



THE UNIVERSITY *of York*
Computing Service

key notes

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The Regulation of Investigatory Powers Act

**A summary of the recent change in
legislation and its impact**

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Keynotes on the web

Back copies of Keynotes can be found at:
<http://www.york.ac.uk/services/cserv/offdocs/keynotes/>

From the Editor

Some of you will know that at the end of this month Peter Roberts will be retiring as Deputy Director, after 31 years in the Computing Service. On page 2 Mike Jinks gives details of his time in the Service and of his future activities.



This issue contains a wealth of information on new software applications. See page 6 for Rob Fletcher's appraisal of OpenGL, and page 7 for details of how to use it to produce graphics. Meanwhile, on page 10 Peter Halls writes about the PCI image processing suite.



Finally, new to Keynotes is the crossword. Written by our very own Zeus and broadly computer themed, it attracts a bottle of wine for the winner. More details on page 9.

Joanne Casey

Spring term courses - more choice, no charge
John Illingworth

The spring term Staff and Graduate Course Schedule is listed in detail in the centre of this issue. There is no longer a course registration fee, although it is still necessary to register at the information desk. However, now that no money needs change hands, the phone (3838) and email (infodesk@york.ac.uk) can be used to register.

The charging experiment has been in place for two years. In each of those years the total number of trainees was considerably reduced compared to the previous regime, but the number of courses remained roughly constant, so there was no saving of staff effort. The second year confirmed the inference from the first year that fewer people were being trained for no discernable gain to the University. On being apprised of the second year's figures, Information Committee removed the charge with immediate effect. (Information Committee Minute 00/84 for those of you into minute numbers).

The Spring Term schedule sees the introduction of two new courses - Open GL and the PCI set of Geographic Information tools. Both these software products are described elsewhere in this issue. Several requests have prompted us to extend the PowerPoint course, so there is now a basic and a further session, and an excess of those wishing to learn the HTML web page layout language have persuaded us to repeat this section of the web strand at the start of the term.

Remember that Computing Service Staff & Graduates courses are open to **all** staff and **all** graduates.

Keynotes reader survey
Joanne Casey

Readers of Keynotes are being asked to provide their opinions of the newsletter via an online survey. This can be found at:
<http://www.york.ac.uk/services/cserv/offdocs/keynotes/survey.htm>

The survey will be available till the end of December and readers are urged to take part.

A summary of the results will be published next term.

Christmas Holidays
Brian Souter

The Computing Service building, including the Information Desk and entrance lobby, will be closed over the Christmas holiday period from 12.30pm on Friday 22 December until 9am Tuesday 2 January. Computing Service equipment in colleges and at Kings Manor will be available over most of the holiday period, but opening times should be checked with the porters. We will arrange for staff to check the printers and the network from time to time, but any major faults may not be attended to until our service resumes on 2 January.

Spare PCs in booked PC classrooms
John Illingworth

At this time of year those teaching in computer classrooms are likely to get queries from students about use of unused PCs during the lecture.

The official position is that the University's Information Committee at its meeting of 16th July 1999, minute 99/64, confirmed an earlier decision that "staff should be encouraged, but not required, to make free machines available to casual users provided they did not cause distraction" and wrote to Boards of Studies reminding them of this.

A new development has been a feeling of territoriality amongst some students who feel that they have special rights to the PC classroom that happens to be in their college. This has no foundation; all Computing Service PC classrooms are centrally timetabled University facilities.

On the positive side, this summer the number of PCs in the non-bookable 24-hour study rooms has been substantially increased. Goodricke G/022 has had its 19 ageing terminals replaced with 46 brand new PCs, while the study area in Langwith, L/050 has had 13 old PCs replaced with 21 new ones.

A final point. Many lecturers use "lecture in progress - do not enter" or similar notices to try and preserve a good teaching and learning environment in the classroom. If you do this, don't forget to remove the notice afterwards. A good idea is to include the time and date.

Retirement of Peter Roberts, Deputy Director of Computing Service

Mike Jinks

Peter Roberts is retiring from his post as Deputy Director of the Computing Service at the end of December. Peter joined the University on 1 January 1970 as Computer Manager in the embryo Computing Service within the Department of Computation (now Computer Science) to build up and manage a computing service for the whole of the University. This was a period of major expansion of computing in Universities and was overseen by the Computer Board for Universities and Research Council which reported to, and was funded directly by, the Department of Education and Science. The Computer Board funded major capital expenditure on computing following reviews and 'inspections' of Universities' computing provision. In these early days, computing was provided only for research, but teaching was subsequently included and there was an uneasy period when administrative computing - traditional Data Processing - was not seen as a valid use of central Computer Board funding.



Then and now - Peter Roberts retires after 30 years in Computing Service

As technology developed and large central systems were superseded first by mini-computers and subsequently by complex networks of interacting access devices and servers, institutions became increasingly dependent on computing and devoted more of their income to IT. Because of the increasing rate of change in all areas of the University's activities, strategy development has become crucial, and both the role and management of the Computing Service has changed almost beyond recognition since Peter first took up his post. Over the last 31 years, Peter has been critically involved in all aspects of these huge changes and has helped to guide the University to obtain the benefits from IT. It is much to his credit that the University has IT systems that are amongst the most reliable in the HE sector and that the Service is well-regarded by colleagues from other Universities. Peter has also played a full part in the life of the University, serving on Langwith College Council, as well as numerous committees and working groups.

Although Peter is retiring from his current post, he will continue to work part time for the University as Project Manager for the University's Business Continuity project, which will involve both the IT and wider aspects of business continuity in the event of the University being affected by a major incident. We will thus be able to continue to benefit from Peter's experience for some while longer. We wish him every success in his new role and trust that he will enjoy his (partial!) retirement.

Restructuring of the Infrastructure Group

Mike Jinks

In the previous issue of Keynotes, we indicated that to reflect emerging requirements the newly formed Infrastructure Group would have a somewhat different structure from the previous Technical Service Group. Information Committee agreed the revised structure at its recent meeting. The Infrastructure Group comprised three main groups: ***Networking*** to be led by the Head of Networking (post vacated by Robert Demaine and currently advertised), ***Systems*** led by Dr Andrew Smith and ***Technical Services***, led by Doug Moncur. The Systems Group is responsible for both the standard desktop systems and the central servers, whilst the Technical services Group is responsible for procurement, special projects and technician services. With the retirement of Peter Roberts as Deputy Director, there will be some further changes in

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Microsoft Office teach-yourself guides
John Illingworth

Associate People Registration
Jane Henley of J B Morrell Library and Brian Souter of Computing Service

SMS or Software Made Simple is a supplier of training manuals for Microsoft Office specially targeted at Universities and Colleges. As we have a steady stream of enquiries about MS Office training of one sort or another, we have obtained a site-wide licence for these manuals in the belief that they will fill a need. They are in workbook format, with passages of explanation interspersed with practical examples, and are designed to be used with the software in question active on your screen.

There are both web and printable versions of the guides so that you may either follow the explanations on-screen, swapping between the application and the text, or print yourself a copy.

The topics covered are Word, Excel, Access and PowerPoint in their 2000 and 97 versions, and some earlier versions of the Office suite. There are even books on Excel & Word for the Mac.

The workbooks are protected so that you will need your York user id and password to access them. They can be reached from the Help Pages & Guides | Computing Service Guides section of the Computing Service web pages at: <http://www.york.ac.uk/services/cserv/advice/guides.htm>.

structure/responsibilities of individuals and groups within the Service and these will be reported when they have been agreed.

We extend every good wish to both Andrew and Doug in their new roles.

Information Committee at its last two meetings has discussed, *inter alia*, those staff and visitors in the University who are not recorded on the Personnel system as staff but who wish to use Computing Service and Library facilities. The lack of centralised information about these people causes considerable problems for Computing Service and the Library who need to establish their status and entitlements. Normally Computing Service and the Library use Personnel records to validate members of staff, and Computing Service transfers a subset of the personnel data in order to generate usernames. However, there are several hundred people working here who are not employed directly by the University and are not on the Personnel system. It is therefore important that there is a method for recording information centrally about these people (*Associate staff, Approved temporary staff and Other visitors*) so that it can be accessed by Computing Service and the Library for checking details to enable a smooth registration process rather than having to question applicants and ring departments.

Information Committee has agreed that Computing Service and the Library should work together to establish a list of categories and to implement a system to record their details. A web application and database is being set up and it is recommended that departmental secretaries or other authorised departmental staff should input the data which can then be accessed by similarly authorised staff in the Library and Computing Service in order to confirm details. At the Information Committee meeting held on 10 October 2000 it was agreed that the new system should be piloted with two departments initially, but if other departments are interested in taking part in the early stages we would be very pleased to hear from them. The trial will be implemented shortly.

Classrooms
Brian Souter

The replacement of our old PCs and furniture in the J B Morrell Library, Langwith College Library and Goodricke College Library took place over the summer as planned, although we overran the start of the Autumn Term by two weeks - the building refurbishment in the college libraries took a little longer than anticipated, and the furniture supplier had difficulties in meeting our deadlines. The rooms are now open but we may have to close them from time to time during the Autumn Term to allow access by contractors to complete any outstanding work.

In total, we installed 81 new PCs, replacing 29 old PCs and 22 old terminals. The colour flatbed scanner and the 35mm scanner were moved to room D/104 as planned, but the additional printer for Goodricke was not installed on time because of difficulties in obtaining the security cabinet.

We are very pleased with the new table design which should make things more comfortable for users, and allow either right or left handed use of the mouse. A lot of effort went into the design and we would welcome some feedback to see if we have achieved what we set out to do, or to point out anything we might have got wrong so we can consider it in the next design.

Regulation of Investigatory Powers (RIP) Act

Mike Jinks writes about the recent change in legislation

Readers of the computing press and aficionados of parliamentary business will be aware that the Regulation of Investigatory Powers Bill caused much controversy in its passage through Parliament. There was considerable concern about the proposed draconian powers to intercept and monitor information on individuals, particularly that in transit via telephone and data networks, and the secrecy and lack of accountability of the procedures. In the event, robust action by the House of Lords, coupled with the Government's wish to ensure that legislation be in place as soon as possible, has resulted in an Act which, if not strongly welcomed, has had the major causes for concern removed.

The outcome is that organisations need do little more than what would be seen as good corporate governance to comply with the Act. In particular, organisations should have formal policies in place on the interception/monitoring/recording of communications by anyone who communicates electronically with the organisations, including employees and customers. Procedures should also exist for implementing the requirements of any warrants which may be presented by statutory and other responsible authorities. Organisations also need to have policies and procedures in place to deal with encryption of messages and documents and release of encryption key information to the relevant authorities.

The Act is difficult to interpret in certain areas and this will be clarified only in the courts, especially as there are potential conflicts with both the Data Protection and Human Rights

Acts. In the medium term, the University will need to consider these matters and their implications to define coherent policy as part of the University's overall Information Access and Security Policy but, in the short term, it is appropriate to remind everyone of current University Policy relating to monitoring of computer-based information.

The University's Regulations for use of Computing Facilities require them to be used 'only for University work or for the purposes for which they were requested.....' (Regulation 6(a)); the latter qualifier is designed to deal with the grey areas associated with spin-off consultancy etc - the University does not provide a general computing service for anyone who wishes to use it for any purpose. Since work is undertaken on behalf of the University, the University reserves the right to monitor such work. This is not undertaken on a regular basis, nor does the University institute random checks. Files, access logs, emails etc relating to individuals are monitored in the following circumstances:

- in the investigation of an 'incident' - alleged contravention of University rules, regulations, contracts etc or alleged criminal activity
- in the investigation of abnormal system behaviour in an operational context - abnormally high network traffic from a particular device, degradation of systems for other users, resulting from the activity on a specific device etc
- for problem-solving, eg ensuring a file transfer takes place; the user would normally

instigate this but, on occasions, the intended recipient raises a query and the sender is unavailable eg out of the country

- in the context of charging departments for their share of the transatlantic network charges.

In the case of alleged incidents or abnormal system behaviour, the Computing Service is responsible for undertaking a preliminary investigation to establish whether a *prima facie* case exists for a contravention of either University rules, regulations, procedures etc, or the law. If such a case is established, the Service makes a judgement on whether this is essentially a breach of computing regulations or whether it is a symptom of wider problems. In the former case, the Service pursues the investigation, taking disciplinary action as appropriate. In the latter case, the Registrar is informed for suspected breaches by staff, the Academic Registrar informed for suspected breaches by students, and an agreed course of action initiated. At this stage, the student's supervisor and/or Head of Department is informed, and the Head of Department informed for staff.

If University disciplinary action or criminal prosecution arises from investigations, the Service provides relevant evidence for the disciplinary or prosecuting authorities, together with expert opinion, should this be required.

The Service is normally alerted to alleged incidents either by complaints from other users or by the Head of Department or supervisor. The minimum

Windows 2000

Andrew Smith and Sam Vines

number of Service staff are involved in investigations and all information collected is subject to strict confidentiality. A small number of such incidents arise each year and these are almost always dealt with swiftly, normally providing an unequivocal outcome. Fortunately, serious incidents are rare but it is in everyone's interests to be aware of the potential for abuse of the computing systems, the procedures to be invoked if a suspected incident occurs, and the principle under which investigations take place.

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PC Availability

Joanne Casey

In response to a request from Computing Committee, the Computing Service carried out a survey in August 2000 to find out the numbers of PCs available for undergraduate use across the University.

The figures are as follows:

Centrally provided: bookable	155
Centrally provided: non-bookable	122
Provided by Departments	354
Total	631

The following Departments reported some undergraduate PC provision: Archaeology, Biology, Chemistry, Computer Science, Electronics, Environment, Health Studies, Language, Music, Physics, Psychology.

It is hard to ignore Microsoft and their range of Windows products and applications. The continuing success of the combination of Windows NT and Microsoft Office has meant that Microsoft is the industry standard for personal and desktop computing. As hardware and software suppliers' support for our Windows 95 machines dwindle, the need to replace it increases and Windows 2000 is the obvious solution.

Windows 2000 offers a faster, more robust Operating System, with crashes and blue screens a thing of the past. Security is of prime importance and the physical protection of user files and resources has been provided through an enhanced and configurable file system. Other advantages include a user-friendly email system that is fully integrated into the Office suite, complete with a full, easy to use address book and diary. On the system side, application packaging, hardware inventory, remote helpdesk facilities, and greater control over print queues, add functionality to the user's working environment.

The desktop interface provided by Windows 2000 is similar to Windows 95 and will enable the user to start using the new Operating System without having to come to terms with an alien environment. There is greater integration with Internet Explorer and it is planned that IE will become the standard web browser.

The implementation of Windows 2000 on our campus network has not been without problems. Originally started 18 months ago, the process of integrating Windows 2000 with our central services has been difficult. However, we are progressing but fundamental problems, such as the UNIX filestore integration, are still a major stumbling block. Microsoft are working closely with us in order to fix some of the bugs we have found.

So, where are we now? The new Windows 2000 domain is configured, split into several organisational units to structure user and computer administration and a number of test PCs are already built. The automatic process of loading the user account information is in place and the existing user names for Computing Service accounts have been uploaded into the Windows 2000 Active Directory. Work is ongoing to continue to allow users to have the same username and password across all Computing Service systems, thus relieving users a multitude of passwords to remember when using multiple systems. This month application installation and testing is to start and it is hoped to provide a similar range of supported applications to that currently available on the Windows 95 service.

We plan to have a training classroom that will be available from April. The aim is still to provide a full classroom rollout at the start of the summer holidays, allowing a full two months for critical user testing before the system becomes heavily used at the start of the next academic year. The migration of Office PCs to Windows 2000 is expected to be performed at user request, often when new PCs are bought. We are still evaluating a number of PC configurations in order to advise on the minimum hardware specification that we will be able to support.

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OpenGL - What is it? Is it important? Do I need to know about it?

Rob Fletcher

OpenGL is a cross-platform standard for 3D rendering and 3D hardware acceleration. The software runtime library ships with all Windows systems (after Windows95), MacOS, Linux and Unix systems. The Linux and non-SGI Unix systems usually have a version of MESA (a software application programming interface [API] replacement for OpenGL) included. If not, you can always download it from the net. We have installed OpenGL support on our Windows95 PC network.

OpenGL delivers fast and complete 3D hardware acceleration. Today's applications and games manipulate massive amounts of data in real-time by using OpenGL hardware accelerated geometry, real-time lighting, clipping, transformations and rendering. OpenGL makes real-time 3D effects possible, because its hardware acceleration adds detail and special effects to images without compromising performance. Examples include real-time fog, anti-aliasing, volume shadows, bump mapping, motion blur, transparency, reflections, 3D textures and volume rendering.

OpenGL is designed to support future innovations in software and hardware. The extension mechanism in OpenGL can expose radically new hardware/software features that simply never existed when it was originally conceived. So you can be confident that you will continue to get the best possible performance from your applications as hardware technology advances. We are of course in the hands of those who write the drivers to exploit the new hardware features.

OpenGL is on every platform and so if you have ever wished that a great Unix application would move to Windows or a great Windows game to Linux, then, since OpenGL is fully cross-platform, it is relatively easy to port from one platform to another. This greatly expands the wealth of applications with high performance graphics that support OpenGL.

OpenGL is a highly stable library. High-end 3D workstation and supercomputer users have been enjoying OpenGL since 1992. Today, OpenGL is also the most popular and powerful 3D solution for Windows, Mac and Linux-based computers, for professional and consumer use. The only competitor for the Windows platform is Microsoft's Direct3D. As usual, there are advantages and disadvantages to using either system. In the main, software development is seen to be easier with OpenGL.

OpenGL provides a high level API for creating high performance 3D graphics. It does not provide any window handling (e.g. window creation, resizing, destruction etc.), nor does it provide any interaction methods (e.g. keyboard input, mouse input etc.); it is up to the programmer to provide the framework in which the OpenGL code will execute. Also, it does not provide any of the graphical user interface components (widgets or controls, i.e. buttons, sliders and so on). Again, it is left to the programmer to provide this functionality alongside the OpenGL code.

One solution to this apparent "lack of functionality" is to use another API, the GL Utility Toolkit (GLUT). This is also

platform independent, and provides window and event handling. Using this toolkit with OpenGL gives the programmer the ability to create truly cross-platform graphics intensive programs.

A programming course will be given in the last 4 weeks of the spring term.

[k7](#)

Mailbase/JiscMail transition

Doug Moncur

Over the weekend of 25 and 26 November the email discussion lists hosted on Mailbase moved to a new service called JiscMail. Messages should now be posted to listname@jiscmail.ac.uk, where *listname* is the name of the list you are posting to.

While the way you do things is very similar to Mailbase the syntax of some of the commands, in particular the commands to suspend and resume receiving mailings from the list have changed.

The Computing Service has documentation on the changes online at:

http://www.york.ac.uk/services/cserv/mailbase/mailbase_transition.htm

and an *aide memoire* to the new command syntax online at:

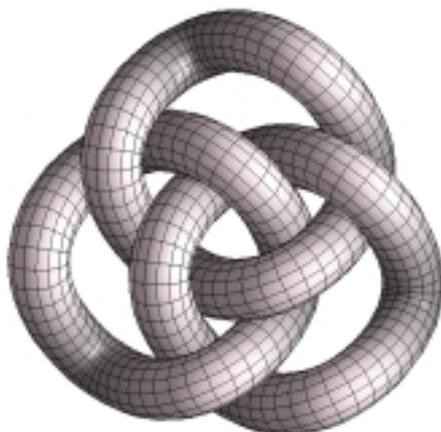
<http://www.york.ac.uk/services/cserv/mailbase/conversionguide.htm>

If you use Mailbase it is important that you check the information on these pages as soon as possible, especially if you wish to suspend mail from the former Mailbase lists over the Christmas and New Year period.

Producing Graphics in OpenGL

Rob Fletcher

The graphic below, (which incidentally is not an “impossible figure”), showing three complete circular tubes which do not thread through any other, was produced using the plotting package “Dynagraph”. It is available on the SGI systems and also on Tower/Ebor. It uses OpenGL for its graphics, but in this case uses the MESA package (MESA also allows you to render to other graphics formats, such as X, tiff, postscript, SGI - which makes printing easier). Dynagraph uses a subset of the Maple syntax and can be a useful tool for those who wish to explore 3D surfaces.



The code which produced this is as follows:

```
r:=sqrt(3)/3;
tubeplot([cos(t),sin(t)+r,-cos(3*t)/3],[cos(t)-1/2,sin(t)-r/2,-cos(3*t)/3],
[cos(t)+1/2,sin(t)-r/2,-cos(3*t)/3],t=0..2*Pi,tuberadius=0.25);
```

The graphic was manipulated interactively, zoomed and rotated until the required view was obtained. This was then saved as a .tif file, suitable for reading into WordPerfect. If read into Adobe Photoshop it could then be saved in other formats, including .eps.

A useful on-line Web Authoring Tutorial

Rob Fletcher



An on-line tutorial from the Maricopa Center for Learning and Instruction (MCLI) at the Maricopa Community Colleges has been made available for those wishing a supplement to our own set of Web Authoring materials. It is a very well laid out set of materials and should prove to be a very useful addition to our on-line materials or as a reference guide.

It can be accessed from the Computing Service pages: <http://www.york.ac.uk/services/cserv/advice/guides.htm> under the “Tutorial Guides or Course Workbooks” section at the bottom of the page.

We would like to credit the above source for all the hard work they have put into these tutorials.

Archiving Data in the Nominal Ledger

FTM Wilson writes about finding a solution to a long-term problem

"Articles are required for the next edition of Keynotes" was the cry. Very limited response in MIS. "Please will you write something on the Nominal Archive?" they ask. Could you say no to the editor? So here it is....

Over three years ago the software company which supplied and wrote the "MAC" system provided the University with a new, "improved" and radically faster version of the Nominal Archiving Software. Unfortunately, they did not realise that this was based on a model that was logically flawed and, whilst it worked successfully when first used, it was later discovered that transactions (and consequently balances) were not all where they should have been. The archiving software was withdrawn and MIS had the task of repairing the data and restoring the historical balance files. I should add very hastily that no data was lost and that this process did not effect the data provided to users from the "live" ledgers - it's just that some of it was not in the right place! However, it did not do a lot to assist management information, forecasting and budgeting so it had to be resolved. A long and tedious process of analysing the transactions to reconstruct the archive balances ensued. Some may think that the balance of a "Cost Centre: Detail Code: Analysis Code" combination is only one figure but you would be wrong! The system not only holds balances based on the "Cost Centre", "Cost Centre: Detail Code", "Cost Centre: Detail Code: Analysis Code" combinations but also on the "Detail Code: Analysis Code" combination and "Analysis Code" only. Five balance record

types, most of which cannot be reconciled one to the other directly as, for example, analysis code use is optional and so the sum of all CC:DC balances is not that of DC:AC as some AC are missing. And we thought Accountants just pushed numbers around! All of this restoration was accomplished many, many months ago and the university has continued to generate tens of thousands of transactions every period since.

However, the processing of this data each night into the Data Warehouse and running in-house reports meant that the need to archive reasserted itself. The company wrote a new (slower) but more accurate suite of programs involving close co-operation and consultation with the University of York. This software proved to be more complicated than originally envisaged and its delivery for beta testing was further complicated by a takeover and company re-branding. However, after many a stern word from the powers-that-be the software was delivered in January 2000 for testing on site. Many hours of fun(?) followed with restorations of data followed by errors followed by further restorations of data... but we eventually managed to get the process to work and successfully archived data from the year 1996 which we had copied onto the Alpha machine, Milly. We then did the whole process again using the data in MACTEST and finally, with fingers crossed and users barred from logging in on pain of death, we archived the data in MACLIVE. Success - it balanced! (And who said the

life of a programmer was one long holiday?). So here we are with data archived to July 1998 (Period 12 of the financial year 1997) and plans to archive every summer from now on to leave two full years data in the "live" file and the remainder in the "archive". (There are no plans at present to delete data from the "archive" itself). What more can one say? A stunningly interesting piece of work over a three year span which no one notices but which everyone relies upon.

"Well make it funny then" they suggested. Well I tried, but attempting to explain the "Archiving of the Nominal Data within the Finance Manager software of the Management and Computing Initiative" to people who are stunningly uninterested in the subject is difficult at the best of times (although some did appear to be interested I have to admit). I defy even Billy Connolly to make it sound funny - although I would admit to having borrowed some of his vocabulary over the last three years!

MIS Training Courses

Nicola Normandale

MIS run a series of courses to help staff make the most of our administrative systems and the information they hold:-

Introduction to MAC - For anyone new to using the MAC system

Paradox for Data Warehouse Users - how to use Paradox to interrogate the Data Warehouse
Introduction to Powerplay - a business analysis package

Introduction to Impromptu - an alternative to using Paradox

Intermediate Impromptu - more features of Impromptu

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New MAC Help on the web

Nicola Normandale

continued from page 8

Apart from an initial Introduction to MAC, which took place at the beginning of this term, you will not find these on the Computing Service schedule. If you want a course, we will do our best to put one on for you. If there are no other takers for the course you require, we can arrange for a one to one session.

So contact me - ncn1@york.ac.uk if you or a member of your staff requires MIS training - don't wait for us to schedule a course - we are waiting for you to request it.

No-one would claim that moving around in the MAC system is intuitive. Ideally, you should attend our 'Introduction to MAC'* course before you start using the system, but life is rarely ideal. Also, some staff only use MAC at infrequent intervals, so find it hard to remember its little ways.

Help is now at hand at: <http://www.york.ac.uk/services/cserv/admin.yrk/machelp.htm> - a MAC help page. If you just need a quick memory jogger, click on the How to... quick reference link. Otherwise, use the main Contents section to find more detailed information on logging on, retrieving data, making changes etc.

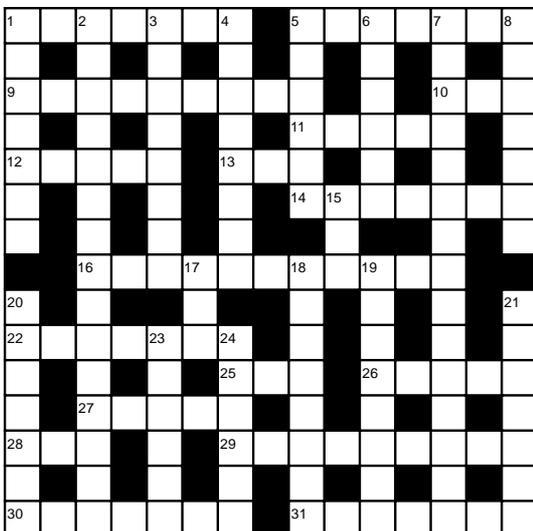
Mail me, ncn1@york.ac.uk if you have any feedback on or suggestions for the new MAC help page.

*See MIS Training Courses article on page 8.

Crossword

Zeus

A new feature for this issue, most of the clues and answers relate to computing. All entries to be submitted to the Computing Service by Friday 21 December. The first correct entry drawn will win a bottle of wine.



Across:

- 1 Coding wizards driving cabs? (7)
- 5 First number? (7)
- 9 I will be seeing you by the Red Sea (9)
- 10 It's not for sale, initially, but it can be shared (3)
- 11 BSOD indicates you're right in the money (5)
- 12 Key to return? (5)
- 13 Allow some on the system, shortly (3)
- 14 Seen to tar the chinese files (7)

- 16 Dull sailor joins both motoring organisations. That's magic! (11)
- 22 Numbers on the right sides (7)
- 25 This script has some bite! (3)
- 26 Specifically, summing up the wine (2,3)
- 27 What's left when start up system gives a cry (5)
- 28 In short, who owns AltaVista? (3)
- 29 Tar his nicest files, so he can join in (9)
- 30 Let in girl's room, then wipes the disk (7)
- 31 Names on the Citizen's Band (7)

Down:

- 1 He's read the top of the page (7)
- 2 The cynical tart can play, but can she solve it? (15)
- 3 ROM on the right side, that's sadly organised (8)
- 4 Acid is not a beginner's language (8)
- 5 Keep information with the one that knows (6)
- 6 Yes! Boy makes hold-ups (6)
- 7 Everyone is equal in the flat (15)
- 8 Brackets, they make me start stuttering (7)
- 15 She programmed for the military (3)
- 17 Include the gate (3)
- 18 Sid's back to apply the fix and send (8)
- 19 Put the toner on the tab, it's an electronic accelerator (8)
- 20 500 script kiddies lost one, then slipped (7)
- 21 Since it is, it loses cuts (7)
- 23 Firstly, the fruit is embedded (6)
- 24 Crack troops read the news between the sheets (6)

New Application Software: PCI Image Processing *Peter Halls*

In order to meet the requirements for specialised image processing capability for work with Remote Sensing and stereo photographic imagery, the University has joined the CHEST agreement for the PCI Geomatics' suite of software. The main products are EasiPace and OrthoEngine and the PCI product range is integrated into a single, common, user interface which makes extensive use of pull-down menus. There are also facilities to script or program extensions within this common environment. This software is complementary to and will be supported alongside the GIS packages Arc/Info and ArcView; enquiries should be directed to the Information Desk in the usual way.

PCI EasiPace offers advanced capability for processing Remote Sensing (satellite, aerial and ground based) imagery. The agreement includes the module for processing radar and synthetic aperture radar (SAR). Support is provided for the full range of image manipulation, classification and cellular statistics and integration with vector spatial data.

PCI OrthoEngine provides advanced photogrammetric processing for stereo imagery, satellite or (aerial) photography. Included is the capability to register imagery to a ground surface and to extract three dimensional measurements from stereoscopic pairs of imagery, such as digital elevation models (DEMs).

The PCI suite is compatible with Arc/Info and ArcView in that there is provision to read and write Arc/Info and ArcView Shapefiles, 'export' format (.E00 files) and Arc/Info grids and tins; support is provided to read (but not write) Arc/Info coverages.

For licensing reasons, we are unable to offer the PCI package on the Windows 95 platform, although Windows 95 users can access the software on either tower or ebor via the Exceed X-Windows tool installed on all managed PCs. We expect to include the PCI suite on the Windows 2000 service, when this becomes available.

The PCI suite is installed on both the SGI workstations and on tower and ebor. On the SGI workstations the PCI suite may be invoked from the Toolchest menu - select Applications and then GIS/RS menu. The software can be invoked from a shell window by typing `/usr/appl/pci/pci_start` - the same command on both SGI and SUN systems. As with Arc/Info and ArcView, there are scripts with '_old' and '_new' suffixes to obtain previous or new (trial) releases of the package, but at present these will all invoke the same version of the software! It is not possible to run the PCI suite on UNIX without X-Windows support, as PCI use a graphical interface to all their software.

An introductory course for the PCI suite will be run next term - see the Course Schedule for details - and guidance notes will be provided in the Computing Service Web pages in due course.

Minor changes for starting Arc/Info and ArcView *Peter Halls*

In order to facilitate the introduction of new software releases and to maintain some consistency in the menu contents, the Applications GIS toolchest menu on the SGI workstations has been changed and new scripts introduced for tower and ebor. The change has the advantage to users that they will not in future need to be concerned about specific version numbers; it will also be quicker to make new releases available.

In the SGI toolchest, for each application there are now three entries: one for the current production version and one each for the previous and new (trial) releases. Where there is no new version under test, the 'new' version option will invoke the current production version.

In a similar way, the scripts to run the applications remain exactly as before for the production versions (`/usr/appl/arc/arcinfo` for Arc/Info and `/usr/appl/arc/arcview` for ArcView). New scripts, with a '_old' or '_new' suffix have been introduced to invoke the previous or latest (trial) versions. Where there is no new version under test the 'new' version option will invoke the current production version. Thus `/usr/appl/arc/arcinfo_old` will invoke the previous release of Arc/Info to that currently in production use.

The cascade policy for these UNIX applications is to replace the '_old' version when a '_new', trial, version becomes the current production release. There are generally annual updates for these application packages.

k7

Distance Learning with WebCT by Debra Fayter

Have you ever wanted to explain astrophysics to an Australian? Maybe you want to make your zoology materials available in Zimbabwe? Or simply chat about Barthes from your bedroom? This is where WebCT might be able to help you. It allows for provision of Web-based teaching materials and for extensive communication amongst students and between lecturers and students whatever their physical distance. It includes bulletin boards, whiteboard presentations, chat rooms, self assessment and testing tools, email, calendar facilities and so on. Keen readers of Keynotes will have read about the University's WebCT project and this article is just to bring you up to date.

You may remember that the WebCT project was set up in response to increased interest in distance learning and associated technologies across the University community. This is a very timely project in the context of initiatives such as the eUniversity. The project group is made up members of staff from the Computing Service and the Department of Economics and Related Studies (DERS). The group was asked to consider whether the Computing Service could provide WebCT as a centrally supported service and if so to define the resource implications. In order to answer these questions a pilot service was set up in October 2000. This involves supporting the WebCT component of the Certificate and Diploma programmes in Health Economics for Health Care Professionals. The project group has also recruited colleagues from several departments (including EFL, Health Studies, Management, the Library and the Stockholm Environment Institute) to act as evaluation partners by considering how the WebCT software could meet their future needs. The project group will also be addressing issues such as management of the software, resourcing in terms of staff and hardware, training implications for both staff and students and interfacing of administrative data with WebCT. Such a thorough evaluation will ensure that the Computing Service is providing the right product to facilitate the development of high quality distance learning courses.

By April 2001, following feedback from all those taking part, we should be able to recommend either the provision of a fully supported WebCT service, an unsupported service, or the withdrawal/replacement of the software. In the meantime information about the project is available from Debra Fayter (x3839, email daf3) and information about WebCT is held on the Web at <http://www.webct.com>

The University On-line Video Clip Collection Rob Fletcher

The University Video (available from Admissions and Schools Liaison) has been digitised at high resolution (640 x 480, with 44.1Khz stereo sound). Small video clips have been prepared by the Computing Service and are available to those who wish to enhance their web pages. These clips are all in Quicktime format.



Transcripts of the audio tracks have also been provided. The videos are 160 pixels wide by 120 pixels in height. The audio tracks have all been reduced to mono and a lower sample rate.

See <http://www.york.ac.uk/images/videos> for more details.

Extra clips can be commissioned from the Computing Service (price has been set at £10 per clip). Please contact Dr R P Fletcher (email R.Fletcher@york.ac.uk or phone 3816 for details).

An index page has been set up so potential users can view the videos, along with sample HTML for inclusion in web pages, and guidelines for their use.

PC Procurement Doug Moncur

With effect from 02 December 2000 the University's suppliers of desktop PCs are Viglen, Compaq and Dan.

Full details of the supply arrangements are online at: <http://www.york.ac.uk/services/cserv/purchase/purchase.yrk/links.htm>.

Arrangements for the supply of notebooks and printers remain unchanged. This agreement does not affect the supply of servers, although it is hoped that forming a relationship with Compaq will give us preferential access to their server and storage products.

Computing Service Address

Computing Service	Telephone:	Switchboard (01904) 430000
University of York		Direct dialling (01904) 43 followed by ext no.
Heslington	Fax:	(01904) 433740
YORK YO10 5DD	Email:	<i>username@york.ac.uk</i>

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

Information Desk

Telephone: ext 3838
Email: *infodesk*

The Information Desk is open from 9am to 5.15pm Monday to Thursday, and 9am to 4.15pm Friday (*may be 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:

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 Infrastructure:	Robert Demaine	3808	<i>rld1</i>		
Head of User Services:	John Illingworth	3803	<i>jj1</i>		
Head of MIS:	Kay Mills-Hicks	2101	<i>kmh8</i>		
Head of Technical Services:	Doug Moncur	3815	<i>dgm1</i>		
Head of Systems:	Andrew Smith	3809	<i>abs4</i>		
Operations Manager:	Brian Souter	3814	<i>bs1</i>		
Information Officer:	Joanne Casey	3805	<i>jmc8</i>		
Sue Bolton	2102	<i>sjb28</i>	Geoff Houlton	2100	<i>gph2</i>
Mike Brudenell	3811	<i>pmb1</i>	Jenny Jackson	4455	<i>jj5</i>
Lisa Burkinshaw	3818	<i>ljb4</i>	Chris Kilgour	4454	<i>crhk100</i>
John Byrne	3812	<i>jcb1</i>	John Marsden	3832	<i>jpm1</i>
David Chambers	3742	<i>dac6</i>	John Mason	3813	<i>jrm13</i>
Michael Clark	3745	<i>mpc3</i>	Darren Munday	3821	<i>dam6</i>
Arthur Clune	3129	<i>ajc22</i>	Nicola Normandale	4695	<i>ncn1</i>
Paul Conacher	4346	<i>pac1</i>	Colin Rea	3817	<i>cr9</i>
Steve Downes	3741	<i>sd21</i>	Chris Reece	3807	<i>car7</i>
Debra Fayter	3839	<i>daf3</i>	John Robinson	3833	<i>jsr1</i>
Ken Finch	4452	<i>kf1</i>	Sam Scott	3817	<i>svs2</i>
Rob Fletcher	3816	<i>rpf1</i>	Daniel Shelton	4349	<i>ds23</i>
Kevin Gardner	3739	<i>pkg4</i>	Samantha Vines	3749	<i>sccv1</i>
Chris Gowland	3823	<i>cg1</i>	Nick Walker	3897	<i>njw8</i>
Peter Halls	3806	<i>pjh1</i>	Timothy Willson	2123	<i>ftmw1</i>
Linda Hearn	3800	<i>lch8</i>	Mark Wilson	3826	<i>mw119</i>
Sue Hodges	3839	<i>sh32</i>	Michael Woodhead	3825	<i>mw28</i>
Paul Hodgson	4347	<i>ph25</i>			

