THE UNIVERSITY of York
Computing Service

keynotes

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Staff news

keynotes
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From the Editor

The Year 2000 is fast upon us...

On page 7, Mike Jinks gives an update on the University's response to the problem, Andrew Smith explains the use of Y2K patches, and Kay Robinson writes about MAC and the Millennium.

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On page 3, John Illingworth introduces some of the teaching software available on the network, and lists new and upgraded software applications.

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In Staff News on page 6, Mike Jinks writes about the vacancies which have recently been filled, and we also have photos of all the staff who have joined the Computing Service over recent months.

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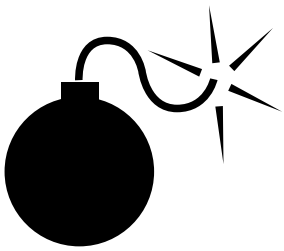
Finally, most computer users will be aware of the problems that occurred at the start of term. On page 5, Robert Demaine explains the causes of these, and how they were resolved.

Joanne Casey
Information Officer

millennium countdown

44 weeks to go!



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

Windows 95 and DHCP

Andrew Smith and Chris Joy

Over the coming weeks we will be changing the way IP Addresses are implemented by Windows 95 PCs. Currently each Windows 95 PC has a static IP address encoded inside it that provides a unique identification for network connectivity. This is fine if the PC stays in your office for all of its lifetime. However, users who wish to physically move a PC around campus currently require a Computing Service technician to visit and change the address when the PC is moved. This method of allocation of addresses also provides problems for users wishing to use portable notebook computers around campus.

In order to improve on these shortcomings we are transitioning the Windows 95 PCs to benefit from a technology called DHCP. This will allow us to centrally assign and change PC IP addresses with no visit from a technician. Unfortunately, PCs that use both the old Windows 3.1 and Windows 95 service will not be transitioned.

Individual users will not be aware when the changeover is made and there will be no apparent effect to their PC. However, we will be consulting with departments to ensure a controlled and smooth transition to this new technology which will increase the flexibility of the Windows 95 service.

Windows 95 "M" Drive

Andrew Smith

Office Windows 95 users currently use the NFS protocol to access their "M" drive on the Network Appliance fileserver. In order to improve file access performance we will be changing the protocol to CIFS, which is the Microsoft standard file access protocol for Windows 95 and NT. The changeover will occur on the morning of Monday 15 March 1999. The majority of users will be unaware of the change except for a perceptible increase in performance. Users who make heavy use of UNIX and Windows 95 interoperability may still require drive access via NFS. In order to do this the user must place the following line in the autoexec.bat file on the "C" drive of their PC:

```
set NFSM = yes
```

Checking your recent print jobs

Dave Atkin

Until recently, details of all print jobs, whether chargeable or not, were recorded in the charging system and could be viewed from the "Charge Accounts" facility of the Electronic Infodesk Web page (or using the "charge -s" command on Unix).

This has now changed such that only jobs which incurred a real charge are stored in the charging system. Details of non-chargeable print jobs are now only held for one week, and are available from the "Check Print Queues" facility from the Electronic Infodesk or using the Unix "pjobs" command.

Easter and May Day Holidays

Brian Souter

The Computing Service building, including the Information Desk and entrance lobby, will be closed on Good Friday (2 April) and Easter Monday (5 April). All our systems and college facilities will be available as for a normal weekend.

Similarly, the Computing Service will close on the Early May Bank Holiday (3 May) and the Late May Bank Holiday (31 May).

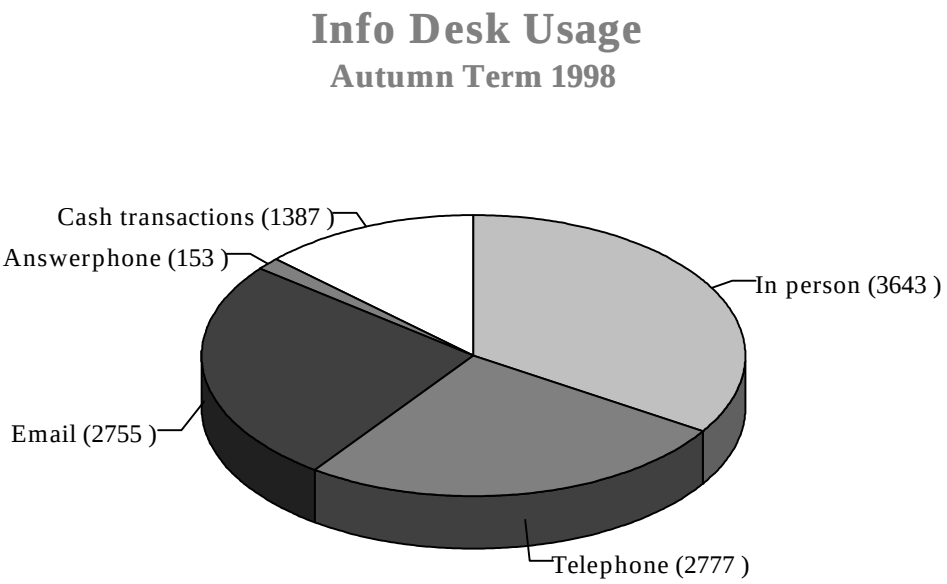
Security Photographs

Brian Souter

Computing Service staff are often called on to gain access to other University buildings in the course of their work. Some years ago, in the absence of a central ID system, we started distributing copies of our departmental photograph board to colleges and departments. Once again, we plan to start sending out up-to-date copies and we would welcome co-operation from secretaries and porters in locating them where keys and / or permission may be sought.

Information Desk News

Brian Souter



The Information Desk during the Autumn Term dealt with almost 11,000 transactions - an average of one every three minutes. It can be quite hectic at times and we are aware of the difficulty this creates for those users trying to contact us by telephone. At a time when we were meeting to examine ways of improving the service, the sudden departure of James Walker, and the imminent departure of Steve Bennett, have actually made matters worse. Recruiting the right staff for the Information Desk is proving to be a time consuming process. It is inevitable that the lack of staff will impact on the level of service we are able to offer to our users. However, we will keep you informed of any developments, and will continue to work to our maximum potential.

ILIAD Stage 2

Sue Hodges

Following the success of the ILIAD Stage 1 initiative which provides incoming students with those information literacy skills that underpin academic study, a Stage 2 project has been piloted this term. In line with recommendations made by the Dearing Report, the project aims to equip students with information skills needed in the workplace. Three courses have been especially designed for Stage 2 and they aim to put York graduates way ahead in the job market. *Office Skills* teaches advanced wordprocessing and spreadsheet skills in the context of the modern office; *Database Systems* teaches how to design and create a business database; *Design of Web Pages* puts students at the cutting edge of business technology, teaching how to design and publish Web pages. Each ten hour course is free this year, spread over five weeks and will be repeated in the Summer Term. As expected, take up has been very high, with all three courses oversubscribed.

For information on times and dates of Summer Term courses, contact the ILIAD Office, Computing Service, e-mail iliad@york.ac.uk, tel 01904 433839.

How to be perfect in the Office!

Debra Fayter

A new Computing Service course that Keynotes readers may find of particular interest is *WordPerfect in the Office*. It aims to teach how to make the most of Wordperfect, showing how to come to grips with more advanced features such as mailmerge and the production of customised letters and tabulated data. For further details, see the Course Information insert.

Software News

John Illingworth

Teaching Software

This time last year we were urging staff members with teaching software on the Windows 3.1 system to provide us with new versions for the Windows 95 system. I am happy to report that this was largely successful and that, together with new items that have come along in the last few months, we are now hosting more teaching software than ever before.

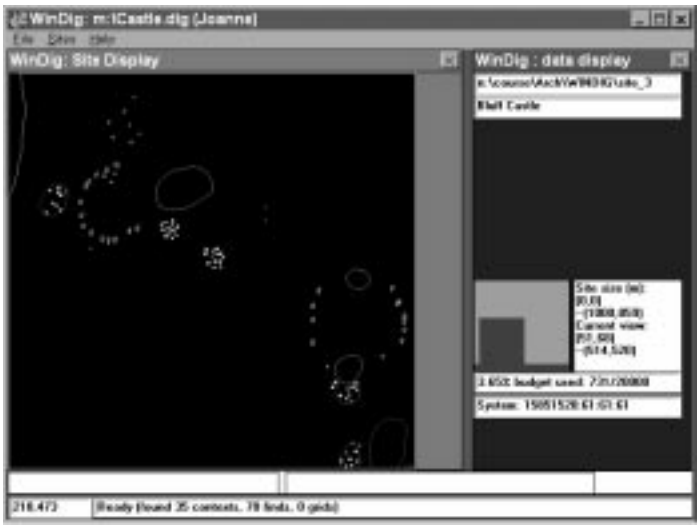
On the Windows 95 system, you will find it under 'Start | Programs | Teaching | *department*' where *department* is one of the 11 departments whose material currently resides on the system. If you are browsing the file store you will find the teaching folders on the N drive.

It may be that software installed at the request of another department may be of use to you; if this is the case, the department in question will probably agree to a request for wider usage and ask for a contribution to the licence fee. Most teaching software is site-licenced and paid for out of departmental funds.

Departments with software on the central system are as follows. The numbers in parentheses represent the number of items contributed: Archaeology (16), Biology (16), Chemistry (9), Economics (6), Electronics (2), Health Sciences (1), History (1), Maths (6), Medieval Studies (1), Physics (4), Sociology (1).

There are some really fascinating items among these; my particular favourites are the Social History series, in the form of a series of Web pages containing maps, tables, video clips and audio samples as well as text, and the excavation simulator in the Archaeology folder which allows you to explore a site in a totally mud-free environment.

...explore a site in a totally mud free environment!



The Computing Service will generally install teaching software on the central systems, subject to a few conditions, which can be summarised as: 'Does it work?' 'Is it suitably licensed?' 'Is there room for it?' and 'Does it make technical demands the system cannot fulfil?'. As soon as the Service Level Definitions are published there will be a charge for such installations.

New and Upgraded Applications Software since December 1998

Windows 95

Utilities and Extras

Accutype : Touch typing tutor. An old favourite now in a new Windows 95 version.

Information Resources

Prospect Careers Guidance: on behalf of the Careers Service.

Beilstein Commander: an upgrade.

Teaching

History
TLTP Social History: an upgrade
Health Sciences
Studying Populations
Archaeology
New graves data

UNIX

Economics

Gauss: Updated version 3.2.42 now on Ebor

MIS NEWS

Kay Robinson

Data Warehouse hardware replacement

A replacement data warehouse server was introduced on 19 January 1999. The new hardware has a faster CPU and has more memory which means that the overnight jobs to rebuild the data are now taking much less time and are completing before 7am in the morning. Departmental financial reports can now be run at any time between 7am and midnight. Some daytime improvements in performance when running queries and reports may also be noticed.

Payroll

From January 1999 the University will be using the MAC payroll software for salary processing for all staff. Previously, the salary processing for manual and ancillary staff was carried out using a COBOL program which was originally written over 20 years ago! In recent years it has become increasingly difficult to maintain the program when changes in taxation or layout of forms such as the Tax Certificate (P60) were required. The use of the MAC payroll also brings together all University staff into a single Personnel system. There are many advantages to this standardisation in terms of the provision of staff and salary management information.

More MIS information in **MAC and the Millennium** *on page 7.*

Paradox Aliases - what are they and how do I recreate them if they are lost?

Anyone who has used Paradox to access the Data Warehouse will have come across aliases. An alias is a name you give to a database together with a definition of where to find the database. Once you've created an alias, the alias name is all you have to type in the future, rather than the entire path to the database. Normally an alias only needs to be set up once and it is then saved in a file in your personal filestore. However, occasionally aliases are lost and need to be re-established so that data warehouse reports and queries can run. To create an alias in Paradox:

1. Select **Tools** | **Alias Manager**

   Something similar to the illustration below should appear :

2. Click on **New** (a blank space will now appear in the box labelled database alias)
3. Enter the name of the alias which you have lost
4. Click on the arrow at the side of the driver type box & click on the **INTRBASE** option.
5. In the box titled SERVER NAME enter one of the following depending on which alias you are setting up:

   for students enter: **dwh:/mounts/dwh1/students.gdb**

   for finance enter: **dwh:/mounts/dwh1/finance.gdb**

6. In the User Name box enter your Unix user name. The screen should now look like this:

7. Now click on **Save As**
8. You will now be asked if you want to save the setting to a file called IDAPI in your M:\Paradox directory. Click on **Save**. Click on **Yes**.
9. Finally you can connect to the database by entering your database password (in lowercase) in the **Password** box, and then click on **Connect**.
10. Now when you want to open a table you will be able to select the alias from the drop down list on the open table menu.

User Support Documentation

Joanne Casey

We are currently revising our user support documentation, which at present is available both in hard copy and on the Web.

As part of the Review of the Computing Service Review, it was stated that the Service should charge for paper documentation, either directly, by selling it, or indirectly, by putting support documentation on the web, so that users choosing to produce a paper copy will bear the cost of printing (Appendix II Part 2 Section 2.6).

The upshot is that the bulk of our user support material will be made available solely via the Web - we will be aiming to make it as accessible to users as possible. Such documentation can then be viewed online, or printed if the user prefers. This is a positive move. Web based support material has the advantage of never running out, being easier to update, more cost-effective, and harder to turn into paper aeroplanes. Departments wishing to provide such guides in bulk can either print off a master copy for photocopying, or contact the Computing Service, who may be able to arrange a supply. Charges will be specified when the Service Level Agreements are published.

Exceptions to this will remain; teaching materials for ILIAD and other courses will be provided in paper format, as part of the course fee, as is currently the case. Annual service guides, and single sheet guides covering basic instructions, will also still be free.

For further information see:

http://www.york.ac.uk/services/cserv/offdocs/policy.yrk/revrev.pdf

http://www.york.ac.uk/services/cserv/advice/index.htm

Post Christmas Network Problems

Robert Demaine

It proved to be anything but a Happy New Year for network support staff at the start of this term, the first week of which witnessed a period of network instability unprecedented since the introduction of the ATM backbone in early 1997. As is often the case, the problems we encountered were the result of complex interactions which required a good deal of detective work to unravel.

An erratic mains supply, which also affected the operation of the telephone exchange over the Christmas period, provoked a series of events which caused intermittent failures over a five day period. After some burning of midnight oil and lengthy discussions with Newbridge technical support it was decided to replace a number of network components which were implicated in the outages. This process restored some much-needed stability to the network which happily has continued up to the time of writing.

There remain a number of resilience issues still to be resolved and we are working hard to make the network as bulletproof as possible within existing staffing and budgetary constraints.

Finally, a word of thanks to our colleagues around the University for their patience and support during a difficult few days for us.

Charging for network connections and supported PCs

Dave Atkin

The existing automated charging system, which until now has only been used for printing, is gradually being extended to cover other services for which the Computing Service is now required to charge.

We are now in a position to automate the charging for network connections and supported PCs, and Heads of department will shortly receive a list of:

(a) All their existing chargeable network connections. The annual charges for 1998-9 are

Ethernet Connection: £48

Serial (terminal) connection: £84

These charges do NOT apply to departments which look after their own networking.

(b) All their Supported PCs. The annual charges for this year are:

Windows 3.11 (to be phased out Summer 1999): £65

Windows 95: £100

These charges apply to all departments.

The above charges were set by the Information Committee. Please check the lists carefully, and report any inaccuracies (eg old PCs which have been discarded) immediately to the Computing Service. Departments will then be billed for the period dating back to October 1998, after which all subsequent billing will take place on a monthly basis.

Staff News

Mike Jinks

As mentioned in the previous issue of Keynotes, we re-advertised for the Head of MIS and are happy to report that Kay Robinson, who has acted in this capacity for some nine months, applied on this occasion and has been appointed after the interviews in January. A major responsibility of the Head of MIS in the coming years is to support the successful implementation of new administrative systems to replace the current MAC systems. In addition to her knowledge and experience from elsewhere, Kay has gained an in-depth knowledge of the University's systems and processes, as well as the support of many people throughout the University.

This will provide a secure foundation for the challenges ahead and we wish her well in her new role.

We have also appointed people to the two new posts agreed by Planning Committee as part of the Review of the Review of the Computing Service. The creation of a Network Manager post to take responsibility for the day to day operation of the campus network and associated links was long awaited. Following the interviews we again made an internal appointment, and colleagues will be pleased to hear that John Mason, previously our Chief Technician, has been appointed. John is well known throughout the University and we are pleased that his expertise and dedication have enabled him to apply successfully for this more responsible position.

The second new post, a technician, was filled by Sam Scott who joined us from Bradford and Ilkley Community College where she worked as a Computer and Network Support Technician. After gaining an HND in IT, Sam is in her second year of working part time for a BSc in Computer Communications at Leeds Metropolitan University. Sam is currently working in the Personal Systems Group and we wish her well in her new environment.

Steve Bennett, who has worked in the Computing Service for five years, formerly as an Operator, and over the last year as a Computing Assistant on the Information Desk, will be leaving the Service on the 5th March. He has accepted the post of Support Analyst at Aqumen in Hunslet, Leeds, an opportunity to build upon his existing experience. We wish him well in his new job; he will be much missed.

New staff since Summer 1998

Joanne Casey,
Information Officer

Sue Hodges,
ILIAD Assistant

Darren Munday,
Technician

Sam Scott,
Technician

Michael Woodhead,
Technician

Millennium Update

Mike Jinks

Although departments were asked to report in the summer on their departmental action plans to ensure that they would be able to operate effectively across the Millennium date change, most departments left responses very late and submitted plans to the Working Group only after repeated reminders. Indeed, at the time of writing, there are still a few departments, units or centres which have failed to make a response.

There will be an increasing amount of national advertising from the Government to alert people to the possible dangers of the Millennium date change, so there can be no possibility of people thinking that it may not affect them. As the University's Millennium Compliance Strategy document shows, the manifestations of the date change are many and varied - in particular this is not simply a 'computer' problem. So please make yourself aware of what your department is doing, and think about how the date change could affect your teaching, research, or administration. Each department has a project leader responsible for ensuring the department takes appropriate steps, and these people should be your first point of contact for specific departmental issues. The Computing Service web site contains information on the subject, including the University's strategy document, and also has links to many other useful sites. There is no shortage of information and this is one deadline which cannot be moved. If you haven't considered the issue seriously, make a New Year resolution (late!) and start now!

Windows 95 and Y2K

Andrew Smith

A number of components in the Windows 95 system are not Y2K compliant. The majority of these can be updated centrally without the intervention from the user of the PC. A few, such as the network drivers, require the manual installation of the updated software components in a controlled manner.

In order to resolve these problems we have provided a Y2K icon on the desktop. Clicking this icon will open a Web page with full instructions on how to make the PC Y2K compliant.

We envisage that the amount of effort required by the user to make their PC Windows 95 compliant will be very low.

MAC and the Millennium

Kay Robinson

Many computer programs will have problems with dates at the end of 1999 due to the Year 2000 problem. The problem will not end, however, on 1 January 2000. Date related problems may continue well in to the next century as incorrect calculations come to light. The compliance of the University of York's administrative systems is important because without systems which function correctly some of the key activities of the University may be affected such as undergraduate admissions, ordering of laboratory supplies and financial management of research projects. This Keynotes article is one of the first in a series which will discuss Millennium issues in relation to the administrative systems such as:

- What is the level of compliance?
- What testing has or will be taking place?
- What advice can be given to users of the system and its data?

There are two aspects to compliance: firstly, the operations of the computer software and the way in which date values are calculated and stored and secondly, the contents of the date fields in the database and the presence of implied dates. A good example of an implied date in the MAC system is the student code which commences with two digits indicating the year of entry (e.g. 98.... or 99.... and in the future 00....). Testing should ensure that all date calculations operate correctly and that implied dates are derived and handled appropriately.

In addition to the compliance of the externally supplied MAC software we need to consider the compliance of the vast amount of in-house software which has been developed by MIS over the past few years to provide additional functionality for the MAC system and for standard reporting (99;York). We also need to consider the interfaces into and out of the MAC system such as those to UCAS, HESA and BACS. Compliance of the data warehouse is also an issue, due to increasing reliance on this facility for departmental reporting.

The overall approach that MIS is taking in relation to MAC and the millennium is:

- Compliance assessment - to ensure that the systems supporting the critical processes of the University are identified and tested.
- Risk management - to identify the risk posed to the University of noncompliant systems.
- Continuity planning - to put in place plans such that the processes of the University continue to function to an identified degree in the event of systems failures caused by the date change in the Year 2000.

(continued)

(continued from previous page)

MAC compliance

Based on statements from suppliers of MAC software, the current compliance position is as shown in the table.

Software	Version	Status
Operating System - VMS	V7.1 - 1H1	Compliant
Application environment - Powerhouse	V7.10G V7.10F1	Compliant Not compliant
Student Records system, Finance Manager, Research Manager, Estates Manager	D18 (V7.10G)	Compliant
Personnel Records	V5.0 (V7.10F1)	Not compliant
Payroll	V5.0 (V7.10F1)	Not compliant

The suppliers of the Personnel and Payroll systems have promised releases of compliant software by the end of February 1999. We shall be installing these as soon as we receive them.

But what does compliance actually mean? Specialist Business Solutions, the main suppliers of the MAC system, have provided the following definition:

1. The software will operate without material error in connection with data and all fields relating to dates in the software.
2. The software will not abnormally end, crash, be interrupted in its operation or generate incorrect values or invalid results, whether as a result of date fields or values in date fields or any code relating to date fields, or date-related user or program interfaces which are part of the software.
3. The software will be capable of century recognition and will correctly carry out all calculations relating to the same century and multi-century formulae and date values.

In simpler terms - entry, storage, processing and display of dates operates correctly for dates before, during and after the Year 2000.

Despite these assurances, there is still the question as to whether compliance statements are adequate. If we do carry out testing, what testing can be done that is relevant and worthwhile? Some of the advice which MIS has received and which we will be considering during our own testing is:

- for externally supplied software, don't look at the operation of every line of program code, "black box" test the application by selecting a range of test data and checking all the inputs and outputs.
- ask the vendor of the software what testing they have done and if they don't tell you - worry.
- beware of rolling forward the century on your production system - it sometimes doesn't go back to the real date successfully.
- decide on testing priorities and stick to them.
- rolling the system clock forward is not an adequate test without rolling the "age" of the database forward too. In our case we need to test the systems as if we were in the 1999/2000 academic and financial year.
- don't just test the roll over from 31/12/1999 to 01/01/2000, check date processing around 29/02/2000 to ensure correct recognition of the leap year and check roll over to 01/01/2001.

Test plan

We have already started reviewing our in-house software to establish the critical programs that must be at the top of our test plan. We are hoping to dispose of a large amount of the program code that is rarely or no longer used so that we do not need to be concerned with its compliance.

During the Easter vacation the Computing Service will be installing a test network which will be configured with a range of hardware and software. A small Alpha computer will be purchased for this network and it will be configured to mirror the current MAC system. In a series of stages, the system clock will be advanced and the database will be aged so that we are able to check whether the hardware and software continue to operate successfully. This testing will be carried out with the assistance of the Database Administrators.

We will be providing test data in the Data Warehouse so that Departments can test their own systems for compliance.

Problems already encountered

- All MAC user accounts were set to expire on 31/12/1999. This has been changed to 31/12/2005 which we hope will be long after MAC has been replaced.
- At the start of the current admissions year, many of our programs incorrectly processed the data for deferred applicants. This was because many programs carried out a comparison similar to "is 00 (applicant year of entry) > 99 (current MAC year of entry)?". This bug led to deferred applicants being missed out of the applicant Data Warehouse tables. We have checked all of our admissions software to ensure that similar problems are not encountered elsewhere.

General advice to users of MAC

MAC can accept dates either with or without a century. If you do not enter a century the software will automatically work out whether a 19 should be added or a 20 based on the value of the year that you have input. If the year is >=25 the century is assumed to be 19. If the year is <25, the century is assumed to be 20. It is important that everyone becomes used to entering full century dates where possible to ensure that correct data values are entered to the database.

We will be modifying all of our in-house programs to "force" the entry of a century at all date prompts.

Forthcoming articles in Keynotes

Next issue - MAC and the student record - including advice on handling admissions data.

Computing Service Address

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Heslington
YORK YO10 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

Telephone: ext 3838
Email: *infodesk*

The Information Desk is open from 9am to 5.15pm Monday to Thursday, and 9am to 4.15pm 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:

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 User Services:	John Illingworth	3803	*jji1*
Head of Personal Systems:	Doug Moncur	3815	*dgm1*
Head of MIS	Kay Robinson	2101	*kr7*
Operations Manager:	Brian Souter	3814	*bs1*
Information Officer:	Joanne Casey	3805	*jmc8*

Steve Bennett	3832	*sgb8*	Sue Hodges	3800	*sh32*
Sue Bolton	2102	*sjb28*	Jenny Jackson	4455	*jj5*
Mike Brudenell	3811	*pmb1*	Chris Joy	3807	*cj8*
John Byrne	3812	*jcb1*	Bob Marriott	4454	*bdm2*
Paul Conacher	4346	*pac1*	John Marsden	3832	*jpm1*
Mark Cook	3897	*rmc12*	John Mason	3813	*jrm13*
Robert Demaine	3808	*rld1*	Darren Munday	3821	*dam6*
Debra Fayter	3839	*daf3*	Helen Parker	3800	*hp7*
Ken Finch	4452	*kf1*	Colin Rea	3817	*cr9*
Rob Fletcher	3816	*rpf1*	John Robinson	3833	*jsr1*
Kevin Gardner	3739	*pkg4*	Sam Scott	3817	*svs2*
Chris Gowland	3823	*cg1*	Andrew Smith	3809	*abs4*
Peter Halls	3806	*pjh1*	Timothy Willson	2123	*ftmw1*
Vivienne Hemingway	3818	*vwh1*	Michael Woodhead	3825	*mw28*