

Dial-up Enhancements

Over the summer the number of lines available on the dialup service for the Campus Network has been increased to 12 to cope with the increasing demand.

Logins to the service are now running at nearly 10,000 per month. The number to dial is unchanged (01904 433830).

Robert Demaine

Computing Forum

There will be an open meeting of the Forum at 2.15pm on Tuesday 15 October in H/G09.

Anne Worden

Welcome to New Staff and Students

The Computing Service would like to welcome all staff and students who are new to the University this year.

All students new to the University this Autumn have been automatically registered to use Computing Service facilities so there is no need to call in at the Computing Service to register. Usernames and passwords to be used for logging into the computers can be found on the back of your University Card or your Student Card.

Guides containing exact details about how to use the information on the card have been distributed via your department. Please make sure you read the guide before using the computers as it explains about the different facilities available, gives the location of Computing Service classrooms and tells you how you can obtain information about using our systems and software.

New members of staff should call in at the Computing Service to register and receive an introductory guide.

Anne Worden

Windows 95 in Higher Education

A highly successful meeting on the problems of implementing Windows 95 on large scale campus networks was held in September.

The meeting, organised by Doug Moncur, attracted around a hundred delegates from the computing services of HE institutions in the UK and Ireland, as well as representation from Microsoft. Speakers came from both the academic and commercial worlds, with topics covered including NFS networking, working with Samba, NT and Windows 95, and implementing teaching networks with Novell.

In addition, there was a highly successful Q&A session with Stuart Fleming and Dave Gregory of Microsoft in which few prisoners were taken.

The speakers handouts and other related Windows 95 information is on the Web at:

<http://www.york.ac.uk/services/cserv/ms-os/>

Doug Moncur

About the Information Desk

Opening Hours	9am - 5.15pm Monday - Friday <i>Closed for training Weds 2pm - 3pm</i>
Contact	Email infodesk Telephone 3838 Answerphone 4343

Members of staff and research graduates can use the Information Desk for all types of queries. Taught graduates and undergraduates can report faults in centrally provided systems or software, pay money into their printing charge accounts, buy floppy disks, obtain free copies of our guides and consult our reference manuals; any questions concerning use of software, should be directed to your department in the first instance.

Anne Worden

New Look Web Pages

Over the Summer the Computing Service, like other sections of the University, have been busy updating our Web pages. We have changed the look of the pages and taken advantage of some of the latest features available in order to provide a better service.

Anne Worden

Classroom News

During the Summer 18 terminals and a self-service A4 printer were installed in Alcuin A/140 (the former College Library) to give another 24 hours a day, 7 days a week facility.

The 6 Apple Macs from Language were moved into Langwith L/051, thus widening access to 24 hours a day, 7 days a week.

At the end of September the PCs in L/117 and K/120 were upgraded to 16Mb RAM. These PCs are now identical in performance to the equipment in G/169 and D/114.

It had been hoped to replace the Compaqs in L/051 and the JB Morrell Library at the same time, but financial constraints have prevented this.

Anne Worden

The Director Writes...

The Computing Service Review

The Computing Service Review Group reported to Planning Committee at the end of the Summer term. Planning Committee agreed that its detailed recommendations represented a sound basis on which to take forward the development of the Service. Planning Committee has asked for an implementation plan to be drawn up, and the Report has been sent to the Information Committee and Heads of Department for comment. This article highlights some of the major points of the Report as they affect individual users.

The Report advocates provision of a set of centrally funded 'core' services:

- Vision and promotion of computing
- University Network
- Basic Network Services eg Email, WWW, Telnet, SuperJANET
- Basic allocation of central filestore
- Central MIS functions
- Classrooms and classroom support
- Basic information provision, including training materials, via WWW
- Core and recommended software provision
- Fault reporting
- Basic advice via Email relating to basic information provision

All other services currently provided by the Computing Service eg departmental PC support, PC fileserver provision, central computing power for staff, printing, training, advice and consultancy (face to face or relating to areas outside the basic provision covered by the documentation), and documentation, would be non-core activities which would be charged to departments. All services will be covered by Service Level Agreements laying out the responsibilities of both the Computing Service and user, and performance against these will be monitored.

The Review Group noted that the Computing Service was stretching itself to cover a large number of functions with limited resources. Comparison with the group of the University's standard comparator institutions indicated that the central computing staff complement at York (covering both academic and administrative computing) is 15 members of staff less than the average of the comparator group and 11 members of

staff less than the lowest-staffed comparator. The Computing Service has been painfully aware of the cracks appearing in the service we are able to offer as the volume and diversity of the workload has increased, but has endeavoured to provide the range of services appropriate to a prestigious research and teaching institution.

The Review Group's proposals address this problem by defining a very basic service which could be provided by the existing staff. Additional services could then be provided by charging departments for the additional staff and equipment necessary, with the hope that, over time, the Service could grow to the size necessary to provide the optimum range and level of services for the University.

The details of this new way of operating will be determined during the coming year with the expectation that the major changes will take place for the 1997/8 University financial year. In addition to the changes in the role and mode of

operation of the Computing Service proposed by the Review Group, the generation of an Information Strategy and the proposed changes in governance of the University during the year will have significant implications for the role and responsibilities of the Service as the University develops.

The Computing Service is committed to continuing to support the University's operation and development in all areas within the resources available, and looks forward to addressing the new and emerging requirements identified in the above changes. Users should note, however, that because our efforts will be directed towards implementing the recommendations put forward in the Review, there is unlikely to be any spare staff effort available in the current year for other projects to which we have not yet committed (a recent implementation of a charging system in the Computing Service of another University took 5 staff years of effort).

Mike Jinks

New and Enhanced Facilities 1996/97

The University has allocated capital funding for a range of developments to be undertaken by the Computing Service during the current financial year following recommendations from the Information and Computing Committees.

A considerable proportion of the capital expenditure is devoted to enhancements to the Campus Network. In particular, Phase 1 of a general upgrade to a higher speed network using "ATM" will connect the Computing Service to Chemistry, Electronics, Music and the Computing Service Silicon Graphics Workstation room, D/104.

Elsewhere on the network, there will be enhancements to the hardware, improved network management software and an additional 9 dial-up lines. Additional optical fibre is being laid between the Computer Building and Heslington Hall, and Phase 4 of the campus cabling initiative will complete the internal cabling of Physics, Electronics and the New Building in Main Street.

The demand for filestore continues to grow and additional disk capacity has been purchased for both the central Auspex fileserver and PC applications file servers. This latter will enable us to mount the TLTP software required by departments. A new mail hub has been installed to provide greatly increased capacity to handle the growing number of electronic mail messages sent across the campus and SuperJANET networks.

In accordance with University policy, we will be installing physical security equipment on PCs in the general access areas. We have also upgraded the memory in the PCs in L/117 and K/120 to enable them to run applications, and particularly TLTP, software more effectively.

Finally, we will provide a Windows 95 service for a restricted number of connections. There is insufficient funding to provide the server capacity for a more extensive service, but we hope that those who really need to use Windows 95, eg to enable them to run specific applications packages, will be able to do so.

Mike Jinks

£96K Award for Network Upgrade

In August the University was awarded £96K by the Higher Education Funding Council for England (HEFCE) to develop a state-of-the-art campus network.

The bid, made by the Computing Service under the HEFCE's LAN/MAN 1996/98 Initiative, secures funding for a proposed network based on ATM (Asynchronous Transfer Mode) technology.

ATM potentially provides a means of carrying voice, video and data traffic over a common infrastructure at speeds well in excess of the 100Mbits/sec FDDI ring which currently forms the backbone of the campus network. Initially the network will carry data traffic at 155Mbits/sec. This should increase to 622Mbits/sec and beyond as the technology develops.

The first phase of the project will involve the installation of a small number of ATM switches which will be used to connect some PCs and workstations directly, and will feed a number of full bandwidth Ethernet and Fast Ethernet connections. Some buildings with excessively high traffic levels will be moved over to the new network in order to improve performance.

Over the coming years Ethernet technology will continue to be used to the desktop, but the falling cost of ATM interfaces for PCs and workstations should mean more devices directly connected to the ATM network.

A project team headed by Robert Demaine will undertake the procurement and installation of a pilot network which should be in service by mid-1997.

Robert Demaine

JANET National Dial-Up Service



UKERNA, the company which runs the JANET network, has recently signed an agreement with U-NET, a commercial Internet service provider, to operate a National Dial-Up Service from 1st October 1996.

University staff and students may subscribe to the service which offers analogue (V.34) or ISDN access at local call rates from anywhere in the UK. The service would therefore benefit those who live outside the York dialling area and often use our systems remotely.

Software is provided for Windows 3.11, Windows 95 and Macintosh platforms.

The service comes in two forms: the JANET Connection Service (£58 + VAT per annum) and the Full Internet Service (£80 + VAT per annum). The price includes an email account, Usenet News service, software, and telephone support.

Subscribers to the Full Internet Service will have access to U-Net's own international links, and are allowed to create personal Web pages (up to 1 Mb).

For full details look on the Web at

<http://www.u-net.net/services/janet>

Robert Demaine

Upgrade of the MAC Software

D13 upgrade for MACTEST took place on 26 August and on 7 September for MACLIVE.

This upgrade contained enhancements for UCAS Transactions and Schools information, Student Fees, Purchase Ledger, Sales Ledgers and Stock Issue. A copy of the release notes are available on request.

D14 upgrade will take place mid November and will contain mainly changes to HESA. The D15 upgrade is planned for April 1997 and this will contain changes to UCAS to cater for GTTR applicants.

MAC Finance, MAC Research and Consultancy NOW LIVE

The following information has been transferred from the Finance DIBOL system into MAC: Supplier Information, Stock Information, University Assets, Research Projects and balances.

A new bar coded stock issue system has been written locally and interfaced to the MAC stock issue system. Interfaces have also been developed to transfer costs from local payroll systems into the MAC systems.

Data Warehousing

Student Records

These records now contain modifications as a result of the upgrade to D13. Contact Sue Flockhart (Email sfs6, ext 4048) for further details.

Finance, Research and Consultancy

This system is currently behind schedule but it is hoped that it will be available from early October. If you wish to have input on the data content please contact Richard Shepard (Email rs16, ext 2129).

Estates Manager

This system is currently under discussion. If you wish to have input on the data content, please contact Martin Penny (Email mbp1, ext 2178,).

Retirement of Lotus 1-2-3

The above product was retired by Digital Equipment Co Limited in July 1996. Therefore I ask ALL users to make a start and transfer your work to the University-supported spreadsheet, Quattro Pro.

Moving from WPS to WordPerfect

Only 25 out of 240 WPS account holders have indicated that they no longer require WPS. If you have been provided with a PC, YOU MUST move to WordPerfect as the WPS system will be restricted to a limited number of users soon. If you intend to use WPS after 1 November 1996 or you wish to retain any files that you have not transferred, please contact MIS now.

Helping to Fund the Gap

The Raiser's Edge fundraising software has now been loaded onto a file server. MIS are very heavily involved in the transfer of information from MAC student records and the local Grapevine application and archive records into Raiser's Edge. Once the data transfer has been completed and the information validated, the database will be an important source of information for fundraising.

Software to Improve Cash Turnover

A new sub-system, conference billing, has been written locally and added to the conference and room booking system. This sub-system will enable conference invoices to be produced more accurately and expedite the production of a sales invoice. The conference billing information is now available on-line to the College Bursars, for them to enter detailed charge information.

Trevor Bolton

MIS Trainer

We welcome Richard Jardine who joins us as a trainer on administrative computing applications following Anita Mallinder's departure. Richard worked for us during Anne Worden's maternity leave as an Information Assistant involved with documentation and the ILIAD programme. Richard is a physicist by training and a qualified teacher. He will be with us for just over a year, when we hope to welcome Louise Stark who will take up the post after her maternity leave.

Mike Jinks

Software Auditing

The software companies with whom we have agreements usually include in those agreements the right to check and see if we are using their licences correctly, ie that we are using no more copies than we have licensed, and that we are using the software only for the purpose for which it was licensed. We do not buy software, we only buy the right to use it.

Here at York it is convenient to divide licensed software into two categories - that provided by the Computing Service on supported PCs and on central systems, and that installed on hard disks on your desktop computers. The former category is the concern of the Computing Service, and we believe that if asked we could produce suitable licences for all the software on the system.

The second, desktop, category is the concern of each and every computer user and department. If a team of auditors were commissioned by the University, or imposed by the software licensor, they would have the right to determine what software was resident on your computer, and at a later stage, a reconciliation would take place where the software found would be checked against the licences available. The aim of the licensors is not to put anyone behind bars, even though software theft can be a criminal offence, they just want their money. This can prove very expensive. An educational establishment might have to pay for the software and for legal costs and perhaps suffer punitive damages or a fine. This is not hypothetical, it has happened.

It seems inevitable that eventually a software audit of the University will have to be carried out, so it is incumbent upon everyone to look at their software holdings and ask, "Do I have a licence, and am I using the software within its terms?". If you have bought or been supplied with software by the Computing Service, we hold the licence for you.

John Illingworth

Computer Security

The University is now able to offer a choice of three companies - all recognised by the University insurers - who can supply security devices for desktop personal computers. The companies are:

K.B.S. Group	Tel 0121 561 4165 Fax 0121 559 8696
L.R. Associates	Tel 01423 501452 Fax 01423 528787
Aegis - Security Enclosures Ltd	Tel 01582 410110 Fax 01582 45151



Ordering

The Computing Service will notify the Supplies Office of all new PCs ordered by them and the supply of the entrapment device will be ordered automatically in line with the University Security Policy.

For existing machines without entrapment devices, please contact one of the above companies for a quote, they will either arrange a site visit to measure your processor, or they will request a list of model numbers.

When you are ready to order, please send an order (including charge codes) to the University Supplies Office, giving full details of your requirements.

Fitting Service

All three companies provide a quick and reliable fitting service, please arrange fitting at the time of your order. As an alternative a private contractor is available to fit your entrapment device to your desk, this service will cost approx £8 per desktop unit.

To arrange fitting by the private contractor, send a memo to David Hammond in the Security Section, please state the department, building and room numbers of where the devices are to be fitted. Finally state the code to which you wish the fitting charge to be made. To save time and avoid any confusion, can you put the unit in place on the desk ready for fitting.

Some Departments may have on site facilities that are able to install the devices, they should contact the Security Office for guidance on fitting.

Key Security

It is advised that the PC user have one key and the second key be given to the team or section leader to be locked in a key cabinet or other secure, but accessible place. If a member of the Computing Service should require access to any machine in the future and access be denied due to the entrapment devices, this will result in a charge for a second visit. Please keep all keys locked away in a safe place at all times.

David Hammond
Security

Statistical Software

New versions of the following packages are now available; further details may be found on the Web.

SPSS Release 7 Win 95 only
Minitab Release 11 Win 3.11 and Win 95
Genstat for Windows Win 3.11 and Win 95

John Byrne

Windows 95: Trial Service Phase II

It may have seemed a long time in coming, but the networked Windows 95 trial service is finally here. The following software is available:

WordPerfect	Quattro Pro	Paradox
Netscape	PC-Pine	HTMLed
Minitab	SPSS	Genstat
Maple	Delphi	Stanford Graphics
Borland C++	eXceed	Hummingbird NFS

The intention is that this service will look like the final production service from the beginning. However, some items of software may be missing or may be updated during the trial, which is scheduled to run until Christmas 96, when it will turn into a full service.

This service is for staff office machines only. Financial constraints and technical problems have resulted in delays in implementing a classroom service, although we hope to have at least one classroom with the option of Windows 95 by early 1997.

If you want to join Phase II of the trial, please mail yk95@york.ac.uk. You will receive an application form in the internal mail which you must complete and return. You must ensure that your machine is at least a 486sx33 machine with 16Mb RAM, and with around 100Mb free space on the hard disk to participate in the trial. You should also be registered with the Computing Service. If you already have a Supported (Level 2) Connection, it will be possible to retain that along with your trial connection. Should you only have an Unsupported (Level 1) Connection you will not be able to retain this during the period of the trial.

Due to financial constraints we are unable to provide as many connections as we want and we may need to restrict the number of trial connections available.

No support is available for NT workstations, but this may follow if there is sufficient demand. Please mail Doug@york.ac.uk if you wish to register an interest.

Doug Moncur

NATIONAL SERVICES

National Academic Computer Services

Various national bodies support computer centres for services which it is beyond the scope of individual institutions to provide. In particular some very powerful computers are available for large or very time-consuming tasks, and there is a repository for a collection of large datasets and software to manipulate them. These facilities can be used over JANET from York by individuals or research groups.

High Performance Computers

There are three systems funded by EPSRC: a Fujitsu VPX240/10 at Manchester (<http://cs6400.mcc.ac.uk/vpx/>), a Cray J932/32 at Rutherford-Appleton Laboratories (<http://www.cis.rl.ac.uk/services/cray/>), and a Cray T3D at Edinburgh (<http://www.epcc.ed.ac.uk/t3d/>).

The first two are vector computers, and can achieve very high performance on problems where the same operation sequence is carried out on multiple data items (typically matrix and finite-element computations); the last one is a parallel computer which can apply up to 512 DEC Alpha processors to problems which

can be de-composed into suitable sub-problems.

Access to these machines is granted under two regimes: Class 1 (peer-reviewed) for large and medium sized projects, and Class 3 (locally administered) for smaller projects.

Details of how to apply for Class 1 use are given by EPSRC (<http://www.epsrc.ac.uk/hpc/>). Users who would like further details, or who wish to apply for Class 3 access should contact John Robinson (jsr1).

National Datasets Service

This is hosted on a machine at Manchester (<http://cs6400.mcc.ac.uk/midas.html>) with large memory and disk capacity.

The machine holds a number of datasets on-line and has appropriate software to extract and analyse data from them. The datasets include UK Census results from 1981 and 1991, Government surveys such as the Family Expenditure surveys and General Household Surveys, Macroeconomic time series, and Digital maps and satellite images.

Users may register to use the MIDAS machine through the local representative John Robinson (jsr1), and will also need to register with the data provider (typically through the National Data Archive at Essex) to use particular datasets.

John Robinson

Your Guide to the Internet

In the next issue of Keynotes members of the Library staff will begin a series of articles focusing on Internet resources available in specific subject areas. As an introduction to this series, in this issue we highlight some of the general reference material now available on the Web.

With a wealth of reference and directory type material available on the Web, a good place for anyone at York to start looking is the York Information Connections Electronic Reference Desk <http://www.york.ac.uk/services/library/subjects/refdesk.htm> If you have looked at individual sources mentioned here and been unable to find what you need, the Yahoo Reference Sources section <http://www.yahoo.com/Reference/> which contains links to many more quick reference sources may have the answer.

Anne Worden

Did you know...?

Many newspapers are now on the Web - for a comprehensive listing see: <http://www.mediainfo.com:4900/ephone/npaper/nphtm/online.htm>

The CIA World Factbook can give you current political and geographical information about most countries: <http://www.odci.gov/cia/publications/95fact/index.html>

Tourist information about many countries is available from: <http://www.city.net/> or <http://www.vtourist.com/vt/>

BBC programme schedules and detailed information about many programmes can be found at: <http://www.bbcnc.org.uk/>

Directories of world flags, plus marine signals and motor racing flags are at: <http://www.yahoo.com/Reference/Flags/>

You can find out local times around the world from: <http://www.hilink.com.au/times/>

There are many directories of people, organisations and companies at: <http://www.york.ac.uk/services/library/subjects/dirs.htm>

New to the Internet?

If you need an introduction to the Internet itself, try looking at the Big Dummy's Guide <http://www.nwu.edu/internet/bdgtti/> or TONIC <http://www.netskills.ac.uk/TONIC/>

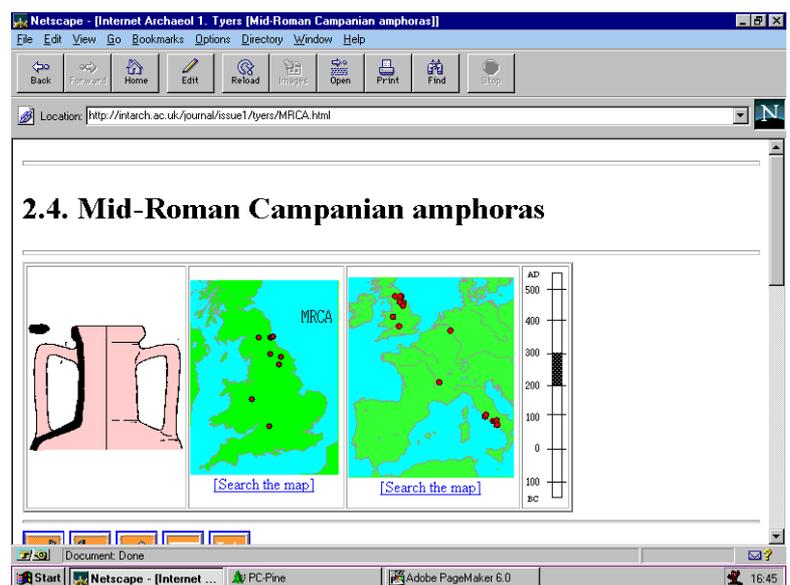
To go directly to any of the sources shown on this page just replace the URL in the Location box at the top of your Netscape window with the one shown here, then press Return.

Internet Archaeology

In September the first issue of a new international electronic journal, Internet Archaeology, was published. The journal is edited in the Department of Archaeology here at York and is mounted on hardware maintained by the University Computing Service.

The project is funded by JISC to explore the potential of the electronic library as part of their eLib programme. Unlike conventional printed journals Internet Archaeology is able to exploit unlimited colour graphics, large databases, and provides full interaction for the reader. The first issue includes a paper on Roman amphoras featuring clickable maps and timeline searching, a fully illustrated catalogue of clay tobacco pipes, 3-D visualisations of Hadrian's Wall, a new technique for the display of statistical analyses, and a comprehensive searchable database of plant remains found on archaeological sites in Britain. All the papers have been fully refereed and HEFCE have agreed that electronic publication can count in the Research Selectivity exercise.

Eventually it may be necessary to charge subscriptions but for the moment Internet Archaeology can be accessed free of charge at <http://intarch.ac.uk/>



Dr Julian Richards
Department of Archaeology

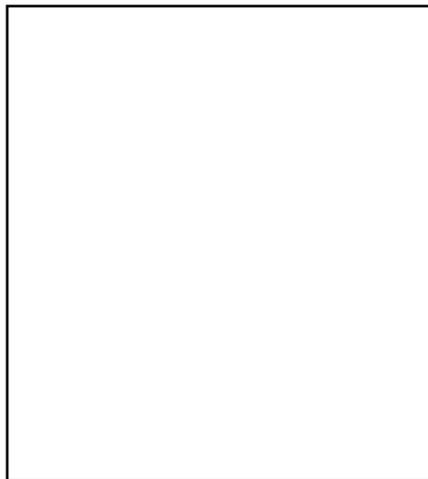
A day in the life of...

... a Personal Systems support programmer

I came to the Computing Service at York just over a year ago to take up my current position. During the 12 years before that I worked on a number of jobs mainly on Sun systems and parallel processors. One of my first jobs at the Rutherford Appleton Labs was to use a very early IBM PC/AT which was delivered by our resident IBM engineer who stated "you're a very lucky lad to have this, it is the only one in the country". I switched it on, decided you could not do much with it, pushed it under a table, and went back to playing with a Sun fileserver. Today things have progressed and PCs have become an important part of our work environment and maybe we all take them more seriously!

I work in the Personal Systems Group (PSG) as a "Programmer" and I still do some programming! The PSG provides hardware and software support for well over a thousand PCs on campus and basic network connections for a great deal more. Our PCs are used by both staff and students and we aim to provide a comprehensive service to all our users. The services provided by the PSG include a range of varied tasks from ordering a PC, through the physical connection in the office/classroom, to the network services required to keep the PC running (such as provision of adequate filestore).

The majority of the supported PCs connected to the network are served by Sun UNIX fileservers which provide basic filestore and network services for these PCs. A typical fileserver stores all the DOS/Windows and application software available for use from a PC. One of my jobs is to keep these fileservers running both in the day-to-day tasks and with long term maintenance. A lot of time has been spent "tuning" these servers to offer the best in performance, security, and availability of services.



There are many problems that can go wrong at any time with the Sun fileservers, and these require either immediate attention or long term strategic decisions. Often fileservers stop working for no apparent reason and there is little evidence as to what the problem may be! Many hours are spent trying to solve a problem and sometimes the cause is never found. An eye has to be kept on the fileservers constantly to make sure they can run 24 hours a day without a break in service.

One project that is taking up a considerable amount of my time at the moment is the planning and implementation of the campus Windows 95 service. My aim is to get things right from the start in order to give us a good foundation for expansion of both users and facilities.

The migration from Windows 3.1 to Windows 95 has not been easy, mainly due to the way Microsoft have been "persuading" users to use only Windows NT as the server architecture. This has made it difficult to use a UNIX-based fileserver

for a Windows 95 PC; this problem has affected our classroom diskless PC service in particular because those PCs are more heavily reliant on the server architecture they boot from. Due to our large investment in UNIX-based fileservers we have to stay with this architecture and it has been a considerable task getting all the components to work together. We are not able to offer a full service yet but I can now see the light at the end of the tunnel.

Currently a great deal of my time is taken in documenting the new Windows 95 service for our own internal use. This involves writing down the necessary procedures for staff to install Windows 95 systems and applications. I have also given a number of talks on the Windows 95 service to various different groups of users.

Over the next couple of months we will roll out our new Windows 95 service which I hope gives the users a more friendly and faster user interface, with more freedom in the use and expandability of their machine. At first I expect that there will be teething troubles but I'm sure we will overcome them and that we will have a service which is the envy of many a University Computing Service. We hope you will take part in this new service and that it will provide you with the extended functionality you require.

Oh, yes, what do I do in my spare time? I try to build and fly Radio Control aeroplanes in between the house refurbishment and garden landscaping given to me by the "Chief Designer". One day I shall retire and just build models all day long

Andrew Smith