*
Head of Technical Services:	Dave Atkin	3804	*dla1*
Head of MIS:	Trevor Bolton	2100	*tfb1*
Head of User Services:	John Illingworth	3803	*jji1*
Head of Personal Systems:	Doug Moncur	3815	*dgm1*
Operations Manager:	Brian Souter	3814	*bs1*
Information Officer:	Ray Drainville	3805	*rad4*

Name	Ext	Username	Name	Ext	Username
Su Ashton	3825	*sma3*	Vivienne Hemingway	3818	*vwh1*
Sue Bolton	2102	*sjb28*	Chris Joy	3807	*cj8*
Paul Bowen	3821	*pab7*	John Mason	3813	*jrm13*
Mike Brudenell	3811	*pmb1*	Operators	3832	*opr*
John Byrne	3812	*jcb1*	Colin Rea	3817	*cr9*
Paul Conacher	4346	*pac1*	John Robinson	3833	*jsr1*
Robert Demaine	3808	*rld1*	Andrew Smith	3809	*abs4*
Debra Fayter	3839	*daf3*	Laurence Tyler	3807	*lgt1*
Rob Fletcher	3816	*rpf1*	James Walker	4347	*jaw1*
Peter Halls	3806	*pjh1*	Timothy Willson	2123	*ftmw1*

get keynotes

If you wish to receive *Keynotes* by post please complete this cut-away slip and return to: The Secretary, Computing Service, University of York, Heslington, York, YO1 5DD.

i want keynotes

Name: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Address: _ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _

_ _ _ _ _ _ _ _ _ _ _ _ _ _

(Tick as appropriate)

Please send me Keynotes. ☐

I've changed my address. ☐

Please remove my name from the mailing list. ☐

Colophon

The type in *Keynotes* consists of 9-pt Palatino (the University's official font) for text and an altered form of Helvetica at various point sizes for headlines, sidelines, and pullquotes.

The content for *Keynotes* is assembled digitally with the following tools: Adobe Pagemaker 6.0, Adobe Illustrator 6.0 and 7.0, Adobe Photoshop 4.01, Adobe Dimensions 3.0; Specular Infini-D 4.0; MetaCreations Vector Tools; Corel WordPerfect 7.0; Microsoft Word 6.0.

Artwork was created on an Apple Macintosh computer, and everything was thenceforth assembled on a Viglen PC running Windows 95. The material was printed by the University of York's Printing Unit.

This issue of *Keynotes* was assembled by Ray Drainville; if you have any questions or comments, feel free to contact him by email at *rad4@york.ac.uk*.