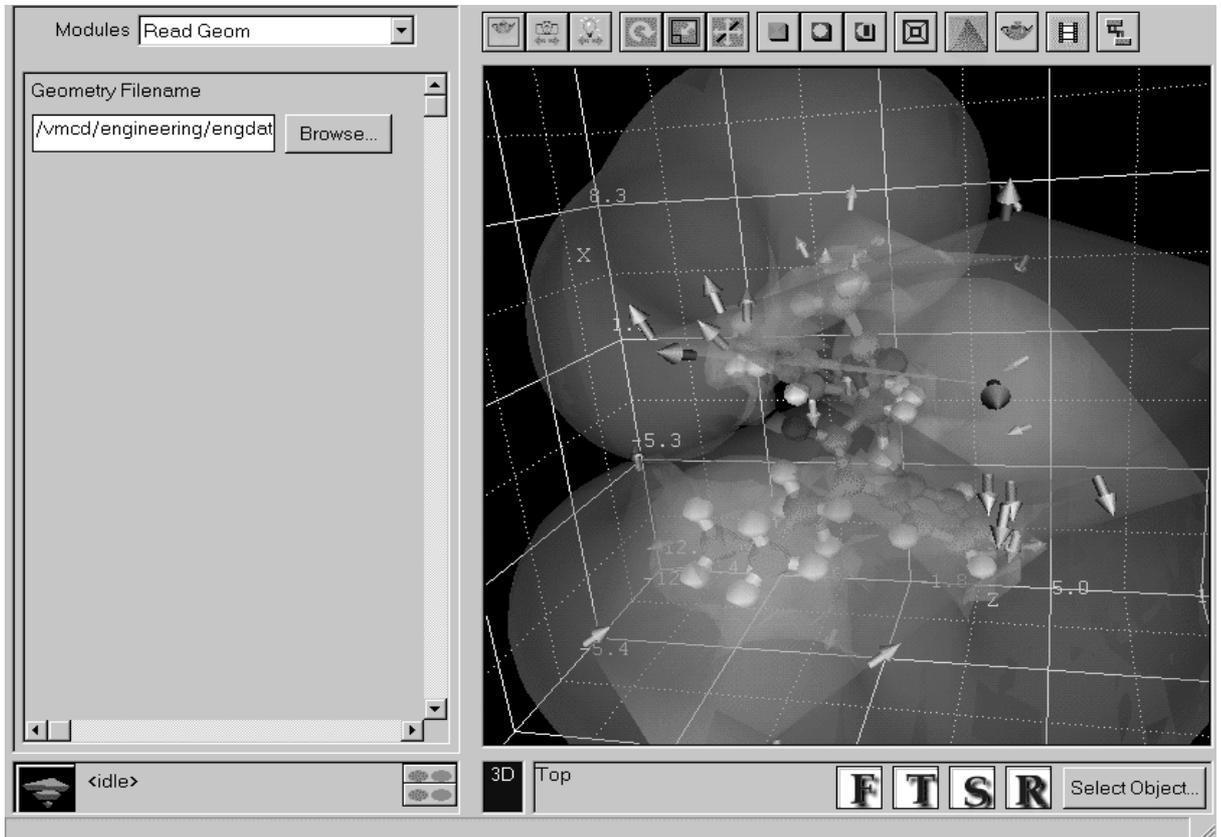


# key *notes*

V o l u m e 2 5 N u m b e r 2 D e c e m b e r  
1 9 9 8

## AVS Comes To York



*Also in this Issue:*

Course News

The Millenium

Microsoft Site Licensing

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The cover image shows a molecular modelling application. The original image is on the AVS UK web site.

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## From the Editor

Nestling between the pages of this issue of keynotes, you should find our Course Schedule for Spring 1999. If you want further information, or if you haven't received a copy of the schedule, please contact the information desk - by phone, in person, by e-mail, or visit the web site. Contact details are on page 8.



Millenium compliance continues to be a central issue. Dave Atkin outlines the Computing Service's strategy on page 5.



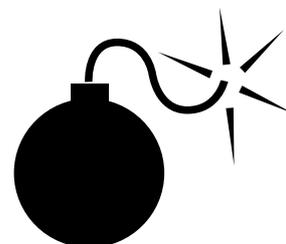
In response to user wishes, we have arranged to purchase AVS, a sophisticated piece of data visualisation software. On page 6, Rob Fletcher explains its potential, while on page 4, Staff and Graduate Courses includes details of training in its use.

*Joanne Casey*  
*Information Officer*

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## millennium countdown

56 weeks to go!



Are you prepared? See <http://www.york.ac.uk/services/cserv/offdocs/y2k.htm> for further information.

# Briefly.. licences, McAfee, staff news, Christmas, hoaxes ...

## Staff News

*Mike Jinks*

In the previous issue of keynotes, we announced that our new Head of MIS, Dr Nick Teall, would join us on 2 November and that we would introduce him more formally in this issue. Such optimism was premature. Just before he was due to join us, Dr Teall decided that he would be unable to take up the post for personal reasons. We have thus restarted the recruitment process, but will obviously be without a permanent Head of MIS for some while.

James Walker, whose cheerful personality will be missed on the Information Desk, is leaving us in mid-December to take up a post with the City of York Council where he is in the fortunate position of being experienced in systems and technologies which are just being implemented at the Council. We wish him every success in his future career.

## P C A n t i - v i r u s protection

*John Illingworth*

The University has obtained a site licence for the McAfee anti-virus product VirusScan for Windows 95 and NT. This is available to all staff and students on signing the standard CHEST copyright form. The licence states "... if the institution signs up for the Unlimited Educational User Site Licence which covers ALL of its administrative and student systems, then the licensed software can be used at no additional charge on all faculty and currently enrolled student/employed staff home machines for the period of the licence."

The licence also states that at the end of employment or enrolment the software must be removed and the Institution should seek reasonable assurance that this has been done.

We hope to install the software such that supported PCs can load it from the network. However for unsupported and home PC use, the infodesk will hold loan copies and the installation guide.

## Microsoft Licensing

*John Illingworth*

Microsoft have recently announced a two-year extension to the current Select 4 licensing deal, which will now continue to operate until the end of 2001. They have also announced the Microsoft Campus Agreement, which for an annual fee based on the number of staff in the University, allows unlimited use of MS Office, the Visual development tools and some operating system components. It is not yet clear if this is a cost-effective deal; investigations are continuing.

## Hoax virus warnings

*Joanne Casey*

As an email user, you may sometimes receive messages warning of viruses, asking you to forward the warning to others. These are usually hoaxes, and should not be forwarded. For more information on such warnings, check the Virus Myths Website: <http://kumite.com/myths/home.htm>.

## Christmas

*Brian Souter*

The Computing Service building, including the Information Desk and entrance lobby, will be closed over Christmas from 12.30 pm on Thursday 24 December until 9 am on Monday 4 January. Computing Service equipment in the colleges and Kings Manor will be

available over the holiday period but opening times should be checked with the porters.

Although Computing Service staff are not normally on duty during the holiday period we will schedule someone to attend to the printers and check the network from time to time. The porters should not be expected to report

problems to Computing Service staff unless they are of an extreme nature and form part of the standby arrangements set out by Estates and Security. Computing faults will be dealt with as part of the scheduled checks or when staff return after the holiday period.

## Use of spare PCs in classrooms

*John Illingworth*

This is an issue which recurs each year, no matter how many PCs there are.

There are three points of view, firstly that of the student who wishes to make use of a PC but finds that during teaching hours many of the classrooms are in use by classes which don't fill the room.

The second point of view is that of the lecturer who is trying to create a coherent learning experience for the class, but is continually interrupted by students moving in and out of the room, clattering the keys during the talking sections and holding conversations with friends. Often students will walk in front of a lecturer in midflight without apparently noticing them!

The final point of view is that of the students actually attending the class who have to deal with continual distractions to their concentration. Comments on feed-back forms have made it clear that some students find a classroom with continual comings and goings detracts from the quality of the course.

This issue has been discussed by Information Committee (minute 98/13, 16th Feb 1998) when the Committee decided:

(a) that tutors should be "strongly encouraged" to make free machines available at the start of teaching sessions, but should have the right not to permit students to enter the room once a class had commenced;

(b) that the situation should be reviewed in a year's time.

So it's quite clear that University Policy is that the

lecturer has the final say, but is encouraged to allow use of spare PCs.

How to work this in practice depends on a number of factors - the size of the class, the style of teaching, which room is being used and so on.

The Computing Service has considerable experience in teaching in the PC classrooms, and we offer the following suggestions:

Lecturer - if there is no prior booking, arrive 10 minutes before your course is scheduled and announce that you have the room booked. You probably know how many PCs you will need, so say which rows you will require and tell those using the other rows that they may continue to work quietly. This gives those who need to log out time to do so in a sensible way. It is important to have your class occupy a contiguous block.

If you have a demonstrator, brief them as to your door policy.

Make a striking "Lecture in progress" sign and attach it to the outside of the door across the join and at eye level. This will dissuade some students from entering.

Students in the class - if you find that students not in the class are distracting you, don't suffer in silence, tell the lecturer or demonstrator.

Students not in the class - if you don't want to be moved on by classes, sit as far away from the lecturing position as possible. Try and use a non-bookable PC room during teaching hours. V/058 is new since last term, A/140 is still available and both L/051 and the JB Morrell Library have newer PCs installed. There are also 300 or more PCs in departments which are available for student use at various times. Ask your department what's available. Remember that you too may find working in a PC room in which a class is being held a distracting experience.



## Conduct in Classrooms

*Brian Souter*

In order to provide a quiet, clean and safe environment in which to study, and to maximise the number of PCs available for course-related work, we have a few simple rules which are displayed in each of our classrooms and study centres. Unfortunately, a minority of users tend to ignore these rules creating difficulties for other users and the technical and domestic staff responsible for looking after the rooms.

Although food and drink are not supposed to be taken into the rooms we receive regular complaints from the college domestic staff about the state of the rooms each morning. Apart from the general mess created by empty cans and discarded food wrappers, we have had to sort out several expensive accidents when drinks have been tipped over the equipment and furnishings. Also, the rooms soon become dirty with bits of food in the keyboards and coffee stains on the tables.

A regular complaint from students is the lack of available PCs when some users are obviously engaged in game playing or casual web browsing.

An even more anti-social trick by some users is to deliberately disable PCs or leave them logged in so they can return to use them later. Although our aim is to provide serviceable equipment under library conditions for quiet study, we recognise that we rely on the co-operation of users. We are not able to keep an eye on the rooms at all times, particularly as they are open twenty four hours per day, seven days a week. Groups of rowdy students "hanging out" in the rooms after the bars close is one scenario we are aware of.

More seriously, we have a constant battle with petty theft and malicious damage. Although the equipment is secured against major theft it doesn't stop the odd user removing the ball out of a mouse, or stealing a mains or keyboard cable. We also have tremendous problems with chairs being removed, often just to neighbouring offices and study bedrooms.

In recent years the Registrar's Department have issued University Notices about the problems, and the Student Union have produced their own poster. Despite this, and

numerous appeals through keynotes and on-line news, the problems persist. More recently we have asked Security Services for their help and we are currently drawing up a procedure for their staff. Although our policy is to have the rooms open at all times, we are under pressure to restrict access. The new room in Vanbrugh has been fitted with an access control lock, although we are still reluctant to enable it. Also, closed circuit television is soon to be fitted in Vanbrugh, and other rooms as funding allows. This is primarily to help protect students working on their own and to safeguard the equipment from major crime. Nevertheless, the technology will assist us in dealing with some of the petty problems we have to face on a daily basis.

Although this article paints a bleak picture of our college facilities, on the whole our equipment is clean and serviceable, and most users are well behaved. As in all walks of life, a small minority tend to spoil things for others.

## King's Manor Windows 95 Service Developments

*Doug Moncur*

This item is almost impossible to write as, at the time of writing (late October), we have the new King's Manor server, a Compaq Prosignia 200, under active test in the Computing Service and are hoping to bring it into service in mid-November, which should result in improved performance in King's Manor.

There will almost certainly have been some angst along the way but hopefully by the time this article appears we will have solved any problems and the service will be much improved.

In the meantime we have reconfigured the network in King's Manor to provide

improved throughput on the link. We are continuing to actively investigate the possibility of upgrading the King's Manor/Heslington link to 34MB/s.

# Staff and Graduate Courses for Spring 1999

*John Illingworth, Rob Fletcher, and John Byrne*

## New Courses

The course schedule for next term appears elsewhere in this issue, but I would like to draw your attention to some new courses.

### **AVS/Express - a new course on new software!**

This will be a one afternoon introduction to the AVS/Express software, which has been described elsewhere in this issue.

The course will introduce the ideas behind data visualisation, the concepts behind the product and will also include some hands-on experience with the software.

For this course, all you need is basic computing experience and a real need to explore large and complex datasets.

A further course in the following term will give more emphasis on the use of the software, and an introduction to writing your own modules to extend the functionality of the software.

This second course requires C programming experience.

### **Tcl/Tk/SpecTcl - a new course on old software!**

This course will introduce the platform independent graphical user interface programming language, Tcl (pronounced "tickle"), the toolkit, Tk, and the interactive interface designer SpecTcl (pronounced, well ... "spectacle"!!!). Applications can be built from scratch using the software, or existing programs with old command line interfaces can be "brought up to

date", with a new friendly graphical user interface.

This will be a one session hands-on course which will briefly outline the software (which has tremendous functionality), leading to a small, but complete application which will run on the SGI O2's, the Sun Servers, Tower and Ebor, and also on the Windows 95 PCs!

A follow-up course may be given in the following term, if there is sufficient demand.

The course only requires basic computing experience. Some exposure to programming, in any language, will help.

### **XFORMS - a revised course**

XFORMS is a graphical user interface programming library for which there is a version of the library for almost all unix systems. This means that the interface is source code portable. It is a system for writing programs where the interface and application code needs to be more tightly integrated. If you write your application code in a reasonably portable fashion, then you stand a good chance of being able to distribute the program to other unix users on different platforms.

The course will also be a one session introduction with hands-on programming in order to create complete working applications.

A follow-up course may be given in the following term, if there is sufficient demand.

This course requires reasonable C programming experience.

## Further Web Authoring

The Further Web Authoring Course will be useful to those who have completed the Web Authoring Course, or who have a basic knowledge of producing Web Pages using HTML authoring tools, and wish to gain experience of more complex techniques. Topics will include simple forms processing, cascading style sheets and other important new developments in HTML.

## Charging for Courses

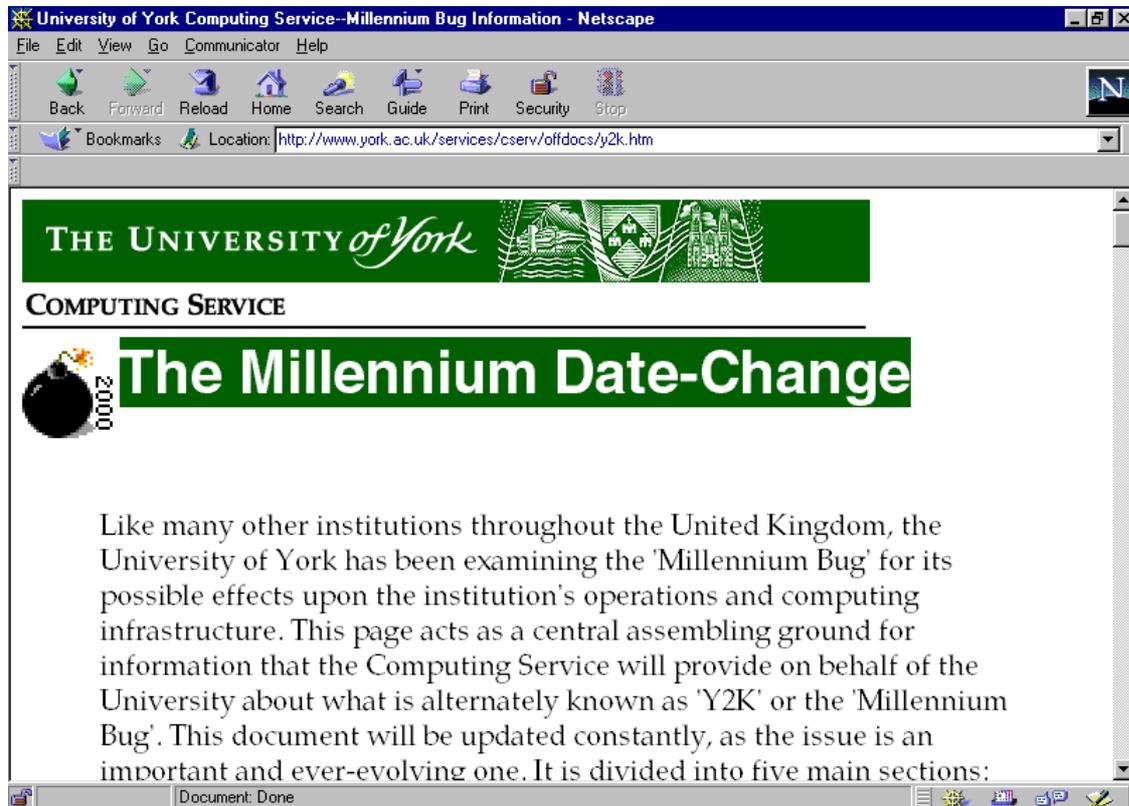
From the start of this term we have implemented that part of the Review of the Review of the Computing Service that says we should charge a registration fee for all our courses. At the time of writing, it looks as though this has reduced take up of Staff & Graduate IT courses by about half and several courses have had to be cancelled or combined through lack of support. As a result we are scheduling fewer courses next term. However, the review also commits us to provide basic training in core software, so we won't be giving up entirely!

We are somewhat surprised at the proportion of cash & cheques being proffered by those registering for courses. We imagined that most course registration fees would be paid for by departments using internal orders (Goods Demand & Charge Notes). The idea is not that individual staff and graduates should pay the course registration fee out their own pockets but that departments make a contribution to training their own staff and students in areas relevant to their work.

# Computing Service Millennium Action Plan

Dave Atkin

millennium



## GENERAL STRATEGY

Following various meetings and brainstorming sessions we are just putting the finishing touches to the testing phase of our Millennium Action Plan. Most of the work will take place over the 1999 Easter vacation when we will build a test network on which we can test all our important systems, services and processes. At that stage we should have a stable environment which will reflect the systems and software which will be operational over the date change.

## TEST NETWORK

The test network will have at least one of each of the following:

- Sun system (with Interbase)
- Silicon Graphics system
- NT server
- Alpha system (for MAC software)

Supported PC running Windows 95  
Network printer

If you have a specific testing requirement, eg some software you would like to run on one of these test systems, contact Dave Atkin (dla1@york.ac.uk).

## WHAT WE WILL TEST

We will be testing the Web server, Web cache, Printing, Usenet News, Email and various network information services. We will also test our various internal databases and associated software for Charging, Network Management, User Registration and the Data Warehouse.

## PC COMPLIANCE

We have amassed a considerable

amount of information on PC compliance, and we are looking at software which you can run yourself in order to test your PC hardware. We had hoped to pass on the results of a recent project undertaken at Glasgow University but unfortunately this project did not make any specific software recommendations and hence we are now evaluating products locally.

For details of how to check if your PC is likely to have millennium problems, see our Web site:  
<http://www.york.ac.uk/services/cserv/offdocs/y2k.htm>.

## AVS Comes To York!

**Rob Fletcher**

Computing Committee have agreed to the Computing Service buying the high performance data visualisation software, AVS/Express. Initially it will be available for the Silicon Graphics workstations and the Windows95 PC network.

The licence will also allow it to be mounted on systems which are not part of the managed network, so users with SGI systems (e.g. the Origin 2000 systems in Music and Computer Science), and high performance PCs should contact me to arrange a convenient time to install the software. If the system is required for other computing platforms, then those users should contact me in the first instance for details of the costs.

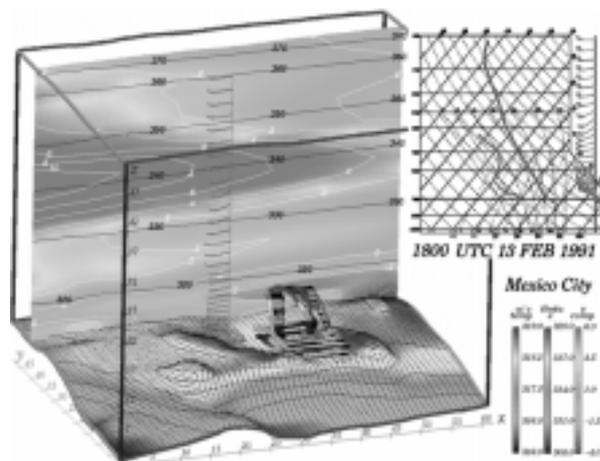
So, what is Data visualisation? To quote from the AVS Web Pages (<http://www.avs.com/>)

*"Data visualisation is: the art and science of turning complicated sets of data into visual insight. It enables people to easily make sense out of what otherwise would just be a set of meaningless numbers by using the one third of their brain devoted to visual processing, and uses the power of the human eye and brain to discern relationships by presenting complex data as multi dimensional color images and animations."*

So, who is likely to use it? A technique that might seem suited only to areas of scientific research, medical imaging or engineering is, in fact, increasingly used by researchers in many diverse areas.

The following has been paraphrased from some visions referenced on the AVS website.

In financial, marketing, and other businesses, visualisation is a useful adjunct, or even alternative, to developing statistical measures and rules to extract meaning from data warehouses. Instead of trying to compute causation from data correlation, visualisation uses the power of the eyes and brain to discern meaningful patterns in the data. Understanding then comes from drilling down and visualising the data at ever



increasing levels of detail. This leads to actions based on insight and avoids false correlation that can otherwise be problematic in data mining. Three-dimensional finite-element analysis is an important tool for analyzing many product designs. Examples include the analysis of mechanical stresses, thermal and fluid flow, and electromagnetic fields. Using advanced visualisation techniques, the results of the interaction of many parameters can be clearly seen. Data can be viewed in three dimensional space at a single instance in time or as moving images as the data evolves over time.

Properly used, data visualisation can lead to critical insights that result in technological success.

Understanding telecommunications issues often involves analyzing many transactions taking place at a large number of sites. The resultant data can be overwhelming in its size and complexity. Advanced data visualisation methods enable one to see clearly critical trends in the data, bottlenecks in communications, and geographic time dependencies of traffic. Data can be presented in real time or seen from a historical perspective.

An interesting recent example is a system built by crimefighters in Italy who are trying to track down potential fraud in bank transactions. The financial analysts with Italy's central banking system can explore massive datasets looking for the proverbial needle in a haystack - a blip, a spike, any abnormality that might suggest illegal activity using the banking system.

Above left is an example of a complex display using AVS/Express from the NOAA Forecast Systems Laboratory. The colour has been removed for printing purposes. For this image and others, including animations, please go to the following URL: <http://www.york.ac.uk/~rpf1/AVS.htm>.

For more information, please contact me, Rob Fletcher by phone, 3816 or email rpf1.

## **Electronic Timetabling**

MIS are assisting the Registrar's department with implementation of electronic timetabling software: Syllabus Plus. Course and student information will be electronically transferred from the MAC student record into the timetable database together with details of the rooms used for teaching (from the MAC space record) and the names of teaching members of staff (from MAC personnel). Information about teaching activities will be input manually using departmental timetable submissions. The implementation project team, which is being lead by Rosie Dhesi of the Exams and Timetabling Office, is intending to use Syllabus Plus in parallel with the current manual method of timetabling to produce the summer term timetable for the current academic year. The autumn term timetable for academic year 99/00 will be the first to be produced using Syllabus Plus alone. One of the longer term aims is to deliver the timetable via the WWW for easy access throughout the University by staff and students.

## **Data Warehouse Phase I**

Due to changes in the central UNIX systems during the summer months it is no longer possible to provide Phase I of the data warehouse and this facility will be withdrawn from November 30<sup>th</sup> 1998. Phase I of the data warehouse consists of ASCII format departmental files for student, finance and research data which can be imported into spreadsheet and database packages. The

majority of staff now use what is known as Phase II, an Interbase relational database which is accessed through the use of tools such as Paradox and Impromptu. The data held in Phase II is exactly the same as that in Phase I, in fact there is a great deal more. For further information on the data warehouse and how to obtain access please refer to the previous issue of Keynotes or to the Computing Service web pages.

## **99;York - file transfer of reports**

There is a facility in the MAC 99;York in-house reports menu to transfer report output to your "M" drive from where it can be loaded into a word processor or spreadsheet. When you run a report and you are asked if you want to View, Transfer, E-mail or Print report output - select option "T" and this will copy the report output to a file on your M drive. Note however that it is only possible to use this facility if you are registered to use the Ebor computer - registration is an easy process and can be done on-line via the Electronic Information Desk at <http://www.york.ac.uk/services/cserv/edesk>. If you are not registered, your file will not appear on your M drive.

## **Daytime batch processing - opportunity**

The improvement in performance of the MAC system which was achieved through the introduction of the new Alpha computers in June has opened up the possibility of running programs during the day which previously could

only be run overnight due to the impact that they had on the system performance. We would be interested to hear from anyone who has a particular MAC report or program that they would wish to run during the day rather than at night. Please send your requirements in an e-mail marked for the attention of MIS to [InfoDesk@york.ac.uk](mailto:InfoDesk@york.ac.uk).

## **MAC Replacement**

The University Information Committee has stipulated that the replacement systems for MAC should be introduced in a phased manner between 2001-2003. Initial information gathering exercises have commenced and a full project plan will be drafted in the coming months. A high level of participation from departments will be required in order to ensure that the replacement system delivers benefits to all areas of the University.

## **Departmental Financial Reporting**

MIS are intending to review the departmental financial reporting system developed by Richard Shepherd (a former Management Accountant at the University) and to replace it with a system which can produce reports more quickly without the need for data downloads. Ease of use will be a key feature together with simple report design and layout. Further information will follow in future issues of Keynotes.

## Computing Service Address

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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*

Also, try the World Wide Web: <http://www.york.ac.uk/services/cserv>

## Information Desk

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Telephone: ext 3838  
Email: *infodesk*

The Information Desk is open from 9am to 5.15pm Monday to Thursday and 9am to 4.15pm on 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.

## Computing Service Staff:

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Director:	Mike Jinks	3801	<i>kmj1</i>
Deputy Director:	Peter Roberts	3802	<i>pdr1</i>
Departmental Secretary:	Lorraine Moor	3801	<i>lsm1</i>
Head of Technical Services:	Dave Atkin	3804	<i>dla1</i>
Head of User Services:	John Illingworth	3803	<i>jj1</i>
Head of Personal Systems:	Doug Moncur	3815	<i>dgm1</i>
Operations Manager:	Brian Souter	3814	<i>bs1</i>
Information Officer:	Joanne Casey	3805	<i>jmc8</i>

Steve Bennett	3832	<i>sgb8</i>	Sue Hodges	3800	<i>sh32</i>
Sue Bolton	2102	<i>sjb28</i>	Jenny Jackson	4455	<i>jj5</i>
Mike Brudenell	3811	<i>pmb1</i>	Chris Joy	3807	<i>cj8</i>
John Byrne	3812	<i>jcb1</i>	Bob Marriott	4454	<i>bdm2</i>
Paul Conacher	4346	<i>pac1</i>	John Marsden	3832	<i>jpm1</i>
Mark Cook	3897	<i>rmc12</i>	John Mason	3813	<i>jrm13</i>
Robert Demaine	3808	<i>rld1</i>	Darren Munday	3821	<i>dam6</i>
Debra Fayter	3839	<i>daf3</i>	Helen Parker	3800	<i>hp7</i>
Ken Finch	4452	<i>kf1</i>	Colin Rea	3817	<i>cr9</i>
Rob Fletcher	3816	<i>rpf1</i>	John Robinson	3833	<i>jsr1</i>
Kevin Gardner	3739	<i>pkg4</i>	Kay Robinson	2101	<i>kr7</i>
Chris Gowland	3823	<i>cg1</i>	Andrew Smith	3809	<i>abs4</i>
Peter Halls	3806	<i>pjh1</i>	Timothy Willson	2123	<i>ftmw1</i>
Vivienne Hemingway	3818	<i>vwh1</i>	Michael Woodhead	3825	<i>mw28</i>