# key*notes*

## Distance Learning

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# key*notes*

Volume 25, Number 3

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## From the Editor

Chris Joy explains the procedures by which the Computing Service is able to manage UNIX workstations on behalf of users, removing this burden from them. Turn to page 2 for more details.

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On page 6, Gareth Johnson writes about RALPHY, the Library's electronic reserve project, which is providing students, on and off campus, with improved access to a range of publications.

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Opposite, John Robinson details the national computing services available to academics within higher education.
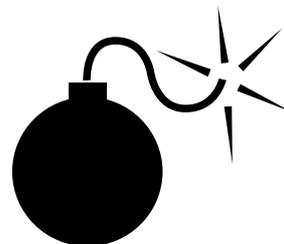
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Finally, best wishes for the New Year. And keep an eye on the Millennium Countdown...

*Joanne Casey*
*Information Officer*

## millennium countdown

**51 weeks to go!**

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

# Windows 95 Login Problems

*Andrew Smith*

Since the start of last term, we have had a number of problems with users not being able to login to an office or classroom Windows 95 PC. It has been very difficult to trace this problem as the fault never occurred during the working day. We believe we have now found the source of the fault but are not able to provide a "fix" until the next version of the software controlling the logins is released. In order to minimise any inconvenience we are automatically monitoring the Windows 95 logins and will restart the login software if any failure occurs. The downside to this is that if the software fails (outside of working hours) there may be a delay of up to 15 minutes before anyone can login. We hope to receive a fix for the software soon.

We are sorry that the fault was not diagnosed and fixed sooner. One cause of not being able to diagnose the problem is that we have had very little feedback from users informing us of the problem. In future if you are unable to login to an office or classroom PC, and it looks to be a generic problem with all PCs in the vicinity, could you please report it to the Infodesk. It is a simple matter to pick up the phone and leave a message on the answer phone (ext 4343) at any time of day or night. In order to help diagnose the problem could you report the following information to the Infodesk:

> Your name and user id
> Name and location of PC
> Time and Date
> Detailed description of problem

For the detailed description of the problem, please could you report your observation of the behaviour. For example, if you can not login, it is difficult for us to diagnose the problem if you just say "I cannot login". A more accurate report would give the approximate wording of any error message that appears on the screen. We would appreciate your patience when there are problems with the Windows 95 Service. We do not regularly work late into the night or at weekends, and are thus unable to observe first hand the nature of any faults. Due to the highly integrated nature of the computing services (network, filestore, etc), it sometimes takes a while to diagnose a fault report which may initially point to a PC problem. On detailed investigation it may be found that it is one of many of the integrated components that are used to provide the Windows 95 PC service. This investigation may involve any member of the Computing Service and not just the Personal Systems Group.

# King's Manor Developments

*Doug Moncur*

A dedicated server for the Windows 95 service in the King's Manor was successfully installed mid-November, resulting in increased performance.

A 34Mb/s network link has also been ordered to replace the current paired megastream link, and once in place should further improve access to resources and filestore situated at Heslington.

# New National Service Computing Resources

*John Robinson*

The Research Councils and JISC fund a number of national computing services for use by academics in all higher education institutions. These are services (access to large datasets, high-performance computing) which could not feasibly be provided by each institution's local computing facilities and support staff.

## New National Datasets service system

MIDAS (http://midas.ac.uk) provides access to a variety of datasets covering the social sciences, economics and the physical sciences. It is currently hosted on a Cray CS6400, a multi-processor Sun system. This has been in service for some years, and will be replaced during the spring term. Access to the machine and the datasets is free. Staff or students wishing to register for this service should contact John Robinson to complete the registration form and be given a username. In addition, access to many of the datasets requires a further registration with the data provider, often the Data Archive at Essex (http://dawww.essex.ac.uk/). For some datasets you can register on-line.

## New High Performance Computer System

The consortium, Computation for Science (Cray/SGI, CSC and the University of Manchester) was chosen to run the EPSRC's new national high performance computing service. Two machines - Turing, a 576 processor Cray T3E-1200E, and Fermat, a 16 processor Origin2000, will be physically situated at the University of Manchester. The Cray T3E configuration is one of the largest computers in the world, and certainly the most powerful computer currently in use in academia in Europe. The service is called CSAR (Computing Services for Academic Research) and you can find more information about it at http://www.csar.cfs.ac.uk.

Large projects which need these resources can be given a 'Class 1' access after a peer-review process. Smaller projects of less than 1 year can be authorised through the Computing Service - contact John Robinson, jsr1, for details.

# Managing Unix workstations
*Chris Joy*

## Introduction

In recent years, the Computing Service has been able to manage Silicon Graphics workstations on behalf of departments. This service removes the burden of computer system administration from the users and has many direct benefits:

• A carefully configured user environment

• Access to all centrally provided applications and compilers

• Access to the user's home directory

• Regular operating systems updates and security fixes

The final point is particularly important because external users or 'hackers' have been known to gain unauthorised access to workstations which have not been properly configured from the insecure 'out-of-the-box' environment.

In accordance with the recommendations of the Computing Service review, a new service has been defined for the management of Silicon Graphics workstations. This service will be duly covered by a service level definition and is described in this article.

## The Operating System

Silicon Graphics systems run a variant of Unix called Irix. The latest release of the Irix operating system is Irix 6.5. This is termed an all-platform release because it can run on all systems with an R4000 generation CPU or later. There are many operational advantages to running Irix 6.5 on a workstation, including improved management and security. From a user perspective, the ability to run the latest software is a significant benefit.

## Managing your workstation

The Derwent classroom now contains workstations running Irix 6.5 and the Computing Service is in a position to extend this environment to departmental systems which meet the following requirements:

• R4000 generation CPU or later

• 32MB minimum (64MB recommended) memory

• 2GB system disk

Unfortunately, older systems such as the R3000 Indigo workstation cannot be managed because they are not able to run the Irix 6.5 operating system.

To begin managing a workstation, it is necessary to upgrade the operating system to the standard Computing Service configuration of Irix 6.5. This provides a user environment matching the Derwent classroom where users can run all the centrally provided applications and gain access to their home directory. No additional software or unapproved modifications can be made to the system disk in order to enable a fast system rebuild in the event of failure. This configuration process is chargeable through a single fee of £100 which covers the staff time necessary to complete the task.

The core Irix 6.5 operating system only includes the basic functionality required to run the workstation. Additional software products such as the compilers and graphical tools are available under a master 'Varsity' licensing agreement between the Computing Service and Silicon Graphics UK. The department will be charged an annual fee of £140 for the provision of Varsity software. This cost covers the annual charges of Silicon Graphics UK and compares to an individual cost of £330 for individual purchase of licences.

Operating system updates and security fixes to the system will be performed when the relevant maintenance streams have been released by Silicon Graphics and properly tested by the Computing Service. The regularity of upgrades will be at the discretion of the Computing Service but it is anticipated that a termly upgrade will be required to fix software bugs and add new functionality. The department will be charged a compulsory annual fee of £150 for software support and upgrades which covers the staff time necessary to complete the task.

Individual backup of workstations will not be required because the system disk configuration can be readily reproduced by the Computing Service in the event of system failure. However, a department may wish to use a secondary disk on the workstation for storage of additional software or as user filestore. The department will be charged an annual fee of £50 per Gigabyte of specialist disk backup. This cost covers staff time and the provision of backup media.

In summary, the cost of managing a Silicon Graphics workstation is:

| | |
|---|---|
| Configuration | £100 |
| Licensing | £140 |
| Support | £150 |
| Total (year 1) | £390 |
| Recurrent annual cost | £290 |

If you have any questions regarding this new service, then please contact Chris Joy (cj8@york.ac.uk). The Computing Service is also able to advise departments on the purchase of Unix systems or upgrades.

# Distance Learning

*Joanne Casey*

Held on 18th November, the Open Forum for Distance Learning provided a preliminary opportunity for staff to share their thoughts, concerns, and current progress in the provision of Distance Learning. Distance Learning is becoming increasingly attractive to students, and is an issue which the University is recognising a need to consider in detail.

Around 35 people attended, variously representing academic departments, central administration, and service departments. The meeting was chaired by Mike Jinks of the Computing Service; presentations were given by Martin Forster (Economics), Steve King (Computer Science) and Wayne Connolly (Library).

Martin Forster outlined the proposal for a Diploma in Health Economics commencing in Summer 1999. It will be at a pre-masters level, and aimed at students studying at home or at work. Delivery will be mainly by hard copy material, posted to the student, supplemented by some material on the web, and an element of residential study. He was the first person to highlight a need for central support, particularly apposite in this case, as there is only one person working on the proposal.

Steve King spoke on behalf of a team working on providing distance learning from Computer Science. They are preparing to provide courses, marketed to industry, and delivered at the company's location, via the web or via CD ROM, with email contact.

Wayne Connolly looked at the issues involved in supporting distance learners, who have similar information needs to full time students, but often find accessing information more difficult. The library has already begun to consider their specific needs, and produced a guide to available resources. Options include providing single photocopies of materials for individual users, or providing copies electronically: Gareth Johnson writes elsewhere in this issue on RALPHY, the Library's electronic document reserve. Copyright issues, and the complexity of administering postal loans, ensure that photocopies are still the simplest way of catering to the information needs of such students, and as a consequence, providing core materials can be difficult.

Wayne also noted that Teaching Committee is already looking at distance learning issues, and will make them a priority in the coming term.

The role of central services, such as the Library and the Computing Service, was considered, both during Wayne Connolly's presentation, and through later discussion. Off site students have similar expectations, and rights, to support as those on site, but these are presented in a much more concentrated way, for instance during short residential visits.

Members of the Computing Service were able to give more information, both on the potential of developing technologies in supporting distance learning, and of potential problem areas which need to be addressed, particularly issues around security and access.

A number of staff informed the group of their own experiences both as providers and customers of distance learning courses. This included information about projects set up elsewhere, including the Merlin Project at Hull, and Scottish Knowledge, a consortium of Scottish universities. Of equal interest to many was information about web based teaching softwares such as WebCT, TopClass and LearningSpace.

A wish for central support, and perhaps even guidelines to setting up such courses, was a common theme. A concern with maximising investment was also evident; start up costs for such courses can be high, and disproportionate to early income expectations.

It has become clear that this is a burgeoning area; it is increasingly common for customers within and outside the UK to request courses on a distance learning basis, and the feeling of the meeting was clearly that the University cannot afford to be left behind in this respect. Areas of the University are already working on such projects, and the meeting felt that the opportunity to share experiences and expertise was valuable.

For more information on progress so far, please contact Mike Jinks (kmj1).

For other information, please contact Alison Kennell (ajk8), who is Secretary to the Teaching Committee Working Group on Distance Learning.
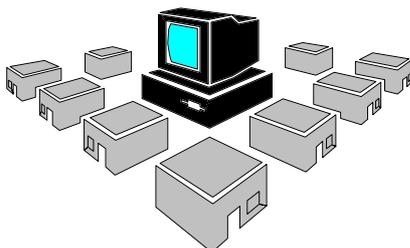
**Useful web addresses:**

http://www.mailbase.ac.uk - the list 'web assisted assessment'.
http://www.hull.ac.uk/merlin
http://www.essex.ac.uk/tbl/index.html
http://web.uvic.ca/hrd/halfbaked/ - features Hot Potatoes, a piece of freeware designed for language teaching.

# MIS News

## York Skills Management System
### Sue Bolton

There are a number of supplementary skills courses available to students outside the academic curriculum such as Languages for All (LFA) and Information Literacy in All Departments (ILIAD). These courses can be undertaken by members of staff or by members of the public as well as by York students. Some students may choose to enrol for some of these courses as part of the York Award. The York Award is a qualification earned in addition to a student's degree which includes language and information literacy skills, together with involvement in community activities and voluntary work.

At the beginning of 1998 the MIS office were asked by Debra Fayter (ILIAD), Dr Margaret Ferguson (LFA) and Dr Robert Partridge (York Award Co-ordinator) to design and write a York Skills Management system that could be used by all course co-ordinators to record and monitor applicants participating in this scheme. The system was completed in June and has been actively used since the beginning of October.

The system is written in Powerhouse 4GL and makes use of certain data items held on the MAC Student Records system. Until this new system was introduced, registration details for York Skills courses were held in local Paradox databases or spreadsheets with no link to the MAC Student Records system. The new system offers many advantages over the old systems, particularly speed on entry of registration details because of the link to MAC. There are several management information reports available and we expect to be making enhancements over the coming year as feedback from the users is obtained.

## Postgraduate Degree Certificate Production
### Kevin Gardner

Until recently, the method of producing Degree certificates for postgraduate students was a manual process. It consisted of passing a list of names, awards and program titles to the Print Unit where these data items were keyed in and certificates printed, one by one. To simplify matters, the Print Unit had set up templates of known awards and titles, but this still left the labourious task of entering the name of every successful postgraduate student, approx 750 each year.

It seemed logical to automate this process as much as possible. The MAC system holds details of all students, their programs of study and, if successful, their award. If these data items, together with the date of the ceremony and fixed certificate text could be formatted with the correct font and size, then the only manual intervention would be to select the desired batch of students.

With this aim, a system within MAC was set up to allow the Postgraduate Office staff to select successful students according to their award or program of study. The system also allows for the maintenance of award descriptions and ceremony dates. A check list of the selected students can be produced; this allows for cross checking against departmental lists as well as MAC data. If all are present and correct, the certificates can be printed on a suitable postscript printer loaded with blank certificates.

This system has benefited the Postgraduate Office by allowing them to produce the certificates without reliance on the Print Unit. Duplicate data entry has been eliminated and therefore typing errors have been reduced. Certificates can be produced within minutes of the awards of successful students being entered into MAC.

## New Tuition Fees: New Software
### FTM Willson

In order to comply with the recent legislation that requires all new Home and EU students to make a means tested contribution to their Tuition Fees (to a maximum of £1000) the University has had to put in place a suite of programs that can record who is paying how much (the student and/or the Local Authority). As the previous software would only handle the building of fees for one sponsor at a time and could hold only the most basic fee history, MIS was commissioned to write the software that could handle the concept of "Multiple Sponsors" and record fee application data. The input had to be simple, fast, efficient and adaptable as the methodology that individual LEA's were going to adopt was unclear. Following several planning meetings between the Registry and Finance Department it was decide to "hang" the Tuition Fee Input Screen off the In-house

Registration system within MAC; populating a new customised database, processing this data into MAC and using the current SBS software to build as much of the fee data as possible. The government anticipated that the funding split would be evenly between "Fully Student", "LEA" and "part student / part LEA" so no more than one third was expected to create additional work. As it turned out the York division was more like 50:30:20. Further complications were that the LEA funding has to be officially verified and a large number of the new "unitary" authorities would be funding fees for the first time. New concepts and new bodies promised at best Delia Smith scrambled eggs! (a lot of effort followed by an unpalatable result).

However, to mix one's metaphors, we appear to have come up trumps! The software was beta tested and

accepted in early September and was fully operational along with the Registration System at the end of that month. Apart from minor glitches associated with student withdrawal and course changes, the whole process has gone smoothly. To date we have processed over 1550 new tuition records, for all but 88 of which written verification was provided by the student, and £1.5M worth of invoices will be scheduled for payment under this scheme as you read this article. The software was delivered on time, within budget (inevitably there were no funds for this) and to specification. Another "Yorkshire" University within three weeks of the beginning of their term had barely started, had several staff-months of programming to do, and no time to test!

## Syllabus Plus
### Jenny Jackson

Currently the University's teaching timetable is produced manually, on a termly basis, by staff in the Examinations and Timetabling Office. Manual production of the timetable has become an increasingly difficult and lengthy process due in part to growing student numbers and in part to the range of combined courses on offer. Syllabus Plus is a software package which is specifically designed to produce planned timetables for higher education institutions.

MIS are currently involved in the implementation of Syllabus Plus at York. Information from the student records system, such as student module choices, has been loaded into the timetable database. Other information has been loaded from the MAC Space record (teaching rooms) and from the MAC Personnel record (teaching staff). Further information is to be collated and manually entered into the system. The aim is to produce a timetable using Syllabus Plus in

parallel with the manual preparation of the timetable during the summer term. The 1999 autumn term timetable will be the first to be produced using Syllabus Plus alone. In the future, the production of the teaching timetable should be a less arduous process for the Examinations Office ensuring a clash free timetable with more effective use of teaching resources.

# RALPHY - The J.B. Morrell Electronic Reserve Project

## Gareth J Johnson

**RALPHY**, or the Remote Access Library Project Hosted at York to give its full name, is an Electronic Reserve (ER) project. ER are digital collections of articles or book chapters that can be accessed through a computer network. Most often ER schemes are run by individual Universities and access is provided via the World Wide Web. Generally, like the Library's short loan reserve photocopy collection, ER material is intended to support undergraduate teaching needs. Due to some of the copyright considerations providing material for postgraduate use can be problematical.

The major advantage of an ER is that there are no physical limitations on the period of access or the number of users of an article at any one time. Users are also able to print articles on demand in the same way as they would print any document from a computer. This increased availability of access to items in heavy demand that users of the various ER services particularly favour.

Electronic documents held on the RALPHY Web site are stored in Adobe Acrobat Portable Data Format (PDF). This format has a number of advantages with respect to download time, security, browsing ease, and electronic document creation. Print material to be digitalised are scanned in a page at a time, using a flatbed scanner and then converted into the PDF format. On average an electronic copy of an article takes around 30 minutes to create, so the process is not overtly time consuming.

However, while the technological set up takes only a short time, the major obstacle to providing an ER is obtaining copyright permission. As it currently stands the Copyright Licensing Authority (CLA) only deals in copyright clearance for print materials held in a printed format by a University. This unfortunately means that in order to use full text materials electronically every single item must be cleared with its right's owner by the project team. A copyright agreement acceptable to most publishers took some time to develop, aided through consultation with other ER projects, such as **Project ACORN** at Loughborough.

Discovering the range of materials that would be cleared for electronic reproduction also took time. This is a complex issue as many publishers are uneasy about granting electronic permissions, suffering nightmares over the potential revenue loss, and so
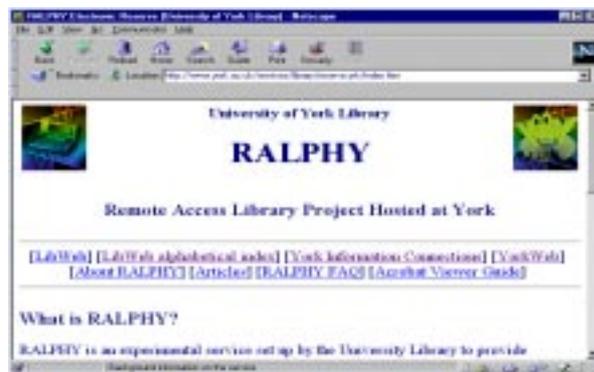


flatly refuse to grant permission. This has been particularly seen in attempts to provide ERs set up for postgraduate use. Undergraduate teaching materials are not seen as a major market and therefore are more likely to be acceptable to publishers. Some publishers employ the rather annoying tactic of granting copyright permission, provided a fee of several hundred pounds is paid per article. In practical terms this means it is more cost effective to actually purchase additional copies of an item, rather than attempt to electronically duplicate them. All this takes considerable time and frequently reminder letters have to follow the initial request to gently nudge publishers in the right direction.

It seems that at least three months lead time is needed in order to properly provide for a course's reading list needs.

RALPHY has so far achieved a greater than 60% copyright clearance success rate on journal articles, though unfortunately it seems that virtually all publishers are unwilling to clear the duplication of book chapters in this way without substantial fees. However, this hasn't stopped the project from providing access to some 30 articles electronically to date for a range of courses. So far, feedback from users has been extremely positive.

In the future major nationwide large-scale services such as the **HERON** & **JSTOR** projects, as well as the continued development of **electronic journals**, may well shift the onus of work from individual institutions to themselves and provide a much more streamlined service. However, developments like this take time and money, whether or not they prove to be effective; for the next few years, RALPHY offers a viable low cost alternative. Any departments interested in just how the project could potentially benefit them are welcome to contact me at any time to discuss it, or alternatively to browse the URLs below for more information.

**RALPHY**
http://www.york.ac.uk/services/library/reserve.yrk/index.htm
**Project ACORN**
http://acorn.lboro.ac.uk/
**HERON**
http://www.stir.ac.uk/infoserv/heron/
**JSTOR**
http://www.jstor.ac.uk/
**Electronic Journals**
http://www.york.ac.uk/services/library/ejournal/home.htm

## 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 YO1 5DD | 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* |
| 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* | | Kay Robinson | 2101 | *kr7* |
| Chris Gowland | 3823 | *cg1* | | Andrew Smith | 3809 | *abs4* |
| Peter Halls | 3806 | *pjh1* | | Timothy Willson | 2123 | *ftmw1* |
| Vivienne Hemingway | 3818 | *vwh1* | | Michael Woodhead | 3825 | *mw28* |