

computing

THE IT NEWSPAPER

<http://www.vnu.co.uk/bc/ctg>

A VNU BUSINESS PUBLICATION

'Sir Peter' rewarded for sale to Japan

A knighthood for 'Services to the IT industry' is Peter Bonfield's New Year Honours reward for selling ICL to the Japanese, 30 years after a previous government fought internally to build an independent UK IT industry.

Cabinet papers released the week Bonfield's honour was announced, reveal a split in 1965 over who should equip the Scottish Office's first major computer centre. IBM and ICL were shortlisted, with technology minister Frank Cousins backing ICL.

But economy minister George Brown wanted IBM to win the contract to boost employment prospects for Scottish workers who would produce 20% of the components for the mainframe.

IBM won the bid after Prime Minister Wilson was persuaded there were special circumstances in this case, but Cousins was given charge of a committee to co-ordinate government IT procurement to benefit UK firms.

Cousins also won a ruling that foreign suppliers had to bid 25% less than UK companies to stand a chance of winning a contract and that delays of up to a year in acquiring new systems were acceptable in order to buy from domestic suppliers.

IN THIS ISSUE

| | |
|--------------------------------------|----|
| Barclays Merchant Services | 14 |
| Central London TEC | 17 |
| Department of Health | 3 |
| Department of Social Security | 2 |
| E Botham & Sons | 14 |
| Innovations | 15 |
| Intervention Board | 3 |
| National Westminster Bank | 15 |
| Nrth Tyneside District Council | 2 |
| Olympus | 15 |
| Scottish Fisheries Protection Agency | 3 |
| Selfridges | 15 |
| Thomas Cook | 15 |
| Woolworths | 15 |



9 771361 297002

Blood boils over national transfusion timetables

by Jonathan Moules

A row is brewing between the IT manager of the National Blood Authority (NBA) and regional colleagues over the timescales for a £5m nationwide bloodstock management system.

Only hours after a main supplier was announced for the project, regional IT managers warned that the two-

year implementation date set by the NBA's Gary Barr was not realistic.

A senior IT manager in Liverpool told *Computing*: 'We are going to be left with a big gap between the signing of this contract and the implementation of the new computer system. If you are linking blood transfusion centres nationally, you need

to bring them together by computer at an early stage. We have waited and waited and now there is going to be another long wait. The NBA has not gone about this in a sensible way.'

A colleague from Leeds added: 'There must be a question over the two-year timescales. In the US, it took five years to get things right

and the Americans were running the new system side by side with the old one.'

But the NBA's Barr dismissed their fears, saying they are ill-informed about plans to replace a mixture of incompatible local systems at 13 regional centres with a single national system by the end of 1998.

At the end of last month,

Savant Enterprises, which provides systems for three of the local centres, was chosen to develop the nationwide replacement, and the news provoked immediate disquiet.

But Barr said: 'It is very easy to say these things. Local teams don't know enough about what is going on in the project.'

ITSA's future threatened by private competition

The head of the IT arm of the DSS has accepted he may be redundant by the end of this year.

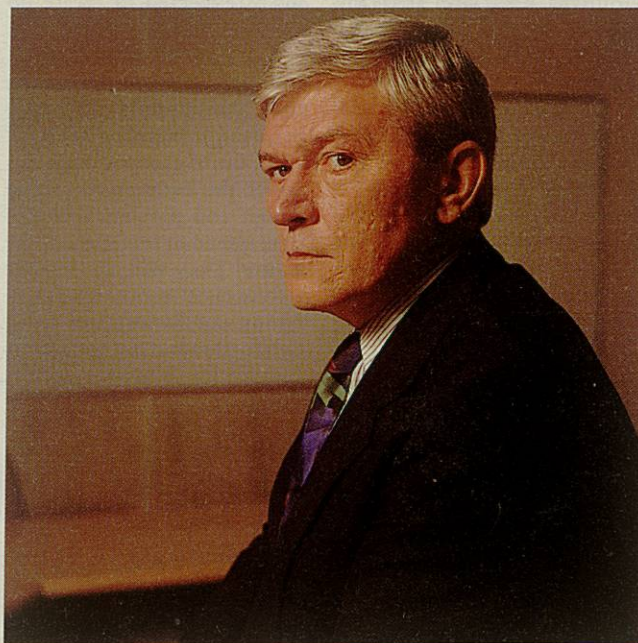
Giving evidence to a House of Commons Select Committee, Kevin Caldwell, acting chief executive of ITSA, said he saw a smaller agency 'more focused on the management of services from the private sector than the supply of services itself'.

Caldwell's comments would appear to leave the door open for the agency to be completely absorbed into the private sector, making it

impossible for him to continue as its head under the new climate of civil service propriety following the Nolan report on standards in public life.

ITSA'S role had already changed following the decision to outsource service delivery and the use of the Private Finance Initiative on the National Insurance Recording System project.

Proposals to turn ITSA into a trading fund have also been scrapped under the 'prior options' review process applied to Next Steps agencies.



Caldwell: ITSA's new role may be to manage private sector services

Advice Bureau seeks Lottery cash boost

The Citizens Advice Bureau (CAB), the world's largest independent advisory agency, is looking for £15m from the National Lottery to create a high-speed network linking 800 bureaux across the UK.

Although almost 600 CAB branches, which offer free advice, have computers, only a handful are wired up to the Internet, enabling them to provide specialist online advice and local information.

If the Lottery awards the agency with the amount it has asked for, 60% of the costs needed to produce the network will be provided. The private sector will be asked to pledge a further £10m.

The network would give all CAB advisors instant access to an online version of the organisation's national information database, which is currently held on 12,000 pages of paper files.

Ann Abraham, chief executive of the National Association of Citizens Advice Bureaux, said: 'Through our network of 2,000 outlets...we deal with more than seven million problems every year. Yet we still reach only a fraction of those needing information and advice.'

The year ahead in Computing

In 1996, *Computing* brings you new features, more opportunities to Get Ahead, and national availability in newsagents for the days you're away from the office.

And new columns — where better to begin than with Microsoft, your most powerful supplier of IT infrastructure. As it continues to skirt monopoly investigation, what effect could anti-trust rulings in Europe or the US have on

your IT strategy? To anticipate all Microsoft-related issues, veteran anti-trust specialist and Microsoft watcher Graham Lea pens *BillWatch* (see page 10) every week. Correspond with him at: 100137,655@compuserve.com

On our letters pages, Paul Bray's much-loved *Perspective* pairs with the new Lauchlan Angle, where news editor Stuart Lauchlan gets to be as outspoken as he's ever

been in *Backbytes*, but with a byline. Hit back in print and get more than you bargained for: every letter published will be entered in a monthly draw for a selection of brand new IT publications.

And keep our Get Ahead and Training Track fax lines buzzing to supplement your meagre training and development budgets with the pick of the industry's conferences and courses.

This year, too, we are proud to join forces with the Help Desk User Group for coverage of the explosive growth in IT-supported customer service. This will begin on 18 January and will appear every month. Also, starting today, take a look at our 'How To' step-by-step management guides: turn to page 18 for the bedrock on organising increased use of teleworking in your company.

Apple revelations spark renewed bid speculation

by Martin Lynch

Apple Computer's chief executive, Michael Spindler, will face his toughest challenge this month when he reveals details of a new survival strategy for the company, amid losses, rumoured job cuts and speculation about a takeover.

At the firm's annual meeting on 23 January, Spindler is expected to announce between 1,300 and 2,000 job losses following revelations that the company will turn in a loss for its first quarter, which ended 31 December 1995.

Spindler said: 'Our anticipated results for the first quarter are obviously disappointing. We are currently engaged in an intensive review of all aspects of our business, including the factors contributing to our first quarter results, and will take

appropriate actions to address the challenges.'

John Molyneux, Apple sales director and UK country leader, declined to say whether Apple would axe UK jobs next year, but warned: 'Our margins for the first quarter will be below the 20.7% for the last quarter. It's not a question of demand, but of profitability...the company has to take a realistic look at the market.'

The losses, which follow a 48% slump in profits for the final quarter of the 1995 fiscal year, are the first the company has reported in what has traditionally been its strongest quarter.

Despite reducing prices by up to 40% in recent months, Apple has failed to increase sales in its key markets of Japan and the US.

News of the latest financial



Spindler: 'We are engaged in a review of all aspects of our business...and will take appropriate actions'

troubles has renewed speculation that Apple must seek a merger partner or put itself up for sale if it is to survive.

Speculation centres on IBM, Sony or Oracle as the most likely buyers. Oracle is believed to have made an

offer for Apple's Newton personal digital assistant business to support its own mobile computing ambitions.

Cross-party body attacks CSA's IT policy

The Department of Social Security's (DSS) IT policy for the Child Support Agency has suffered a stinging attack from the cross-party Public Accounts Committee (PAC).

The parliamentary watchdog condemned the lack of foresight from the DSS over system needs and its 'high risk' policy of running new IT with new staff.

More than half the cases on the key child support computer system (CSCS), provided by EDS, had been waiting at least a year for maintenance assessments. CSA staff were also forced to wait a year for an important financial and management information system, the PAC added.

The committee's report said: 'The department should have established, at a much earlier stage, the financial and management information required.'

These latest criticisms follow revelations that the CSA was spending £650,000 modifying systems to meet internal reforms. A PC-based system, using proprietary software, is being developed to better manage information from the CSCS mainframe.

The CSA admitted changes have had to be made to IT as well as working procedures. A spokeswoman for the CSA, launched in April 1993, said: 'The creation of a new organisation is a major task, and any new system requires time to become fully effective.'

CSA staff feel frustrated by the agency's systems, according to union representatives. Pat Heron, CSA negotiating officer for the Public Services, Tax & Commerce Union, said: 'People want to give a good service, but the systems are so complicated this is difficult to achieve.'

Small firms pushed into desktop deals

Small and medium-sized IT firms are being squeezed out of major mainframe outsourcing deals by a few large players, industry experts have revealed.

Intense competition for multimillion-pound mainframe deals is pushing many firms into the desktop outsourcing market, where contracts are much smaller.

But Mark Robinson, business development director at outsourcing advisers Morgan Chambers, claimed the desktop market will soon be subject to stiff competition, provoking mergers and acquisitions.

'The mainframe outsourcing market has become the place where only large players can compete,' Robinson said. 'And you can expect to see only five or six key players in the European desktop market in a few years' time.'

The claims follow the acquisition of PCL Group's facilities management division by SHL Systemhouse for an estimated £3m.

Trevor Clarke, PCL group chairman, admitted his company's outsourcing activities would now be limited to the desktop market.

'Mainframes have become a bitter battle with the players beating each other up on price,' explained Clarke, whose company will now focus on desktop outsourcing as well as its successful data capture and direct marketing services.

Tyneside wins funding for technology centre

A consortium headed by North Tyneside District Council has won £7.2m in government Regional Challenge funding to develop a technology research centre to support local industry and attract inward investment.

The European Centre for Advanced Industries will be based at Royal Quays in North Shields, and will cost £16.5m to build and operate for three years. The shortfall after funding will be made up by private and public sector financing.

The centre is scheduled for completion by summer 1997 and is expected to create up to 900 jobs.

The engineering research arms of Durham, Newcastle and Northumbria Universities, and a number of small local firms grouped together under the banners of marine design and pipeline technology, intend to rent space at the centre. They will also be able to hire clean-rooms for prototyping conductors and semiconductors and use computer-

aided design/computer-aided manufacture modelling systems, a pipeline test area and corrosion laboratory.

Adam Scott, North Tyneside's economic development manager, said: 'We're trying to balance a major loss of jobs from traditional industry and encourage new inward investment in the region. The aim is to help industrial restructuring by protecting highly skilled jobs which are of value to international companies and to help new firms

moving in to build up a suitable trading infrastructure.'

'Firms are starting to look at Tyneside as a base for providing specialist services to the semiconductor industry,' he added.

The centre also plans to bid for government-sponsored Foresight funding to finance specific research projects. In addition, it expects to obtain direct sponsorship and contract work from large locally based semiconductor manufacturers such as Siemens.

Crest trials indicate a bright future

by Cath Everett

The Crest paperless share settlement system looks set to start 1996 on a positive note following a first successful round of beta testing. This was despite the early reservations of its developer, CrestCo.

In the November issue of CrestCo's monthly bulletin to prospective users of the system, the company had

warned that it expected testing to reveal errors in the core Crest system as well as in the front-office systems developed by user sites to specifications laid down in CrestCo's data exchange manual.

The system was tested for a total of six weeks by Carr Sheppards, Computer Management Group (CMG), Kleinwort Benson Securities, Midland Bank, Seligmann

Harris & Co and the State Street Bank & Trust Co. The system will also be tested by the Bank of England before being audited externally.

Despite the overall success of the beta testing, several problems were found. Crest's outbound file exchange process did not operate seamlessly, but required considerable manual intervention. However, this did not affect the receipt of in-bound files or interactive services.

The automation of the settlement process was found to be not stable enough, currently, for live operation, and in some cases terminated the process. Default field values in file transfer messages also needed to be clarified.

Ian Sharland, associate director at CMG's share registrar division, said: 'Overall, beta testing was more successful



Share dealing: registrars will start trialing the Crest system in March

than expected. It's gone incredibly smoothly and on the whole was a well-conducted exercise.'

He added: 'There's no evidence to suggest Crest won't go live in July, and we all want it to go well after the disappointment with Taurus, which had problems at the centre of the system. But there's nothing like that with Crest.'

A CrestCo spokesman said he was happy with the progress made in testing 14 of the 18 Crest modules.

Share registrars will begin trialing the system in March 1996. From April to June it will go on trial with all 200 Crest participants.

Crest is still expected to be delivered within its original budget of £12m.

CREST IMPLEMENTATION TIMETABLE

- By end of December 1995 — Core system built and tested, trial scripts issued
- 15 January to 29 February 1996 — Network Flog (Failed Logon) testing to check integrity of message passing
- 29 January to 22 March — Internal systems and hot-standby testing
- 11 March to 5 April — Installation and trials for registrars
- 8 April to 28 June — Installation and trials for member firms
- 15 July — Inauguration of Crest Live
- 19 August — First paperless settlement of dematerialised stock

DoH staff angered as ICL Sorbus wins test

by Jonathan Moules

Department of Health (DoH) staff are outraged at the handling of the £40m market test of information services after being beaten by a company with little presence in the department.

Morale plummeted among the department's 120 IT staff after discovering, via a three-line email from IS directorate head Dr Andrew Holt, that they had lost to ICL Sorbus.

The contract award was condemned by Labour's health spokesman, Henry McLeish, who complained that in-house teams never get a fair hearing for market tests.

'It is another example of the Government putting the interests of the private sector above the interests of their staff,' McLeish claimed.

But health minister John Horem, who recently transferred from the Cabinet Office, claimed the deal was another good example of the success of market



Horem: deal is another good example of success of market testing

testing, which has meant overall savings of 20% across government.

Staff also complained that ICL Sorbus beat the internal team and its partner, Siemens,

to the five-year networks and help desk deal, despite providing little kit and running few services within the department.

Hoskyns had been short-listed for the deal, but pulled out months before the contract award.

One DoH employee, who wished to remain anonymous, said colleagues were wound up by the method of announcement. He added that staff felt their experience of the department's needs was undervalued. 'We feel let down by the department,' he commented.

Holt later said he regretted the way the announcement had been made to staff, which, he added, would usually be handled in person by line managers.

An ICL Sorbus spokeswoman admitted there was little ICL hardware at the department and could only name one service contract, for desktop maintenance.

CONTENTS



News Week

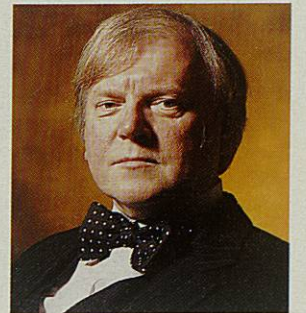
6

The Federation Against Software Theft is publicly putting its house in order by threatening to expel or prosecute any corporate members which do not complete a software audit within the next 12 months. Group chairman David Svendsen (left) outlines the federation's strategy

Billwatch

10

As Microsoft builds up momentum for the next millennium, there has never been a more important time to keep abreast of Bill Gates and his desktop empire. *Computing* welcomes a new columnist, Graham Lea (right), to do just that. His Windows on the world opens in this issue



Telly sales

14

As rent for retail space soars, well-known high-street names are turning to online interactive home shopping as a new sales medium. Emma Woollacott sees how retailers, such as J Sainsbury and bakers E Botham & Sons (left), can access millions of customers at a touch of a button

Banks face penalties over Euro directive

UK banks and brokers face stiff penalties from regulators for failing to comply with a new directive intended to prevent a Barings-type disaster happening within the European Union.

Under the terms of the European Capital Adequacy Directive (CAD), UK financial institutions must have systems in place that can provide an on-going consolidated report of their financial health. But the sheer scale of the task means that almost a third of firms are not ready.

Richard Farrant, chief executive of City regulatory body the Securities and Futures Authority, said that while he recognised the difficulties posed by implementing new systems, firms which were not seen to be making enough effort faced penalties.

Only the UK has chosen to enforce CAD so early, with other EC countries set to follow later in the year. John Redwood, MP for Wokingham, told *Computing*: 'It is typical that UK firms have to meet this directive before their competitors in Europe.'

'CAD often requires higher levels of capital than a firm needs. It is by no means clear that the existence of CAD makes future collapses impossible because collapses happen when management discipline breaks down,' he continued.

● News Week, page 4.

Farming bodies fail to reap benefits of IT

UK government bodies responsible for enforcing European agriculture and fisheries laws are failing to unlock the full potential of their investigative systems, the National Audit Office (NAO) has warned.

The Intervention Board, which ensures the correct payment of £703m of Common Agricultural Policy grants, and the Scottish Fisheries Protection Agency (SFPA) were both urged to get more out of their IT by the government watchdog.

The board's support

schemes last year overpaid £8m in European funds. But its anti-fraud unit is missing opportunities to improve its checks because it doesn't use its computer facilities enough, the NAO claimed.

A spokesman for the board, which has run Sequent Unix systems since 1990, admitted there was scope to increase the use of systems, but added: 'We have been quite IT-focused.'

SFPA's existing IT was criticised for several shortcomings, including its dependence on Scottish Office mainframes and its failure to integrate all

the information available from air and sea checks.

SFPA's new client-server systems will be completed in June. NAO comptroller and auditor general John Bourn claimed these offer 'considerable scope' for improving SFPA's performance.

The board's internal computer support team, which beat ICL in a market test last June, is about the only IT operation in the organisation not to be privatised.

The SFPA refused to comment on the NAO's recommendations.

Internet paedophile case exposes gaps in the law

by Cath Everett

The case of a paedophile who has pleaded guilty to possessing child pornography downloaded from the Internet has highlighted the lack of legislation to deal with such offenders.

Melvin Dunstan was arrested by Nottingham police in July as part of Operation Starburst, when eight forces in England and Scotland cracked an international child pornography ring, which was alleged to be distributing explicit pictures via the Internet.

Dunstan pleaded guilty to four charges of possessing

child pornography downloaded from the Net and one of sending an indecent message, but denied distributing indecent material. Stipendiary magistrate Mervyn Harris will sentence Dunstan this month.

Police Inspector Dave Dawson of the Nottingham vice squad, said: 'We're very immature in dealing with hi-tech cases and had to seek advice from a US expert. This is only the third time we've had to deal with porn on the Internet and we're on a steep learning curve.'

Clive Gringras, a lawyer at London-based Nabarro Nathanson, said: 'The prob-

lem is the Internet has no geographical boundaries, but laws do. As a result, government legislators tend to go after the takers rather than the pushers. There'll be problems until we can commit to common laws worldwide, but if we can't even establish a name for the European currency, how are we going to establish common laws between Saudi Arabia and Holland?'

A spokeswoman at the Home Office said an inter-departmental group on obscenity had been set up in March to look at tackling such problems as pornography on the Internet.

How to set up teleworking

18

We launch the first in a series of monthly how to...articles, designed to give step-by-step guides to topics which affect the way you work. This month, Emma Haughton gives a checklist for managers on how to retain control of staff who are working away from the office



News Week

4

Bankers drag feet on safe trading deadline

Database News

11

Oracle management suite aims at enterprising users

Internetworking News

11

Fifa catalogues World Cup history for online archives...Novell counters NT threat

The Desktop

9

Instant penalties to clear red routes...Notes brings groupware to Net...Need for help desk tools set to double...plus Desktop Briefs

The Profession

17

Contractors win court action against agency...Hoskyns staff council stalled by Cap stand...Senior IT posts elude women...Jobs to be listed on the Net...Maynard channels energy into Teletext (page 17)...How to set up teleworking (page 18)...The Forum (page 19)...BCS (page 20)...Courses (page 21)

Regulars

12

The Lauchlan Angle, The Bray Perspective, Letters, Leader (page 12)...Backbytes (page 56)

Senior Appointments

23

Appointments

25

International: page 50

Computing contact numbers — Editorial: (0171) 316 9158, Display advertising: (0171) 316 9129, Recruitment advertising: (0171) 316 9108, Circulation: (0171) 316 9700

LATE NEWS



BBC Television's *Timewatch* will be using a virtual reality model of the ancient Egyptian Temple of Karnak in a programme to be aired on 14 January. Cinesite developed the graphically intensive model for the BBC, using a network of Silicon Graphics workstations and a 24-processor PowerChallenge server. Michael Stewart, *Timewatch*'s producer, conceived the project, which was supervised by Liz Friedman, the BBC's senior graphic designer.

Emma Nicholson's defection from the Conservatives to the Liberal Democrats may damage more than the Government's majority. Nicholson's track record as a former ICL employee and an outspoken lobbyist on issues such as data protection and software copyright, make her one of the few IT-literate MPs. Liberal Democrat MP Nigel Jones is also a former ICL employee.

Informix intends to acquire object-relational hybrid database vendor Illustra. It will pay with 12.9 million stocks of common Informix shares, worth around \$385m (£252m). Informix plans to integrate Illustra's object-oriented technology into its own databases, potentially stealing a lead on rival Oracle if it succeeds in its plans to ship a product by October. Last year, Oracle failed in an attempt to buy Object Design, the leading object-oriented database provider.

British Airways plans to test software which will help it offer better entertainment on its planes, as part of £80m it plans to spend on improving its in-flight service. Passengers will have electronic route maps and will be able view the world outside through cameras mounted on the aircraft. They will also be able to challenge other passengers to a variety of video computer games. The system has already been fitted on a Boeing 747 for tests.

A senior Sony executive has fuelled further speculation about the future of Apple Computer by dubbing the company 'a good buy for the right party'. Olafur Johann Olafsson, chairman of Sony R&D and a member of the board of Sony US, said Apple had to allow a company with a wider base to buy it out and claimed it would be most sensible if the buyer had 'a strong presence in the consumer end of the market'.

Sun Microsystems Java is going down a storm in Japan. Fujitsu is to license the Internet programming language in a bid to cut the cost of providing upgrades to its customer base. Fujitsu officials said Java would allow users to write customised applications with significantly reduced development time. Toshiba, which licensed Java last year, is preparing a handheld terminal which will run Hot Java, the Internet browser based on the language.

Home Office minister David Maclean has revealed that the DNA database will be extended to Scotland and Northern Ireland during the first half of this year. Police forces in England and Wales are already using the system.

The Football Association has named its IT supporters for the European football championships, Euro 96. Sema Group, Microsoft, Digital and BT will provide the IT infrastructure for the three-week contest this June, hosted by England.

The Ministry of Defence has awarded EDS a multimillion-pound contract to run the army's first logistics information systems agency. The five-year deal includes the transfer of 150 civil servants to EDS.

The Government's relaxation of the union ban at electronic eavesdropping centre GCHQ has been condemned as a 'gimmick' by Labour MP and civil liberties campaigner Harry Cohen. But GCHQ's staff federation welcomed the limited independence granted by the Foreign Office last month.

McDonnell Information Systems share price fell to a record low in the final weeks of 1995, a year marked by stock market crises and profit warnings. The company's share price, which was 260p at the time of its floatation in March 1994, had dropped to 36.5p by December last year.

The world's largest provider of news and information, NBC, has announced plans to launch two joint ventures — including an interactive online news service — with Microsoft. Based on Microsoft Network (MSN), MSNBC Online has cost Microsoft \$220m (£144m) for a five-year, 50% stake.

US Internet supplier PSInet is to invest £1.5m in its UK subsidiary, EUNet GB, to help boost the company's commercial Internet service in the face of competition from rivals Unipalm Pipex and Demon. The company will spend the money updating and increasing its coverage of the UK.

Bankers drag feet on safe trading deadline

A new year's day deadline for banks to comply with new European financial regulations has passed, but an alarming number of UK institutions still do not have the necessary systems in place to support them. Mark Johnson reports.

The European Capital Adequacy Directive (CAD), is a set of rules designed to monitor the financial health of banks, brokers and trading houses operating in the countries of the European Union (EU).

The thrust of the directive is that firms must be able to show they have adequate reserve capital to cover market risk when trading in Europe. It is intended to create a safe trading environment in Europe and eliminate the possibility of a Barings-style collapse occurring within the EU.

But getting ready for the directive has proved more difficult than many had imagined. Consolidating enterprise-wide risk and training employees to understand the requirements of the directive has proved hard enough, but redeveloping internal computer systems to cope is the biggest headache of them all.

Bringing together all the disparate information flows regarding a firm's trading positions, risk exposures, credits, debits and so on, is a major task which can only be achieved via the integration of existing systems or the development of new ones.

Anthony Belchambers, executive director of the Futures & Options Association (FOA), said the demands on firms had been considerable. 'There is no question that systems are a major issue. There are commercial realities to deal with,' he said.

When 1 January dawned, almost a third of City firms did not have their CAD systems in place. Some simply resigned themselves to the possibility that they would not meet the deadline and gave up. According to Peter Madigan, divisional director of the Computer Management Group, the firms which were well prepared were 'in the minority'. Others were in 'an absolute panic'.

A compliance officer at a City broking house said one of the most difficult problems for firms affected by the directive was the lack of explicit details, making specifications for new systems difficult. Another compliance manager said there was no point in his bank structuring its systems to do one thing when the rules might change in six months.

The Securities Futures Association (SFA) is charged with ensuring CAD is



Stephen Smith, SunGard Capital Markets' managing consultant, said many firms had fears about linking old tools to new systems. 'CAD rules have caused a revolution in the banking world,' he said. 'It is the first time they have had to gather all their information in one place.'

He warned that end users would be left to their own devices when tackling issues such as where to set datelines when global operations are being reported back to, say, London.

Nowhere in the structure of CAD is there a standard method laid down for

dealing with these variables.

The 1 January deadline only applied to UK firms, a fact which has caused much ill-feeling and fears over the future competitiveness of the country's capital markets business. Other countries, such as Germany, France and Spain, have six months to a year longer than the UK to comply with the directive.

Regulators in this country were determined that UK businesses would be the first in Europe to comply with CAD, but City firms have complained that the timescale was too tight.

Belchambers warned that the fact that the UK was charging ahead of the rest of Europe had worrying implications. 'It gives us reason to pause and make sure we think this through carefully. It could compromise our competitiveness,' he said.

In an attempt to lessen that possibility, the SFA and the Bank of England have now deferred some of the deadlines until later in the year to give institutions time to get their systems in place. But this is not an indefinite delay, according to Farrant. Action will be taken against firms which do not appear to be making an effort.

Farrant insists that everyone in the financial trading community knows CAD is a good thing, despite the reservations being expressed by some. But he concluded: 'There is always a price to pay.'

'There is no question that systems are a major issue. There are commercial realities to deal with'

— Anthony Belchambers, FOA (above)



The City: some firms in 'panic'

adhered to in the UK. Richard Farrant, its chief executive, said he is aware of the technological difficulties facing firms and that there is still resistance to the directive.

'New IT reporting systems are the biggest challenge facing firms, as there are always last minute problems with technology,' he admitted. 'There have been problems, but nothing that can't be put right.'

Robert Finney, a partner in the financial markets group at City lawyers Denton Hall, said larger firms have experienced greater problems with technology than smaller businesses. This is because the spread of their activities is greater and so consolidation has been much more difficult. 'Some firms have been prepared for years. Some have

not,' he said. 'The large number of different internal systems and methods of reporting which exist within large firms create new complexities.'

The other main burden has been cost. One of the smaller players in the trading market, Standard Chartered Bank, has allocated a budget of around £400,000 for making its systems 'CAD-friendly', according to Peter Maule, the bank's group chief accountant. For larger UK firms the figure will be many times higher.

For software developers offering 'the complete CAD solution', 1996 could be a good year if financial institutions start to play catch-up. For example, SunGard Capital Markets is offering a CAD system as part of a larger risk management package called Panorama.

COME & SEE FOR
YOURSELF AT

Windows
SHOW 96

STAND 252



http://www.tek.com/Color_Printers/

Is your business waiting for the fast, economical, quality colour printer? Our business is making it for you.

You don't need us to tell you about the advantages of colour printing in today's competitive market: Colour means the power to persuade - the power to inspire - the power to set your company apart.

But until now, the right combination of speed, image quality and simplicity of use just wasn't available at the right price.

Introducing the revolutionary new Tektronix Phaser 340: a desktop colour printer that brings crisp, vibrant colour to your documents and overheads at a quality and a price nothing on the market can touch.



The Phaser 340 is built for the office network. With its powerful RISC processor, superfast memory management and remarkable solid ink technology, you get 4 razor-sharp colour pages per minute on most papers, plus economical, clean and environment-friendly refilling that's as simple as a stapler.

It's the revolution your business has been waiting for. And best of all, it's from Tektronix: a Fortune 500 leader, that's been making highly acclaimed colour printers for 13 years - using the broadest range of colour technologies.

For further information on the Phaser 340, our FREE 20 page colour guide and some astonishing print samples, please return the coupon today, or call us on 01628 403601.

☒ Yes. Please send me more details of the Phaser 340, my FREE Colour Printer Guide and sample output.

Name: _____

Company: _____

Address: _____

Tektronix UK, 10 Fleming Road, Newbury, Berkshire RG13 2DE. Fax: 01628 403617



Tektronix

Real colour printers

Fast targets members in clean-up campaign

The Federation Against Software Theft (Fast) is publicly putting its own house in order by threatening to expel or prosecute any corporate members which do not complete a software audit in the next 12 months. Cath Everett reports.

Fast's plans to clamp down on piracy among the 500 members of its corporate membership scheme were revealed by David Svendsen, chairman of the Fast board and managing director of Microsoft UK. He was speaking at the end of year annual general meeting of the anti-piracy lobby group.

In 1995, the UK market suffered what Svendsen described as 'some of the most overt counterfeiting ever seen'. By October, Fast claimed to have recovered £50m-worth of illegal software, compared to £60m found in the whole of 1994.

To set an example, Fast will insist companies in its corporate membership scheme demonstrate their



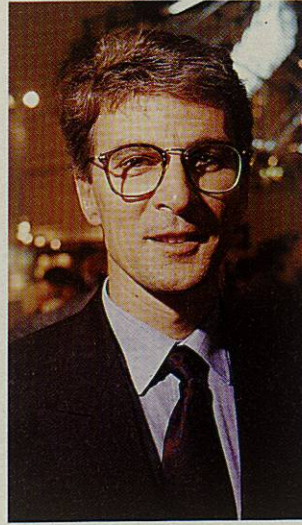
Piracy: the UK loses £540m a year, but laws are being tightened

commitment to stamping out piracy by carrying out a rigorous software audit, the results of which will be ratified by the federation. Failure to comply will mean immediate expulsion and possible prosecution.

The corporate membership scheme was set up in 1991 to offer end users guidelines on setting up software monitoring practices within their

organisations. But, according to Svendsen, some members have chosen to put a different interpretation on this.

'We were concerned about a perception among some companies that Fast membership provided an effective amnesty, that Fast would not prosecute a member which had, at least in theory, made an attempt to clean up,' he said. 'Corporate membership



Svendsen: members not exempt

is not a protective umbrella under which guilty companies can hide.'

Bootleggers who are tracked down risk a prison term of up to 10 years. As of this month, UK law is being tightened further, under the remit of the Criminal Justice Bill. This states that if prosecuting counsels can prove an individual's home and goods have not been purchased with money gained by legitimate means, the accused stands to lose the lot, if convicted.

But Fast does not have an impressive track record in seeing through prosecutions. Among end users which the federation took action against in 1995 were Cow & Gate, GEC, the London Borough of Tower Hamlets and Yorkshire & Humberside Training Services. In each case, Fast officials agreed to drop their prosecution in favour of an out-of-court cash settlement.

In 1996, the federation also hopes to focus more attention on overcoming ignorance within the police, which it claims has been unable to keep pace with the boom in deliberate counterfeiting.

Robin Lawrence, Fast's operations officer, said: 'The UK loses £540m a year to software piracy, and computer crime has exploded in the last 18 months. Law enforcement agencies often don't have either the time or money to spend on enforcement.'

Keith Macey, of Cambridgeshire Constabulary's fraud office, said: 'Current police training does not deal with software piracy, although you're likely to see responsibility for it going to beat officers. Piracy has traditionally been dealt with by trading standards officers, but because of the increasing involvement of criminals, we are having to become more aware. The problem is the criminals of 1998 will know much more than those of 1988, and more than our enforcement officers.'

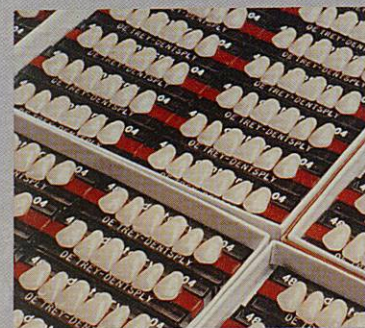
● The Lauchlan Angle, page 12.

Sales Talk

London Fire & Civil Defence Authority (LFCDA) has signed **Catalyst 400** to increase the processing power of its IBM AS/400. The contract includes upgrading the authority's production and development systems, as well as training, implementation and consultancy. System performance has been boosted with the addition of new processors. Storage has also been enhanced with a move from external to internal direct access storage devices, and system integrity improved with the introduction of Raid 5 data protection. The solution was installed at the beginning of November last year for testing and will go live this week. The AS/400s are used for administrative, managerial and operational support functions, including fire statistics, fire safety, hydrant management and accounting across LFCDA's 22 administrative centres.



ClydeNet, a consortium of higher education institutions in the Glasgow area, has chosen **Bay Networks** to supply routing equipment worth £120,000. The seven Backbone link node routers — which have asynchronous transfer mode support and an upgrade to Glasgow University's concentrator node — are being used to establish multiprotocol routing services across the ClydeNet Broadband Metropolitan Area Network, which will be integrated with the UK academic SuperJanet network. Bay Networks beat off IBM, 3Com and ICL to win the contract. Installation began last July and was completed recently.

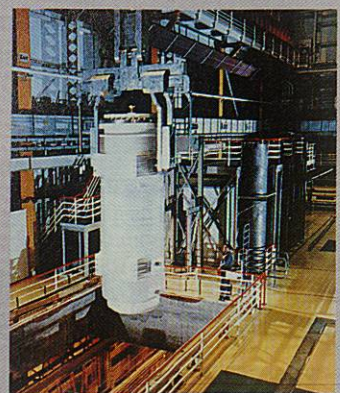


Dentsply International, the US-based international manufacturer and distributor of dental products and services, has chosen UK-based **Pacific Systems** to supply a client-server capacity planning system. The £150,000 Tooth Planning System (TPS), which will

interface with Dentsply's systems for the manufacture of artificial teeth, was developed using Microsoft's Visual Basic and Access, and will access an AS/400 database. The first phase of the TPS implementation is now operational at Dentsply's plant in York, Pennsylvania and the systems will also be installed at a plant in Dreieich, Germany, in mid-1996.

Ring Group, distributor of domestic lighting and automotive parts, has chosen **DCS Group** to supply its WMS/400 warehouse management system, together with barcoding and radio data control equipment. The £135,000 system will control Ring's warehouse in Leeds using an AS/400, and will be fully integrated with Ring's core corporate software, supplied by JBA. Ring is aiming for a virtually paper-free warehousing environment. Tony Morris, operations director, said: 'WMS/400 will enable us to have total visibility and control of our products, together with real-time information from the moment they arrive until dispatch.'

British Nuclear Fuels has invested £320,000 in a system to manage the storage and movement of nuclear fuel received from Japan and Europe. The fuel information service (FIS) from **SSI** is designed for data management and regulatory requirements at the Thorp reprocessing plant in Cumbria. FIS consists of SSI's Tropos version 2 management software with an Oracle7 database, running on a Hewlett-Packard 9000 Unix server with IBM PCs as clients. SSI beat SAP and Oracle to the deal. The system is being implemented in two phases. Phase one involves systems for the movement of stored fuel, the capture of data and production of statutory reports to the European Union Safeguards Authority. Phase one is due to be completed by 1 April, when phase two — the roll-out of terminals into operational plants — will begin.



Private
Finance
Panel

Are you an IT supplier in the private sector?

- What is the Private Finance Initiative?
- What does it aim to achieve?
- How does it work?
- Why is it important to the Private Sector?
- What are the potential benefits for the Private Sector?
- What potential is there with government and IS/IT?
- What are the risks?

For answers to these and many more questions

Register as a delegate NOW for:

The PFI Conference

QEII Conference Centre

Monday 22 January 1996

Delegate rate: £195 + VAT

Conference Hotline: 01442 828200



The Government Centre for
Information Systems

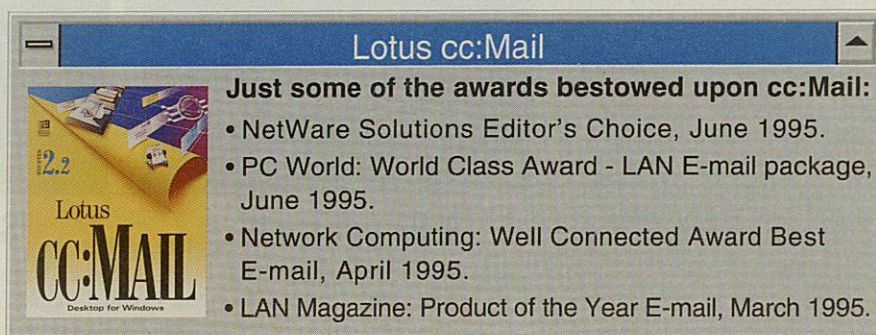


Critics
have,
after all,
heaped
over 30
awards
on it.

From a biased point of view, Lotus cc:Mail is the best, most proven and the easiest to implement e-mail package there is. But chances are, you'd appreciate a strictly unbiased viewpoint as well. In which case, we offer over 30 major awards won over the last two years by Lotus cc:Mail.

Lotus cc:Mail is not only a favourite of the critics, it's favoured by users as well. With over 8 million users worldwide, it is the most popular e-mail package. Lotus cc:Mail is preferred by growing companies because it operates seamlessly across all platforms and works with the

applications you're currently running. And it's scalable, meeting the needs of companies with anywhere from 5 to 500,000 users. You can't afford to



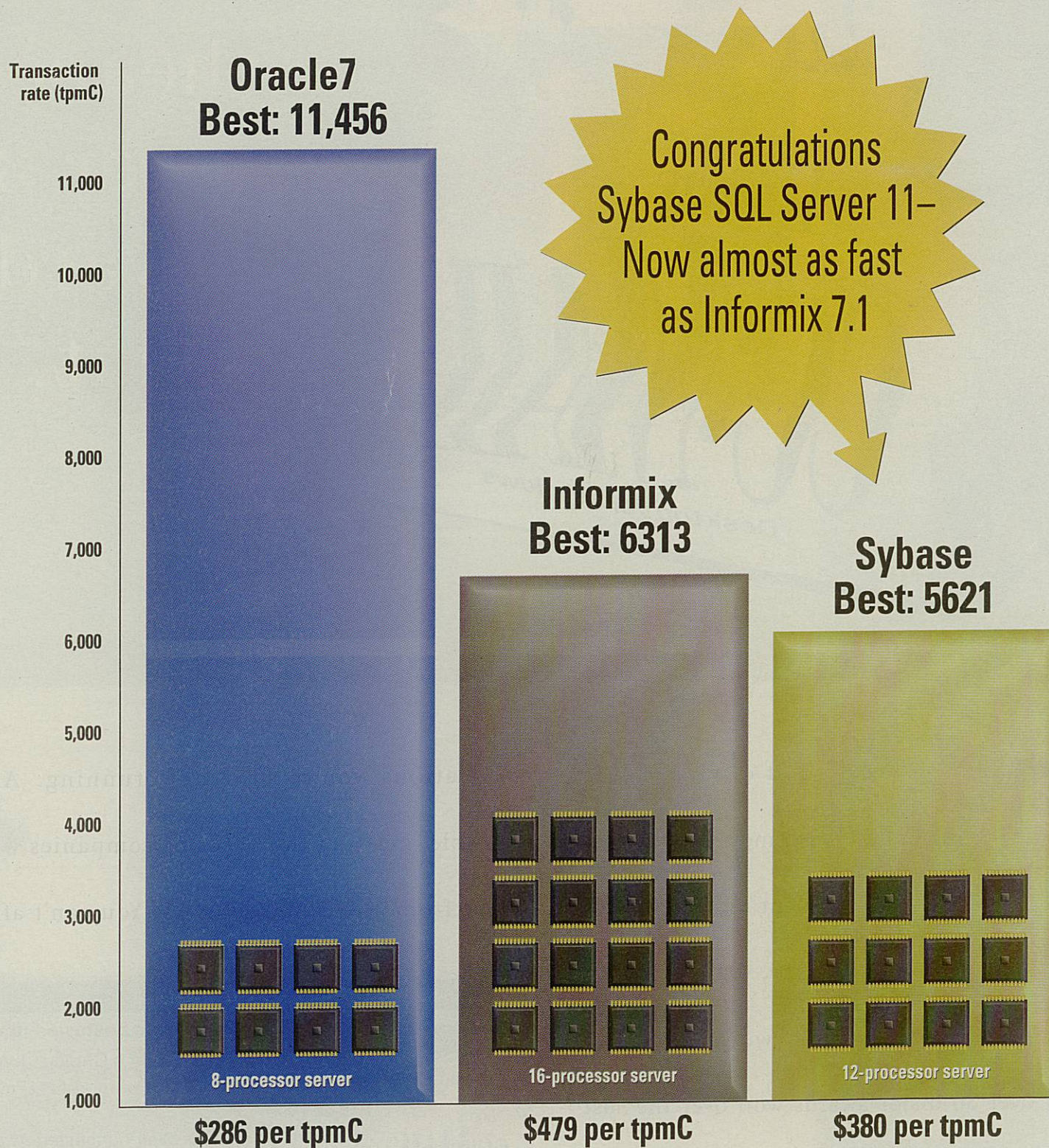
make a mistake choosing an e-mail package. And you won't when you do what so many other companies have already done. Choose cc:Mail from Lotus.



Working Together®

For more information call Lotus on 0990 203000 Ext. 2479 or explore Lotus on the World Wide Web at www.lotus.com.

Oracle7: Faster, Cheaper, Better



The TPC-C is the industry standard test for measuring database transaction processing performance and price/performance. Oracle7's best TPC-C result is more than twice as fast as Sybase's best result. What is more amazing, Sybase used its yet to be released Sybase SQL Server 11 database and 50% more processors to achieve roughly half of Oracle7's performance. Informix used twice as many processors as Oracle and delivered approximately 45% less performance. And the Oracle7 system costs much less than either Sybase or Informix. Think about it. Then call Oracle on 0990-332200.

ORACLE®
Enabling the Information Age

Need for help desk tools set to double

Boardroom-level desire for stronger customer service in 1996 will double the demand for help desk tools, according to a report from analysts Ovum.

But according to Duncan Brown, the report's author, as users strive to obtain competitive advantage, European firms will spend more than £60m on software which is 'too complex for non-IT-literate help desk staff'.

'Software is technical by its nature, but people using it often aren't,' said Brown. 'Online help systems are good, but the help desk is too often seen as the last resort. Support has to predict inherent problems, and there needs to be more synchronisation between product release and support response.'

Brown said the market has expanded dramatically over the past 18 months: 'There's now a strong momentum to integrate help desks with other systems, and it's cheaper to buy packages than build your own... help desk systems are a focal point for good business intelligence.'

● *Ovum Evaluates: Help Desk Tools*, £995. Contact (0171) 255 2670.

Instant penalties to clear red routes

by James Governor

The Metropolitan Police is to blitz London's critical red routes by equipping 800 police traffic wardens with pen-based ticket terminals.

A tender for supply of the systems, which must run the Met's existing Pen Windows software, is scheduled to be awarded in time for trials to begin this month or early next.

A Met spokesman said: 'We are looking to get our street enforcement on the same level as London local authorities. We want to trial equipment to find the most suitable for our purposes.'

The terminals will be used by police traffic wardens to issue fixed penalty notices on London's no-parking red routes and roads in secure areas, such as Whitehall. These are the only roads in the Met's remit since control of traffic services was handed to local authorities in 1994.

Similar systems introduced in 1994 by Westminster City and Camden councils suffered severe teething problems, but the Met has bided its time.



Police: will print fixed penalty notices to ease London traffic flow

'We have looked at this in the past, but hadn't got further than a feasibility study,' said the spokesman. The final user specification will not be known until after the trial, but the requirement will be for 800 terminals with printers.

● London Electricity has completed a trial for an inte-

grated meter-reading system and is now rolling it out. The programme to integrate meter reading and billing relies on a system developed by Itron for £400,000, including husky FS/2 computers and Itron's Streetwise work order management package. It replaces a Norand (Victor) system.

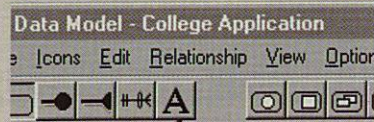
DESKTOP BRIEFS

SOFTWARE

LBMS has delivered its latest version of Systems Engineer.

This modelling tool for building enterprise-strength client-server

applications has now been enhanced to include editable data model subsets and referential integrity trigger generation. It also offers a Windows 95-type graphical user interface so users can view and edit all properties of an object in one window. The data model subset facility gives multiple development teams the ability to build, re-use and share common entities across multiple data models. SE 6.1 incorporates OLE linkage through the repository and is specifically designed to enable rapid development using spiral or rapid application development methodologies. It is designed to work seamlessly with 4GL tools such as Visual Basic PowerBuilder; also supporting database releases, such as SQL Server, DB2, Oracle and Sybase. It is priced at £3,000 a user. Call (01753) 654333.



Sage has unveiled what it claims is the first contact management software to offer multi-user fax processing as standard. Organisations can integrate their word processing packages with the Windows-based Telemagic Professional Dedicated Fax Server. Priced at £299, or £599 for the workgroup version, it is designed for sales and marketing groups in small to medium-sized businesses. Call (0191) 201 3000.

NETWORKING



Network Designers has announced Virtuoso, a connectivity solution intended to enable organisations with traditional open system interconnection (OSI) network systems and hardware to communicate over IP routed networks. Virtuoso allows standardisation on one protocol and eliminates the need for a separate legacy network. It is a

hardware and software combination which, the company claims, can be installed in minutes. It works by wrapping OSI transport requests within an IP packet to the RFC1006 specification. The software element can run on an MS-DOS PC or NetWare file server. The entry level system scales to 32 users for £1,950. Call (0186) 582 1177.

Nexor has produced a Messageware cc:Mail Gateway, intended to provide seamless connectivity for cc:Mail to messaging systems from service providers, such as ATMail, BT, Cable & Wireless, GEIS, and to the Internet. Nexor states that cc:Mail users can now send and receive messages with binary and text attachments across the World Wide Web and to all X.400 messaging systems. This client-server software retails at £3,000. Call (0115) 952 0510.

HARDWARE

Smith Cases has introduced an answer to 'dead engine syndrome', caused by charging laptops from a car battery. The Pocket-AC 12 volts to 230 volts adaptor is designed for use in a car, and monitors the battery to prevent the portable equipment exhausting it. An alarm sounds when power gets low, and the device shuts itself off before the battery drains further. The device plugs into the cigar lighter socket. Call (01473) 623301.

Iiyama has announced a 12.1in XGA flat panel liquid crystal display monitor which features 1,024x769 resolution and 252,144 simultaneous colours. It is supplied with a separate PC controller card featuring the Chips & Technology graphics chipset and drivers for Windows 3.1, 95, NT and IBM's OS/2, for use with AT and PCI buses. According to Iiyama, flat panel displays exhibit no geometric distortion, misfocus or misconvergence. It costs £2,299. Call (01438) 745 483.



James Governor reports from Boston on the launch of Lotus Notes Release 4

Notes brings groupware to Net

Lotus has slashed the cost of deploying Notes by announcing price cuts of more than 50% alongside the introduction of Notes Release 4.0, and integrating a Web browser into all clients.

The strategy could lead to 400% growth in the number of Notes clients by the end of 1996, according to one analyst.

The Notes desktop client will be reduced from £111 to £47 for a single-user licence, while a stripped-down version, Notes Mail, limited to mail and supplied sample applications, will be available for £38.

All Release 4 clients will now include InterNotes Web Navigator, allowing native access to the Web, and Release 4 servers will also be visible to non-Lotus Web browsers.

Server pricing has been split into single and multiple processor versions, irrespective of platform, at £341 and £1,584 respectively. Lotus executives are said to be delighted that IBM's ownership is allowing longer term planning and more aggressive



Lotus' Zisman: 'You'll start receiving browsers in cereal boxes'

marketing and pricing than was possible previously.

Lotus has received positive reaction to its strategy. Clive Longbottom, senior analyst at Meta Group predicted a Notes client explosion in 1996. 'With Java, HTTP and HTML, Lotus is supporting anything and everything. This will take it from an installed base of 3.3 million

into the 13 million range by the end of '96,' he said.

Mike Zisman, chief executive at Lotus, believes the seamless integration of Lotus' Web strategy into Notes is now underway. InterNotes Web Publisher, hitherto a £4,040 catalogue item, comes free with Release 4, and all server packages will offer Internet

support including Java, HTML and HTTP.

'The Internet is not a set of products. It is a set of protocols. We don't compete with the Web. We don't complement the Web. We are part and parcel of the Web,' he said.

Zisman added that some customers who want to set up a corporate messaging infrastructure would buy a Notes server if they did not have to purchase a large number of clients. In response to this, Notes servers will be accessible by Web browsers from 1996, though without Notes client functionality.

In a clear jibe at Netscape, Zisman said: 'You'll start receiving browsers in cereal boxes, and the price of the cereal won't go up.'

Longbottom said users will now get real cost advantage from the scalability of the multiple processor version of the server. 'For a thousand concurrent users it is difficult to beat at that price. This is a real sweet spot. A single server per user, minimising replication, offers really low total cost of ownership,' he said.



Bill Watch

Microsoft's claim that it has a third of the Windows 95 Web browser market doesn't bear close examination. Only 4% of visitors to the Yahoo search site use Internet Explorer, compared with 76% who use Netscape Navigator.

But, as Microsoft customers, you can forget the claim and counter-claim for client software and focus

on a weightier issue: will the Internet diminish your need for Microsoft's BackOffice/Windows NT and Office/Windows 95 products sooner than anyone at Redmond thought possible?

Quite aside from the Internet, Microsoft has yet to prove itself in a server-centric world. A refocused Novell may just, in 1996, maintain its networking lead. IBM has

staked its future on your commitment to a client-server world, and already has Notes as the killer application for organising structured enterprise data. The Web provides a complementary method of controlling unstructured information.

Inevitably, Notes and Web software will converge, and you'll find their coexistence increasingly hassle-free.

How many of you have seriously considered Exchange as a shortlisted bidder for your Notes, or even your email requirements, and how many of you actually went ahead and deployed it?

Faced with your answers to questions like this, Microsoft has placed its financial underpants outside its trousers by offering you its Gibraltar Internet server gratis with Windows NT, while Netscape and Sunsoft will continue to charge you for theirs.

But that's not the only giveaway. Windows 95 and Office 95 are free for the asking until May this year; much of Microsoft Network (MSN) is being given away on the Internet, and so-called opinion formers are being pursued mercilessly by Microsoft's publicity agents with offers of free and subsidised accounts.

Not that Microsoft hasn't won over some new allies. CompuServe, a seriously profitable rival to MSN with expected earnings of \$750m (£490m), agreed to license

Internet Explorer, Microsoft's bought-in Web browser, so making it the major opponent of Netscape's Navigator.

No doubt CompuServe's, and other online vendors', bad experience with Microsoft's failure to fix the Winsock problem — the CompuServe settings for connection to TCP/IP were overwritten if MSN was installed — was a factor in the licensing negotiations.

Perhaps there was just the slightest sign of antitrust genuflection here: Microsoft, in its new role as a team player, could claim it is not a juggernaut driving with unstoppable power down the highway, squashing everything crawling along the road, but just a community bus giving a lift to whoever it can help.

Maybe so. But antitrust authorities are also alert to the use of free or underpriced products as a competitive weapon, and the European Union has a long history of anti-dumping vigilance.

Microsoft may use its deep pockets as a weapon against technically advanced competitors, and give away products they sell — a policy which could result in a complaint to the European Commission, and a renewed onslaught against the seemingly neutralised US Department of Justice.

Microsoft's previous strategy of being a camp follower relying on marketing brilliance, but above all the incompetence of its rivals, rather than trying to be an innovator, is less likely to work this time.

The reason is largely that the technology is moving forward every few months rather than every few years, and Microsoft's burnt-out staff have lost their imitative edge. The rivals are too nimble.

'Microsoft has placed its financial underpants outside its trousers by offering you Gibraltar Internet server gratis with Window NT'

In many ways, Microsoft is now a legacy company — too large, too slow, and with too many problems of backwards compatibility.

It established a hasty Internet strategy — key elements were decided only a few hours before the December raft of announcements, including Gates' decree that Microsoft would develop a new product to improve Windows 95 user access to the Internet, christened 'Internet Add-On'. The question you should dare to ask now is not whether MSN will dominate, but how long it will survive.

Why this question now? Lack of vision is to blame, Gates failed to realise that the Internet is every bit as powerful a force for change as minicomputers were in the 1970s, or the PC in the 1980s.

In the post Windows 95

burn-out, Microsoft has not one, but two serious problems to address in the online arena alone, adding to its already tough uphill struggle to unseat the likes of IBM, Oracle and Computer Associates from their enterprise-wide thrones.

Microsoft's two Internet crosses are — how to reposition for Internet dominance from a position of technological backwardness, and how to make money from it when Netscape (now bigger than American Airlines) and Sun have dominant positions in the emerging technology.

When Gates quoted a remark by Admiral Yamamoto, about awakening a sleeping giant after the attack on Pearl Harbor, James Barksdale, chief executive of Netscape, took it to mean that Netscape had upset Microsoft with its success.

'Microsoft could claim it is not a juggernaut...but just a community bus giving a lift to whoever it can help'

He spoke of a 'dog-fight' with Microsoft, but characterised the distinction between Netscape and Microsoft as Netscape offering 'freedom to the masses' whereas 'most people...are tired of being obligated, controlled by, licensed by and tied down to one company'.

Marc Andreessen, Netscape's vice president of technology, also used animal imagery in his example: 'In a fight between a bear and an alligator, what determines the victor is the terrain. What Microsoft just did was move on to our terrain.'

Did I say Microsoft has two serious problems? You well know there's a third — how to stop the erosion of the desktop market if a large part of it migrated to inexpensive Internet terminals which didn't use Windows, and therefore didn't have to use Microsoft applications.

Such a polarisation into power users with PCs and lean-machine users doing a mixture of basic office tasks and having access to a private 'Intranet' of staff, suppliers and customers, is not just a possibility — steps are being taken to ensure it happens.

The first is an invitation-only US summit on 24 January at which 18 hardware and software vendors will come together to hammer out a specification for just such a product.

Those of you with long memories may remember the last time vendors united to bury a major supplier who wanted to introduce a new closed architecture. Then it was the formation, around Compaq, of the Eisa specification to beat off microchannel architecture.

We think 24 January could be just as significant, and guess who isn't invited...

**if you're competing
you need computing**
THE IT WEEKLY

**Marketing is a tough contest. Add punch to your campaign
by advertising in *computing*, and improve your chances of coming out on top.**

● Contributing editor Graham Lea edits the Microsoft Monitor, and recently completed a study entitled Citizen Microsoft. He can be contacted at: 100137.655@compuserve.com

Oracle management suite aims at enterprising users

In December, Oracle announced its InterOffice suite of client-server software. What at first looked like the company's latest attempt to outdo Microsoft is in fact a product with potential, as Rob Jones discovered.

Oracle's InterOffice is designed to help large companies centralise management of databases and client-server applications running at branch offices.

The software is an integrated suite which includes a modified version of the company's Oracle7 database, electronic messaging capabilities and World Wide Web software. It also has facilities for remotely installing and maintaining applications and data.

Although made up of four components, it is itself part of Oracle's Enterprise InterOffice Suite and Workgroup InterOffice Suite, formerly known as Bandwagon.

On the surface, the announcement looks like the latest manoeuvre in Oracle's campaign to beat Microsoft at

its own game, this time targeting BackOffice. Oracle denies being obsessed with Microsoft, and thinks InterOffice will attract the kind of business BackOffice cannot — large enterprise customers.

Richard Grogan-Crane, Oracle's director of groupware Europe, Middle East and Africa, said: 'The suite provides the same type of functionality as BackOffice, but each individual component is more scalable and runs on a number of platforms.'

At the heart of the suite is InterOffice Manager, a Windows-based tool for monitoring applications, networks, databases and operating systems. It lets administrators distribute, install and maintain software, and solve remote system and database problems from a central point.

Of the two versions available, the Enterprise edition includes a parallel server option, replication capabilities and gateways to legacy data sources.

The Workgroup edition — the one most clearly positioned against Microsoft

BackOffice — will offer simple, read-only replication. Analysts believe InterOffice could help users reduce the number of staff needed to manage distributed databases and applications.

Dan Kusnetzky, an analyst at IDC, said: 'If Oracle can come up with something which is integrated and easy

to install and program, it may be a very viable approach.' He added that many users are 'screaming that distributed computing looked good, but resulted in higher-cost systems'.

Oracle's battle is to convince customers to buy the package. Zag Asghar, commercial director of the UK

Oracle User Group, liked the idea of the suite in principle. 'People are using Microsoft Office Professional, and unless there is some additional value added, new packages are difficult to sell. InterOffice sounds like a good idea, but many people have spent time and money getting to know the packages they already run.'

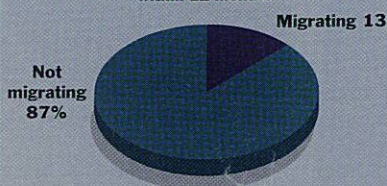
InterOffice will ship in May, running on SunSoft's Solaris and Windows NT, with support for additional operating systems planned for the future.



Grogan-Crane: not challenging BackOffice

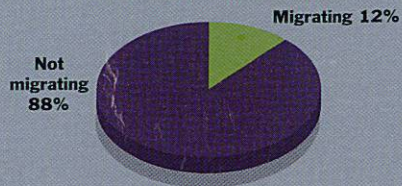
DATABASE MIGRATION INTENTIONS

Percentage of CA-Ingres users stating they are intending to migrate from their current database within 12 months



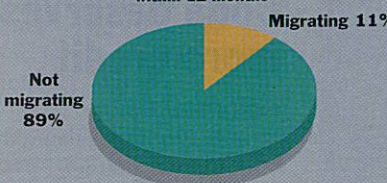
Base: 374 UK CA-Ingres sites

Percentage of Sybase (non-PC database) users stating they are intending to migrate from their current database within 12 months



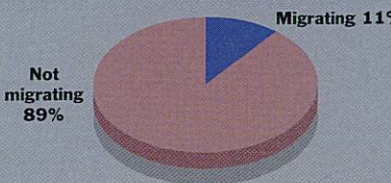
Base: 113 UK Sybase (non-PC database) sites

Percentage of Oracle users stating they are intending to migrate from their current database within 12 months



Base: 860 UK Oracle sites

Percentage of Informix users stating they are intending to migrate from their current database within 12 months



Base: 373 UK Informix sites

SOURCE: SPIKES CAVELL

DATABASE MARKET VIEW

As databases are a strategic investment, they are often viewed as a long-term one — because once the decision is made, it is generally intended to be the backbone of a company's IT strategy for several years to come. However, the market is dynamic, with unexpected changes sometimes forcing a reappraisal of key IT components.

A recent survey of a representative cross-section of corporate UK users indicated a consistent migration picture for the four main relational database players. Generally, users have a long-term commitment to their database of choice. But there is an 11% to 13% shift in allegiances for all vendors. Reasons vary from technology problems to business drivers, such as cost, but it is intriguing to see a consistent migration picture with no one vendor either gaining or losing out substantially to any other.

INTERNETWORKING NEWS

Fifa catalogues World Cup history for online archives

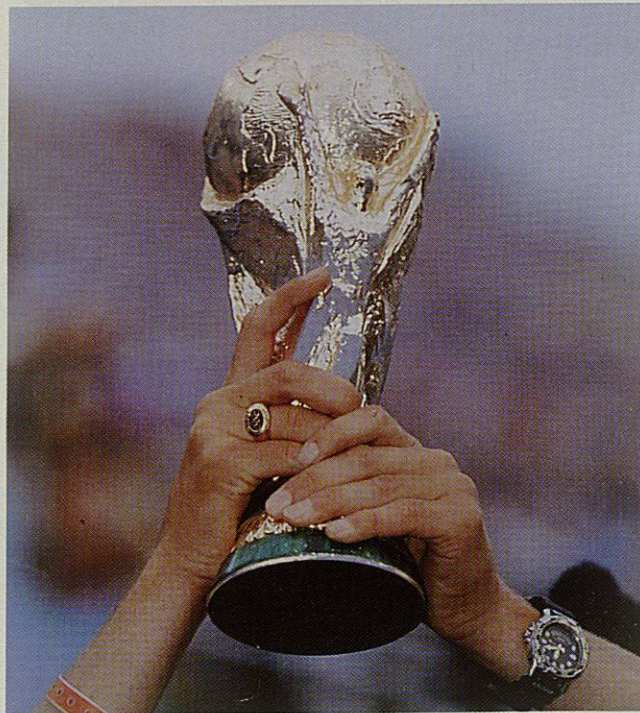
Electronic Data Systems (EDS) and Federation Internationale de Football Association (Fifa) have launched Fifa Electronic Archives on the Internet as part of the publicity campaign for the World Cup preliminary draw in Paris.

The draw will determine which countries face each other in qualifying matches for the 1998 World Cup.

The archive information is an addition to Fifa's online service, which began operating in November.

Fifa On-Line contains Fifa news, press releases and association addresses. The archive service is intended to answer most questions about World Cup games dating back to 1930, when the event began.

Eventually, the service will include data relating to all Fifa competitions. In 1996, Fifa On-Line will be expanded to include chat lines and educational features and will be made available in French and Spanish.



The World Cup: Fifa is providing data on the historic tournament

ard is providing the hardware, replacing Sun Microsystems, the hardware supplier for the last World Cup.

Information from the 10 French cities set to host matches during the 1998 World Cup will be handled by HP. Each city will have an organisational centre, press office and stadium, linked by its own 100Mbps network.

The press offices will be equipped with 50 Pentium-based PCs, and will feature multimedia capabilities to provide video coverage.

Paris will serve as the hub of the operation with four sites within the city, each served by a 100Mbps network.

The central organisation committee and the central press office will have a total of 550 Pentium-based PCs at their disposal.

Fifa On-Line can be reached at: <http://www.fifa.com>.

● Additional reporting by IDC News staff.

Novell counters NT threat

Novell has reacted to the growing threat of Microsoft's Windows NT, by releasing its first tools for linking NetWare 4.1 to NT LAN Manager, and IBM's LAN Server.

The tools are designed to counter Microsoft's moves to link NT to NetWare.

One tool is a utility designed to migrate user names from NT, LAN Manager and LAN Server to the NetWare Directory Services (NDS) network directory in NetWare 4.1. This will let network managers track users from a NetWare console.

Another utility is a Server Message Block NetWare Loadable Module which will enable users on NT, LAN Server, and LAN Manager environments to link to basic NetWare services without having to load NetWare client software. However, these users will still need to load Novell client software to use NDS functions such as single network log-in and directory tree browsing.

Later this year, Novell will release a utility called Application Server Manager. This will make it possible to manage an NT, LAN Server,

or LAN Manager environment through the NDS NWAdmin graphical management utility by allowing these servers to be objects in the NDS tree.

Next year will also see the release of an NT client to enable NT desktops to be managed through NWAdmin regardless of whether there is an NT server in the network.

Novell claimed, however, that it has no plans to port NDS to NT. Instead, it will require IT sites to have NetWare 4.1 installed to access NDS to manage NT.

● Additional reporting by IDC News staff.

computing

Computing's electronic edition, *Computing Online*, is on the Net every week. With cutting-edge news, features and analyses, the site will offer readers interactive debates, interviews and competitions. Email us with your ideas and comments about the editorial content on: <http://www.vnu.co.uk/bc/ctg>

The
Lynchman



angle.

Whatever else 1996 holds in store, it is inevitable that a bunch of PC software suppliers will jump up and down in horror at the squillions of pounds being lost to UK Plc each year as a result of piracy.

They will proceed to wave the scalp of the latest user to have been raided by the software witchfinders before stitching up an out-of-court settlement, their moral indignation appeased by hard cash.

Frankly, I'm getting just a tad tired of this, because it does nothing to address the real issues. I'm not downplaying the seriousness of piracy, but it is time for suppliers to stop acting as if they are part of a hi-tech Spanish Inquisition and put their own houses in order.

The BBC makes a small fortune out of releasing old TV programmes on sell-through video — a discovery which it made after it had junked hundreds of tapes in the 1970s. Every so often, copies of this junked material turn up from abroad, and are soon rush-released onto video.

For example, a 1960s set of *Doctor Who* episodes turned up a few years ago. The *Doctor Who* fan network is so extensive that pirated material had been circulating for years. These episodes were something new — no-one had access to them. So when the BBC released them on video, it added a copy-protect tab on the tape, ensuring that fans everywhere had to buy a legitimate copy.

'Our software suppliers have adopted the heroin pushers' sales model. It suits them perfectly well to allow users to get hooked on their pirated software, before making them pay'

Why is it so difficult for software suppliers to follow suit? Take away the ability and the temptation to pirate. I know I'm on slightly dodgy ground here. A few years ago, the *Nine O'Clock News* reported the case of Mr Yob, who was sent down for robbing a factory. Mrs Yob told the cameras it wasn't Mr Yob's fault — if the factory had visible security precautions, then the poor soul would not have felt compelled to rob it.

This is specious claptrap of the highest order and indicative of a society which has abandoned the concept of personal responsibility. There is no reason why I should pirate software just because there is nothing built into it to stop me.

But I retain the suspicion that our software suppliers have adopted the heroin pushers' sales model. It suits them perfectly well to allow users to get hooked on their pirated software, before making them pay. Suppliers could wipe out most software piracy very easily...if they wanted to.

LETTERS

Letters should be addressed to The Editor, Computing, 32-34 Broadwick Street, London W1A 2HG. Telephone (0171) 316 9000, fax (0171) 316 9160. Email: computed@cix.compulink.co.uk CompuServe 71333,3121 Computing online: <http://www.vnu.co.uk/bc/ctg> Please include job title and employer's name.

Lay-offs are no laughing matter

From Luke Burstow

I would like to add some comments regarding your Opinion 'Why BT needs Murphy's law' (Computing, 7 December).

Another possible reason for Murphy's success surely lies in the labour situation of the market within which it operates. There is, currently, a high level of unemployment in the construction industry. This, as always, leaves individuals open to exploitation.

Although I am not suggesting that Murphy exploits its workforce (M'lud), there is a tendency in any other supplied market for the price to fall. In this case, the price being paid is a fall in employment conditions, security and wages.

To suggest that the employees who Murphy 'hires, and when it [work] goes away it lays off', are happy is, I think, a rather short-sighted and ill-informed judgement.

The unions seem to have lost all direction — Janice Stone of the Communication Workers Union is quoted as saying: 'Our members will

not accept job losses without...absolute assurances of job security.' Pardon?

Maybe BT — and others — should not be looking to Murphy, but to the Social Chapter.

It is about time someone in the UK did.

Luke Burstow
Project leader
Travellog Systems
East Sussex

Data warehouse world explained

From Robert Hobbs

I would like to take this opportunity to thank you for your review of our data warehouse implementation at Booker Belmont Wholesale (Computing, 30 November).

I felt your article considered the data warehouse environment in the right context. Proof of user implementation is required by organisations seeking to implement a true data warehouse architecture, not just confirmation that vendors have the tools to perform the job.

Robert Hobbs
Managing director
InPhase Software
South Ascot
Berkshire

Coda deserves more credit

From David Turner

Dennis Keeling's claim that only two vendors could provide reference sites for their client-server applications is inaccurate ('Client-server packages fail to meet user needs', Computing, 23 November).

While it is true that few vendors are able to demonstrate references in this complex environment, Coda has numerous large corporate references around the world.

Keeling knows that — as director of the Business & Accounting Software Developers Association (Basda) he chaired the committee which unanimously gave Coda the Basda award for Best Corporate Accounting System, ahead of SAP and all other international vendors. The main criterion for this award is user references.

As for his cynicism regarding client-server technology, Coda would certainly agree that it is not for everyone. Companies need to be very clear about the business drivers for changing their systems and exactly what they need to achieve, both now and in the future.

Some requirements will be achievable from proprietary software, in which case Coda would recommend that approach.

However, there are undoubtedly many organisations for which client-server provides unique, measurable benefits, and they should not be put off by the opinions of one analyst.

David Turner
Marketing communications manager
Coda
Harrogate

The Editor replies:

Indeed. And since you didn't, we should reference some sites for you, such as Avon Products, Pioneer Concrete, Sun Chemical Corporation and Baxter Healthcare. But it's only fair to mention the ones



Happy to be laid off? Firms with

that got away: remember Maybank Singapore, where finance and accounting manager Jalal Miswardi felt that Computron's N-dimensions was easier to use?

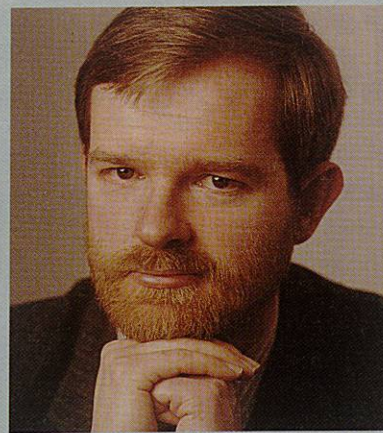
Net service fails to please

From Richard Bagnall

If you think you can have low-cost, local call access to the Internet for a low monthly subscription, think again.

I thought I had found the ideal no-frills, low-cost ser-

the Bray PERSPECTIVE



1996 could be the year your home IT budget begins to overtake your departmental spend. Will you apply rigorous cost justification to front-room virtual reality?

Christmas is over and the goose is on a diet. But if you had thought you could fork out for a multimedia PC and then close your wallet, think again. Computer vendors can always come up with a new must-have accessory. Now that CD-ROM drives, sound systems and modems are standard fare, this year's essential gizmo may be virtual reality.

Virtual reality, of course, is a cracking idea. Instead of gawping passively at a screen, we can become part of the action, moving at will around a make-believe world and interacting with it — which generally means doing all the things we would like to get up to in real life, but can't afford to or don't dare.

A lot of successful virtual reality applications are accessible using a conventional PC screen, but this doesn't do much for gizmo sales, so the vendors have tacked on another buzz-phrase: full immersion.

They argue that if you're navigating a subterranean labyrinth and you hear a

sound and spin round on your heel, you want to be confronted by a slaving beast creeping up on you, not your mum carrying a cup of coffee.

Immersion is much better news for PC vendors, because it requires us to shell out an impressive £800 or so for a headset and an expansion card to connect it to.

'If you're navigating a labyrinth and you hear a sound, you want to be confronted by a slaving beast, not your mum carrying a cup of coffee'

Even at that price, there are compromises. We may choose full immersion inside something resembling an American football helmet with wraparound visor (some say these should come with their own lifting gear and air supply).

Alternatively, we can go for something which is small and light, like a pair of outsize skiing goggles, but which allows the real world to intrude round the edge of the picture ('Die, beast of darkness!' 'I've brought you a lovely cup of coffee, dear').

There are some Rolls Royce headsets on the market, but they have price tags to match, and are generally confined to public games arcades.

On domestic models, the visual quality is indifferent, with resolution only about two-thirds as good as a VGA PC screen. And the tracking mechanisms, which detect the movement of the wearer's head and adjust the picture to match, are said to be crude, so the picture takes time to catch up if you move your head quickly.

This can cause the classic symptoms of motion sickness, when your eyes are telling you one thing, but your sense of balance tells you another. Not everyone is affected, but for those



a hire 'em, fire 'em attitude won't win favour among workers forced to find pastures new, says Burstow

vice when I signed up for a year's subscription to one particular access provider.

Although it listed local points of presence (PoPs), including Cambridge, in its sales brochure, I found out later there is no guarantee that your local PoP will be available when you want it.

I waited for more than three months while the PoP of this access provider was offline, and thought it reasonable that the company should provide some kind of compensation for this — maybe three

months' refund of subscription? No.

I was told: 'We thought our customers would prefer their money to be used to improve the service.' Colleagues report that they still experience difficulty getting through to the service.

Once I found that no compensation would be contemplated 'because if we refunded one Cambridge customer, it would set a precedent', I pursued a full refund through the company and then through MasterCard.

Five months have gone

by and the best I could achieve was a refund for the remaining seven months of subscription. So not only did I lose the joining fee and the first three months when the PoP was down, but also the two months it has taken to pursue this: £73.43 in all.

So if you think service from this particular low-cost access provider might be devilishly good, think again — the service is diabolical!

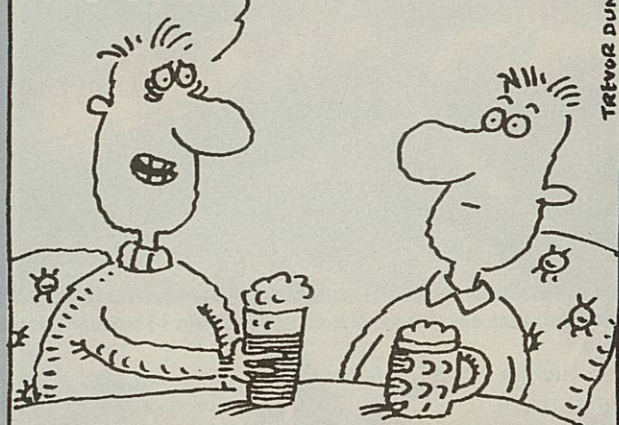
Richard Bagnall
Software consultant
Bagnall Software Consultants
Cambridge

Pub talk after Virtual Reality....

Blimey, what a day...

I won the olympic downhill slalom, scored Englands winning goal in the world cup final, and Pulled Michelle Pfeiffer at the disco

TREVOR DUNTON



reality software is limited at present.

A few games, such as Doom and Magic Carpet, can support the main headset types, and you can download a few virtual worlds from the Internet, including a furniture store and a tour of Barcelona (well worth investing £800 for, I'm sure). Future applications may include home and garden design, training, and the inevitable shoot-'em-up games.

New technology under development in the US may significantly improve the quality and cheapness of virtual reality headsets.

Researchers at Washington State University are working on retinal imaging, which will project the computer image directly into the user's eyes. But I'm told production models may be 'at least two years away' (which is usually PC-speak for sometime in the dim and distant future).

Even then, virtual reality may be disappointing for many, since the insurmountable drawbacks are outside the hardware vendors' control.

However good the headset, and however fast the PC, the 'scenery' will never be realistic, since rendering this would take almost infinite computing power. Instead, it's rather like being trapped inside a video game — which will be enough, no doubt, to put many people off the idea altogether.

who are it can make virtual reality headsets practically unusable.

The sales manager of one of the major importers of headsets is afflicted in such a manner, and refuses to wear one, much to the amusement of his colleagues.

There are, as you might have guessed, no standards for virtual reality headsets, so each make and model must be supported by separate software drivers. As a result, virtual

The new society

Computing isn't a national newspaper, it's a professional one. But that doesn't mean we put the blinkers on, hype the technology to the skies, and to hell with the social consequences.

So from this week, *Computing's* leader column will offer two leaders, each with a distinct purpose. This one, in which we will focus on the impact on citizens and businesses of the stuff we do every day: and the one below, which will have a more direct technology focus.

In this, the first issue of a new year, let's begin with a statement of purpose: the core subject of all our pages should be contained in three words: evaluation, procurement and deployment. All *Computing's* readers do those things to and with information technologies.

Why? Depending on where it's done, one of two reasons: to add shareholder value to a corporation, or to make a tax pound work harder. In both cases, the reasons converge towards a third: a strong national economy.

And why would we want a strong economy? To have a good standard of living, a civilised society, happy and thriving citizens capable of inspiring future generations with joyful anticipation of more to come.

Is that what we are achieving? It really is very very hard to say. It could be that this generation is seeing constructive social evolution happening faster than ever before. Or it could be that we are making the most dramatic mistakes, to be understood only at some future moment of history as a dark age, without which a new dawn could not have broken.

What is certain is that information technology signals the finish of Land, Labour and Capital as the tripod upon which society cooks. There's an oversupply of land, and an oversupply of labour, and capital is running out of substance to mate with. It follows that a book as important as *Das Kapital* is even now being penned, somewhere in the world, and information technology and communications will figure large as the new factors of production in it.

We have seen information technology complete the transition of citizens into consumers. The question to ask today is, into what will consumers need to mutate in order that the next phase of human development begins. If we do our work well, you should read the answer first in *Computing!*

Notions of liberty

Why aren't we making the most of computer technologies to reduce fraud?

Although we could quickly assemble a single image database to detect benefit fraud, mortgage fraud, tax fraud, fraud of all kinds involving bogus identities and spurious transactions, there is an ethical barrier which holds us up: civil liberty.

The danger of allowing matching technologies to run rampant over all the transaction records in every database is that a large number of completely innocent transactions may well become subject to investigation, and the consequences to innocent bystanders could be horrendous. It's a phenomenon well documented in the discipline of credit referencing, where IT screws up and suddenly you're not worth the paper your paycheck is printed on.

But maybe IT has the answer, in the concept much talked about since the need for Internet connections ran up against the equally powerful need for privacy: the firewall. Just as no-one in society today, by and large, objects to the police practice of arresting citizens only when they have 'reasonable grounds to suspect...' so it should not be beyond the scope of today's algorithms only to output records when database matching systems have similar reasonable suspicions.

In this scenario, all records would be pooled in a physical or virtual national computer whose activities would be hidden from official view behind a secure firewall. Only when the probability of a fraudulent transaction having been identified reached a pre-set threshold — to be set, for example, by Parliament on behalf of the electorate — would it be acceptable for the records in question to flow out into (electronic?) in-trays of investigating officers.

Would this application of technology, we wonder, allay fears of the violation of civil liberties?

computing

All telephone numbers are dialled (0171) 316 plus four digits below

Editorial Editor Jerry Sanders 9139, Deputy editor Simon Hill 9140, News editor Stuart Lauchlan 9141, Features editor Janine Milne 9142, Deputy features editor Linda Leung 9144, Production editor Steven Bird 9159, Senior sub editor Sarah Petrie, Sub editors Jenny Croall, Steven Prizeman, Art editor Claudia Randall 9156, Senior reporters Cath Everett 9145, Martin Lynch 9149, Peter Warren 9148, Reporters James Governor 9146, Rob Jones 9147, Jonathan Moules 9150, Chiyo Robertson 9143, Editorial assistant Arabella Jones 9158, Contributing editor Graham Lea, Consultant editors Howard Gerlis, Malcolm Peltu, Editorial fax: 9160, Sales Customer support Sandhya Tanna 9372, Consultancies manager Dominic Summers 9104, Classified manager Emma Halliwell 9115, Head of corporate sales Sian Hindle 9730, Head of portfolio sales Paula Barnes 9194, Account handlers Richard Beagley, Andrew Griffiths, Shane Hannam, Liz Edgar-Hyde, Julie Lane, Joanna Pitt, Publishing Controller, contracts and production Stav Athanasiou, Production manager (Display) Michelle Souch, Production manager (Carlsle) Fiona Ritchie, Corporate marketing manager Erik Hoekstra, Product managers Joop Utendaal, Anna McIlvray, Circulation manager Michael Donlan, Publisher Iain Blackhall, Magazine director Tony Loynes, Managing director Pim de Wit. Published by VNU Business Publications. *Computing* welcomes articles for consideration but regrets they cannot be returned. *Computing's* address is VNU House, 32-34 Broadwick Street, London W1A 2HG. Email: computed@vix.computelink.co.uk Subscriptions: UK £100; Europe £130; rest of the world £120-£150, Subscriptions hotline (freephone) 0800 526669.

Electronic shopping could grab more than £7bn of business away from the high street, according to a new report. Emma Woollacott investigates the potential for companies to sell their wares over the Internet or via interactive TV

Telly sales

Mike Jarman is flanked by water on one side and twenty miles of moorland on the other. He admits it's an isolated spot to run his speciality cake and biscuit business from. But it hasn't stopped him selling cakes to Vienna — a coup equal to selling coals to Newcastle.

Jarman's business is as visible to customers anywhere in the world as it is to those in Whitby, Yorkshire where the company is based. But this publicity costs him less than sending a mailshot to local people. The secret is that since May, his firm, E Botham & Sons, has sold its products over the Internet (*see site study*).

Selling while-they-surf is just one of the ways companies are exploring new retail channels — television shopping, where goods are demonstrated on TV and people ring in to place an order, as well as emerging interactive TV (*see box*) are lining up to target a new generation of couch-consumers.

Suppliers are trying to make these methods as easy on the buying public as possible. Just as 'real' shopping in the US and UK is increasingly centred around malls, so too is Internet shopping. Online service provider Prodigy, for example, recently launched a virtual mall in the US, with sites for retail stores including household name Sears. The selling point is the personalised service — consumers can design their own shopping profile by filling in a questionnaire. This means that golf information and merchandise can be directed at golfing enthusiasts, for example. Retailers are also able to integrate their existing inventory and price databases directly into their online stores.

In the UK, Barclays Merchant Services launched its Internet shopping mall, BarclaySquare, in May. It houses 14 retailers including J Sainsbury, Argos, Blackwells and BT, as well as Barclays itself — all accessed through the SuperNet online information service from Interactive Telephony (ITL).

There are now two local sites — London and Birmingham — allowing local businesses to take orders and deliver goods to customers living nearby. Pan-European coverage is planned from this month. A Barclays' spokeswoman says the organisations involved are happy with the take-up so far. In the first six months following the launch, more than 500,000 pages of information and details of products were accessed.

According to a recent report from retail property consultants Healey & Baker, *Where People Shop*, by 1997, 5% of all retail spending in England, Scotland and Wales will be done over the Net, amounting to more than £7.5bn of business. The report found that a fifth of shoppers are interested in shopping electronically.

However, lack of security is a barrier to the widespread take-up of Internet shopping. US analysts Killen & Associates predict that money transactions via the Internet will reach as much as \$30bn (£19.6bn) by 2005. The obvious way to organise payment is by credit card. But email is notoriously hackable, and few people are willing to trust their credit cards to the ether without some guarantee of safety.

There are a few encryption techniques already used in the US for Internet shopping but the US government has placed export restrictions on them. However, some observers believe these will soon be lifted. ICL's business development manager Ray McCann says: 'Everyone expects the White House to give permission by the end of the year for the export of these techniques. But it's a great pity that it all depends on the US.'

Banks and credit card companies are currently working hard on developing their own techniques to make payment secure over the Internet. Visa and MasterCard, for example, are working together to develop secure financial transaction technology for the Net. Private networks and malls already promise credit card security to their members, but there is no such guarantee for external browsers.

At BarclaySquare, credit card transactions are protected by an encryption method developed by Netscape, with further security enhancements from ITL and Barclays Merchant Services. These involve customers sending a fax to confirm their orders which includes their credit card details. ITL has also provided firewall technology to prevent hackers accessing files.

Another barrier to large-scale Internet shopping, especially outside the US, has been the low number of consumers with access to the World Wide Web. For those who do have access, hardware manufacturers and service suppliers are looking at ways to make the Net easier for technophobes to use.

Oracle's chief executive, Larry Ellison, has been pushing the idea of specialised Internet access boxes which are cheaper and easier to use than PCs. Such devices could make a big difference in encouraging ordinary people onto the Internet and thus into electronic shopping.

Philips Home Services, a division of electrical goods manufacturer Philips, has developed the P100 Screen Phone. It is being used in a UK trial with Citibank's home banking service and Tesco's Wine Select. Although it is a just a simple voice response system, restricted to text, in the longer term it will be possible to use it as an Internet access box.

Martin Rogers, operations manager for Philips Home Services, says the trial is going well, and that the home banking service is likely to be rolled out to paying customers this

year. The devices will cost around £150, he says, but may be subsidised by the banking partners. A range of other home shopping services will also be added. 'We're talking to one supermarket about a Silver Service which presents customers with a list of the things they bought the week before, and they say whether they want the same things this week, or if they want to add or take things off the list,' he says. 'Then they go to the supermarket, where it's been packed for them and they just pick the stuff up.'

This sounds great, but highlights what is probably the biggest obstacle to home shopping — delivery. From the consumer's point of view, there's little point ordering groceries via the Internet if you still have to go and pick them up, or to pay more than a negligible premium for having them delivered. Equally, there's no incentive for retailers



Consumers could soon order their weekly shopping with the touch of an interactive button

SITE STUDY E BOTHAM & SONS CAKES IN CYBERSPACE

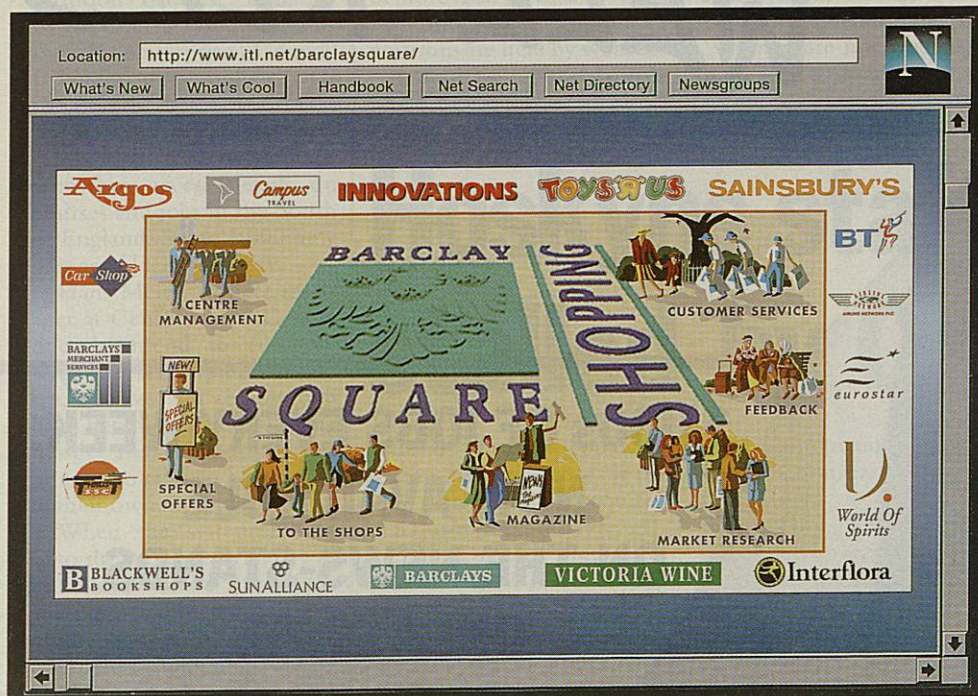
Cake and confectionery supplier E Botham & Sons — the 1995 Silver winner of *Computing's* Award for Excellence in the UK Internet User of the Year category — was inspired to start selling its cakes and biscuits over the Internet by Blue Peter. Managing director Mike Jarman was watching the programme with his children when he saw that they gave an email address at the end of the programme. It made him realise there was a way to reach a large number of customers inexpensively.

Jarman contacted local Internet provider Octacon and discovered that for £180 a year the company could have its own page on the World Wide Web. In the first six months, the company's page attracted 12,000 enquiries, making it extremely cost-effective compared to a mail-shot.

'If I want 10,000 brochures, the price works out at £4,000,' he says. Enquiries and orders have come in from all over the world — a Viennese operatic company is a regular customer. International orders are usually for fruit cakes and biscuits and are sent by the Royal Mail's Parcelforce service.

The benefits have been enormous, says Jarman. Customer awareness has improved, and the company's customer database and mailing list has been extended; changes in pricing and other information can be made instantaneously; and the company's relationship with its wholesalers and retailers has also seen a change for the better. 'We can list our home page retail outlets throughout the country, so we use it as a way of saying to our wholesalers, "look, we're telling people about you, we are supporting you",' he says.





BarclaySquare: 14 retailers can be accessed in the mall through SuperNet online information services

to offer home shopping if it means absorbing delivery costs themselves.

Graham Taylor, senior vice president at consultancy Inteco, says: 'The big brand names everyone wants have existing distribution systems which cost a lot to operate. To them, offering home shopping is an added cost, when really it ought to be cheaper.'

'What will encourage home shopping is if a maverick comes along and says "I can do it for less". It could be a French supplier, for example, bringing stuff through the Channel Tunnel and operating without supermarkets at all. A good example is Daewoo cars which operates without dealers.'

However, Taylor believes there is a limited market for television-based home shopping,

amounting to a maximum of 15% of the UK population. In this country, home shopping only appeals to a minority of people — high-income, busy people who may be prepared to pay a premium for an easier life.

'It's a great idea, but it's receding into the future — every year we see it getting further off,' he says. 'Having said that, digital television could make a difference — people are now experimenting with impulse ordering, where messages flash up on screen and you hit a red button to say "yes, I will order that movie this evening".'

But Inteco believes there are only a limited number of products which lend themselves to home shopping. The main requirement is that the goods must be familiar

SITE STUDY CATALOGUE COMPANIES JOINING THE BANDWAGON

With all the talk about online shopping what are traditional paper-based catalogue companies doing to protect their patch? Posting catalogues is a slow process, and print lead times can mean catalogue details are out of date by the time customers receive them. Print costs have risen by 30% in the last 18 months, giving catalogue companies an even greater incentive to investigate alternatives.

So far, some of these companies are running trial services alongside their paper operations. Freemans is involved in BT's Colchester and Ipswich home shopping trial, and Argos has opened up on the BarclaySquare Internet mall.

The Innovations catalogue — the little one that comes with your Sunday newspaper — went online last summer. The site was developed for Innovations by ICL, whose business development manager, Ray McCann, says there has been a very favourable response. The site is operated on a Unix server running Netscape Commerce to provide security for transactions. Unfortunately, though, while the site itself can be accessed by anyone with any Internet browser, the system is only secure for people using Netscape Navigator.

The electronic catalogue was initially created with only 70 of Innovations' 3,000-odd products, but has now been expanded to carry more than 2,500. According to the company, benefits include improved change management, better communication and more flexibility with goods. The system is easy for customers to use — they can make searches based on price, specification or type of product, for example, and can see interactive demonstrations of products. It also provides Innovations with more customer information. For example, the online catalogues register if customers are looking at products but not buying them, allowing the company to consider dropping the price to stimulate demand.

SITE STUDY INTERACTIVE TV SHOPPING TESTING IT OUT

Interactive shopping via the television is still in its infancy in the UK. In July, BT launched a home shopping service for around 2,500 users as part of a year-long interactive television trial in Ipswich and Colchester. Retailers in the high-street service include Thomas Cook, National Westminster Bank, WH Smith, Selfridges, Adams, Freemans and Olympus. A spokesman explains: 'With the aid of a simple remote control, you get a menu, pick "High Street", and then go through a menu-driven system to do whatever you want.' Customers can see images of goods before buying and, in the case of clothes, for example, can see them being modelled.

The service was launched largely as a spin-off from the main function of the trial: testing the market for television and movies on demand. 'We really do think that with interactive television there's got to be more than one service,' the spokesman says. Unfortunately, BT is unwilling to comment on the take-up of the various services until the end of the trial.

A similar trial covering 250 homes is underway in Cambridge, conducted by a group of companies headed by Cambridge Cable. In contrast to the BT trial, Cambridge Cable is using high-speed asynchronous transfer mode lines for its services, which include home banking from NatWest and home shopping from high-street retailer Woolworths. Other options include networked games and video on demand.

Again, as the system is still in the trial stages, there is little information available on how it is progressing. But a spokeswoman says trial participants are now being charged as part of customer response evaluations to different pricing structures. The group intends to develop the trial into a commercial service, initially in April 1996.

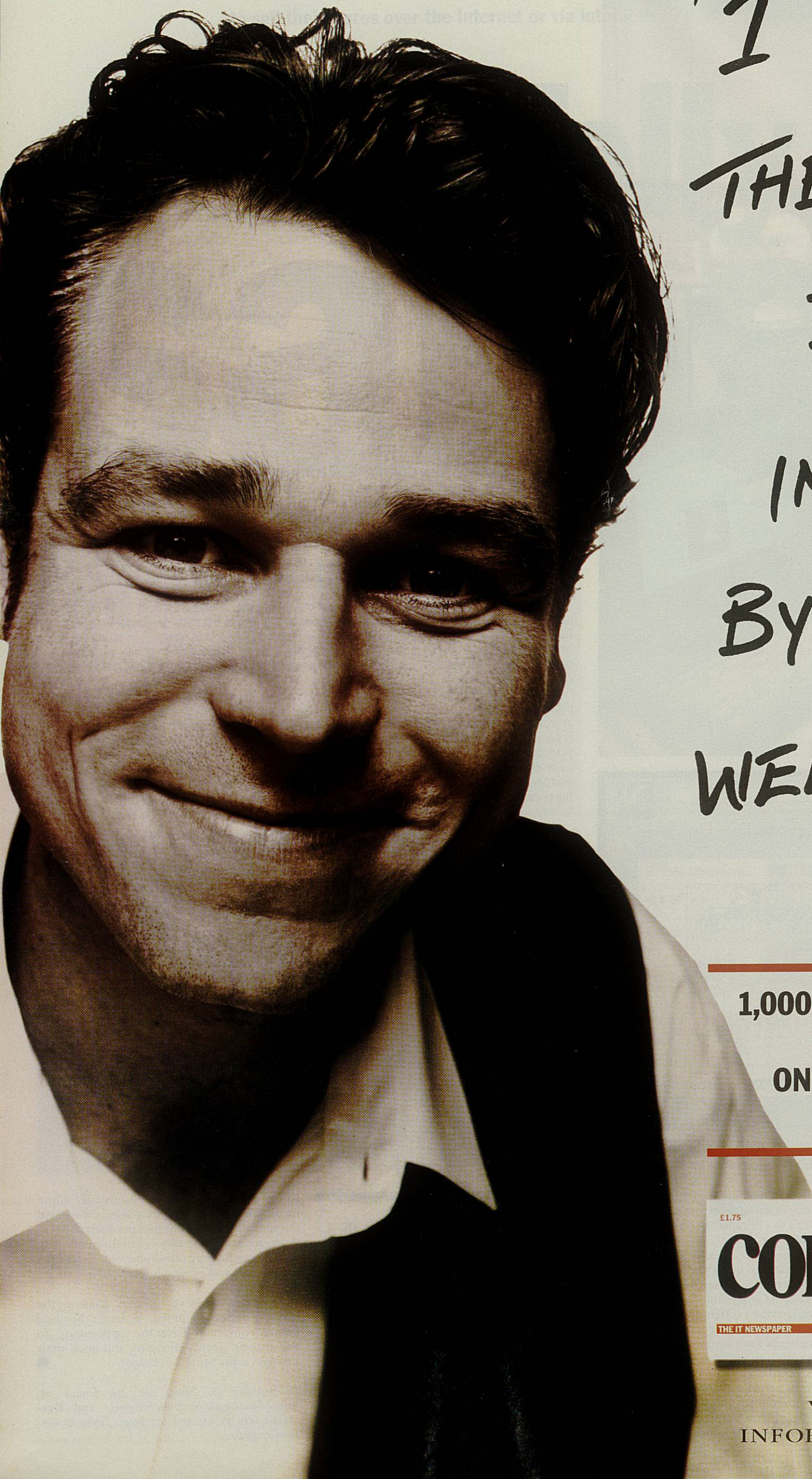
'Television shopping is a great idea, but it's receding into the future — every year we see it getting further off'

— Graham Taylor, Inteco

to customers and easy to demonstrate online or on television. They must also be easy and cheap to distribute. The best products and services are therefore those which are already sold successfully by telephone — loans, banking services and car and household insurance, for example.

However, whatever barriers stand in the way of online shopping, it won't be long before consumers have the opportunity to do all their weekly shopping and book their holidays at the touch of a button. ■

E Botham & Sons can be found at: <http://www.octacon.co.uk/bothams/> and BarclaySquare is located at: <http://www.itl.net/barclaysquare/>



'I FOUND
THE RIGHT
JOB
IN IT
BY BEING
WELL READ'

1,000s OF JOBS EVERY WEEK.
NOW AVAILABLE
ON THE NEWS-STANDS
ONLY £1.75.



WE'VE GOT INSIDE
INFORMATION TECHNOLOGY

Contractors win court action against agency

by Chiyo Robertson

A contractors' action group has successfully petitioned the High Court to issue a winding up order against contract agency Executor Computers.

The group sought independent legal advice after receivers BDO Stoy Hayward failed to recoup funds for unsecured creditors and announced that a liquidator would not be appointed.

But legal action cost the group several thousand pounds and only eight of the original 16 contractors stayed with the group, according to its head Chris Tucknott.

A liquidator will now be



Butcher: cases like this are rare

appointed to investigate the trading history of the company and the conduct of its

directors, but Tucknott is pessimistic about retrieving unpaid salaries.

'The whole process has been exhausting. Many of us were close to bankruptcy and had young families to support,' he said.

Tucknott criticised BDO Stoy Hayward, claiming its action was superficial, and he warned other contractors to be aware of agencies which fall behind in salary payments.

'Contractors must make sure they don't get into this position. If an agency slips up on payments, then work elsewhere,' he said.

Richard Butcher, comput-

ing sector chairman of the Federation of Recruitment & Employment (Fres), said: 'We take a dim view of people not being paid. If an agency is a member of Fres, and we receive complaints we will pick those agencies out.'

But Butcher stressed that such cases are rare, and so far Fres has expelled only one member over contractors' payment complaints. He warned that contractors who formed limited companies are not covered by employee protection legislation.

John Bennett, Executor's managing director, was unavailable for comment.

Jobs to be listed on the Net

Job hunters will have access to thousands more IT vacancies and training courses on the Net when a closed subscription database initiative by the Central London Training & Enterprise Council (Centec) goes online later this month.

The Capital database currently has 150 subscribers who can access details on courses and jobs in the South of England. Some 1,000 new jobs are added every day.

Hans Meier, project manager at Centec, said: 'Centec doesn't intend to compete with the recruitment industry, but we aim to improve links between Tecs and businesses and encourage job hunters to take an active role in their own recruitment.'

When the system moves onto the Net, subscribers will be able to access some jobs and courses free, and can pay online charges to browse the rest of the system.

'We will charge by real online time, but we haven't yet agreed exactly what the charges will be,' Meier said.

Expansion of the system into job centres and libraries is also planned, although the question of who will pay for the hardware and Internet connections remains unanswered. Centec plans to ask for additional government funds to help pay for equipment.

'Job centres have limited databases,' Meier said. 'We will speed up the job hunting and interview process because we will integrate pre-formatted CV's and covering letters.'

Senior IT posts elude women

The proportion of senior IT posts held by women is far lower than suggested in the latest survey, according to the most senior of them all.

As part of a recent poll, recruitment specialists EC Consultants phoned 150 firms with an annual turnover of more than £1m, and found that only 14% of senior IT positions are held by women.

Industry spokeswoman, Jean Irvine, a former IT direc-

tor who is now group personnel strategy director at the Post Office, said this did not tally with figures from the Institute of Data Processing Managers (IDPM), which put the number of posts for women in executive IT positions at 4%.

Anne-Marie Hartley, business systems manager at oil company Amerada Hess, said: 'Women are not well represented. It's disappointing. I went to a recent Gartner

Group seminar and out of around 200 IT managers, only 10 or 15 were women.'

Irvine said that the number of senior women IT professionals was higher in US companies where equal opportunities were better enforced. She encouraged women to make themselves known to Women in Technology (WIT), now part of IDPM. WIT can be contacted on: (0181) 308 0747.

Hoskyns staff council stalled by Cap stand

Staff at Hoskyns could be among the last to vote for the new work councils required by a European directive.

But Digital employees in the UK will be among the first.

Cap Gemini Sogeti, Hoskyns' parent company, is taking a stand against the mandatory introduction of work councils before the 1988 European Union (EU) deadline. Digital, however, was one of the first IT firms to heed EU warnings issued more than two years ago.

The company plans to start implementing its European Information & Consultation (EIC) network, which links management and employees in 22 countries, in March.

Digital Europe's social affairs manager, Erik Faes, said: 'Digital's network is faster, cheaper and less bureaucratic than other work council schemes.'

The International Federation of Commercial, Clerical, Professional & Technical Employees (Fiet), which monitors work council activity within the IT industry, is now outing companies resisting the directive.

Gerhard Rohde, industry department head at Fiet in Geneva, said: 'We think there are problems at Cap. Management is spreading itself too thin by going after even the smallest contract.'

A spokeswoman at Hoskyns said she had no knowledge of any plans to introduce work councils in the UK. Fiet wants firms with more than 1,000 employees and offices in two or more member states to implement pan-European information and consultation mechanisms before the EU deadline.

EDS and Unisys are planning to introduce these mechanisms, and Bull and

Rank have already reached agreements.

Digital's Faes said: 'Although the company had reached agreements with staff in 10 countries, its progress was hampered by opposition from several countries.'

'There is solidarity in the system. France will not sign because of union pressure, Germany and Italy are waiting for France. The unions are divided about work councils, they see Digital's proposals as trend-setting and not in line with unions,' he added.

At a trade union conference in November, attended by IBM, Unisys, AT&T, Digital and Cap Sogeti Gemini, Fiet addressed union concerns that reorganisations and closures within the IT sector have a significant impact on jobs and that under current legislation, employees can have little impact on major pan-European strategic decisions.

CV



| | |
|------------------------|--|
| Name: | Gordon Maynard |
| Age: | 34 |
| Marital Status: | Married. He and his wife are expecting their first child this month |
| Education: | Harrow County School, Middlesex BSc in electrical engineering, Sheffield University |
| Career: | Technical director, Teletext |
| 1995: | |
| 1992: | Chief engineer, Teletext |
| 1989: | Senior broadcast computer engineer, BBC |
| 1984: | Senior engineer, responsible for master control and broadcast computing, BBC |
| 1982: | Joined the BBC as trainee studio engineer |
| Hobbies: | Visiting the cinema. Maynard also enjoys experimenting in the kitchen, cooking Chinese and Indian food |
| Goals: | To complete the renovation of his house. Maynard plans to take Teletext through to a new generation of information services and to exploit the opportunities IT offers |

Maynard channels energy into Teletext

Gordon Maynard, Teletext's new technical director, is focusing his talents on developing the next generation of services for information providers. These will include online packages, interactive Teletext and digital television.

'I first became interested in IT when I was a senior engineer at the BBC. I developed graphics software in-house and worked with Ceefax.'

This was the start of a career in IT at a time when engineering jobs were becoming increasingly computer-based, Maynard explains. 'We had our fingers in every pie. We provided graphics for the elections, sports results and special events, including the 1986 Commonwealth Games in Edinburgh.'

But he concedes that the excitement was coupled with nerves. To meet the BBC's growing demands for live broadcasts, he and his colleagues had to transport bulky computers around to different venues, and backup was a constant worry.

'It was a nerve-racking time and we had some near

misses. With live television you need as much backup as you can afford.'

In 1992, Maynard left the BBC to become Teletext's chief engineer, a move which he says was a calculated risk, but one that paid dividends.

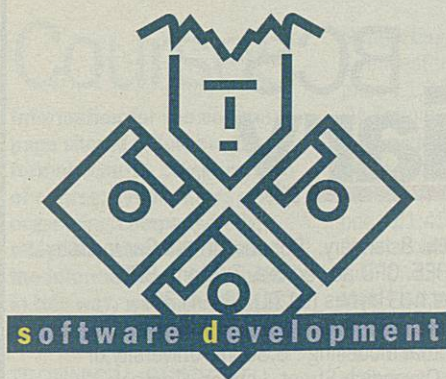
'My greatest challenge was to build up a team of engineers from scratch,' he says.

Teletext is currently replacing its Vax-based Softel system with around £5m-worth of software from Synapse Systems to automate page production, incorporate more graphics and increase regional advertising.

New systems will support forthcoming projects including putting Teletext on the Internet, providing interactive teletext and developing digital television.

Maynard estimates that testing of the new system will begin in the spring. It is expected to be in service by the summer.

'There are exciting projects ahead. With greater interactivity, viewers could play interactive games or book holidays,' he comments.



CREATIVITY IN SYSTEM DESIGN

BY ALAN HOWARD

Computer-based system designers have always been expected to be logical and analytical thinkers. Increasingly, as tools, techniques and requirements change, they are also expected to provide clients with creative solutions to problems, breaking through constraints imposed by habit and tradition to find new answers.

Problems must be described in creative ways if they are to lead to creative solutions. This article describes six techniques for enhancing creativity in the design process.

The search conference

Search conferences help clients, users, managers, and anyone else with an interest in a particular system to develop shared perceptions of its current situation, where they want to go and how to get there. These 'stakeholders' draw on their values and experiences of systems. Together, they identify trends in the environment and formulate new responses to them.

A search conference follows these stages:

1. All participants give their perceptions of the system environment.
2. All participants give their perceptions of the current system under review (if one exists).
3. The opinions of all participants are aggregated to provide an overall view of the system and its environment.
4. All participants consider the constraints imposed by resources and existing organisational structures and culture.
5. Together, the participants formulate strategies of planned change.
6. Participants address the question of exactly what steps are needed to initiate the strategies for change.

The advantage of the search conference is that it focuses participants' minds on a mutually desired future state.

All stakeholders participate, so the knowledge and creativity of many people is available. Perceptions of the system and its environment can be modelled in diagrams.

Essence sets

Those involved in developing the system gather, filter and analyse relevant and objectively verifiable facts about the problem to be solved.

Sets of related facts are drawn from the initial list. Each set of facts is given a name which reflects its 'essence'. This compacting process is continued by the group which forms sets of sets, names them and formulates their essences in turn.

Eventually, one final set, and its essence, is obtained, encompassing all the facts and fact-essences formulated previously. If the process is performed well, the final set will indicate the fundamental nature of the problem.

A similar process is then undertaken for proposed solutions. The final solution set should be the most appropriate way to solve the problem, from whatever angle it is considered.

Brainstorming

This well-known method of stimulating creative thought is directed towards generating unconventional ideas by suppressing the common tendency to criticise or reject them summarily. In a brainstorming session no criticism is permitted and the random generation of ideas is encouraged.

The steps in brainstorming are:

1. Select participants and circulate an initial problem statement.
2. Conduct a warm-up session with a simple unrelated problem to ensure all participants are tuned in to the process.
3. Present the relevant problem.
4. Generate and record ideas.
5. Evaluate the relevance of the ideas to the problem.

The confrontational approach

This is where two development teams, each with access to the same problem data, deliberately work out different and conflicting solutions to a problem. Each team presents its solution, revealing the underlying assumptions on which it is based. A creative synthesis of the opposing proposals is then sought.

A third team witnesses the confrontation and the opposing arguments. This team then reformulates the problem and finds its own solution, drawing on the ideas and arguments of the earlier protagonists.

The synectic approach

Synecitics is a procedure for combining different and, at first sight, irrelevant, elements in order to resolve a problem. Similarities between apparently different aspects of it are sought. A common understanding of the problem among those attempting to solve it is important.

Steps are taken to identify the essence of a problem. This essence is then formulated as a question and a metaphor is sought which answers the question satisfactorily. The metaphor is then used as the basis for specifying a set of functional requirements which fit the solution.

Syneciticians claim existing assumptions about what constitutes a possible solution are broken using this technique. New avenues are opened to designers which otherwise would not have been explored.

Solution trees

In a solution tree, a general answer to a problem can be expanded vertically into a number of alternative sub-solutions.

Equally, different solutions to the same problem can be shown horizontally on the tree (see figure 1). The creativity comes from the identification of different solution options and also by exploring different routes through the tree.

Conclusion

An ounce of creativity is worth a ton of hard work. Time spent on creative thinking is well spent, even if in some projects it doesn't alter the initial concept. Sensible use of these techniques clarifies, reinforces and justifies system solutions. Considering the costs and consequences of ill-conceived computerisation, this can't be a bad thing.

THE FORUM FILE

● Alan Howard is a lecturer in information system development at Leeds Metropolitan University. He can be contacted on (0113) 283 2600 x3760, or via email on: A.Howard@UK.AC.LMU

● This article was reviewed for *The Forum* Technical Advisory Board by James Bedster, MIS manager at Condé Naste Publications.

ABOUT THE FORUM

The Forum is a weekly section which welcomes contributions on monthly topics. The articles are reviewed for their relevance to our readers by members of *The Forum* Technical Advisory Board, which is made up of people actively involved with the British Computer Society.

We will be continuing with the systems design theme in January, so if you want to contribute an article there is still time. February's topic is programming. If you have any programming hints or tips you would like to share, please send in your ideas. Articles of around 1,200 words in length should be addressed to Janine Milne, Features Editor, *Computing*, 32-34 Broadwick Street, London W1A 2HG or via email to: computed@cix.compulink.co.uk

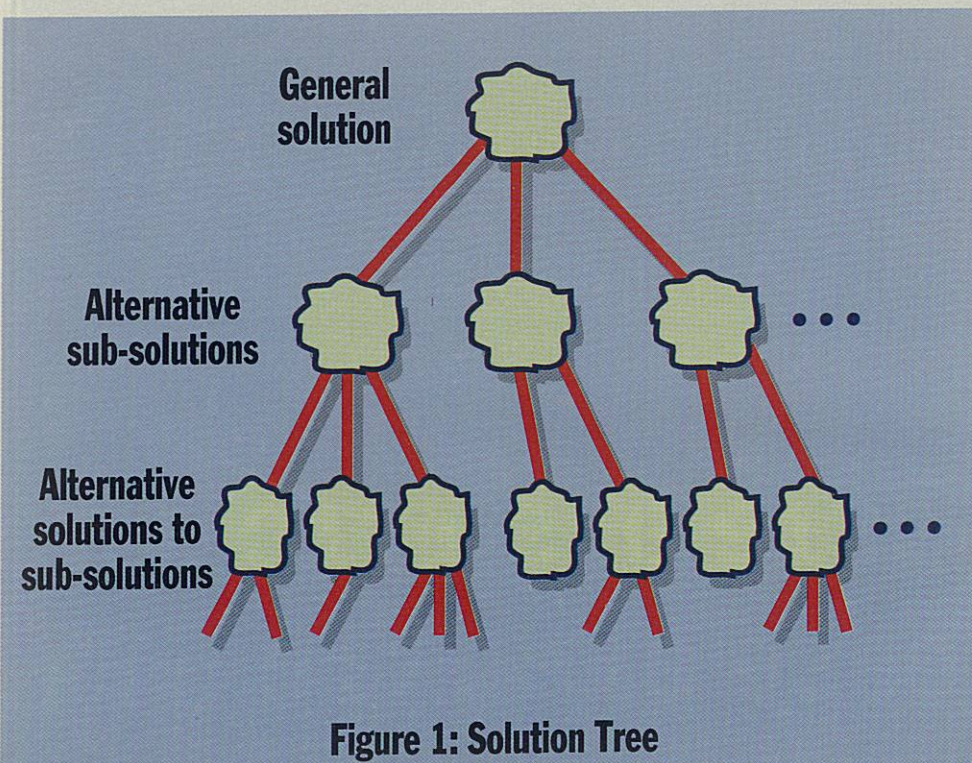


Figure 1: Solution Tree



Client Server Group
of the British Computer Society

The ODBC Conference

23rd January, 1996

arranged by The ODBC User Group hosted by Microsoft UK, Winnersh

This One-Day conference has assembled an international panel of ODBC experts to present on they key issues facing the use of ODBC today, and to answer your most pressing questions. It is the first time such an event has been organised in Europe, and provides a unique opportunity to keep abreast of developments in the world's most popular middleware product.

The event, which includes a buffet lunch, will cost £80 for ODBC User Group/BCS Client Server Group members, and £95 to non-members.

Introduction - Rob Macdonald, Information Systems Associates Ltd.

ODBC in Perspective - Michael Pizzo, Microsoft Inc.

How the tools use ODBC - Vaughan Brant, Access Data Ltd

OLE/DB - Paul Doleman, Microsoft UK

Testing ODBC - John de Longa, Data Aware Ltd.

Improving performance with ODBC 2 and ODBC 3 - Ronald Laeremans

Performance Panel - Get your questions on ODBC answered!

To attend this long anticipated conference, call Jerestine Krishna on 0181 993 8080 for reservation details

News groups reorganise

As part of a reorganisation of UK-based Usenet news groups, the two existing BCS groups *uk.bcs.announce* and *uk.bcs.misc* are being replaced with new groups — *uk.org.bcs.announce* and *uk.org.bcs.misc*. These are already in use and the old ones will shortly be discontinued.

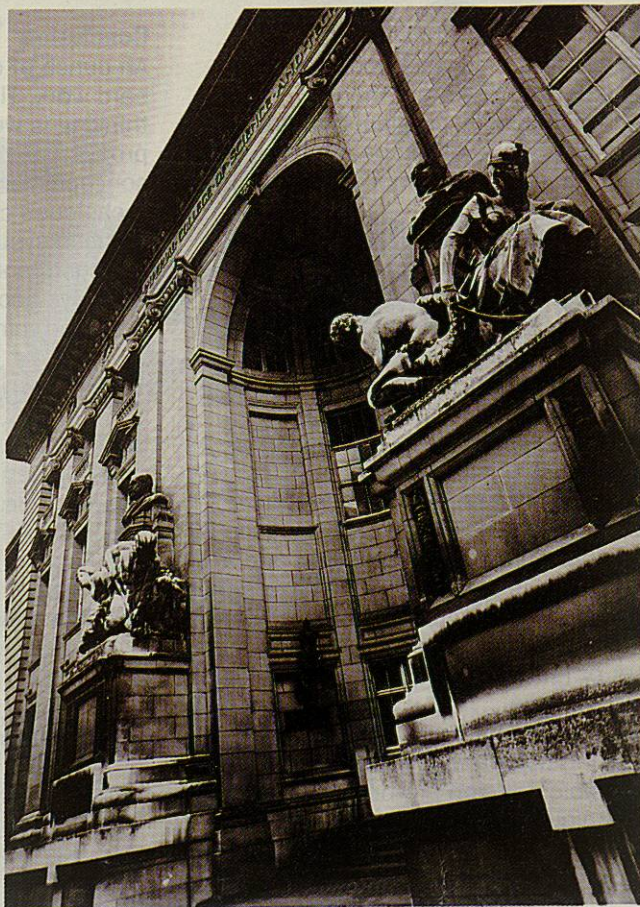
Members are encouraged to contribute to general debate on all IT matters to *uk.org.bcs.misc*.

The announce group contains details of relevant events and associated announcements. Details of the groups' functions and how to access them is contained in Angus Marshall's article in the April 1995 BCS Computer Bulletin.

BCS recruiting drive takes off

BCS members who have received their subscription renewal notices in the last few months will have seen a letter from Colin Thompson, the BCS membership director, inviting support for a membership drive.

The new drive is the result of work carried out during 1994 by a recruitment working party under the chairmanship of former president Roger Johnson. The aim of the campaign is to achieve an increase of around 6,000 members to take membership to a total of 40,000.



Imperial College: venue for human-computer interaction debate

Last year, BCS membership increased by more than 1,000, largely due to an improved attitude towards professionalism and professional qualifications among both individual practitioners and IT employers.

The new membership target demands a growth rate which can only be achieved with the active involvement of members of the Society.

So what can you do to support the campaign? Essentially, anything from recruiting a single colleague to giving a formal presentation to potential members.

There is also scope for operating as a BCS contact point within a company or department, holding stocks of recruitment literature and making sure BCS activities and events are well pub-

licised. Staff at BCS headquarters will be happy to supply recruitment material including leaflets, application forms, and a presentation pack with a full set of foils and speaking notes.

If you would like to support this campaign, please contact Colin Thompson at BCS, on (01793) 417410, email: cthompson@bcs.org.uk. Anything you are able to do, large or small, will be greatly appreciated and will help to secure the future of your professional body.

HCI'96 forum invites papers

HCI'96, this year's European human-computer interaction (HCI) forum, will be held at Imperial College of Science, Technology & Medicine, London on 20-23 August.

The forum will consist of:

Papers: theoretical, methodological and technological perspectives on people and computers.

Industrial reports: less emphasis on an academic format and more on industrial perspectives.

Panels: bring together a group of individuals to provoke thought and debate.

Tutorials: hands-on training and technical briefings.

Posters: outline and discuss recent work and new ideas.

Short papers: ideas which may not be ready for a full paper, and might be controversial.

Demonstrations: of tomorrow's systems.

Doctoral consortium: the chance to get expert feedback on your PhD work.

Organisational overviews: academic, commercial or government institutions, HCI consultants, large user organisations and product design teams.

Submissions are invited on all aspects of HCI, including adaptive/intelligent interfaces, augmented reality, cognitive modelling, decision support, design methodologies/process, dialogue design, domain-specific requirements, electronic publishing, evolving systems, formal specification, groupwork/CSCW, hypertext/WWW, information design, multimedia, requirements engineering, safety-critical systems, speech and language, societal issues, standards, teleworking, users with special needs and virtual reality.

The deadline for papers, tutorials, panels and industrial reports is 12 January; for posters, short papers, demonstrations, doctoral consortium and organisational overviews it is 19 April.

Submissions should go to HCI'96, Conference Centre, Watts Way, Princes' Garden, South Kensington, London SW7 1LU. Tel: (0171) 594 9509, fax (0171) 594 9504, email hci96@ic.ac.uk.

The BCS page is edited by Anna Duckworth (01793) 417417, fax (01793) 480270. Email: aduckworth@bcs.org.uk
BCS Web pages may be found on: <http://www.bcs.org.uk/>

BCS Diary

Birmingham branch. 8 January. 'Robotics in the Car Industry'. Joint meeting with IEE. CPD accredited. 7.30pm. BBC Woodnorton. Contact: J Haynes (0121) 414 4738.

Specification Patterns specialist group. 8 January. 'Simple Patterns in Conceptual Modelling'. 6.30pm. University of Westminster, New Cavendish Street, London. Contact: G Berrisford (0171) 627 5120.

Ops and Re-use specialist groups. 8-9 January. International Workshop on Systematic Re-use. Liverpool. Contact: P Jones (0151) 231 3667.

Berkshire branch. 9 January. 'Implementing Quality IT Services'. Hewlett-Packard, Cain Road, Bracknell. Tickets from: K Watson (01895) 426676. Email: compuserve.1000064.510

Kingston-upon-Thames and Croydon branch. 9 January. 'Planning Metropolitan Area Networks'. 7.30pm. Nescot, Ewell. Contact: A Lucas-Smith (01908) 274066 x5022.

Humberside branch. 10 January. Joint meeting with Royal Statistical Society. 'Risk Analysis in the Intensive Care Program'. Postgraduate Medical Education Centre, Hull Royal Infirmary. 7pm. Contact: R Livock (01482) 602693. Email: livockr@davispl.demon.co.uk

Quality specialist group. 10 January. 'Unlocking the Barriers to Change'. 6.30pm. Birmingham. Contact: M Byrne (0121) 265 5752.

Manchester branch. 10 January. 'Electronic Commerce'. 7pm. NCC, Oxford House, Oxford Road, Manchester. Contact: D Balmer (0161) 437 5759.

Teesside branch. 10 January. 'Networking the North of England — a Better Future for the Whole Community'. Chief executive of Northern Informatics speaking. 7pm. Computer & Mathematical Sciences Building, University of Teesside, Southfield Road, Middlesbrough. Contact: J Wilford (01642) 593888.

Advanced Programming specialist group. 11 January. 'The Java Programming Competition'. Sun Microsystems speaker. 6pm. IBM Centre South Bank, 76 Upper Ground, SE1. Email: jff@dcs.bbk.ac.uk

East Anglia branch. 11 January. 'Road Transport IT'. Joint meeting with IEE. 6 for 6.30pm. Cliff Quay Centre, Sandyhill Lane, Ipswich. Contact: (01603) 773022.

Requirements Engineering specialist group with HCI group. 15 January. 'User-Centred Requirements Engineering Workshop'. 10am. Huntingdon Room, Kings Manor, York. Contact: O Gotel. Email: oczg@doc.ic.ac.uk

South Wales branch. 15 January. 'Second Generation RAD'. 6.30 for 7pm. University of Glamorgan, Treforest. Contact: N Davies (01222) 724585. Email: rmhall@glam.ac.uk

Bournemouth & Dorset branch. 16 January. Visit to Telxon — Wireless Data Communication in a LAN Environment. 7 for 7.30pm. Telxon, Old Orchard, High Street, Poole. Contact: V Williams (01425) 620935.

Computer Audit specialist group. 16 January. 'Information Highways: the Opportunities (for Good and Ill)'. 10am. Royal Aeronautical Society, 4 Hamilton Place, W1. Contact: J Ewers (01992) 555328.

Humberside Branch. 16 January. 'Risk'. Joint Meeting with RSS. Venue TBA. Contact Branch Secretary.

Methods & Tools specialist group. 16 January. 'GUI Design'. 7pm. John Dalton Building, Manchester Metropolitan University, Oxford Road. Contact: G Ward (01477) 537609.

Bristol branch. 17 January. 'From Personal Computers to Personal Technologies'. 7 for 7.15pm. The Hawthorns Hotel, Woodland Road, Clifton. Contact: M Bartley (01454) 611464. Email: bartley@bristol.st.com

Edinburgh branch. 17 January. 'Legal Issues on the Net'. Joint meeting with Society of Computers & Law. 6 for 6.30pm. Godfrey Thomson Hall, Thomson's Land Building, Moray House Institute of Education, Holyrood Road, Edinburgh. Contact: M Hurst (0131) 331 7595. Email: mikeh@hpsqf.sqf.hp.com

Merseyside branch. 17 January. 'Bridging the User-Development Gap in Requirements Engineering'. 6 for 6.30pm. St George's Hotel, Liverpool. Contact: G Staniford (0151) 639 7753.

Quality group (Thames Valley). 17 January. 'Automated Requirements Management: An Overview and Presentation of Tools'. 7.30pm. Shire Hall, Shinfield Park, Reading. Contact: Peter Smart (01256) 685229. Email: psmart@bcs.org.uk

Sussex branch. 17 January. 'SuperJanet/Ukerna'. BCS Awards winners 1994. 7.15 for 7.30pm. Small Hall, Falmer Site, University of Brighton. Contact: (01273) 605834.

West Herts & Harlow branches. 17 January. 'BCS — The Wired Society'. BCS HQ speaker. University of Herts, Hatfield. 8pm. Contact: M Irish (01707) 327193. Email: m.irish@herts.ac.uk

Guildford branch. 18 January. 'Maps, Damn Maps & GIS'. 7.30 for 8pm. Forum Suite, Stoke Hotel, Stoke Road, Guildford. Contact: S Corfield (01252) 546375. Email: sean@corf.demon.co.uk

London Central branch. 18 January. 'Information for Success'. (CPD rating: 1.5hrs). 6 for 6.30pm. New Connaught Rooms, Great Queen Street, London. Contact: A Miller (0181) 954 5217. Email: asment@cix.compulink.co.uk

Suit or Anorak?

How do software developers view themselves?

How does the world view software developers?

How should software developers be viewed?

PASE'96

Professional Awareness in Software Engineering

London, 1st and 2nd February, 1996

FEATURING

FRED BROOKS & TOM DEMARCO

Covering all aspects of the software engineer's present and future: from social responsibilities to professional identity, from ethics to stereotyping.

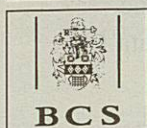
This conference is of importance to IT practitioners and researchers across the board, both at grass roots and senior management levels.

To find out more or to book your place(s) contact our PASE'96 Administrator at the School of Computer Science, University of Westminster, 115 New Cavendish Street, London W1M 8JS.

Tel: 0171-911 5000. Fax: 0171-911 5089.

Email: paseconf@westminster.ac.uk

UNIVERSITY OF WESTMINSTER



Courses

Information for the courses page should follow our usual format (course category; title of course; venue; date; price; organising company/body; telephone number). Unless the information is presented in this way, we regret that it cannot be included.

TECHNICAL SUPPORT

Informix-Online V7 DBA in Chester on 8-11 January, price £1,100, organised by Intel Training (01244) 316297
Novell CNE Fast Track 3 (v3.1x) in Kingston on 12 Saturdays commencing 13 January, price £1,600, organised by Tech (0181) 549 3444
NetWare 3x Advanced System Manager in London on 17-19 January, price £735, organised by BriTech Training Services (0171) 404 0132
Unix Administration in Reading on 17-19 January, price £630, organised by PTR Associates (01734) 344101
Implementation of Microsoft Mail in London on 22-25 January, price £1,095, organised by Barefoot-MCU Education (0171) 407 4074
PC Support in Cirencester on 23-26 January, price £1,095, organised by QA Training (01285) 655888
Introduction to Cics in London on 31 January, price £210, organised by Grafton Database Consultants (0181) 547 3440

Supporting the Internet in Cirencester on 6-9 February, price £1,245, organised by QA Training (01285) 655888
Supporting System Management Server in London on 19-23 February, price £1,450, organised by Pygmalion Training Services (0171) 436 2254
MVS ESA V5 Workload Manager in Horsham on 26-27 February, price £480, organised by WDR Training & Consultancy (01403) 268251

SYSTEMS ANALYSIS

Systems Analysis in London on 8-12 January, price £940, organised by The Assist Partnership (01933) 272444
Object-Oriented Analysis & Design in London on 15-17 January, price £895, organised by Arcona (0181) 422 5001
Practitioner Level Object-Oriented Analysis & Design in London on 15-19 January, price £1,295, organised by Arcona (0181) 422 5001
Capturing User Requirements in Bristol on 22-23 January, price £520, organised by The Assist Partnership (01933) 272444
PRO-IV Design in Wellingborough on 22-24 January, price £900, organised by Computer Productivity (01933) 228177
Cics for Analysts & Designers in London on 12-13 February, price £450, organised by Grafton Database Consultants (0181) 547 3440
DB2/SQL Performance Workshop in London on

26-28 February, price £630, organised by Grafton Database Consultants (0181) 547 3440
SQL Workshop in London on 11-12 March, price £380, organised by Grafton Database Consultants (0181) 547 3440

PROGRAMMING

Microsoft Access Introduction in London on 8-9 January, price £395, organised by Barefoot-MCU Education (0171) 407 4074
Forest & Trees Introductory in Wellingborough on 8-10 January, price £900, organised by Computer Productivity (01933) 228177
Informix SQL Developers in London on 8-11 January, price £780, organised by SkillAdvance (0181) 446 6481
PowerBuilder Introductory in Wellingborough on 15-17 January, price £950, organised by Computer Productivity (01933) 228177
Programming in Ansi C in Salisbury on 15-19 January, price £1,000, organised by Computer Programming Services (01722) 327504
Advanced Java Programming in Camberley on 18-19 January, price £500, organised by Sun Educational Services (01276) 416520
C++ Programming for Experienced C Programmers in Salisbury on 22-25 January, price £800, organised by Computer Programming Services (01722) 327504
Visual Basic V3 to V4 Conversion in London on 22-23 January, price £550,

organised by Arcona (0181) 422 5001
Informix-4GL in Chester on 22-25 January, price £880, organised by Intel Training (01244) 316297
Cobol Conversion in London on 22-26 January, price £895, organised by The Assist Partnership (01933) 272444
Forest & Trees Introductory in Wellingborough on 5-7 February, price £900, organised by Computer Productivity (01933) 228177
Access Database Design in Northampton on 5-7 February, price £695, organised by The Assist Partnership (01933) 272444

COMMUNICATIONS

Novell 3.11 x System Administration in London on 9-11 January, price £750, organised by Screen Debut (0171) 403 8331
Understanding Frame Relay in Reading on 10 January, price £245, organised by PTR Associates (01734) 344101
Internetworking — Bridges, Routers & Protocols in Reading on 11-12 January, price £490, organised by PTR Associates (01734) 344101
Fundamentals of Microsoft Exchange Server in London on 24-26 January, price £1,095, organised by Pygmalion Training Services (0171) 436 2254
Microsoft Exchange Workshop in Reading on 7-8 February, price £495, organised by C2C Systems (01734) 464411
NetWare 3.1x Advanced Administration in London on

12-13 February, price £695, organised by Barefoot-MCU Education (0171) 407 4074
VTAM & NCP Implementation in Horsham on 12-16 February, organised by WDR Training & Consultancy (01403) 268251
NetWare 3.1x Installation & Configuration in London on 14-15 February, price £695, organised by Barefoot-MCU Education (0171) 407 4074

DP MANAGERS

Project Leadership Skills in London on 10 January, price £325, organised by The Assist Partnership (01933) 272444
Managing Small Projects in Bournemouth on 10-12 January, price £625, organised by Spoce (01202) 780740
Team Leading in Bristol on 11-12 January, price £560, organised by The Assist Partnership (01933) 272444
Software Quality Auditor in Surrey on 16-18 January, price £495, organised by GCT Associates (01483) 281233
Prince Project Management & Control in Bournemouth on 24-26 January, price £595, organised by Spoce (01202) 780740
Software Estimating in Bath on 29 January, price £325, organised by The Assist Partnership (01933) 272444
Document Management in Horsham on 31 January, price £220, organised by WDR Training & Consultancy (01403) 268251
TickIT Auditors in Surrey on 5-9 February, price £745,

organised by GCT Associates (01483) 281233

END USERS

Windows 3.1 for Workgroups in London on 8 January, price £160, organised by Screen Debut (0171) 403 8331
Windows 95 Introduction in Hemel Hempstead on 26 January, price £175, organised by Inova Training Consultants (01442) 234313
Unix Fundamentals in Reading on 10-12 January, price £630, organised by PTR Associates (01734) 344101
Access for Users in London on 22-23 January, price £390, organised by SkillAdvance (0181) 446 6481
WordPro Introduction in Hemel Hempstead on 25-26 January, price £350, organised by Inova Training Consultants (01442) 234313
Introduction to Microsoft Project v4 in Southampton on 30-31 January, price £550, organised by Spoce (01202) 780740
Introduction to Excel in Wellingborough on 1-2 February, price £350, organised by The Assist Partnership (01933) 272444
Introduction to Microsoft Access v2 in Burton on Trent on February 8, price £136, organised by Advanced Computing (01283) 545401 x238
Microsoft Excel Advanced in London on 8-9 February, price £395, organised by Barefoot-MCU Education (0171) 407 4074

NETWORK TRAINING

NOVELL CNE & MICROSOFT MCPS COURSES

- Novell CNE Track 3 & 4 Courses
- Microsoft Windows NT Workstation and Server v3.51 Course
- Exceptional value
- Purpose designed classrooms



- Novell CNE & Microsoft MCSE trained tutors
- Weekday, Saturday & Evening classes
- Personalised classes with high pass rates

Enhance your career and earnings potential with a recognised qualification
FOR A FREE INFORMATION PACK CALL: 0181 549 3444
 Surrey House, 34 Eden St, Kingston, Surrey KT1 1ER

FACULTY OF TECHNOLOGY

SCHOOL OF INFORMATION SYSTEMS

MSc Programme Information Systems

This is a well established course with an international reputation for high quality and business relevance. By combining business and IT experience with academic rigour, IS consultants and managers will successfully design, implement and manage information systems within their own or client companies. Flexibility within the programme means that participants can design their study to develop their own business skills and career aspirations. Week long modules can be taken over two or three years, so that they can be integrated with full-time work. Alternatively the course can be taken on a full-time basis in one year. Pathways within the course include:

- Systems and Management
- Systems Engineering
- Information Strategies
- Knowledge Engineering
- Geographical Information Management

Places still available for January 22nd intake

KINGSTON
UNIVERSITY

Quality Courses Quality Education

Kingston University's mission is to support all sectors of the economy by the development of individuals and organisations through quality career-oriented higher education, advanced training and research

For details

telephone :
0181-547 7809

Fax :
0181-547 7887

Email:
MID@isys.king.ac.uk
(quoting ref V4/01)

computing

For all Courses details
contact Adrian Gill

Tel: 0171 316 9132

Fax: 0171 316 9350



Your free copy of the 1996 Training Guide is now available

- This week leading IT Solutions company The Assist Partnership publish their 1996 Guide to training.
- Packed with practical modular training for programmers, systems developers and project managers, each course is presented by an experienced trainer with up-to-date development expertise.
- Courses are available at locations throughout The UK and on-site for companies with as few as 3 people to train.
- This year give your staff the skills they need to succeed. To order your free copy call Martin Pearson on 01933 272444.

THE ASSIST PARTNERSHIP

Ambron House, Eastfield Road, Wellingborough, Northants NN8 1QX.

Distance Learning Course

SSADM 4+

4+ Certificate
in your own space
at your own pace

Metadata

0181-767
7337

- ✓ Analysis and Design for £990
- ✓ ISEB accredited
- ✓ self study and assessment
- + personal telephone tutor
- + 2 residential weekends

Next course
starting 22nd
February 1996

Upgrade to
Version 4+
package for
£130 (+VAT)

SERVICES

To place an advertisement in these services columns phone (0171) 316 9132 or write to Adrian Gill, *Computing*, 32-34 Broadwick Street, London W1A 2HG.
Rates: One insertion £39 single column cm.

Phone for details of series discounts. Assistance with the layout, wording and contents of advertisements can be provided if required.

Cancellation date: 4 weeks prior to copy date.



DSI would like to thank all its customers & friends for their help over 1995 and would like to wish them a happy & prosperous New Year.

Rental and competitive finance can be arranged. Call Mike or Dave for pricing on any IBM, HP, SUN or DEC equipment or any other computer requirements you may have.



Phone: 01322 559799
Fax: 01322 559970



PRODUCTIVITY COMPUTER SOLUTIONS LTD

Specialists in Sun™ Microsystems Hardware, Solaris® and SunSoft™ Applications and Live Network Backup
PCS can service the most complex productivity requirements.

Available, new and used systems:

SPARCstation™ 4

Rentals available

SPARCstation™ 5

Sun Maintenance available

SPARCstation™ 20

UltraSPARC™ 1

Evaluations available subject to status

SPARCserver™ 1000

SPARC® Modules

Next Day Deliveries

SPARC® Upgrades

Call Raj or John for very competitive pricing and to discuss your requirements.
★ Tel: 0171 252 3009 ★ Fax: 0171 237 0644
★ e-mail: raj@pcs.co.uk or johnp@pcs.co.uk
★ URL: <http://www.pcs.co.uk>

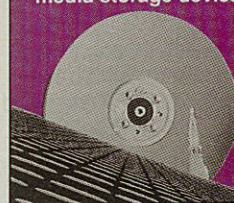
Making Ideas Reality



The World Leader in Data Recovery Services

- Ontrack can recover data lost due to: Data corruption, mechanical failure, electrical surge, human error, virus infection, water and fire damage.
- 24-Hour worldwide service with weekend, priority, & on-site options available.
- Drive & tape warranty preserved by major manufacturers!
- Expertise in virtually every operating environment & media storage device.

We'll Recover Your Lost Data!



United Kingdom: 0800 24 39 96
International: +44 181 974 5522
Germany: 0130 815 198
France: 05 90 72 42

Internet: <http://www.ontrack.com>

NEW AND USED COMPUTER EQUIPMENT BOUGHT AND SOLD

IBM, DEC, ICL, H/P, APPLE, OKI, WYSE, ETC., ETC.
VDUs, PRINTERS, LASERS, MULTISERS, PCS ETC.
Also suppliers to Corporates, Councils, Health Authorities etc.
All equipment supplied.

PCs built to spec (Novel & Networks).

Maintenance & Installation - Wyse 60 & 120 now in stock.

MICRO & PERIPHERAL COMPUTER SERVICES
TEL: 0181-908 6710 FAX: 0181-908 6815
MOBILE: 0802 257149

MIDEX EUROPE LIMITED

BUY IBM SCREENS

Any Quantity - Any Model - Any Condition
We Collect

MIDEX EUROPE LIMITED SELL IBM SCREENS

Any Quantity - Any Model - Refurbished
6 Month Extendable Warranty

Call Midex on 01784 470846

NEW AND USED COMPUTERS BOUGHT AND SOLD

IBM IBM IBM IBM IBM
DEC DEC DEC DEC DEC
SUN SUN SUN SUN SUN
HP HP HP DG DG DG

**MOST OTHER MANUFACTURER'S
EQUIPMENT PLUS ALL PERIPHERALS
INCLUDING PCs, VDUs, PRINTERS, ETC.**



65 Widmore Road, Bromley
Kent BR1 3AA, England
Tel: 0181-464 9011. Fax: 0181-464 8977

**if you're competing
you need computing**
THE IT WEEKLY

Whatever your product, whatever your strategy, your media plan will gain strength if you build it round computing.

SENIOR APPOINTMENTS

<http://www.vnu.co.uk/bc/ctg/jobs>

AS/400 Project Consultants

Direct Insurance Software House

Salary: to £70,000 + benefits

Location: Peterborough and Global Travel

Our client is a subsidiary company of one of the world's leading providers of direct motor insurance. Having recently branched out into the software marketplace, they have developed a speciality AS/400 system which is in demand within the direct motor insurance industry worldwide. To meet this growing requirement, they must now recruit several high calibre individuals with exceptional AS/400 and project management skills to take this dynamic business forward.

Providing a strong technical focus within a broader project management role that encompasses coordination of the efforts of a team, you will perform software modifications, and be responsible for the successful implementation and testing of the system at client sites.

As your system and industry knowledge grows, a more active part in business analysis will evolve, ensuring that the delivered system fully meets clients' business needs, and wherever possible, serves to enhance their business processes.

This is a superb opportunity for individuals with a thorough hands-on knowledge of RPG development (ideally 3 years+) on an AS/400 platform, to put these skills into practice in a high

profile role. Highly motivated, energetic and of graduate calibre, you will thrive within a team of like-minded individuals committed to delivering expertly built AS/400 systems.

A demonstrable track record of project management, following a formal methodology is essential, as is a willingness to spend up to three months working alternately between the Peterborough office and those of the clients' abroad. Fluency in another major European language would be highly beneficial.

In return for this blend of technical excellence and leadership ability will be an outstanding remuneration package and the opportunity to work within this dynamic, commercial, global marketplace.

We would like to hear from you if you have the skills and the interest to be part of this exciting venture. To apply, please send your C.V. accompanied by a covering letter, including daytime telephone number and current salary details to: Harvey Nash Plc., 13 Bruton Street, London W1X 7AH. (Tel: 0171 333 0033). Please quote reference number HN1818C.

HARVEY NASH PLC

To advertise all your
Senior Appointments
in 1996

call David Rolph on

0171 316 9108



Experienced Achiever Required INFORMATION AND I.T. MANAGER

Salary negotiable in the range £40,000
+ Benefits commensurate with your experience
Trust Terms and Conditions will apply.

Experienced achievers are invited to apply for the post of Information and I.T. Manager with Powys Health Care NHS Trust. The post is based at Bronllys, near Brecon, Powys.

The Trust has a turnover of £39 million per annum and provides an extended range of local community based services to a rural population of 120,000 dispersed over 2,000 square miles.

The Trust is currently finalising a 3-5 year Information and I.T. Strategy and is looking to appoint an experienced Manager to oversee its successful implementation. Candidates should have at least 5 years experience of managing a busy I.T. Department and of managing the implementation and development of packages of software, ensuring integration and the enhancement of normal business operations. Experience of project and supplier management in an I.T. setting is essential, together with excellent interpersonal, team-building, oral and written communication skills. Experience of managing and using health related applications is advantageous, but not essential.

A strong appreciation and understanding of UNIX, MS Office Products, Novell and TCP/IP is highly desirable, ideally with some knowledge of INGRES and X25 communication networks. Benefits include a lease car and opportunities to earn Performance Related Pay.

For informal enquiries, please contact the Manager of Corporate Services, Mrs Jill Derbyshire on 01874 711661 Ext. 4606.

Application forms and information packs can be obtained from the Human Resources Directorate on 01874 711661 Ext. 4607, Bronllys Hospital, Bronllys, Brecon, Powys, LD3 0LY. Closing date for receipt of completed applications is 27th January 1996

APPLICANTS SHOULD BE AWARE THAT POWYS HEALTH CARE NHS TRUST HAS A POLICY ON SMOKING THAT PROHIBITS ALL SMOKING ON TRUST PROPERTY AND OUTSIDE TRUST PROPERTY ON OFFICIAL BUSINESS.

WORKING TOWARDS EQUALITY OF OPPORTUNITY



**Business Analysts,
£30,000 - £35,000 + car
West London**

Our client is looking for a rare commodity - business-focused individuals who have specific technical skills gained in advanced Client/Server technology. In return, they offer a rare opportunity - the chance to influence the development of a new systems environment.

*We're looking
for something of a Rarity*

This highly successful organisation is a major name in its industry sector, and is currently enjoying a period of rapid development and cultural change. IT plays a key strategic role in this process of change, with the implementation of a new systems platform based on leading-edge Microsoft products, including SQL Server 6, Visual Basic 4 and Access. This exciting and stimulating new systems environment provides a variety of commercial and technical challenges. A number of experienced IT professionals are now required to take a leading role in developing the influence technology has on the continued success of the business.

Business Analysts

A proven analyst, with experience of formal analysis and planning tools, and a structured background, you will enjoy working in this fast-moving environment, providing high quality business analysis throughout the entire project lifecycle. With experience gained in a PC Client/Server development environment, you should have the ability to lead multi-disciplined teams in the successful completion of a variety of projects. With a broad business knowledge and a diplomatic approach to users, you should have the ability to liaise with and manage external suppliers. You will be leading projects in a Windows NT environment utilising advanced servers, and relevant experience would be a distinct advantage, although this is not essential. More important are your analysis skills and the ability to manage a variety of resources.

If you have the rare combination of qualities we are seeking, call Julie Beeston for more details on 0171-440 2000 (daytime), or on 0171-931 9446 (evenings/weekends). Alternatively, fax your CV to her on 0171-497 2935 or write to Computer People West End, Piccadilly House, 33 Regent Street, London SW1Y 4NB. Please quote Ref. CCL817 in all correspondence.

**All agency enquiries should be directed through
Computer People.**

THE MARKET
LEADER



FS20499

COMPUTER PEOPLE WEST END

• BIRMINGHAM 0121-643 8501 • CITY 0171-440 2000 • EDINBURGH 0131-228 8680 • LEEDS 0113-245 1442 • MANCHESTER 0161-491 1666
• REDHILL 01737 770321 • ST. ALBANS 01727 841351 • WEST DRAYTON 01895 422588 • WEST END 0171-440 2000 • AND OFFICES THROUGHOUT THE USA
VOTED BEST I.T. RECRUITMENT COMPANY IN THE COMPUTING AWARDS FOR EXCELLENCE 1993, 1994 & 1995

**Computer
People**

APPOINTMENTS

Computing Data

Circulation
113,950 BPA July-December 1994
To place an advertisement in our classified columns phone (0171) 316 9101 or write to Kumaran Ramanathan, *Computing*, 32-34 Broadwick Street, London W1A 2HG Fax: (0171) 316 9100

For Consultancies phone (0171) 316 9103
Rates: 1/4 page (17 x 3).....£2,970
1/2 page (17 x 6), (35 x 3).....£5,220
Full page (35 x 6).....£9,809
Any other sizes.....£65 per sq cm

Cancellation date 10.15am Thursday preceding publication date

Publication date: Computing's readers receive their copies every Thursday morning

Final copy deadline for guaranteed inclusion: 5pm Monday preceding the publication date

Proofs can only be guaranteed if copy is received 10 days before publication date.

Mechanical data:

1 col: 40mm 2 cols: 84mm 3 cols: 128mm
4 cols: 172mm 5 cols: 216mm 6 cols: 260mm
Film positive, wrong reading, emulsion side up

Subscription rates

UK£100
Europe£130
Rest of World airmail zone 1£150
Rest of World airmail zone 2£200
Rest of World surface.....£120
Circulation enquiries (0171) 316 9700

Senior AS/400 Analyst Programmers

Direct Insurance Software House

Salary: £30,000 – £40,000 + benefits

Location: Peterborough and Global Travel

Our client is a subsidiary company of one of the world's leading providers of direct motor insurance. Having recently branched out into the software marketplace, they have developed a speciality AS/400 system which is in demand within the direct motor insurance industry worldwide. To meet this growing requirement, they must now recruit several high calibre individuals with exceptional AS/400 skills and a dedication to delivering top quality systems solutions, who will take this dynamic business forward.

The successful candidates will be responsible for taking technical specifications through to coding, testing and implementation. Working closely within a small team to ensure the system is developed in the most effective manner to the highest possible standards, you will then integrate the system at client sites worldwide.

This is a superb opportunity for individuals with two or

more years of RPG development experience on an AS/400 platform to put these skills into practice in a high profile role. Highly motivated, energetic and of graduate calibre, you will quickly learn the functional and technical aspects of the system to expertly tailor the software to meet specific business needs.

In return for your technical expertise, enthusiasm and commitment, are outstanding remuneration packages and the opportunity to work within this dynamic, commercial, global marketplace.

We would like to hear from you if you have the skills and the interest to be part of this exciting venture. To apply, please send your C.V. accompanied by a covering letter, including daytime telephone number and current salary details to: Harvey Nash Plc., 13 Bruton Street, London W1X 7AH. (Tel: 0171 333 0033). Please quote reference number HN1817C.

HARVEY NASH PLC

SkillQuest

BORDESLEY HALL • ALVECHURCH • BIRMINGHAM • B48 7QB
TEL: 01527 - 585855 • FAX: 01527 - 60140

HAPPY NEW MIDLANDS 1996 !

INFORMIX ANALYST PROGRAMMERS £15-20,000 +

An opportunity to join a West Midlands based development team at an early stage, and contribute to the success of INFORMIX 4GL and SQL systems and products. All you need is 12 months Informix 4GL or SQL. Other major 4GLs will get serious consideration for X-training. Whilst ££ is not everything, these pay well too!!

ORACLE DEVELOPERS £25,000 +

Two challenging posts in East Birmingham for good quality Oracle candidates. Full Training into version 7 and Forms 4.5 Lots of development scope, in financial and manufacturing areas and state-of-the-art RDBMS and communications projects. Progression to Team Leader and above for those that want it, or a more technical involvement for those that don't!!! Backed by massive resources this is a growing company that achieved much in 1995 and will achieve even more in 1996.

C PROGRAMMERS £19,000

A busy successful and well established Birmingham based retail and distribution company in an interesting and different market are embarking on brand new Client Server projects to replace older systems. We are looking for good C programming skills, hopefully in a UNIX environment. A real chance to build a career in a successful firm, big enough to invest properly, small enough to know you are there!!

PC AND NOVELL SUPPORT £22,000 +

This south Midlands based major company with a client list of mostly Times 100 industries, seek experienced, forward thinking and positive candidates to build small teams of experts. Skills needed are from a list of: Novell support and administration, Lotus Notes skills, Microsoft product experience and PC support/help desk knowledge. A chance to join a major company, build real in-depth skills and get lots of experience.

RPG 400 SKILLS c£25,000 + Car

Many many opportunities for RPG/400 ... which should you choose? Why not let us look carefully at the vacancies, assist you with background information so you can make an informed choice? Some will pay very well, but you will work anywhere, others may seem less exciting, but will train you in new skills. You need to know ... so just ask. After fifteen years in the Midlands, we will know!!

ANALYST PROGS/TECHNICAL PROG to £22,000

Dynamic Software House in Worcestershire writing modular software for the manufacturing arena. Software is 4GL based running under UNIX with downloading to PCs. They are seeking 4GL skills i.e. SCULPTOR, INFORMIX, FOXPRO or OFFICE. Immediate opportunities, excellent career prospects.

BUSINESS ANALYST/ANALYST PROGS To £26,000

Young, dynamic company based in Staffordshire supplying IT systems, consultancy, training and support services to the industrial, commercial and government sectors. Opportunities are in Business Analysis and Design as well as Programming/Development. Structured environment looking for expertise in any of 'C', 4GLs i.e. INFORMIX, ORACLE, INGRES, SQL and RDBMS skills. Cross training available. Exciting challenge in the front line with up to the minute technology.

ANALYST PROG/DATABASE ADMIN to £26,000

Well known electronics manufacturer in the South Midlands using POWERHOUSE and ORACLE on DEC VAX hardware. The DBA will design, develop, test and implement an ORACLE 7 database. The Analyst Programmer will specify, program and test new systems in POWERHOUSE. Lots of career progression and excellent benefits including relocation where necessary.

SYNON/2 PROGRAMMER to £20,000

Staffordshire based end user, the European Headquarters of a large multi national, having the largest SYNON application in Europe, is seeking a SYNON/2 Programmer. Guaranteed OBSYDIAN training in the near future and excellent all round company benefits.

These opportunities represent a minuscule proportion of the superb selection we have registered, so why not give us a call ... whatever your New Year Resolutions!!
Call Lindy Smith or Mike Hessian 01527 585855, Fax 01527 60140

QA and Windows Specialists

Quality Software for Electronic Commerce

Circa £35,000 + benefits

Sunbury-on-Thames

GE Information Services, part of the multi-billion dollar GE Group of companies, is recognised as a world leader in supplying electronic commerce services – including electronic messaging, Electronic Data Interchange (EDI) and information management services – to link more than 30,000 businesses around the world.

In today's fast-paced global marketplace, corporations increasingly rely on electronic commerce to maintain their competitive edge. That's why businesses are turning to GE Information Services' specialised portfolio of products to skillfully manage information flows both within the company and with its business partners, transcending the differences that can exist between computing systems, networks and data formats. The company's rapidly growing customer base has resulted in the need to expand the Windows and Quality Assurance Teams to work on the next generation of sophisticated electronic commerce software.

Visual C++ Developers

As a member of this truly international team you will be responsible for developing a Windows-based EDI communications application, making a substantial contribution to expanding the product's electronic commerce capabilities and internet services. Responsible for significant design and development activities, you will produce detailed specifications to exacting quality standards and effectively liaise with your U.S. counterparts to ensure first class product creation from prototyping through to delivery.

To be successful, you must have at least two years of dedicated Visual C++ development experience gained in a large project development environment with MFC 2.5 or 3.0 used extensively. An understanding of PC or Unix based systems and network connectivity is essential, as is a familiarity with the internal quality and security issues they present. A possessor of excellent communication skills you are not content to keep your expertise to yourself and will thoroughly enjoy liaising and sharing information and knowledge with your colleagues. **HN1805.**

Quality Assurance Consultants

Responsible for ensuring that the quality of the Enterprise System product, which serves as a "central electronic trading manager" across networks, meets the GE Information Services standards and the expectations of world-wide customers. You will work closely with the Product Development team in the creation and execution of comprehensive test plans. In addition, software version control, packaging, and assisting support personnel in resolving post-implementation customer queries make this a varied, exciting and challenging role.

Individuals should be able to demonstrate a thorough knowledge and understanding of automated testing facilities and regression suites gained during at least two years as a member of a QA testing team. Ideally from a commercial software house environment, you will have a detailed familiarity of Unix systems and be able to produce shell scripts and understand the data connectivity issues involved with porting the software across multiple Unix platforms. **HN1806.**

Internationally respected, GE's leadership values of growth, integrity and empowerment promote a stimulating environment of highly motivated team players committed to delivering high quality state-of-the-art systems. In return, GE Information Services requires degree qualified individuals with an enthusiastic and flexible approach, complemented by a genuine interest in high technology, to join in its success and progression into the next decade.

To apply, please write enclosing your CV and covering letter, to Harvey Nash Plc, 13 Bruton Street, London W1X 7AH, (Tel: 0171 333 0033; Fax: 0171 333 0032). Please be sure to include current salary details, a daytime contact number and quote the relevant reference number.



GE Information Services

HARVEY NASH PLC

'4th' and VERY PROUD OF IT

An essential '4th' to their millions of very satisfied members, our client, based in Basingstoke, currently employs over 550 IT professionals to drive their business forward – and now they need more:

With a dedication to new technology, our client offers excellent training, competitive salaries, company pension, flexi-time, subsidised restaurant, sporting facilities and genuine opportunities for career progression. You will be developing and supporting new business critical applications using the latest client server and development technologies. Salaries range from £18,000 - £28,000, depending on experience.

C/C++ Developers

You will need a minimum of 12 months experience of the entire development life cycle, preferably gained in an Ingres (or other RDB) and Unix environment. Any experience of RAD and OO techniques would be advantageous, although training is available.

Project Leaders

With proven experience of leading small teams in a variety of technical and business environments, you will be responsible for the initial analysis of the project and then the planning, scheduling, risk assessment and successful implementation. Experience of RAD or Prince would be advantageous.

C/C++ Designers

In-depth design and development experience in a Unix and Ingres (or other RDB) environment, is required for these interesting and demanding positions. Exposure to OO techniques and client server development would be beneficial. On-going technical training and career development is offered.

System Testers

Methodical system testers to work in a Unix, Ingres, client/server development environment. The role will develop to encompass integration testing of total business solutions.

Systems Integrator

You will be responsible for devising solutions to integration problems, for software configuration management activities leading to the building of release sets, and for distribution to users. With expertise in PC or Unix based computing will have a working knowledge of Unix Windows, client/server, TCP/IP, and RDB.



**GRESHAM
COMPUTER
PERSONNEL**

Please contact Hilary Tinsley at Gresham Computer Personnel on 01734 391155. Send your CV to 5/9 Merchants Place, Reading, Berks RG1 1DP, fax 01734 391297, E-mail gcp@gresham.co.uk.



WORK GLOBAL

£32,000-£40,000 East Anglia

Our client, a leading international professional services organisation with offices in Europe, US and the Far East, is currently in the midst of an exciting period of change, both in their business and the application of the latest technologies. On completing a global systems roll-out, there will be a focus on delivering an outstanding level of support to 1,800 users in the business worldwide. The infrastructure consists of many best of breed products, object-orientated, client-server applications utilising UNIX, Sybase and NeXTSTEP technologies.

They are currently seeking a variety of IT professionals to join their new East Anglia location and aim to recruit staff of the highest calibre who demonstrate teamwork, flexibility and creativity as well as strong technical competencies.

You will be of graduate calibre, with a high level of enthusiasm, initiative and self-motivation.

To succeed in the firm you will be a team player with excellent communication skills and a high degree of customer focus.

Technical Consultant - UNIX and Systems Architecture To £40,000

Ensuring the integrity and performance of global systems and infrastructure, you will have 5 years experience of UNIX, C and systems management, together with an understanding of an RDBMS (ideally Sybase). Ref:HN1819C

Technical Team Leader - UNIX, RDBMS To £35,000

Co-ordinating the activities of the core support team, you will have a hands-on knowledge of UNIX combined with either RDBMS's, networking or messaging in a team leadership role. Ref:HN1820C

O-O and RDBMS Designer/Developers To £35,000

Designing and developing support systems, you will need 2 years plus applications development experience with either an understanding of, or hands-on knowledge of, O-O design/development. Ref:HN1821C

Senior Network Administrator To £32,000

Performing network management, monitoring and troubleshooting, you will be experienced in WAN, bridging, routing, systems management and network management. Ref:HN1822C

Senior UNIX Systems Administrator To £32,000

You will manage performance tuning, systems monitoring and systems management and will require thorough knowledge of UNIX systems administration (ideally SUNOS). Experience of systems management tools is advantageous. Ref:HN1823C

To understand more about this leading edge environment, please send your CV, quoting the relevant reference number, to Harvey Nash Plc, 13 Bruton Street, London W1X 7AH. (Tel: 0171 333 0033). Please remember to include current salary details and, where possible, a daytime contact number.

HARVEY NASH PLC

UNIX SUPPORT SPECIALISTS

Rare breed or endangered species?

If you are a UNIX specialist who likes to stay in touch with the market, you'll be well aware of AIX. In 1994, RS/6000 and AIX became the market leader in mid-range UNIX systems and now, combined with PowerPC and Scalable Parallel Processing technology, we continue to go from strength to strength.

Working closely with a dynamic team of authorised business partners, we have achieved growth that is currently running at twice the industry average. This is why we are looking for a number of experienced technical support specialists with at least 2 years' UNIX experience to join the team.

You may be feeling that your career prospects are going to be endangered if you are not keeping up with this fast-moving market, and if your skills are not evolving you are going to be left behind. Fortunately, we have a solution that will convert you from an endangered species to a highly valued breed. It's called the IBM AIX Professional Certification Programme which combines in-depth technical AIX education together with certification.

We currently have opportunities countrywide in Pre-sales Support and in Systems Integration, Customer Implementation Services and Post-sales Support.

We are especially interested in people with technical skills in:

PARALLEL PROCESSING
UNIX ADMINISTRATION AND NETWORKING
MAINFRAME CONNECTIVITY
PC INTEGRATION
DISTRIBUTED SYSTEMS MANAGEMENT
DATABASE DESIGN AND SIZING
BENCHMARKING AND PERFORMANCE TUNING

Your technical knowledge must be matched by excellent interpersonal skills, a mature business outlook and a passion for delivering and supporting open systems solutions for high-profile clients in many different business sectors.

As well as an attractive remuneration package, we also offer a quality and diversity of experience that is rare in the industry.

If you want to be part of the new breed, please write with a full cv and details of your current remuneration package to our advising consultants Shaylor Thompson Recruitment at Clifton House, 23 Fauvel Road, Glossop, Derbyshire SK13 9AR. Please quote reference number IAF3-2. Telephone: 01457 865034. Fax: 01457 865886.

IBM is an equal-opportunity employer.

The IBM home page can be found on the Internet at <http://www.ibm.com>



Solutions for a small planet

Unleashed

Radio local loop from the world number one

Software Development Engineers

North Wiltshire

£18,000 - 30,000

At Geneva '95, AT&T unveiled one of its most dramatic secrets: a fully functioning radio in the local loop system which establishes us *beyond doubt* as leaders in this exciting new field.

For the uninitiated, our patented AirLoop™ technologies offer all the performance of a wired network, including the full ISDN repertoire. At the same time, they provide the kind of flexibility and cost advantages demanded by the world's developing and deregulating markets – which means just one thing: they're going to be very big business indeed ...

Our global development activity is focused on a single, purpose built centre in Chippenham, Wiltshire. From here, our Engineers are creating ground breaking solutions – working with prominent customers throughout the world. The next phase of development will be decisive, which is why we're now looking for talented Software specialists to add to the team.

Join us and you'll get to unleash your technical creativity throughout the development cycle – within an independent, informal, rapidly growing organisation which is fully backed by AT&T's resources. We have openings at all levels – for ambitious, team spirited Software Engineers with 2 or more years' C++ and OOD experience, gained on real-time development projects.

The prospects and rewards will be outstanding for the right people, so if you're ready to write the next chapter in Telecommunications, send your CV to our adviser, Nick Cleave, at Venus Group, 79 Promenade, Cheltenham, Gloucestershire GL50 1PJ. Fax: 01242 224999. e-mail jobs@venus.u-net.com



AT&T – valuing diversity – working towards equal opportunity

Strategic New Developments

Creating a new team at the leading edge of document management, imaging, workflow and groupware technology.

Glaxo Wellcome is one of the UK's top companies, a world leader in the field of prescription medicine and the largest pharmaceutical company in the world. Fundamental to this success is Glaxo Wellcome Research and Development - a centre of excellence with an outstanding record of achievement and a massive investment in leading edge IT. As part of a new strategic initiative a Document Management Group has been created to deliver innovative key business solutions internationally, based principally on products from Documentum, Recognition and Adobe.

Application Developers

Range of Levels from £22,000 to £35,000

Working within a small specialist international team of developers you will be involved in all aspects of new systems development from analysis, design and build through to implementation. You will be using the latest tools, software products and techniques including prototyping/RAD, to provide high profile systems throughout the company.

You will have at least 2 years application development experience, rising to 5 years with some team and project leading for the more senior roles. Your technical skills should include at least two of the following:

- ▲ Visual Basic
- ▲ Documentum
- ▲ Windows/Unix
- ▲ Oracle

Experience of document management would be a distinct advantage. In addition you must have sound interpersonal skills as well as the enthusiasm, aptitude and capability to swiftly assimilate new skills and techniques and to use them effectively. Ref: DM1

Systems Integrators

Document Management / Imaging

£35,000 to £45,000

These are two key roles within this new group, responsible for all aspects of systems integration including:

- ▲ Developing strategies and architecture
- ▲ Technical design and implementation
- ▲ Problem solving and consultancy
- ▲ Defining support and management

You will also be expected to lead projects and to become expert in document management and imaging technology.

You will have a broad systems background including experience of several of the following:

- ▲ Unix and Windows
- ▲ Programming (eg C), RDBMS preferably Oracle
- ▲ Server and desktop technology
- ▲ Networking/Communications
- ▲ Document Management/Imaging/Workflow

Working as part of an international team you must be tenacious, comfortable under pressure, and with the pragmatism to translate business needs into realistic solutions. Ref: DM2

Based in either Middlesex or Herts, all these opportunities offer huge potential and challenge and attract an excellent benefits package including 26 days holiday, non contributory pension, life assurance, health care, relocation expenses where appropriate and membership of an on-site fitness centre.

To apply, please send your CV to Rick Allison, our advising consultant, quoting the appropriate reference, at The Allison Partnership, Cannon Centre, 78 Cannon Street, London EC4N 6HH. Tel 0171 626 2266 (Office), 01892 661429 (Home), Fax: 0171 626 2277.

▲ New Specialist Team

▲ Document Management / Imaging / Workflow

▲ Full Software Development Life Cycle

▲ Leading Edge Technology

▲ Middlesex or Herts

GLOBAL EQUITIES SYSTEMS DEVELOPMENT

To £40K + Bank Benefits, City

Our client, a leading global investment bank, is a market leader in equities research in the UK and Overseas.

In order to meet the constant demand for improvement and change, they are developing a new generation of systems to support equities research throughout the world. These systems use the latest Client Server technologies including WINDOWS NT, ORACLE 7 and GUI tools.

Expansion in this area has led to openings in this successful young team. With a strong culture motivated by providing business benefit through the use of IT, we now seek to recruit talented developers at all levels up to Team Leader.

Team Leaders will take responsibility for all aspects of project work from conception to implementation. You will manage small teams and liaise with users at all levels.

Developers will be involved in a variety of functions including programming, analysis, design, system test, implementation and user liaison.

Suitable candidates will have technical experience in two or more of the following areas:

- * Relational databases (preferably Oracle)
- * PC Development Tools (preferably SQL Windows)
- * 3 GLs (preferably C or C++)
- * Client Server Development

All roles require team players who take personal responsibility for their work and who have the maturity and confidence to work closely with users and carry out implementations both in London and Overseas. These are challenging roles for applicants interested in furthering their careers in an exciting environment with a competitive salary, performance related bonus and other banking benefits.

Please call our consultant Jane Moore on 0171 287 2525 or send/fax your CV to her at:
ARC International, Recruitment & Consultancy Services, 15/16 New Burlington Street, London W1X 1FF.

TEL: 0171 287 2525



FAX: 0171 287 9688

See
I.T.
through

SENIOR

PC ANALYST/PROGRAMMER

c£26k

See key projects through from feasibility to implementation. Work simultaneously on applications ranging from EPOS to back office systems and beyond. Experience the scale and scope of continuous development that only a leading retailer like Woolworths can provide.

With a network of over 800 stores and a commitment to leading edge technology, we have all the challenge you need.

As a senior member of the Retail Systems team, you'll have a high profile role at our London headquarters. We expect you to bring to that role substantial experience of systems development gained at all stages of the project lifecycle. Along with a minimum of 2 years in a Windows or OS/2 Client Server environment using C, Visual Basic or other relevant languages, you should be able to demonstrate strong planning skills and the ability to lead developers to deliver solutions that meet customer needs.

to the end.

A team player with strong interpersonal skills, you will be equally comfortable working through and alongside third party suppliers. The pace of development and dynamic nature of the retail environment demands a high level of flexibility and professionalism at all times.

The seniority of the position will be recognised by an attractive salary and benefits package which includes company discounts and private health care.

For further information please telephone Catherine Heath or John Hagen on 0181 680 5920. Alternatively send us your cv at Software Personnel Plc, 19 Park Street, Croydon, CR0 1YD. Fax: 0181 760 0894.

Software incorporating systems resources
Personnel plc
creating effective partnerships

Oracle Application Support

Key user liaison roles on mission critical systems

Our client is a major corporation, a world leader in its field, whose pre-eminence is based on converting its extensive scientific research into globally successful products. Vital to its pursuit of excellence, achievement and commercial success is its massive investment in leading edge IT. As a result of the introduction of a new global IT strategy a number of key opportunities for experienced application support specialists have arisen.

Application Support

£25,000 - £30,000

You will be responsible for supporting the users of a business critical Oracle database system storing vital clinical management data on a global Vax network. This is a high profile role within a small highly skilled team requiring minimal supervision. You will be a science graduate with at least 2 years Oracle application support experience and an in depth knowledge of

▲ Oracle

▲ SQL Forms

▲ VAX/VMS

Clinical data management experience would be a significant advantage. This is a global system, hence a small amount of international travel may be necessary. Ref AS1

Systems and Application Support

£25,000 - £30,000

Responsible for systems and application support, you will ensure maximum systems availability and performance, liaising with both users and other systems specialists. This is a high profile role within a small highly skilled team requiring minimal supervision.

Of graduate calibre you must have at least 3 years Oracle applications and support experience with expertise in the following:

▲ Oracle (including V7)

▲ SQL programming and Forms

▲ VMS (including CMS, MMS)

▲ DBA skills

This is a key role within a small international team. A small amount of international travel may be necessary. Ref AS2

RAD and Support

£20,000 - £30,000

Working closely with the users you will be part of a small team providing a comprehensive service including both RAD of small systems and support. The role encompasses analysis, design, coding, implementation and importantly support.

Of graduate calibre you must have at least 2 years IT experience, including support, with sound knowledge of

▲ Relational database

▲ Visual Basic

▲ Access

Knowledge of Unix, Oracle/SQL, VMS, Basis + would be advantageous. You must be flexible and enthusiastic and able to work on several tasks concurrently. Ref AS3

Development/Support

£20,000 - £30,000

This is a high profile position responsible for both the further development and support of a key live business system, an Oracle database on a global Vax network. Working in a small team, often under your own initiative and multitasking, you will need sound experience of

▲ Oracle

▲ SQL programming and Forms

▲ VAX/VMS

Some DBA skills and exposure to SQR and C would be advantageous. Of graduate calibre, you must have a structured and methodical approach to development and be capable of meeting high quality standards. Ref AS4

Multiple Applications Support

£20,000 - £30,000

This is a varied and responsive role supporting a wide range of site systems across a number of locations and with a large user population. Systems range from Oracle DBs, PC systems (eg Access, Dbase) through to package solutions.

You will have a broad IT background with experience of an RDBMS and PC systems and be able to pick up new systems and become effective rapidly.

You must be used to a hands-on approach with the character to deal with a robust user base and establish yourself as their champion. There will be travel between sites. Ref AS5

All these positions demand strong interpersonal and communication skills and the flexibility to handle several tasks concurrently in a responsive environment.

Based in Middlesex or Herts, these opportunities offer technical challenge and career potential and attract an excellent benefits package including 26 days holiday, non contributory pension, life assurance, health care, relocation expenses where appropriate and membership of an on-site fitness centre.

To apply, please send your CV to Rick Allison, quoting the appropriate reference, at The Allison Partnership, Cannon Centre, 78 Cannon Street, London EC4N 6HH. Tel: 0171 626 2266 (Office), 01892 661429 (Home). Fax: 0171 626 2277.

▲ Leading Edge

Technology

▲ High Profile

Positions

▲ Responsibility

▲ Middlesex or Herts

Business Analysts - Payroll/HR

International Roles Bracknell Based

To £28K plus benefits European Implementation

Working for Dell in 1996 you will see exciting and innovative changes. One of the major projects is the global implementation of SAP which has resulted in the creation of two key roles within the Human Resources area.

You will act as the interface between functional users/departments, Information Systems and external suppliers. It is likely you will have strong experience in either Payroll (finance) or HR, preferably with multi-country experience. This could have been gained working as part of a Payroll/HR department or alternatively as part of an IS team. You should offer strong statistical analysis and exceptional organisational and communication skills along with experience of introducing and managing change.

Successful candidates will be educated to degree level with a minimum of 5 years' relevant business experience. You should be highly self motivated with the ability to manage cross functional and complex projects. Most importantly you should demonstrate a high level of flexibility and initiative and will be expected to travel extensively. Previous experience of working on a major implementation project would be advantageous.

To find out more about these new and exciting roles please telephone our advising consultant Mur Snook on 0171 405 4180 or send your CV to her at: SCR, 5 Bream's Buildings, Chancery Lane, London EC4A 1DY. Fax: 0171 831 5469, quoting reference 52724/MS. Email 100621,2024@Compuser.com



Dell and the Dell logo are registered trade marks of Dell Computer Corporation

UNIX SYSTEM ADMINISTRATION

HP-UX

Leading Securities and Investment house requires a number of experienced Unix Administrators to join their trading systems support group. You will have a minimum of two years HP-UX, LVM, TCP/IP and scripting, with an understanding of RDBMS. Banking experience is not as important as technical excellence, energy and the ability to take on a sharp learning curve. These are excellent opportunities to join a company that is part of one of the largest global investment banking groups, offering unrivalled career opportunities.

TO £35k
+ BANK BENS
CITY

SUNOS 4.1.3

US Investment Bank requires an experienced UNIX Systems Administrator to join a dynamic high profile group responsible for delivering complex systems and providing real-time information by working closely with business and management teams. You will have extensive experience of administering SUNOS 4.1.3 in a large networked environment, also with C-Shell, Perl Scripting, TCP/IP, NFS and DNS. This is an excellent opportunity to join a 15 strong team supporting over 1000 Sun Workstations. Superb career and technical challenges.

TO £45k
+ BANK BENS
CITY

SOLARIS 2X

Specialist UNIX Consultancy requires a number of experienced UNIX System Administrators to work at some of the most prestigious sites in the City. You will have a minimum of 2 years large scale support experience with TCP/IP, NFS, NIS, SCRIPTING and exposure to an RDBMS. These are outstanding opportunities where you will be supporting and developing critical systems alongside some of the most talented UNIX architects in the UK.

TO £35k
+ BONUS
CITY

AIX

European Data Centre of major European Bank requires an experienced AIX System Administrator. You will have a minimum of 2 years AIX 3.2.5/4.1.3 and ORACLE support skills with NFS, FTP, RSH and preferably the ability to program in KSH, TCL and PERL. The Datacentre has recently taken responsibility for 30 machines and requires a Senior Technician to manage these with the ability to take on further system growth, including planning, design, installation, support and technical training. Superb opportunity.

TO £35k
+ BANK BENS
BUCKS

SUNOS PC

European Investment bank requires an experienced UNIX System Administrator to join a team responsible for supporting their fixed income trading floor. You will have 2 years SUNOS 4.1.3, PC Network Support, NT and MS OFFICE. Trading systems support is not as important as technical excellence, energy and the ability to troubleshoot effectively on your feet. This is a highly visible and technically rewarding role with a company that is in the process of rapid expansion and change.

TO £30k
CITY

HP-UX

Global investment bank requires a number of experienced UNIX Administrators. Ideally you will have 2 years HP-UX, including installation, configuration and troubleshooting, coupled with the ability to design and install NT or HP-UX networks. This is an opportunity to join an elite, strong team, supporting and designing all their UNIX (HP-UX, SUNOS) and RDBMS (SYBASE/ORACLE) systems globally. Superb technical challenge.

TO £40k
+ BANK BENS
CITY

We have an on-going requirement for talented UNIX specialists with 2 years' experience looking to develop their technical and business skills.

Please call Tim Barton on 0171 287 2525. Alternatively please send or fax your CV to us at:

ARC International, Recruitment & Consultancy Services, 15-16 New Burlington Street, London W1X 1FF.

Tel: 0171-287 2525



Fax: 0171-287 9688

Established in 1981, Oric has a reputation for excellence in the IT recruitment market. Below is a selection from our impressive range of current opportunities. For details of these and many more - or some informal career advice with no strings attached - contact one of our 15 experienced consultants or fax us your CV on the numbers featured opposite.



ORIC Computer Personnel Consultants

188 Shoreditch High Street
London E1 6HU

Telephone 0171 729 7329 and 7290

Facsimile 0171 739 5049

e mail: cv@oric.demon.co.uk

(Ascii File Format Please)

IBM MAINFRAME

MOVE TO CLIENT/SERVER COBOL/CICS/DB2

Middx

To £28,000 + bens

Nominated in the UK's 100 best companies to work for this booming retail chain has a proven track record in providing first class career opportunities. Enthusiastically committed to IT they have invested heavily in their COBOL/CICS/DB2 platform and are currently downsizing to Client Server Architecture utilising DB2 and Visual age with OS/2 and UNIX. They are a beta test site for IBM and their training is second to none. With a minimum of 1 years COBOL (ideally CICS and/or DB2) you must be bright and keen to develop new skills. Personality and potential are as important as technical skills. Call Nigel or Grant.

IKC/4798

GET SAP!

Surrey

£14,000 + bens bonus + unlimited career potential

The SAP is rising for any bright young computing graduate with a minimum of 1 year commercial experience. (This may have come as part of a degree course). SAP is the world leading integrated software package while the client is a Blue Chip SAP logo partner providing full consultancy for an impressive client portfolio. You must have had experience of structured techniques and be totally flexible with regard to travel throughout the UK and Europe. You will receive immediate cross training to ABAP 4 for work in their development centre in Surrey. Unmissable ground floor opportunity. Call Nigel or Grant.

IKC/SAP

JUNIOR COBOL - INVESTMENT BANKING

City

£16,000-22,000 + Banking Benefits

Top investment bank, is now seeking a junior Cobol analyst programmer with a minimum of 6 months Cobol (ideally with exposure to CICS/DB2/QMF/IEF). You will be working with and developing computer systems supporting all investment management business areas. The position will enable you to expand your existing skills by using a fully integrated CASE toolset (IEF) you must have experience of a project from construction through to implementation, be an effective communicator and show initiative in problem solving. Call Nigel or Grant.

IKC/0723

GRIM UP NORTH? ANALYST PROGRAMMER

Yorkshire

£23,000

Certainly not! Especially for any one with Cobol/CICS/DB2/Telnet or any combination of 3 of them. Insurance giant are expanding their IT department to cope with the increase in workload that has come with steady and unrivalled growth. Insurance experience not necessary but a clear advantage. This is a high profile role that demands a personality to match the technical expertise. Call Nigel or Grant.

IKC/5967

COBOL, CICS, DB2 ANALYST PROGRAMMER

Surrey

To £25,000

Marketing division of major player requires solid Analyst Programmers to satisfy a period of organic growth which has left the incumbent team stretched to the limit. The role requires you to work alongside the Business Analyst maintaining and re-developing on-line systems that support the marketing division of some 350 users across Europe. A clear career path to senior Analyst Programmer and beyond exists along with the opportunity to gain x-training to UNIX and newly installed multi-processing software. For further details call Nigel or Grant.

IKC/4908

ANALYST PROGRAMMERS X6 - X-TRAIN UNIFACE/SYBASE

Middx

To £26,000 + benefits + Travel

If you have good IBM Mainframe skills and wish to expand your skill set to include Uniface/Sybase or a range of PC skills then read on. Specific IBM skills are not as important as being young, bright, degree educated having good communication skills and being keen to learn. You will be working for a top financial consultancy at Head Office in Middlesex and you may be required to work on client site. The roles are very challenging and as well as learning new skills you will given lots of responsibility. If you consider yourself to be high calibre and have strong skills call Nigel or Grant.

IKC/SYB

SYSTEMS PROGRAMMER TO SAP DEVELOPER TECHNICAL ANALYST

London

£24,000 + Bens

World player in consumer products require a highly motivated individual with a broad background in programming in a IBM mainframe environment and, ideally, also midrange systems. You will perform background mainframe processing duties and also, in conjunction with the SAP development SAP applications. Clearly full training in SAP and related issues will be provided. Top class opportunity for outstanding applicants only, call Nigel or Grant.

IKC/6427

UNIX DEVELOPMENT

NETWORK MANAGEMENT SOFTWARE ENGINEERS X 5 - UNIX & 'C'

City

To £26,000 + Bonus + Benefits

This excellent company was formed in 1989 by executives with wide experience of computer and communications consultancy and systems development. They focus on delivering a mix of products and know-how to provide solutions for Network Management systems. They are looking to recruit 5 more software engineers. The skills required are 2 years UNIX 'C' experience. HP/UX and HP networks products ie. HP Openview, Node Manager and SNMP Manager are preferred but not strictly essential. Interviews will commence Monday 18th. Please ring Richard or Sabrina.

SRC/4035

COBOL

Surrey

£17-25,000 + Benefits

The Client: Is an international financial management software house providing a comprehensive range of software packages and associate services to over 10,000 clients in 160 countries worldwide.

The Role: As a member of the applications development department, you will contribute to the continuing enhancement and development of their range of packages world-wide.

The Candidate: A minimum of three years COBOL programming experience, together with experience of accounting or business software. Also knowledge and use of 4GL's or Databases, exposure to multi-user environments eg UNIX/VMS and knowledge and use of Microfocus Cobol. Call Sabrina or Richard now.

SRC/9868

X-TRAIN TO 'C'++ - NOW NEED '40' DEVELOPERS

City

To £22,000 + Benefits

Our client based in the heart of the City are starting up a new development arm for UNIX and 'C'++ developers. They are looking to recruit 40 people by the end of January. They are willing to X-train good UNIX and 'C' developers, to UNIX 'C'++, a golden opportunity to discover the value of your skills. They seek 2 years UNIX and 'C' within a comms background, followed up with a good degree. And you'll be on your way to a new proven big bucks career. Ring Richard or Sabrina.

SRC/UNIX

ORACLE/SYBASE/POWERBUILDER

PERMANENT POSITIONS AT CONTRACT RATES JUNIOR ROLES ***** SENIOR SALARIES

City

£35,000 + Banking Bens

A major merchant bank is about to begin the implementation of the Oracle Financial package. Most of the work will be on General Ledger and Purchasing. They are looking for two bright junior Financials developers (1 years minimum experience to join the internal team. This is a two year project. You will be paid 5K+ above the odds and get excellent hands on development.

IKC/6427

London (North)

To £45,000 + PRP + Bens

Global OEM has recently won 3 contracts to implement the oracle Financials package at 3 London sites. They prefer the loyalty that permanent staff offer and also the temptation of contract rates so how does £45K sound in a permanent role. You have to be bright, motivated and be able to communicate. You will be involved from the prototyping stage through to integrated implementation and bespoke tailoring. Minimum of 18 months experience preferably with both 'General Ledger' and Purchasing

Berks

To £30,000 + Excellent Bens

Fancy developing the client server version of Oracle Financials? Phone Vanessa or Thomas for more information.

ORA/FIN

EXCLUSIVE ORACLE DBA

City

£30-£35,000 + exec benefits

In 1995 ORIC assisted this company in the expansion of their IT department -- we placed 5 computing professionals with them -- all of whom are very happy and successful. This is NOW a brand new ORACLE v7/SQL Forms 4/Reports IT/CDE site and although all existing IT personnel will be X TRAINED they URGENTLY require 2 Oracle DBA's to take care of the development teams and advise management on technical issues. A solid background in database administration (any RDBMS) and c12 months Oracle v7 will win you one of these wonderful roles! We are exclusive agents to this client so please contact Vanessa or Tom for a confidential chat.

ORAC/EXEC/5

ORACLE DEVELOPERS - X TRAIN TO SYBASE

City/Docklands

£25-40,000 + Banking Benefits

One of the world's financial giants -- with an IT budget to match. This influential City corporation have so much development work on Sybase they are unable to find sufficient specialists. So on your first day they will send you on all the relevant Sybase courses enabling you to join a team developing systems for BONDS, EQUITIES and FOREIGN EXCHANGE dealers. Oracle V6, preferably with 'C' will win you one of these roles. There are 10 vacancies from programmer to Team Leader! Contact Vanessa or Tom.

ORA/XTRAIN

RISK MANAGEMENT SPECIALISTS

City/Europe/International

£30-70,000 + Bens

* Project Managers * Business Analysts * Sybase/'C'++ Developers * They are leading the field of consultancies providing risk management solutions (often on fixed price contracts) to global investment companies. The London office of this US owned corporation is currently resourcing City and European based developments. At Project Management, Business Analyst and Developer level. The Senior positions require solid Front Office/Risk Management experience. The development roles are open to Sybase and 'C' or 'C'++ specialists with 12 months+ experience with or without financial exposure. Prospects and bonus potential are exceptional. Contact Vanessa or Thomas.

ORA/RM4

SYBASE/SQL-SERVER/ORACLE GURU DESIGNER

M40 Corridor

£name your price!

If the only benefit to working in the City is the money then you should consider this. To quote the General Manager of this Marketing-led consultancy -- money is no object, just find me a designer/developer with extensive Sybase/SQL server experience LARGE databases (and these are HUGE) and I'll pay whatever it takes. (As a guideline £40-50,000 for a permanent candidate or £2,500 per week for a long term contractor). This high profile role will demand the best and offer phenomenal scope to a GURU looking for a new challenge. Contact Vanessa or Tom.

ORA/GURU

SYBASE/POWERBUILDER - CONSULTANTS

London - No mobility Required

To £40,000 + Benefits inc. Car Allowance

For example: a STRATEGIC PARTNER of the leading RDBMS and GUI SUPPLIERS they are a top rated mid sized consultancy set to expand by 100% through 1996. They have 7 immediate vacancies for Sybase and/or Powerbuilder specialists at Consultant, Senior and Principal Consultant levels. Their primary client base is London/South East working for Times Top 100 Blue Chip Plc's and major merchant banks so mobility is NOT a requirement. Superb benefits, bonus and prospects and merit. Contact Vanessa or Tom.

ORA/96

SENIOR VERIFICATION ENGINEER

City

£25,000

ORIC are currently recruiting for a top City client. An international software engineering company which specialises in the following products and services: Developing test suites; Porting UNIX system V; and providing Technical Consultancy. They urgently seek a Senior Verification Engineer. Essential skills required are: Parallel processing, concurrency management, robust parallel database techniques, MPP architecture, UNIX, 'C' and SQL. A Computer Science or Software Engineering degree coupled with two years commercial experience will also be essential. Preferable skills required: Good written and spoken English and a motivated team player. Telephone Sabrina or Richard or fax/post your c.v.

SRC/507

BACK AT THAT SAME DESK? - MAKE THE MOVE, PICK THAT PHONE UP!

Avon

£25,000 + Benefits + relocation

This client specialises in comms, real time embedded systems and other areas of technical programming, mainly written in C, C++ and various assemblers. They are recruiting for 3 people, who must have 3+ years experience in real-time low level or C++, OOD or Yourdon/Structured design with strong C/Assembler skills and strong Unix. You must be able to produce design and test documentation and have a proven track record in completing projects. Very good communication skills and ability to interface with clients are important as well as a sound technical background. Contact Sabrina/Richard now!

SRC/6491

UNIX/C/RDBMS

Herts

£30,000

The client is one of the leading suppliers of performance information to the motor industry. The successful candidates will become part of a project team set up to develop a data warehouse and associated applications used to supply marketing information. The project team will be staffed with personnel from their UK offices and from their US associate company. There will be the prospect of foreign travel to assist in the implementation of the systems in the non-UK markets. Applicants will require strong demonstrable 'C', SQL and strong Oracle skills. Fax/Post CV's or alternatively call Richard or Sabrina immediately!

SK/5716

HOW'S THE HANGOVER - UNIX DEVELOPERS

City/Kent

£25,000-30,000

If you have UNIX C++, Windows Architecture, Windows NT or Oracle V7.1 you could be cross trained to Oracle V8.0. Our client who is partially owned by the largest insurance company in the world, can offer cross training into any of the above platforms. Positions are available in either the city or Kent with the kind of heavy weight technical environment you only read about. Bright, articulate, with a desire to succeed. If you have strong UNIX and C they'll do the rest. Start the New Year heading in the right direction. Please ring Richard or Sabrina.

SRC/4031

PC SUPPORT

THE POSTMAN KNOCKS TWICE NOTES/CCMAIL ENGINEER

Sussex

Our client is looking for top Lotus Notes/CCMail specialist engineers with excellent LAN WAN skills. You would preferably have at least 2 years hands-on experience in a commercial or financial environment with an aptitude for consultancy. A competitive salary with excellent benefits, is on offer as is x-training onto NT and OS/2 platforms and excellent career prospects. Call Killian, Damien or Nick. **£25,000 + Bens + Car** DKU/2034

Surrey

96 STARTS HERE! - UNIX - ORACLE - NETWORKS

To £27,000 + Car + Benefits

This client has posted 46% profit on their '95 T/O with similar projections for '96. They are a rapidly expanding software house specialising in the finance market with a market leading UNIX-Oracle, Client Server package. Technical Support Specialists are urgently needed to install, (on a world wide basis) and provide 2nd line support on this package for major corporate clients. It's a work hard but play hard environment with excellent financial and career prospects. You will need excellent communication skills and in-depth Oracle, Unix and client server technical expertise to secure yourself an interview. 96 could be your year! Call Damien, Nick or Killian now! **CT/6507**

AS400

JBA TO CLIENT ANALYST PROGRAMMER

Wilts

£25,000 + Co + Car + Benefits

A new year, out with the old and in with the new. A unique opportunity has arisen for a top notch Analyst Programmer to join a progressive IT department. Ideally you will have a minimum of 2 years RPG400 programming experience together with solid analysis skills. In this role you will work with all modules of JBA and play an important part in moving the systems towards Client Server. You will gain valuable cross-training into open systems. This is a challenging role and not for the faint hearted, if you feel you could excel in this role. Don't delay call Valerie today. **VEC/7802**

AT LAST A JOB FOR A JUNIOR RPG PROGRAMMER

Berks

£22,000 + Benefits

Are you fed up reading all the exciting jobs in the computer press only to discover you need a minimum of 2 years programming experience? Well this is a one off! At last here is a company prepared to offer a chance to a real junior with 6 months RPG400 experience. You will join a progressive IT function and work on exciting EPOS systems and gain valuable cross training into Visual Basic. This will enable you to make a mark in a growing organisation. Call Valerie. **VEC/1500**

MAXIMISE YOUR IBIS - ANALYST PROGRAMMER

City

£35,000 + Banking Bens

Do you have over 2 years experience working with IBIS? Do you want a career move, a new challenge and an increased salary? If so this role is for you! Read on! An international merchant bank seeks a top notch IBIS specialist to join their development team. While working with this prestigious organisation you will be involved in customising the latest release of IBIS to meet the bank's needs. This is a very challenging role and offers a solid career path. Call Valerie. **VEC/4629**

CROSS TRAIN TO SYNON - RPG400 PROGRAMMER

City

£22,000

A sparkling opportunity has opened up for an RPG400 Programmer with solid coding skills to join this dynamic international distributor. You will also gain the opportunity of training onto Synon/2. This is a new role and it will provide you with the chance to develop solid analysis skills. While working with this market leader you will receive an excellent basic salary and benefits you would expect from a Blue Chip organisation. Call Valerie. **VEC/1501**

INGRES/INFORMIX

INGRES ANALYST PROGRAMMER - X-TRAIN TO CLIENT SERVER

London

To £25,000 + Bonus + Travel Allowance + Bens

As one of the top Property Consultancies in the world this major end-user's IT systems are vital to the continuing growth of the organisation. Based in prestigious offices in Central London they offer the opportunity to develop your 2-3 years of INGRES, UNIX and 'C' skills and X-train to client server technology. Young bright and enthusiastic personality and good education will provide you with the tools to succeed in this dynamic environment. Call Anita or Chris. **DC/0701**

X-TRAIN TO GUIs, PCs AND MORE! ANALYST PROGRAMMER

City/Herts

£20-25,000 + Bonus

As a small, but hugely successful consultancy, this dynamic young company have developed a reputation for handling quality projects for house-hold name clients. Their future growth depends on the high calibre of their technical staff. As part of their team you will receive excellent x-training to Windows 4GL, Access, Paradox and a variety of new technologies. Using your solid INGRES development experience you will work on challenging projects (initially based in the City). Your skills include good 'C', UNIX, SQL and ABF, and a motivated and bright personality. The role includes exposure to full project lifecycles, client and user liaison and the opportunity to progress your career in a superb environment. Call Anita or Chris. **DC/9468**

INFORMIX - INFORMIX - INFORMIX

City

£22,000 + Benefits

Informix 4GL Analyst Programmers are required by fast paced, highly pressurised company. You will ideally possess a working knowledge of C and be familiar with networking, but this top company will consider all Informix 4GL candidates. This is a chance to truly progress your career. Highly motivated people ring Anita or Chris immediately! **DC/9279**

INFORMIX X-TRAIN TO CLIENT SERVER!!!

City

£23,000 + Benefits

If you enjoy varied work this may be the job for you! Top city based software house requires Analyst Programmers with strong Informix 4GL within a commercial environment. You will be involved in a mixture of support and development, dealing with clients and writing bespoke systems. Any exposure with Gupta or Visual Basic would be helpful. X-training to client server, ring Anita or Chris today and find out more! **DC/CLIENT**

PICK/PACE

PACE - X-TRAIN TO CLIENT SERVER & EDI!!!

City

£28,000 + full benefits

If you are a PACE guru, then this is the break you have been waiting for! Blue Chip insurance company requires Analyst Programmers with thorough knowledge of PACE 220 in an insurance environment with full development life cycle experience. X-training to Client Server and EDI and excellent remuneration package await the right candidate. Don't miss out on this chance of a lifetime. Call Anita or Chris today! **DC/1094**

PICK YOUR CAREER UP!!

W. Yorkshire

£22,000 + Benefits

PICK Analyst Programmers on the move. This is for you! Top of the line software house requires PICK Analyst Programmers with at least 18 months experience in a manufacturing environment. If you are looking to progress your career one step further then get in touch with Anita or Chris today. Highly motivated people only! **DC/8412**

VISUAL BASIC/ACCESS

WORLDWIDE INSURERS - ANALYST PROGRAMMER

Hants

£23-27,000 + Major Bens

If you're a sure fire PC developer then this is for you. Europe's largest insurer has a development team with Visual Basic and Visual Foxpro, Oracle and Sybase as client server. They're developing new quotation and telemarketing systems in the first 3 months of 96 and then moving onto new structural developments. All you need is over 12 months Visual Basic or Access and a fresh approach. Greet the New Year. Call Michael or Alain. **MLC/2507**

RETAIL ANALYST PROGRAMMER

Berks

£22-24,000 + Bens

A Fortune 500 American retail company, with 1400 stores in the US is rapidly expanding in the UK. They currently have 52 stores here and are moving into Germany soon. To incorporate these expansion plans they're developing major new order entry and reporting applications for EPOS, VISUAL BASIC, SAGE, ODBC and AS400 on Novell. This company is going places and needs one enthusiastic and career oriented developer with at least 12 months Visual Basic. European travel is a definite possibility and the career prospects exceptional. Do not miss the boat. Call Michael or Alain. **MLC/1500**

HEAVY ACCESS DEVELOPMENT X-TRAINING IN VISUAL BASIC 2 X ANALYST PROGRAMMER

Surrey

To £24,000

An award winning finance software consultancy is offering full life cycle development on 3 main projects in actuary and finance. They are true finance market leaders developing mainly in ACCESS and moving to VISUAL BASIC and SQL SERVER in the first quarter. The job will involve heavy prototyping and x-training within an enthusiastic growing company. This involves a good package with regular reviews. Get your career onto the fast track. Call Michael or Alain. **MLC/4291**

VISUAL BASIC CONSULTANCY

West London/City

£26-32,000 + 15% Bens + Car

This rapidly expanding technical consultancy, are developing their data warehousing applications and they require your help. They are a very GUI based company dealing with front end software, and now they urgently need someone with excellent analysis skills and database design experience. A very important factor, is good interpersonal skills as this is a client facing, consultancy type role. Your technical skills should consist of as many of the following as possible; Visual Basic, RDBMS (cross training is provided) C, C++ and SQL. Get on the phone and give Michael or Alain a call. **AVG/7223**

HIGH PROFILE POSITION WITH WORLD WIDE TRAVEL AND CROSS-TRAINING OPPORTUNITIES

Staffordshire

£15-17,000 + Excellent Benefits

A commercial company that develops bespoke software for the advertising industry is on a recruitment drive and requires 6 Analyst Programmers and a Team Leader. They require innovative developers for the full life cycle development project including test site implementation in the USA and live installations globally. World Wide travel is a distinct possibility. You need a degree, with at least 12 months Visual Basic development and ideally 5 years Clipper experience (two solid years of Clipper development is acceptable) Good SQL and Client Server experience is an advantage. Excellent prospects await you! Call Michael or Alain. **AVG/7468**

WHAT YOU NEED IS FINANCIAL MARKETS SENIOR ANALYST PROGRAMMER

Bucks

£25-27,000

We have a highly innovative software house specialising mainly in the financial markets area, keen to recruit a solid developer with minimum two years VISUAL BASIC and ACCESS experience. They develop complete bespoke business systems and are currently working on projects for the derivative arena. Working in a committed team of seven, the company is rapidly expanding, and offers swift career progression with solid training. Interested? Then call Michael or Alain. **MLC/9880**

C/C++

PROVE YOU'RE THE BEST - ANALYST PROGRAMMER

Berks

To £30,000 + Relocation

This New Year you will have probably made a number of resolutions. The most important of which is to get your career back on track. This has got to be the job for you. Using your strong OS/2, C and Presentation Manager experience you will be required to develop policy management systems for a UK and American client base. This UK arm of an American company will provide full training on all of their systems and this entails you spending your first 6 months of employment in the States where this training is held. Call Elaine. **PCD/6321**

MANAGEMENT CONSULTANCY MOVES

London

£25-35,000

Six years ago this management consultancy was formed to provide business consultancy services for some of the UK's top blue chip companies. A steady rate of growth and diversification has led to an increasing emphasis on the development of innovative MIS and Decision Support Systems. They are therefore seeking a highly motivated Analyst Programmer who has the capability to take on a fully fledged management consultancy role. You will have a strong academic background coupled with business acumen and the ability to learn new skills very quickly. Technically you should have some of the following: 'C/C++/Windows/Delphi/Visual Basic/Powerbuilder. You should also be willing to learn additional skills and put them to practice within short-time scales. If you have initiative, flair, self confidence and the will to succeed, this is an outstanding opportunity to fast track your career and to gain superb financial rewards. Call Elaine. **PCD/1455**

NEW C++ PRODUCTS

London

c£25,000 + Bonus

This consultancy develop advanced HR and personnel systems to a rapidly expanding base of Blue Chip organisations. They now require a further developer to design and code a growing range of products. An accomplished Analyst Programmer you will have experience of developing Windows/C++ applications, database management systems and analysis and design methodologies. Call Elaine for more information. **PCD/9819**

SURFERS REQUIRED

Hants

£20-25,000

This developer of electronic mailing systems require an experienced Analyst Programmer to join their rapidly expanding team. Based in the heart of Hampshire you will be developing these systems in C and Visual C++ with SDK/MFC under Windows 3.11. With 2 years plus commercial development experience it is advantageous if you also have a good understanding of Comms/Networking. This is your chance to join the world of the Internet and WWW. Training will be provided to enhance your OO design and analysis skills. Take this super highway and see your career soar. Call Elaine now. **PCD/9989**

PICK A HOT PROSPECT WITH PICK!

We have numerous amazing Pick opportunities on offer - x-training to state of the art technologies - exciting projects, progressive companies and superb packages:

| | | | |
|-------------|-----------------|------------------------------------|---------------------|
| Anal/Prog | - Berks | - Learn C++, superb package | - To £30,000 |
| Prog | - W Mids | - Train into SB+/networks | - £15-20K + Bens |
| Anal/Prog | - Tyne & Wear | - X-train to PACE+Unidata | - To £23,000 + Bens |
| Anal/Prog | - London | - Get into Financials! | - £20-£25K + Bonus |
| Developer | - Northants | - Universe-superb prospects! | - To £19,000 |
| A/P/Sppt | - Herts | - X-train to state of the art tech | - To £25K + Bens |
| Prog & A/P | - Surrey | - 4GL's & Unidata training | - £20-24K + Bonus |
| Team Leader | - Surrey/London | - challenging prospects! | - £20-30K Bonus |

Call Anita or Chris.

DC/PICK

Software Personnel plc

Locations

Bath

Birmingham

Bristol

Central London

Christchurch

Colchester

Coventry

Croydon

Edinburgh

Leeds

Manchester

Nottingham

SP3A

Software Personnel Plc
19 Park Street
Croydon
Surrey CR0 1YD
Tel: 0181 680 5920
Fax: 0181 760 0894

SYSTEMS DEVELOPER

London **Circa £25K**
An investment firm are currently looking to recruit a talented Developer with a solid background in MS:ACCESS, VISUAL BASIC and MS:OFFICE. You will need to possess strong analytical skills along with good communication and interpersonal qualities, as well as proven development experience. Also, a familiarity with formal project planning concepts and tools would be advantageous. Ref: JH/01

ANALYST/PROGRAMMER

City, NW **Up to £29K**
A financial organisation is looking to recruit an Analyst/Programmer. The role will involve enhancing and improving current business requirements, development and design throughout the full project life-cycle. Suitable applicants will have at least 3 years experience using PL/1, as well as knowledge of MVS/JCL and TSO. REF: JH/02

ADABAS NATURAL INSURANCE

City **To £30K**
We are currently seeking Natural V2 professionals for a major insurance organisation in the City. There are currently two urgent requirements for a Database Administrator and an Analyst/Programmer. To qualify you will possess expertise in Natural V.2, ideally gained within an insurance based environment with some exposure to UNIX. Successful candidates will be capable of working under pressure and to strict deadlines. Ref: AE1

PC SUPPORT ANALYSTS

W. London **To £22,000**
This renowned entertainments organisation require technically competent professionals to join a busy, challenging team responsible for diagnosing and solving all-technical problems. First class communication and problem solving skills are required as is the ability to understand and work to agreed Service Level Agreements (SLA's). Technical skills required are as follows: Microsoft Windows, Word, Excel, Lotus 123, Novell Netware. Ref: AE2

C++, VISUAL BASIC - BANKING

City **To £35,000**
Trading Systems Analyst Programmer is urgently being sought by this renowned banking institution. Successful candidates will possess excellent C, C++ and Visual Basic programming skills coupled with the ability to work to tight deadlines and under pressure. Excellent career growth and challenges on offer. Ref: AE3

CONSULTANTS

London **£25K+**
Graduate I.T. professionals are urgently being sought for challenging opportunities within a consulting environment with prestigious clients throughout the UK. To qualify you will require a 2.1 degree or above with 3 yrs+ commercial IT experience to include solid skills gained within Programming, Analyst and Design covering C, C++, UNIX and Relational Database skills. Excellent career growth and training is provided. Ref: SPA/1

TECHNICAL SUPPORT

Surrey **To £20K + Bens**
Busy Electronic Trading Environment currently require a competent PC Support professional to provide first line support for internal office services including LAN, Novell Netware, Microsoft Windows and related office applications and tools in a continuously evolving technological environment, and will have a flexible attitude, be able to work effectively within a team and just as efficiently on their own. Ref: SPA/2

PROGRAMMER

City **£20-22K + Banking Bens**
Retail banking institution currently seeking a bright competent I.T. professional with solid programming expertise gained within a UNIX and C environment. To qualify you will have a high level of enthusiasm and commitment. Individuals possessing POWERBUILDER knowledge will receive preferential treatment. Ref: SPA/3

CLIENT/SERVER DEVELOPMENT

Surrey **To £45K**
Due to unrivalled success of its range of specialist financial software, this international consultancy continues to go from strength to strength. The products are sophisticated both in their functionality and technical flexibility, based on the latest client/server technology. They are now looking for four additional team members with solid client/server skills and all-round project experience to take their product range into the next century.
Design Developers - C, UNIX, GUI, SQL
Technical Architecture Specialist
Database Administration/Support
To find out how you can be a part of this growing team environment call us now. Ref: CH/1

SYSTEMS INTEGRATION SPECIALISTS

City **£30K package**
These roles offer all-round project exposure with responsibility for the design development and implementation of infrastructure and desk-top solutions. With broadly-based networking skills and excellent project-planning experience you will thrive in a dynamic team-driven environment. In addition you should offer specialised skills in one of the following areas:
Lotus Notes Implementation
E-Mail (ideally CC-Mail) Integration Ref: SJF/101

PC DEVELOPER

Wimbledon **£18,000**
There is an opening for a bright IT professional working in a busy MIS Department. You will have indepth knowledge of CLIPPER 5.2 and Visual Objects, and will be able to analyse, specify, produce and maintain systems that support the business operation. Ref: SJF/102

TEAM LEADER/SENIOR ANALYST PROGRAMMER

City **To £30K Package**
Excellent opportunity to make your mark within this high profile project environment. Co-ordinating the analysis design and implementation of business-critical solutions you should possess a blend of project/team leading skills and hands-on technical knowledge. If you have a solid background in mainframe systems development with strong COBOL and database skills (ideally IDMS) we would like to talk to you. REF: SJF/103

STOP PRESS

| | | To £27K | City |
|-----------------|-----------------------|----------|-----------|
| SYSTEMS ANALYST | Lloyds Market | To £27K | City |
| PC WINDOWS A/P | Retail | To £26K | C. London |
| PROJECT MANAGER | Outsourcing | To £40K | UK Wide |
| SYSTEMS MANAGER | AS400 & Novell | To £30K | Middx |
| PROJECT MANAGER | Pan-European Projects | To \$40K | Middx |
| AS400 A/P | RPG400, CL, SQL | To £30K | C. London |
| UNIX & C PROGS | Services | To £30K | London |

Contact:

CATHERINE HEATHH
ANNETTE EDWARDS
JOHN HAGEN
SARAH FAULKNER
SANJAY PATEL

creating effective partnerships

ORACLE PROFESSIONALS - SURREY

Unique Career Opportunities

Rare opportunity for Oracle professionals seeking an exciting career challenge matched by the promotion and rewards that growth will bring.

We provide a range of widely acclaimed software tools and consultancy services to an impressive and increasing client base, which includes the unprecedented success of our GUI*Converter tool for automatic migration to the latest Forms 4.5 Windows platform.

TECHNICAL CONSULTANTS

All Levels to £40,000
+ car/bonus/etc.

Presentable with good communication skills and solid practical experience of the ORACLE toolset. To work at the leading edge of ORACLE technology in a variety of projects & consultancy, pre/post sales software support and customer presentations.

ACCOUNT MANAGERS

£60,000 OTE unlimited
+ car/etc.

Highly motivated self-achievers with a track record in software or consultancy sales. To provide a major contribution in the marketing and sales of our products and services to an impressive portfolio of clients backed by full admin. and technical support.

Start the New Year with fresh ambition
Open evenings available now for early interview
Just post or fax your CV or telephone us today

Sequel Technology

Galleon House, Lion & Lamb Courtyard, Farnham, Surrey GU10 2LT
Tel: 01252-734321 Fax 01252-734355

DEVELOPMENT ANALYST/PROGRAMMERS

£18 to 25K + Benefits

Farnham, Surrey

ForStar Developments Ltd is a highly successful consultancy and software development company specialising in the Gas and Electricity Industries. As a result of continuing rapid expansion of our business in the UK and abroad we are seeking experienced software engineers to join our project and product development teams.

Since its foundation in 1990, ForStar has become the leading supplier of energy trading, contracts administration and billing systems to the Gas and Electricity industries. Our continuing successful growth has created vacancies for experienced analysts and programmers. Ideal candidates will have had at least 2 years experience with a leading systems house in applications development on client server platforms in a Windows/Oracle environment.

As an associate company of the ABB group, ForStar offers the career opportunities and flexibility of a rapidly growing organisation combined with the security of a major international concern.

For further information contact Debbie Hopkins, ForStar Developments Ltd, Tilford House, Farnham Business Park, Weydon Lane, Farnham, Surrey GU9 8QT. Tel: 01252 732100. Fax: 01252 732110.

Technical Software

Broadcast Systems

Herts £20k+
This company is a forward looking software developer specialising in advanced projects including spacecraft control, simulation, and medical systems. The current major project is the design of a real-time Teletext Broadcast System for newsroom services for which they are seeking two additional Software Engineers. The preferred skill set needed is a degree plus good experience of C++, and a knowledge of MS Windows would be a bonus. The company environment is professional yet informal and friendly. There is a further position available for a Junior Software Engineer with experience of C++ gained at University.
Contact: Dom Santorelli Quoting Ref: DS0100

OS-9 Software for Europe & US

Bucks/Berks to £29k
The leading OS-9 company specialising in embedded software design for engineering and scientific applications offers you the chance of European and States travel. The company requires an additional Software Engineer with good OS-9 experience to join the team. Knowledge of 'C' or other high-level languages will be useful. BSc/HNC qualification required. In addition to an attractive salary a first class benefits package is on offer.
Contact: Dom Santorelli Quoting Ref: DS0101

Multi-Threaded Software

Surrey £15-£22k
Our Client is a medium-sized system design and development company with an enviable record of delivering software solutions for a wide variety of projects such as image processing, simulation, modelling, recording systems, data analysis and information systems. They are offering several positions to bright young Software Engineers to sharpen their skills within the small design teams working on similar advanced projects. You should be qualified to degree level and have good experience of C or C++. Knowledge of Windows would be a bonus. The experience range could be from graduate level to two years of industrial experience.
Contact: Dom Santorelli Quoting Ref: DS0102

Global Datacomms

Bucks to £28k
This young company is responding to the increase in world demand for real-time data comms networks and terminal equipment by the design of its products using next generation technology. If you are a Software Engineer and looking for a career boost then you will need a degree, good experience of C and ASM ideally gained in comms or datacomms environment. Hardware design would be useful.
Contact: Dom Santorelli Quoting Ref: DS0103

GIS Imaging Software

Surrey to £28k
A medium sized well established electronics company is expanding into GIS Imaging Systems and is at the team building stage and you could be in at the start. The initial requirement is for a Software Engineer with a degree and good embedded C design experience. Very useful additional skills could include Windows or Maths.
Contact: Dom Santorelli Quoting Ref: DS0104

ISDN/DPNSS

Various to £28K
I am currently dealing with a number of communications developers throughout the UK who are seeking experienced Hardware and Software Engineers. You will be educated to degree level and have at least twelve months post graduate ISDN/DPNSS etc. experience preferably coupled with some of the following: DASS2, PABX, Q931, X25, TCP/IP, C, Pascal, Unix, MSDOS.
Contact: Adrian Wagstaff Quoting Ref: AW0121

C/C++ for Comms

Hants/Cambs £18-£36k
Two significant design consultancies undertaking communications software design for "the majors" will certainly stretch your skills working on the new generation of software for GSM/mobile systems. They are looking for Software Engineers with a degree and good experience of C or C++ ideally gained in a telecommunications environment. Knowledge of OOD would be useful as would comms protocols - mobile or fixed network.
Contact: Dom Santorelli Quoting Ref: DS0109

Software for PMR

Middx/Bucks Border to £28k
Major company specialising in the design of Personal Mobile Radio (PMR) Systems is commencing the design of a new range of designs based upon state of the art technology—you could be involved in this project at a very early stage. The requirement is for an additional Software Engineer with good experience of C or C++. Although a background in communications would be useful this is not essential and other skills such as Windows, Device Driver level design, GUI, MS/DO, OS2 would be beneficial. The company is very professional and has a long history of philanthropic and charitable ethics. Degree essential.
Contact: Dom Santorelli Quoting Ref: DS0110

3D Graphics/Multimedia

Berks/Surrey to £23,000
This young dynamic developer of 3D graphics software is seeking two Development Engineers. For the junior post you need to have achieved a good degree and have an indepth knowledge of C. For the senior post you need at least two years C and Unix experience and some exposure to C++, Windows, MSDOS. You will be involved in the development of the company's next generation products which will keep them firmly at the forefront of technology well into the next century.
Contact: Adrian Wagstaff Quoting Ref: AW0125

3D/VR for Networks

Berks to £30,000
Network Management Software—with a twist. The job is to investigate the use of 3D and virtual reality techniques and apply them to network management. You must have solid C/C++ experience, ideally with OpenGL (or any 3D graphics libraries) knowledge and strong PC or UNIX development skills. Real leading edge stuff.
Contact: Mike Jenkins Quoting Ref: MJ0113

PC Based Racing Software!

Surrey to £28,000
Imagine seeing the systems you have developed screaming around the top motor racing circuits worldwide every other Sunday and the feeling of achievement you will get when your system wins the constructors world championship. Well imagine no more, use the real time embedded C and PC/DOS experience you have to give you the reward you deserve. You will be developing data acquisition and telemetry systems used by one of the leaders in the above field. An exciting environment in which to further your career.
Contact: Adrian Wagstaff Quoting Ref: AW0123

UNIX Kernel Specialist

Berks to £35,000
This developer of Unix based fault tolerant computer solutions for the telecommunications industry are entering a planned phase of expansion. They now seek Kernel Specialists who have achieved a good degree and who have spent at least two years developing Unix based applications at Kernel/Device Driver level. You will be technically stretched developing solutions for the telecomms industry throughout the next century
Contact: Adrian Wagstaff Quoting Ref: AW0124

Firmware Development

Midlands to £23,000
World leading developer of PC systems and software are seeking high calibre Firmware Engineers with at least 3 years 80★86 assembler in a PC environment and a good hardware knowledge. Excellent training, personal development and a first class working environment are just part of the rewards on offer.
Contact: Adrian Wagstaff Quoting Ref: AW0120

Interactive TV

West London to £30,000
A well established R&D company specialising in the design and development of embedded systems for primarily Interactive TV and associated technologies. A number of positions for experienced 'C' programmers with either interpreter/real-time experience or C++ programmes with either UNIX or Windows MFC experience.
Contact: Mike Jenkins Quoting Ref: MJ0114

3 ISDN Software Engineers

Berks to £30,000
To specify, design, develop and test software and firmware on both new and existing ISDN products. A very broad remit to include Windows device drivers, DSP development, 68K Assembler programming and Visual C++!! Datacomms experience essential. Not for the faint hearted
Contact: Mike Jenkins Quoting Ref: MJ0115

Cable TV - Video Routing

Sussex to £24,000
Probably Europe's leading developer of video routing/switching/control software for the Cable TV industry. Loading for software engineers with Visual C++ and WINDOWS experience from either a control or SCADA background. A real "engineers" company with amazingly complex and challenging work.
Contact: Mike Jenkins Quoting Ref: MJ0116

PCMCIA-CD Rom

Yorks £Neg
Small company involved in CD-ROM development urgently require a low level PC developer to write device drivers for PCMCIA cards. Knowledge of C/C++ for Windows 3.1 or Windows 95 would be particularly relevant with OS2 WARP being useful. Excellent opportunity
Contact: Mike Jenkins Quoting Ref: MJ0117

Video Effects Software

London to £30,000
The small autonomous software development arm of a major video/broadcast company require exceptional software designers to develop painting/animation/special effects software. Good degree essential together with C/C++, UNIX or Silicon Graphics/2D experience. Amazing company and work.
Contact: Mike Jenkins Quoting Ref: MJ0112

Call Processing

Middx to £27,000
An excellent opportunity to join this innovative telecomms developer at the beginning of this "ground breaking" project. You need at least two years post graduate Unix development experience gained within a communications environment and some of the following: C, EuroISDN, DASS, DPNSS. As it is company policy to promote from within your career progression is assured.
Contact: Adrian Wagstaff Quoting Ref: AW0126

MAC Developers

Bucks to £30,000
This fast expanding developer of PC compatible and emulation software are seeking high calibre Apple Mac Developers. You need C, Assembler and low level systems development skills and some of the following: PowerPC, MacOS, Apple Talk, Mac Toolbox, Low Level Device Driver, C++, File Manager.
Contact: Adrian Wagstaff Quoting Ref: AW0122

Please contact the appropriate consultant at:

Executive Recruitment Services

Boundary Way, Hemel Hempstead, Herts HP2 7RX

Tel: 01442 231691, 01582 456417 eves/weekends or Fax on 01442 230063.

Internet: executive@ershemel.demon.co.uk



Your Head

Extremely practical start for 96

Extremely professional

VALENTINE

P.C. SUPPORT

CONTACT: Dean Ridgewell,
Julia Kenny, Jamie McIver

PRE SALES TECHNICAL ROLE

SURREY **£25,000 + CAR**
Rapidly expanding Technical Solutions Providers based in Surrey, are currently looking to recruit high calibre Pre Sales individuals to join their competitive team. The ideal candidate must have good general knowledge of LAN's WAN's, Comms, TCP/IP and ISDN with basic PC Software knowledge also being desirable. Successful applicants must be able to discuss requirements and solutions in a broad range of areas. This is a challenging yet rewarding role for the right candidate. REF: 1231.

MICROSOFT SUPPORT

KENT **£16-20,000**
A well established Recreational Organisation are looking to recruit the expertise of Support staff for their offices based on the Kent Coast. This varied role will put to use your experience in Windows NT and Workgroups. Experience of any other popular Network Platforms, would certainly work to your advantage. If you can display these skills and are interested in working for a company who can progress your skills and career, call us now. REF: 1161.

VOICE SPECIALIST

SURREY **TO £28,000**
An internationally renowned training company currently require the talents of a Voice Data Technician. The ideal candidate will hold at least two years experience Supporting and Integrating Voice Data Products i.e. ISDX, ISDN and X25. Additional solid experience with LAN's and WAN's is also essential as is ambition and the ability to work well under strict deadlines.

IT MANAGER

SURREY **TO £27,000**
Large Engineering/Manufacturing Organisation with impressive offices throughout the UK are looking for an exceptional IT Manager. The ideal candidate will have had previous Management experience preferably in a Manufacturing environment. Technical knowledge must include Novell Network, MS Office, Windows and Paradox with additional knowledge of UNIX and Financial Systems being highly desirable. The Organisation is currently introducing a new business system making this position an interesting opportunity with plenty of scope.

WINDOWS NT/MCP

CITY **UP TO £28,000**
Microsoft Solution Providers are looking for a Windows NT Support Specialist to join a six man Support Team responsible for Installing and Supporting Microsoft Products to Financial Clients in the City. Technical knowledge must include Windows NT, MS Office and Windows 95 with an MCP qualification being highly desirable, however for the right candidate there is opportunity to be trained to become an MCP. An excellent opportunity to work with state of the art technology in a first class organisation. REF: 281.

P.C. DEVELOPMENT

CONTACT: Adam Jouning
Tom Moffatt, Rebecca Kier

FOXPRO DEVELOPER

SURREY **TO £20,000**
Having recently moved to smart new offices in the Surrey area, this rapidly expanding direct marketing company are looking for good Foxpro Developers. The successful candidate will have a minimum eighteen months experience in a MS DOS or Windows environment and any Visual Basic knowledge would also be highly desirable. As part of an ever growing department the position is to produce efficient database systems to house the company's transactions and client base information. This post presents an invaluable opportunity for suitably talented and motivated IT professionals to become involved in a dynamic and exciting company.

VISUAL BASIC TEAM LEADER

SURREY **TO £20,000**
This well established Financial Services Company are looking for a Senior Visual Basic Developer, ideally with good knowledge of MS Access, Windows NT and/or any Telecomm experience. Leading a team of three, you will be responsible for overseeing the development of Financial Software Products for a wide range of blue chip clients. You must demonstrate not only sound technical knowledge but excellent interpersonal and communications skills as well as showing initiative and a willingness to impress your own skills upon the members of your team. An excellent opportunity for a technically strong and forward thinking Team Leader to join a like-minded department.

GRADUATE C++ DEVELOPER

BERKSHIRE **TO £16,000**
This exciting and expanding Software House are looking for a keen, highly motivated individual to join their fast moving company based along the M4 corridor. Working on Management Systems it is the ideal position for anyone with at least six months C++ experience, preferably in a commercial environment. Key attributes include a willingness to learn, become involved and an interest in cutting edge technology. It presents an excellent opportunity to tie your career to a successful and highly respected software solutions company.

DEVELOPMENT & SUPPORT PROGRAMMER

BERKSHIRE **TO £25,000**
Due to continued expansion our client, an established and successful Software Solutions Consultancy, require an excellent Development/Support Programmer to join their team in Slough. A graduate, essential skills must include a minimum of two years Visual C++, some C++, some GUI interface design and Comms (TCP/IP and Winsock) are important. Also beneficial are UNIX, Win 95 and Windows NT. The role consists of the Development and Support of A Windows based Enhanced Terminal Emulation and GUI tool, developer using C++, Windows, Win 95 and NT technologies. In addition to the above technical skills, flexibility and an ability to adapt to a variety of challenging situations are required. If you think you would be suited for this position please contact us ASAP.

CERTIFIED VISUAL BASIC

SURREY **TO £20,000**
This successful Software House plan to continue their expansion well into 1996. Specialising in producing products into the Insurance market, their client base consists of mainly Blue Chip clients. Suitable applicants will have a minimum of twelve months commercial experience, and in return will be given the opportunity to sit exams for Microsoft Certification. This opportunity is ideal for talented Developers looking to make their second career move.

SELLING VISUAL BASIC

BUCKS **TO £30,000**
Expanding Sales and Marketing Organisation, with a serious expansion plan for 1996. Our client is currently looking to recruit Developers with a strong background in Client Server applications. Applicants should have at least eighteen months Visual Basic experience, and for the more senior position a background in supervising Developers. Responsibilities will include developing applications ranging from production to sales.

GRADUATE C/C++

BERKS **TO £22,000**
A Software House that have expanded beyond all expectations are currently looking for high calibre Analyst Programmers. Involved in integrating GUI and Windows applications, you will be joining a young and dynamic development team. Successful candidates will have been educated to degree level, have a minimum of one years commercial experience using C and Visual C++, and ideally have exposure to Windows technology. Ambitious individuals will be offered excellent career prospects and be exposed to leading edge technology.

AMBITIOUS LOTUS NOTES DEVELOPER

CENTRAL LONDON **TO £45,000**
This small, tightly knit IT Consultancy are looking to expand their operations into the New Year by bringing on board up to two Lotus Notes Developers in their new Central London office. The role is primarily to design and develop customised IT Solutions for a wide variety of clients ranging from small organisations to large Financial Institutions, however, it will require the ability to adapt to a number of diverse roles too. The successful applicant should have eighteen months to two years Lotus Notes Development experience, preferably in a commercial environment, whilst other highly desirable skills include Visual Basic, SQL and Networking knowledge. Candidates must not only be extremely proficient technically but also be highly motivated, have very good interpersonal skills and be able to communicate their ideas efficiently to clients and colleagues alike for this challenging yet rewarding role. REF: 1265

TEL:0171 486"0"486 FAX:0171 486 1608



SCOT

For further information
on these or any of our
100's of other vacancies
PHONE, FAX, or POST
your C.V. to:
Valentine Scot, P.O. Box
8155 London W2 2GW

REGIONAL

CONTACT: James Burdett
Simon Cole,

SCIENTIFICALLY C++

LONDON TO £25,000
Multi-million pound organisation with a well established and respected reputation in the world of science. Vacancies currently exist for Developers with a minimum of twelve months commercial experience in C/C++ in a DOS and UNIX environment, to enhance and develop new as well as current systems. The IT department is exposed to the latest technology, and offers applicants a structured and interesting career path.

LITTLE CLIPPER

LONDON TO £16,000
Based in prestigious offices in Central London this impressive Media Organisation are currently looking to recruit a Junior Programmer. Initially responsibility will involve design and development on existing Clipper applications, but the long term plan is to move onto GUI technology. Successful applicants should have a minimum of twelve months commercial experience, be educated to degree level, and the personality to liaise with Users. This is a perfect opportunity for Junior Programmers to make their first move.

BUILDING VISUAL BASIC

MIDDEX TO £25,000
An opportunity currently exists for an experienced all round Developer. Our client, an established construction organisation is currently looking for an Analyst Programmer with two years Visual Basic, using Access and ideally exposure to NT Groups and SQL Server. Joining a development team of three, you will be involved in designing reports, and analysis of tables. The successful applicant will be exposed to leading edge technology in a structural environment.

C JUNIOR

SURREY £14,000
Six years of continuous growth producing successful systems into the IT market. Our client a dynamic software house are looking for a Junior Programmer to join their five man IT department. Successful applicants will have at least twelve months experience in C, ideally on both DOS and UNIX, the ability to work in a team, and a positive approach to their career. This is an ideal opportunity for programmers looking to make their first move into the IT world.

NT SUPPORT

OXFORD £25-55,000
A rapidly expanding Software House currently in overdrive need a range of NT Specialists to join their team. You must have excellent Support experience of NT, one to three years experience and preferably have a Microsoft qualification such as an MCP/MCSE. A thorough knowledge of MS Software is also a pre-requisite. You must have an ambitious attitude to fall in line with the company's, and possess a progressive and open mind. For these skills you will receive an excellent package and an opportunity to join a company which has its sights on a prosperous and productive future.

TEAM LEADER/TECHNICAL SPECIALIST

MANCHESTER £15-25,000
A leading Retail Company that is currently going through a period of expansion are looking for a Team Leader and a Technical Specialist. You must have one to three years experience of Lotus Notes and CC Mail with knowledge of Oracle under both UNIX and OS/2. You should have your finger on the pulse being well aware of emerging technologies including Systems Management Software. In return, you will be joining a forward thinking company and receive excellent remuneration. REF: 1199

TECHNICAL SPECIALISTS

DORSET £20-35,000 + BENS
A Microsoft Solutions Provider that are market leaders in their field need to take on board three new professionals. An Operations Manager is needed to head the technical side of the Company. You must be technically brilliant with experience of Novell and NT Networks with very good management ability. You should be on your way up the career ladder with solid technical, business and people skills as you will be a key player in this expanding company. Secondly they need a Messaging Manager. Coming from a background of dealing with in excess of a 1000 users you should know CC Mail and MS Mail with at least three to five years experience. You must also be able to make quick decisions and possess a mature outlook. Finally, Technical NT and Novell experts are needed with one to three years experience as vital vertebrae to expand the backbone of the company. All these positions will be rewarded with an excellent package and a chance to take advantage of one of the industry's top opportunities.

ACCESS DEVELOPER

WARWICK £16-20,000
A major manufacturer currently require an experienced Access Developer to join their team. You must have been developing for two years and preferably have knowledge of a Novell Network. As you will be involved in a busy and professional company you must be able to work in this kind of environment. An excellent opportunity for a developer to continue climbing the career ladder, with an upwards move in the New Year. REF: 1256

ORACLE

CONTACT: Derek Blaquiére
Rebecca Kier

V7/DEC ALPHA DBA

BERKS £22 TO £28K + BENS
Greenfield Oracle V7 site employing over 500 staff urgently require a talented DBA to perform a multi faceted role which will include setting up a distributed database environment. Applicants will have a minimum of eighteen months V7 DBA skills gained ideally in DEC OSF environment coupled with strong verbal and written communication skills. This is a rare opportunity to be involved in a new environment offering variety and excellent career progression. REF: 1040

JUNIOR DEVELOPER

CAMBS £18,000 + BENS
Our client is a medium sized end user, market leaders in their specialist area. Due to continued growth they currently require an additional Junior Programmer to compliment an expanding team. The successful candidate will have a minimum of one years Oracle V7 development experience gained ideally in a structured environment. REF: 1174

FINANCIAL V7/DEC DBA

HANTS TO £35,000 + BENS
Huge International financial services organisation with a worldwide reputation. Having just installed Oracle V7 they are now looking to recruit an experienced DBA. Applicants will have a minimum of three years experience with technical skills covering Oracle V7, DEC Alpha, UNIX and ideally C. Any knowledge of SQL*Forms 4.5 would be a distinct advantage, however not essential.

BEST IN BANKING

CITY TO £28,000 + Bens
Prestigious Banking organisation with one of the Best reputations in the City currently have requirements for a number of talented Oracle developers to assist in the development of dealing room systems. Applications are invited from candidates that can offer two years post graduation development experience with technical skills including Oracle V7, SQL*Forms3 and PRO*C. Knowledge of C++, Visual C++ or SQL*FORMS 4.5 would be a distinct advantage, however not essential. It is essential that you are well presented and have the ability to communicate with all levels of staff. Superb opportunity to move into the world of banking and accelerate your career. REF: 1142

BANKING DEVELOPERS

CITY £24 TO £28,000 + BENS
One of the most successful money brokers in the world are currently seeking to recruit several high calibre developers to strengthen their Oracle team. Candidates will have a minimum of eighteen months Oracle V7 development skills utilising the majority of the following: SQL*Forms 3/4, PRO*C/Cobol, Report Writer and CASE*Dictionary/Designer. As well as consolidating technical skills the successful applicant will gain much sought after banking experience. REF: 870.

PO. BOX 8155, LONDON, W2 2GW

BANKING/FINANCIAL

SYBASE

TO £45k
+ BANK BENS
CITY

International Investment Bank requires a Senior Analyst/Programmer with at least 12 months' SYBASE development or administration experience. Initially you will take responsibility for UK systems support, and then play a key role in the migration to Client-Server technology providing an excellent opportunity to move into and learn the business. Superb career opportunity.

TECHNICAL PROJECT LEADER/VISUAL C++

£40-£60k
+ CAR + BONUS
CITY

World leading market maker about to embark upon a Global implementation of a Repo trading system requires a Project Leader to guide a team of 5/6 developers through this mission critical phase. Responsibilities will include system design, implementation of source code control, liaison with the international systems group and day to day management of Global Systems. You must have a strong track record of system implementation and solid technical skills, including a minimum of two years C++ and a good degree. Rewards are second to none.

C/UNIX

£45k
+ BANK BENS
CITY

High calibre Developers are required by leading global banking organisation to develop and deliver systems solutions to fixed income traders. Candidates should have a background in investment banking along with strong technical skills including UNIX, C, SYBASE, C++ and GUI development. Exceptionally challenging positions with superb career prospects.

C/RDBMS TECHNICAL TEAM LEADER

TO £60k
+ BONUS
CITY

Superb opportunity exists for a Team Leader to play a pivotal role in the Global Equities development group within this premier European derivatives house. You should have solid C programming skills coupled with strong RDBMS and data modelling expertise. Your ultimate brief will be the full migration to Windows NT, and integration of the system to other business areas. This role requires strong Equities or Derivatives knowledge as well as a desire to work with new business areas.

POWERBUILDER

to £45k
+ BANK BENS
CITY

Leading European Bank requires developers to embark on a range of new projects across varied business areas. You will need at least six months' solid Powerbuilder experience gained in a Client Server environment as well as excellent user liaison skills. These are superb opportunities to gain extensive financial experience as well as training in SYBASE.

C or C++/WINDOWS/RDBMS

£25-35k
+ BANK BENS
CITY

Premier International Banking group currently building a risk management system requires Analyst Programmers with a minimum of 18 months OO/Client Server expertise. Located within front office operations, development will be based on Windows NT running C++/OO and SQL Server. Ambitious graduates with solid technical skills are invited to apply.

ANALYTICS RESEARCH/DEVELOPMENT

£60k
+ BONUS
CITY

One of the world's foremost international securities houses seeks first class candidates with strong C/C++ development skills. Ideally you will have a numerate degree with either post graduate qualifications or research experience, as well as superb communication skills. Working on the trading floor, you will use state-of-the-art technology to build sophisticated models to price options and convertible bonds. These are outstanding opportunities for dynamic, ambitious candidates to join an elite team.

C++/UNIX

£30-£45k
+ BANK BENS
CITY

High profile front office development team of a leading investment bank requires Senior Developers with a minimum of three years C++ expertise. You will join a distinguished team of Analyst/Programmers developing the next generation of Global Risk Management Systems utilising leading edge technologies. This is an outstanding opportunity for bright and ambitious candidates to become technical experts in one of the most dynamic development teams in the City.

If you are considering a career move, we have many top IT positions in the Banking/Financial sector. For more information please call Isabel Blackley or Paul Wilkins on 0171 287 2525. Alternatively please send or fax your CV to us at: ARC International, Recruitment & Consultancy Services, 15-16 New Burlington Street, London W1X 1FF.

Tel: 0171-287 2525



Fax: 0171-287 9688

ORACLE DBA?

Move into management!

to £30,000

Thames Valley

Seiko, the worlds leading supplier of Watches and Clocks are migrating their existing systems to an Oracle based solution using Oracle Financials.

They now require a hands-on Data Processing Manager to control the operations and manage the support for a varied and demanding user base. This is a key role within the organisation and will require strong DBA skills combined with a good understanding of the wider business issues and their interaction with IT.

Reporting to the Group Financial Controller, you will be responsible for the day to day running of the department and be expected to provide Oracle DBA skills whilst maintaining and developing new systems for your users. Ideally, you will have at least 12 months experience gained as an

Oracle Database Administrator with a desire to move into a management role. Any knowledge of Unix and Novell would be an advantage but is not essential.

This is an exciting and challenging position which combines both technical and managerial skills; if you feel you have the necessary attributes for this role, please contact our advising consultant, **Roger Hatfield** on: 01494 452089, alternatively forward your resume to him at:

Cirius Limited, Oakridge House, Wellington Road, High Wycombe, Buckinghamshire HP12 3PR

Email: 100571,1132@Compuserv.com
Telephone: 01494 452089
Facsimile: 01494 464904

SEIKO

Leaders in Travel System Technology

Bracknell

FSS develops and installs on-line computer reservation systems and provides software solutions to the Travel Industry. Our client list includes many of the country's leading and specialist Tour Operators.

The company is market leader in the development of EDI transparency links to Airline and Ferry CRS Systems as well as to existing viewdata networks widely used for on-line reservations within the Inclusive Holiday sector.

The company has a first class reputation for technical expertise and quality of service, and as part of our planned expansion we are looking for a number of exceptional individuals to join our professional and committed team.

Circa £30K
+ Car

Customer Services Manager

This is a new appointment to take responsibility for our Account Managers, System Trainers and Help Desk Personnel who play an increasingly important role as the company and its client base continue to grow. The Department's role is to support post sales and pre installation liaison with new clients and to co-ordinate and schedule on-site training for new installations as well as maintaining customer support for the existing client base.

The job will involve visiting client sites with contact at senior level, and for the right candidate the role could develop to incorporate one of technical support and consultancy.

An understanding of the Tour Operating business or experience of working within an IT department of a major Operator or Leisure organisation would be a particular advantage, as would Project Management experience and business analyst skills.

£12-25K

£12-25K

Development Analyst Progs

With the continuing level of new sales the company is looking to appoint Development Analyst Programmers and Team Leaders to strengthen the existing Development personnel.

Qualifications

We are looking for self motivating staff who like working within a pressured but stimulating environment. Knowledge of Basic or Visual Basic would be an advantage but is not essential.

Support Analysts

We are looking for a number of Analysts to strengthen the Support Team who currently look after an existing client base of some 50 Tour Operators.

Qualifications

Knowledge of Basic is essential. Experience of Help Desk environment would also be beneficial, but we are looking for outgoing individuals who are able to communicate at all levels, and work well within a challenging and fast moving environment.

If you consider you combine the technical knowledge, expertise and commitment to join a rapidly expanding company, servicing the Travel & Leisure Industry, send your CV (with current salary details) in confidence to **Melanie Grigg, FSS Group, FSS House, Milbanke Court, Milbanke Way, Bracknell, Berkshire, RG12 1RP** or by fax on 01344 360661.

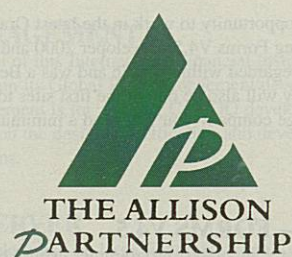
Oracle DBAs

*Develop your skills in a superb technically advanced environment,
working alongside high calibre specialists*

▲ Client Server

▲ Leading Edge Technology

▲ On-going Training



c.£35,000

Glaxo Wellcome is one of the UK's top companies, a world leader in the field of prescription medicine and the largest pharmaceutical company in the world. Fundamental to this success is Glaxo Wellcome Research and Development - a centre of excellence with an outstanding record of achievement and a massive investment in leading edge IT. Two first class opportunities have been created within its **Database Technology Group** for technically accomplished **Oracle DBAs**.

Working within a small specialist team providing database expertise, you will be responsible for all aspects of database administration to ensure efficient service delivery including:

- ▲ design, planning, implementation
- ▲ reliability, performance, security
- ▲ problem solving and support
- ▲ consultancy

Of graduate calibre, you will need at least **2 years DBA**

Herts

experience gained in an **Oracle/Unix** environment, ideally using version 7.1. Knowledge of **client server** architecture and **shell programming** is desirable and exposure to **VAX/VMS** would be useful, along with an interest in **object databases**. You must be an effective communicator, able to work on your own initiative in a responsive, small team where standards are high and timescales often short.

These opportunities offer technical advancement and challenge, and attract an excellent benefits package including 26 days holiday, non contributory pension, life assurance, health care, relocation expenses where appropriate and membership of a superb new on-site fitness centre.

To apply, please send your CV to Rick Allison, our advising consultant quoting reference DB/401/6, at The Allison Partnership, Cannon Centre, 78 Cannon Street, London EC4N 6HH. Tel: 0171 626 2266 (Office), 01892 661429 (Home), Fax: 0171 626 2277.

GlaxoWellcome



Enterprise air-time systems INGRES DEVELOPERS

International market specialists with over 18 years experience in the Media and Broadcast Industry, providing computer systems and technology products and services.

We offer good career opportunities, and currently need people with **Ingres ABF v6.4** or **W4GL v2.0** experience. We are looking for:

Team Leaders/Senior Analysts £25K-£28K + Car Allowance

To plan, organise and control software development teams. To analyse the business requirements and design and specify solutions.

Individuals who combine good analytical skills with either a strong technical background in Ingres RDBMS or knowledge of the Broadcast Industry. Experience of analysis and design is essential.

Senior Programmers £20K-£26K

Individuals with a minimum of 3 years Ingres RDBMS and development tools. Exposure to the 'C' programming language would be advantageous.

Programmers £16K-£20K

Individuals with a minimum of 12 months Ingres RDBMS and development tools.

Benefits will include 22 days holiday, sick pay, life assurance and pension scheme, annual profit-related bonus and company sponsored membership of local sports club/gym.

If you are interested, send your CV and current salary details to:

Helen Carless, Enterprise Air-Time Systems Limited, Thameside Computer Centre, Ferry Works, Summer Road, Thames Ditton, Surrey KT7 0QJ
or contact us on 0181 398 8511 anytime during normal office hours,
or until 22:00 on weekdays between 30th Nov and 5th Dec.
Alternatively, please leave a message on 0181 224 6324.



IMMINUS
local access • global solutions

Exciting career opportunities in Network Computing

Imminus is one of the UK's leading suppliers of data networks and communications services. Our Value Added Services team is a new group within Imminus providing a range of products and services aimed at delivering complete business solutions to our customers.

Ideally educated to degree level, you will need enthusiasm and creativity to join the team to help to grow a multi-million pound revenue stream within the next two years. Experience of On-Line, Internet and intranet Access Services, Systems Development and Systems Integration within a customer orientated environment would be particularly valuable.

Product Manager

Required to work with customers and suppliers to define product strategies and bring new products to market.

- At least 5 years experience in the IT industry two of which will have been as a Product Manager
- Excellent communication and presentation skills
- Excellent marketing and analytical skills
- Worked closely with customers and suppliers on a Commercial basis.

Project Consultant

To carry out systems analysis, design work and project management of Value Added Services

- At least 5 years experience in the IT industry
- Experience of implementing IT solutions
- Project management skills
- Systems analysis and design
- Excellent communication and presentation skills

Product Development Analyst

For technical testing and evaluation of new products. The successful applicant will be required to work to tight deadlines and provide technical support for new products and services.

- At least 3 years technical support experience in the telecommunications industry
- Good knowledge of WAN protocols
- Project management skills
- Sound knowledge of modems, CPE, LANs etc.

Positions carry an attractive salary and benefits package that includes 25 days holiday, life assurance, bonus, OTE, BUPA and pension scheme. To join a company that cares about your career progression send a full CV with current salary details to Nancy Taylor, Head of Personnel, Imminus Ltd, Ashurst, Bakewell Road, Orton Southgate, Peterborough PE26YS. Tel 01733 230666. Fax 01733 230909.

SYNON/RPG

OBSYDIAN to £35,000
1996 is set to be the year of OBSYDIAN. Synon's object orientated case tool is beginning to shape the future of the AS/400 market and now is the time for you to gain this latest of development skills. As the only recruitment agency accredited by Synon we are ideally placed to offer the best Obsydian positions as they become available. Call today to register your interest in our current positions.
UK Wide Ref: EP/01

RPG Retrain To - ORACLE to £25,000
Career opportunities like this are very rare! Our client is located in prestigious offices in SW1 and are undertaking a complete conversion from RPG4 to an ORACLE base. In return for your RPG skills they can offer a friendly and supportive working environment and full training in Oracle.
London Ref: EP/17

SYNON Analyst Programmer £25,000 + Bonus
Market leading public company is looking for an analyst programmer with a minimum of two years Synon and RPG. You will be working on client server applications so a working knowledge of PC's would be highly advantageous.
Middlesex Ref: EP/02

Retrain to AS/400 / SAP to £35,000
This American multi Billion Dollar consultancy group are expanding their team of SAP Professionals for their European client base. To take up this challenge you will need strong Synon / RPG skills gained in full life cycle environment and possess the communication skills needed in a consultancy role. A golden opportunity to fast track your career.
South East Ref: EP/03

SYNON in the CITY £30,000
This is your opportunity to break into the city. Our client has a full order book and not enough talent to supply - they need you. In return for your Synon development skills they are offering interesting work, possible client server projects and a merit based performance package.
London Ref: EP/04

Junior Analyst Programmers £12-21,000
We have been retained to look for analyst programmers with either college experience or a minimum 6mths commercial experience in RPG/Synon. If you are looking for a move that will launch your career call us today.
South East Ref: EP/06

SYNON in ESSEX £32,000 package
The long awaited opportunity to work locally in Essex. This established end user are entering a period of expansion and urgently need to recruit an experienced SYNON developer. These positions do not come along too often so don't delay and call us today to register your interest.
Essex Ref: EP/07

Synon Project Manager & Senior Designer to £35,000
This international finance group are developing financial systems from their American base. On offer are two positions where you will take control for the U.K. development, launch and successful implementation of this system using Synon. This is possibly one of the most challenging positions available this year and will involve initial travel to the U.S.A.
Berks Ref: EP/08

For the latest update on the AS/400 market call Ed Preedy our AS/400 consultant and find out how we can help. Tel 0171 419 2519.

PC SUPPORT

Certified Novell Engineer £25-30,000
An expanding company, our client specialises in the production of accounting systems. Due to their increased levels of business they need to recruit a CNE qualified support professional. You must be an ambitious self starter with good trouble shooting and installation skills combined with excellent client communication abilities. The generous package will include a fully expensed car.
London Ref: AN/01

Senior PC Support Analyst to £25,000
Our client who specialises in the assimilation of business information has an excellent opening for a talented person to provide administration and technical support to MS-DOS and Windows users. You must be highly motivated and possess excellent communication skills, plus a working knowledge of most of the following: cc:mail, network 3.12, unix connectivity products and a range of DOS/WINDOWS packages. Excellent step up for someone with a couple of years experience.
London Ref: AN/03

Application Migration Consultant to £42,000
Leading global investment house have a superb opportunity for a highly intelligent person to support the application migration team, providing technical support at all phases of the project. To secure an interview for this sought after post, you will need basic database admin skills, good levels of systems management in PC and UNIX environments.
City Ref: AN/04

PC Trainer £17,000
Following a superb 1995 our client is expanding their training division and urgently need a confident articulate trainer who is capable of designing and running Windows based courses. Ideally able to write Macros you will be tasked with developing your own portfolio of courses. A truly demanding but rewarding role.
Surrey Ref: AN/05

Junior Support to £17,000 + Benefits
An ideal opportunity to launch your career. Our client is offering the chance to develop a complete range of technical skills that will open various career challenges. All you need is enthusiasm and commitment as you will be supporting a complete department that uses networks, windows and relational databases.
Herts Ref: AN/06

Network Support Analyst £20-25,000
To take advantage of this high profile role with one of the leading city institutions you must have a working knowledge of CISCO Routers, UNIX, ISPX and synoptic hubs. If you regard yourself as articulate and personable then your career progression with this company is unlimited.
London Ref: AN/07

Technical Support Executive £18-20,000
This expanding software house, who specialise in management information systems has a requirement for two commercially aware support executives. Primary responsibilities include, front-line technical support in both a pre and post sales capacity. You must have experience in at least two of the following: HP UNIX, VMS, MS-DOS, Windows and Novell. An interesting and varied role that offers various challenges.
London Ref: AN/08

For the latest update on the support market call Allen Naik our PC Support Consultant on 0171 419 2520.

ORACLE

ORACLE CASE SPECIALIST £30-35,000
If you have been working with CASE for the past two years and presently using FORMS V4 then you have the skills we are currently searching for. We are retained by a company firmly committed to using the latest version of CASE who are seeking a specialist to join their team. You will receive an excellent benefits package and work alongside some of the most talented Oracle professionals in the country.
London Ref: BG/01

VISUAL BASIC / ORACLE £22-34,000
As a development front end tool, VB is fast becoming the leading player with many Oracle clients. We now have five clients in the London area who require experience of using VB (3 or 4) together with SQL. If you already possess these skills Prime Selection can offer you an impressive range of vacancies from which to choose your next move.
London Ref: BG/02

ORACLE in PUBLISHING £20-30,000
Established publishing company is seeking to recruit a team of analyst programmers to work at their prestigious west end offices. As a very friendly and open organisation they offer real career opportunities and attractive salaries. Ideally candidates will already have experience of Pro*C, however those with a working knowledge of the Oracle tool set with C will be offered full training.
West End Ref: BG/03

ORACLE in the CITY £25-35,000
As one of the largest financial trading houses in the city our client is able to offer unrivalled career opportunities. They are currently expanding their bonds and equities division, which will require the recruitment of several additional analyst programmers. To join this demanding development team you will need solid Oracle skills including Pro*C, plus the enthusiasm needed to work in a trading environment.
City Ref: BG/04

FORMS V4.5 / Designer 2000 / Developer 2000 £20-35,000
This is an ideal opportunity to work in the latest Oracle development environment using Forms V4.5, Developer 2000 and Designer 2000. Our client is highly regarded within Oracle and was a Beta test site for Forms V4.5, in fact they will also be one of the first sites to test V5. To join this truly leading edge company you will need a minimum 18mths Forms experience.
London Ref: BG/05

Retrain To - FORMS V4.5 £23-27,000
If you are currently an analyst programmer using Forms V3 and want to upgrade your skills, then call us today to find out which of the many retrain opportunities is right for you. Our clients are offering full retraining to candidates with solid V3.
London / South East Ref: BG/06

C, UNIX, SQL £23-35,000
We are currently looking for programmers, analyst programmers and senior analyst programmers who have good C and UNIX skills together with any relational database background to work on high profile projects. Two of our premier clients are able to offer the chance to advance your career, in fast moving, technically challenging environments, where your skills will never be out dated.
London Ref: BG/07

PRIME SELECTION

Prime House, 136 Kentish Town Road, London NW1 9QB

BUSINESS & ACCOUNTING SYSTEMS

It's not an easy task...

At IMI Computing we know it's not an easy task to implement package solutions.

We know the pitfalls...

We have worked with many organisations, leading their planning, resourcing and then managing their implementation to a successful conclusion.

We have the solution...

IMI has a team of Systems Accountants and Business Analysts who know the solutions to the issues inherent in such implementations.

Be a member of our specialist teams...

If you have chosen to specialise in this area and have experience of major implementations, you could join our teams of professionals. At IMI we have been successful in providing Consultants with interesting and lucrative permanent and freelance positions on a national and international level.

If you have a proven track record in systems implementation, please call IMI for more information.

Bob Bateman or Ruth Horton-Smith
IMI Computing, PO Box 1240,
Wilton, Birmingham, B6 7UH
Tel: 0121 356 8383 Fax: 0121 344 3590

David Wilkinson
IMI Computing, Orion House,
5 Upper St Martins Lane, London, WC2H 9EA.
Tel: 0171 379 1700. Fax: 0171 379 1553

imi
COMPUTING

Role: PowerHouse Programmers
Client: Major International Publishing Co.
Location: Kent
Salary: circa £18,000

Our client is an extremely professional "people oriented" organisation who believes in rewarding high performers. They presently seek to employ the above professional. The successful candidate will have ideally progressed from a VAX/VMS/DCL systems/operational role to that of a PowerHouse Programmer. To be considered you must offer the following skills:

- 2 yrs VAX/VMS development experience (imperative).
- 2 yrs PowerHouse programming (compulsory).
- Proven interpersonal/communication skills (crucial).
- Complex DCL abilities (advantageous, but not essential).
- Knowledge of Distribution and Financial systems (preferable).
- PCs, Excel, WordPerfect and Windows (knowledge highly beneficial).
- A good understanding of VAX/VMS operations (extremely useful).
- EDI knowledge (worthwhile, but not essential).
- TCP/IP and ODBC experience (very useful).
- Non-smoker.

Rewards include:

- Working on several major new development projects using PowerHouse, Axiant and IMPROMPTU, etc.
- User liaison.
- Career development prospects.
- Internal/External Training, as and when necessary.

Contact: Beverley Thomas
Agency: Human Enterprise Ltd, New Loom House, 101 Backchurch Lane, London E1 1LU.
Tel: Day 0171 702 4242 Fax 4343 Eves 0956 702112
Internet: <http://www.demon.co.uk/hument>

ORACLE

ORACLE V8 DBA £25-35,000

The ideal opportunity to be one of the first DBA's to work with Oracle's latest Object Orientated environment - Version 8. As an end user organisation you will be in a high profile position making up a complete team of three, managing 25 databases the largest in excess of 65 gigs. To take up this challenge you will need to have been an Oracle DBA in a Unix environment and be a team player.

South East

Ref: BG/08

For the latest update on the Oracle market call **Bill Graham our Oracle Consultant** and find out how we can help. Tel 0171 419 2517.

UNIX/C/C++

C++, SYBASE, MOTIF £50,000 Base + BB

An opportunity of strategic importance within this Investment Bank, you will be involved in the design and development of a distributed front end treasury system. You should have strong C++, OO and Sybase skills and will be rewarded not just in terms of remuneration but also by considerable opportunities to progress upwards within the organisation.

City

Ref: SM/01

C, OBJECT DATABASES £20-30,000

This is the R&D arm of a multinational firm developing document management systems, including an SGML editor and associated information management tools. The current requirement is for C A/P's with any database background - full retraining with their object database environment will be provided.

Berks

Ref: SM/02

C, C++, GUI £16-25,000

This developer of 2D/3D graphics and surface modelling CAD software is currently looking for up to three analyst programmers. Software is developed in a C/X/Motif environment, with future releases planned in C++. These roles will suit bright, technically innovative graduates looking for challenging work within an R&D environment.

Berks

Ref: SM/03

C++ RISK MANAGEMENT to £38,000

Investment banking arm of this International Financial Institution currently has three positions within its Global Risk Management development team. The most urgent requirement is for a strong C++/OO developer with experience of working on the design, specification and development of large Unix based systems.

City

Ref: SM/04

C++ CLIENT SERVER £20-35,000

True full life cycle development on large financial systems on offer at this developer of investment management software. If you have strong C++/OO/Unix skills you will have the opportunity to develop highly marketable skills in Sybase. No relocation necessary for London residents as all development is carried out at a site only 35 minutes from London Bridge.

Kent

Ref: SM/05

C++, OOD £18-25,000

Join the product development team within the Blue Chip stockbroking software division of this City software house. Urgently required for the first quarter of this year are analyst programmers with strong C++ development skills to work on a new paperless equities settlements system.

City

Ref: SM/06

UNIX/C/C++

C++ FIXED INCOME to £40,000 + BB

Strong C++/OO skills will open the door to working for the UK arm of this US Investment Bank. This front office Fixed Income System is being jointly developed by teams in London and New York and is a high profile project which will offer exposure directly with the trading floor.

City

Ref: SM/07

C, UNIX, FINANCE £18-28,000

This software house with a reputation for being at the forefront of Object Oriented PC Windows development is enhancing its product set by developing a real time financial information system on the Unix platform. Your skills should lie in C/Unix full life cycle development which will complement their existing expertise in GUI Development. This is a green field opportunity - development cannot begin until more staff are recruited.

Berks

Ref: SM/08

C++ ANALYST PROGRAMMERS £20-32,000

This city software house is developing a brand new system to take information from stock exchanges around the world (New York, Tokyo, Singapore etc) via various data feeds (Reuters, Tri-arch etc) and present this information to dealers on the trade floor. Opportunities exist both within the server and GUI teams. You should be able to demonstrate strong C++/OO skills within a Unix environment.

City

Ref: SM/09

For the latest update on the UNIX market call **Steve McGregor our UNIX Consultant** on 0171 419 2516.

FINANCIAL SYSTEMS

C++ Global Market Risk Management to £60,000

Excellent opportunity for a talented developer to join one of the most prestigious investment banks. They are currently building global risk management systems in C++. To take up this challenge you will need 18mths experience of C++, OOD combined with some VC++ and Sybase or SQL server. Any candidates with Rogue Wave Tools.h and STL are guaranteed an interview. Call today to find out more about this top flight position.

London

Ref: LR/99

C++ / Treasury Systems £20-35,000 + BB

The Treasury systems division of one of the most high profile global financial institutions are expanding three teams creating a variety of positions. All development is in C++ / OO / Unix in a front office environment. You must have proven life cycle experience gained with C++ ideally on UNIX or Windows NT. Financial knowledge would be a distinct advantage, however as training is offered this is an ideal opportunity to break into the banking world.

City

Ref: AN/02

VC++ Analyst Programmer £35,000 + BB

The equities division of this UK based international investment bank are seeking analyst programmers with at least two years PC development experience combined with strong VC++, MFC, OLE skills. Any prior investment banking experience will be a bonus but not essential.

City

Ref: LR/04

C++ / OO / GUI Developer £35,000+

This leading information vendor is seeking two talented developers, to join a cross platform team developing GUI applications in C++ with OO techniques and OLE standards. You must possess strong C/C++ within a Windows or NT environment. Exciting opportunity to expand your skills.

City

Ref: LR/01

FINANCIAL SYSTEMS

Senior & Junior ACCESS Analyst Programmers £19-25,000+

Well established international actuarial firm are keen to recruit two analyst programmers at both the junior and senior levels. You must possess at least one year's Access development combined with a good understanding of MS products, any VB experience would be an asset. Superb chance to widen your skills.

Surrey

Ref: LR/03

Visual Basic Analyst Programmer to £35,000 + BB

Long established investment house require a professional analyst programmer to join the development team responsible for the creation of front office risk applications. The successful candidate is likely to have 2 years VB, Windows 3.1 or NT with some exposure to C/C++. Real opportunity to expand your career and skills base.

City

Ref: LR/06

For the latest update on the financial markets call **Lisa Russell** to find out how we can help you. Tel 0171 419 2518.

INTERNATIONAL

SYNON & OBSYDIAN IN THE USA

To \$70,000 - travel and work visa provided

We have an amazingly good selection of openings for talented Synon and Obsydian developers to work with clients throughout the USA & the Caribbean. Locations include:

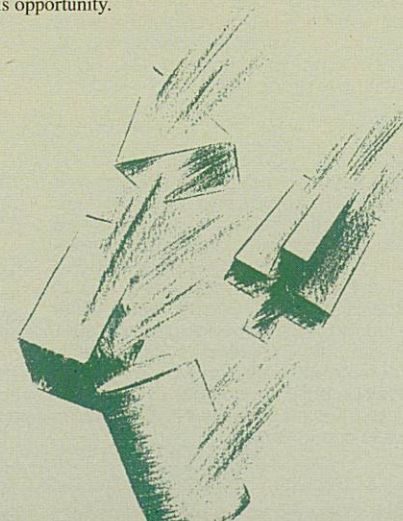
** California ** Atlanta ** New York ** Puerto Rico **
** Oregon ** Florida **
and many more.

For more information about how we could help you to a great future in the States please call **Chris Morrow** on 0171 419 2500.

C++ IN AMERICA

To \$70,000 - travel and work visa provided

We are recruiting six skilled C++ developers who should have good structured design skills for a client in the States. You will work on assignments on the **East Coast of America** using our client's OO development tools. Previous candidates who have joined our client are all really happy in their new lives and work. If you have ever thought about a future in America then you must call **Chris Morrow** on 0171 419 2500 to discuss this opportunity.



TEL 0171 419 2525 FAX 0171 482 4239

SAS PROGRAMMERS

CONTRACT / PERMANENT

Excellent opportunities immediately available for experienced SAS Programmers, A/Ps and Credit Scorers.

★ Major companies ★ Varied Projects
★ Pharmaceutical ★ Marketing ★ Financial

Phone/Fax Jo Scott on

01628-773513

E.F. Contracts
6 The Wharf,
Mill Lane, Taplow,
Berks, SL6 0AD



SYBASE

Contract and Permanent Programmers Analyst/Programmers and DBAs

Immediate and January starts
London, Home Counties and South.

Top Salaries — Top Rates

RIMPAC SYSTEMS LIMITED

Tel: 01734 254225 Fax: 01734 576626

CallSoft

— Call Centre Solutions —

IT Professionals with experience of UNIX, Windows NT and RAD Technologies, required to work on Direct Banking/Insurance projects throughout Europe.

CallSoft Ltd

10-16 Tiller Road, London, E14 8PX

PROGRESS PEOPLE LIMITED

Urgently require skilled Progress (4GL) developers for a wide range of permanent positions throughout the UK.

London

exciting new development with opportunity for world wide travel. Graduate (IT discipline) also required.

Lancashire

Software house requires Analyst/Programmer will train in v8 GUI.

Teeside

New Progress VAR requires development team/consultants for interesting scientific projects (v9 GUI).

Yorkshire

Several opportunities for GUI and character based developers. Several end user and software house clients.

We would also like to hear from any competent Progress contractors to join our small but highly skilled team.

Contact: Moyra Booth

Tel: 01274-565908 Fax: 01274-565153

For your
International
Appointments
please turn
to page 50

DEVELOPMENT ♦♦♦♦

UNIX/C & SQL
DEVELOPMENT

BERKS **TO £28K**
Become involved in the development of a new information management platform aimed at the insurance industry. Excellent UNIX skills are required together with C development skills, an appreciation of Object Oriented programming and good knowledge of SQL and TCP/IP. Within one year of joining our International client you will be holding a position of substantial responsibility in a team leading capacity. Superb opportunity for career advancement within a dynamic environment. **Ref: C:640**

EMBEDDED SYSTEMS/REAL
TIME

WILTS **£25K++**
An opportunity to work on leading-edge technology within one of the UK's top communications companies. The successful applicant will be a graduate with a minimum of two years' experience in C, Embedded Systems and Real-Time Programming. Use of Emulators, Debuggers and Configuration Management Tools is essential. When you hear about the projects our client is working on, the opportunities for career advancement, the training schemes and the remuneration package, you'll be truly impressed!. **Ref: C:641**

C/C++ — X-TRAIN TO
SYBASE

CITY **TO £40K + BANKING BENS + BONUS**
Superb opportunity for high calibre Analyst/Programmers with solid C++ or C under WINDOWS or UNIX. You'll work on the trading floor developing analytical applications for derivative products and sales desks. Candidates with effective Mathematical and Object Oriented skills would be a distinct advantage. This bank is renowned for its career prospects and X-training, including to Sybase & C++ if C candidates have strong skills. **Ref: C:642**

QA TESTERS

SURREY/BERKS **£18-26K + BONUS + CAR**
Join one of the world's leading software companies with outstanding new products and a superb record of rewarding achievement. Successful candidates will have an understanding of Testing Methodology and Testing Terms as well as experience of GUI environments and C coding with either knowledge of CASE Methodologies or VISUAL C++. If you are interested in a career in testing/automated testing maybe combined with development then contact us now. New technologies will incorporate NT, OS/2 Warp, Windows 95 and RDBMS. **Ref: C:643**

SOFTWARE ENGINEERS

LONDON **£25-35K + CAR**
This is a unique technical opportunity which will challenge and stretch your development/support abilities and will definitely enhance your career. Superb opportunities await software engineers with a knowledge of operating system internals or compilers with any of: UNIX, VMS, WINDOWS, NT, Network or OS/2 combined with C/C++ or 4GLs. Successful candidates will consider themselves to be high fliers with excellent problem solving skills, strong intellectual ability and enjoy working for this world-renowned technological leader.. **Ref: C:644**

MACRO DEVELOPER

WORCS **TO £22K**
An exceptional opportunity for X-training into a macro language with this internationally respected software house. The successful candidate will be designing and writing new code in addition to support and enhancement of existing products. You must possess an ability to pick up new skills quickly and at least 12 months' experience in a development role using EXCEL, MS ACCESS or VISUAL BASIC. Proficiency in DOS and WINDOWS required with some knowledge of UNIX. **Ref: C:645**

WINDOWS DEVELOPMENT X 6

HONE COUNTIES **£20-40K + BENS**
Our clients are market leaders within their respective fields utilising Windows extensively. Due to expansion they require junior and senior developers to work on exciting projects

is technically challenging environment. You will possess a minimum of six months' experience in either C, C++, VISUAL BASIC or MFC. Advantageous skills include MAPI, OLE, SDK and a working knowledge of Microsoft Development Tools. If you possess the above technology or are a WINDOWS Specialist and want to utilise your skills in a pro-active environment with substantial on-going training, call immediately for an interview. **Ref: C:646**

SYSTEMS

PROGRAMMERS

OXFORDSHIRE **TO £40K + BENS**
A market leading software house supplying prominent software and hardware manufacturers throughout the UNIVERSE, require an inter-galactic time traveller who is familiar with the development of earthling graphic device drivers and/or systems level work. You may demonstrate practical experience in C, WINDOWS, POSTSCRIPT or PCL emulations, ASSEMBLER, OS/2 and Device Drivers. The possibilities are only limited by your imagination and could lead to rapid promotion into management. A job which offers flexibility, variation and a dynamic team oriented environment. **Ref: C:647**

SUPPORT ♦♦♦♦

SYS ADMIN/UNIX TECH
SUPPORT

BERKS **TO £28K + CAR**
Join an Internationally acclaimed Company in an interesting and technically challenging position. You'll be offering tech support to OEMs and VARs of UNIX systems which run on power PCs supporting AIX, Solaris (embedded version) and Windows NT. This is a second line support position and will involve crash analysis, remote diagnostics, etc. You'll also be responsible for the Company's I/O UNIX servers running SVR4 plus X-terminals. To apply you'll need excellent UNIX skills/shell scripting and knowledge of TCP/IP, NFS, NIS. Unlimited career potential and superb remuneration plus car await the successful candidate. **Ref: C:648**

UNIX PRE-SALES
SUPPORT

MIDDX **£30-35K + CAR**
This highly successful Communications Company offers unrivalled career prospects for high flying Pre-sales professionals. With a background in UNIX, Networking and a working knowledge of C, you will have every opportunity to increase and develop your technical skills. You will deliver technical presentations/demonstrations at home and abroad playing a major part in the sales cycle. This is a high-profile pivotal and challenging role requiring superb communication skills and commercial acumen. Exceptional benefits package. **Ref: C:649**

SUN SYSTEMS ADMIN X 2

HOLLAND/SURREY **TO £30K + BENS**
Exceptional opportunities for experienced Systems Administrators have arisen with this British Geophysical software house to work in Surrey or on client site in Holland. This is an excellent opportunity for those with good SunOS experience wishing to make the transition to Solaris. Knowledge of some or all of: IBM, HP, Convex and SGI is desirable. Vacancies where there is a genuine opportunity to work in a truly heterogeneous environment are rare. Candidates of the required calibre should not miss such an opportunity. **Ref: C:650**

PRE-SALES
MESSAGING
CONSULTANTS

MIDDX **£33K + BONUS + CAR**
Join this global software provider and work with their top 30 clients giving them pre-sales technical advice on all of their new products. If your expertise is with either UNIX and Messaging products or LOTUS NOTES/cc:MAIL, MS-MAIL or GROUPOUSE and you would enjoy visiting customers giving technical advice, making presentations and working closely with the corporate sales team and account managers, then this is for you! Wonderful opportunity, excellent prospects and first class range of benefits. **Ref: C:651**

RDBMS ♦♦♦♦

ORACLE DBAS

HERTS/MIDDX, NORTHANTS **£21-34K**
Our clients are recognised as being leaders within their respective markets. An increase in sales and structured growth has resulted in superb openings for ORACLE DBAs. Roles vary dependent on experience but will include design, development, testing and implementation of an ORACLE V7 database and all related security, performance and maintenance issues. X-training to Forms 4.5. Knowledge of UNIX or VAX/VMS desirable. **Ref: C:652**

INGRES DBA/SUPPORT

BUCKS/HERTS **£24-37K PACKAGE**
Exciting opportunities for INGRES professionals with at least 12 months' experience. Working within the financial and retail market you will support clients on site and handle second/third line problems. Ideal candidates will be of graduate calibre and familiar with working in a pressurised environment. A knowledge of other RDBMS, UNIX or VAX/VMS advantageous. Car allowance and a comprehensive benefits package. **Ref: C:653**

ORACLE A/P & TEAM
LEADER

WEST END/CAMBS **£23-39K + BENS**
World leaders in their fields who specialise in the scientific arena have grown so quickly that they have brought forward their extensive IT recruitment schedule. The immediate plan is for one Team Leader and two A/Ps. Candidates will have good ORACLE Forms 3 or 4 skills with effective Pro*C or C skills. Exposure to WINDOWS and CASE Tools is advantageous. The role will involve developing a range of new projects and some support of existing applications. Superb career opportunity for ambitious professionals. **Ref: C:654**

ORACLE DBAS

SURREY/LONDON/KENT **TO £35K + BENS**
Urgent requirements for ORACLE DBAs with excellent technical and communication skills. One of these clients is a prestigious and renowned software house specialising in providing IT solutions to the financial markets world-wide, the other is a leader in its field committed to achieving state-of-the-art technology. Both require high calibre, result orientated professionals with evident DBA experience in a commercial field. You must also have a working knowledge of ORACLE Tools coupled with strong UNIX support experience. **Ref: C:655**

INFORMIX A/Ps

LONDON **TO £28K + BONUS**
INFORMIX Analyst/Programmers urgently needed by a distinguished, leading edge Company at the forefront of an exciting period of transformation and expansion. With a minimum of six months' experience in INFORMIX 4GL, Standard Engine &/or On-Line, you will be of a calibre befitting such a prestigious organisation. With proven capabilities of system specification, design and analysis and a good working track record, your efforts will be highly rewarded both financially and through necessary X-training. **Ref: C:656**

INFORMIX DEVELOPERS

BERKS/CITY **TO £35K + CAR**
Our client is an accredited Solutions Provider. They are looking to employ INFORMIX developers with Standard or On-Line experience at all levels (one year or Industrial placement acceptable). Candidates must have vibrant personalities and outstanding interpersonal skills. After an initial period and intensive training for junior developers, you will be required to visit client sites, get involved with new projects and possibly train staff. Our client is genuinely willing to invest time and money in employees who seek long-term prospects with a well established and pro-active Company. **Ref: C:657**

ORACLE

ANALYST/PROGRAMMERS

SURREY **TO £28K + BENS**
The optimum time to join a company is when expansion is at its height, new products are being launched and staff are being trained on the latest technologies. The situation is exactly that, with this Company specialising in providing pension administration and insurance services to a multitude of International and UK clients. ORACLE A/Ps with PRO*C &/or C, SQL and FORMS 3 or 4 experience are being sought to join a highly creative and innovative team of professionals. If you are interested in being instrumental in bridging the gap between business needs and technology, apply now! **Ref: C:658**

CONSULTANCY ♦♦♦♦

FINANCIAL CONSULTANTS

CITY/EUROPE **£21-80K**
This global consultancy has a reputation for excellence in the provision of Financial Investment IT solutions. Currently they have superb roles of rare quality both in the city and in major European centres. The roles range from two Senior Consultants to three A/Ps. Ideally, you will have either strong C++/SMALLTALK and/or SYBASE, preferably used within risk management or front/back office arenas. Applications from non-financial candidates are welcome. If you want to supercharge your career, this is the Company for you. **Ref: C:659**

EIS DEVELOPERS &
CONSULTANTS

HANTS **TO £40K + CAR**
We are currently recruiting for two top-flight consultancies seeking Consultants, Analyst/Developers and Pre-Sales Technical staff. We would be interested if you possess any Executive Information Systems experience. However, any of the following: Pilot, lightship, hyperion, Pillar or Powerplay, would be advantageous. Excellent opportunities to work alongside senior management in an autonomous and strategic position. **Ref: C:660**

HOT-LINE ♦♦♦♦♦♦♦♦

NETWORK SUPPORT

MIDDX **£30K + CAR**
A strong knowledge of Networking including TCP/IP, X25, Bridges, Routers, etc. Pre-Sales experience desirable. **Ref: C:661**

SUN SYSTEMS ADMIN

CITY **£19-28.5K + BENS**
Terrific Company highly active within the city need a Sun System Administrator. Min 1 year experience. Great prospects. Call for details.. **Ref: C:662**

BI-LINGUAL SUPPORT
SPECIALISTS

SURREY **TO £30K + BENS**
Urgent requirement for bi-lingual (German/English) Support Specialists. Knowledge of UNIX, Telephony or Data Comms preferred. Training given on GUI application development tool.. **Ref: C:663**

DATAEASE

MIDDX **TO £25K**
Support, maintenance and development of DataEase system. Possibility of travel overseas with this International Company. **Ref: C:664**

TRAINERS/
TRAINING MANAGERS

BERKS **£23-35K + CAR**
Experience of training or supporting RDBMS products. Work for this market leader. Adv would be ORACLE, INGRES or INFORMIX. **Ref: C:665**

TECHNICAL SUPPORT

BERKS/WILTS **£15-35K**
Opportunities for support professionals to develop their technical knowledge. Experience must include PCs, NOVELL and other Networking environments. For one role a second European language will be useful. **Ref: C:666**

REVIEW
COMPUTER
RECRUITMENT

REVIEW HOUSE • 350 STATION ROAD • HARROW • MIDDX • HA1 2DR

TEL: 0181 427 4000 FAX: 0181 427 4400

FOR FURTHER INFORMATION OR A CONFIDENTIAL INTERVIEW
CONTACT LORNA JAY OR PETER FELLER
BETWEEN 8.30 AND 7.30 OR FAX US YOUR C.V.

WE OFFER A HIGHLY PROFESSIONAL SERVICE WITHIN THE UNIX & PC MARKETPLACE
THIS IS A SMALL SELECTION OF THE OPPORTUNITIES WE HAVE AVAILABLE
WE ARE ALWAYS INTERESTED IN GRADUATES WITH A 2:1 OR 1ST DEGREE

You Don't Have To Read This

- **IMAGING PROGRAMMER** **SOUTH YORKS** **£16-25K**
Our client is a leading supplier of image processing system and currently seeks a Developer with skills in C and/or C++ with experience in imaging applications. You will work in a small team, developing solutions to customers requirements. Ref: C/9176/RHH
- **DATA PROCESSING MANAGER** **OXFORD** **£18-21K**
Marketing organisation seeks a good problem solver with skills in MS Access and Lotus 123 to manage the data and to interpret it to produce reports for clients. The role will also take responsibility for managing one or two staff. Ref: C/9162/RHH
- **NOVELL/MS OFFICE SUPPORT** **SURREY** **£16-20K**
Solid Novell (v3.12), MS Office and Windows skills, plus an ability to work effectively with demanding users are essential as the successful candidate will be responsible for the provision of first line support for approximately 70 users. Ref: C/9055/SJG
- **HTML/GRAPHIC DESIGN** **BERKSHIRE** **£14-16K**
Interesting and varied role combining a mixture of graphic design and internet development using HTML. A degree education is preferred, but not essential. Outstanding opportunity with the worlds leading on-line information service provider. Ref: C/7609/SJM
- **SYSTEMS ADMINISTRATOR** **NOTTS** **£17-25K**
Unique opportunity for a 'people' person with strong administrative experience to become responsible for this international company's local and wide area networking. The LAN is Novell v 4.1, so this expertise would be ideal but not essential if your Novell v3x is up to speed. The right person will be capable of installing, managing and designing the LANs and WANs as well as having responsibility for 2 other staff. Ref: C/9009/JHV
- **SENIOR SUPPORT ENGINEER** **SURREY** **£15-22K**
Become involved in all aspects of support for this leading supplier of optical devices and juke box management software. Your skills to date will encompass Novell, Windows, Windows NT and Unix. Your strength will be in prioritising your time and using your technical judgement. The role will include evaluation of products and liaison with suppliers. Ref: C/7542/JHV
- **SENIOR NETWORK ANALYST** **LONDON** **£20-28K**
The successful applicant to this role will have proven Novell systems management experience and must be capable of seeing a project through from feasibility to implementation. The role requires good planning, interpersonal and documentation skills and will encompass general trouble shooting on a day to day basis. Ref: C/9112/JFC
- **C/UNIX - ORACLE TRAINING** **BERKSHIRE** **£24-26K**
Solid C/Unix skills required for the development of a new information management platform for the UK Insurance market. Some SQL knowledge is required and cross-training to Oracle v7 will be provided. It is expected that the successful candidate will quickly move into a Team Leader role. Some travel to the USA will be involved. Ref: C/9109/SJM
- **DATABASE ADMINISTRATOR** **SURREY** **£25-35K**
This is the type of company which looks for dynamic individuals and actively encourages responsibility and career progression. The role will be predominantly on development projects implementing a new Client/Server solution for a number of the administration functions which will also include a migration from Vax/Rdb to Oracle. You will need strong Oracle 7 skills. Any Vax/Rdb would be a distinct advantage. Ref: C/4611/EVH
- **INGRES PROGRAMMER** **SURREY** **£15-17K**
This position will involve joining a team of 5 analyst programmers in supporting and enhancing a job costing, project management and invoicing system. Our client, a UK leader in their field, is looking for someone with 12 months' Ingres programming experience and a basic knowledge of Unix and C. A good understanding of computer systems and their development will have been gained through academic qualifications or other training. Ref: C/9194/JFC
- **ORACLE V7 PROGRAMMER** **WEST SUSSEX** **£15-18K**
An ambitious Oracle analyst/programmer is sought by this leading publishing house to join its busy IT department, charged with the development of a range of in-house applications. You must offer a minimum of 12 months' Oracle v7, complemented by PL SQL, SQL+ and Unix and/or Windows experience. Ref: C/9171/SJG
- **TRAINER** **SURREY** **£20-33K**
A role for those who want to be kept at the leading edge of technology. Your background should be in Novell - as many versions as possible, covering Installation, Configuration, Support etc. You must be able to show good technical knowledge and have the ability and desire to move into a Training position. This will be in-house with some travelling. Ref: C/8980/CEJ
- **TECHNICAL SUPPORT ENGINEER** **HERTS** **£11-15K**
Ever wanted to use your French or German languages in a technical support environment? Well here's your chance. This dynamic expanding company are looking for extroverts with strong customer orientated skills and a good telephone manner. You should have a broad PC based background - Lotus, Microsoft products, Mac, Unix, Novell, etc. Ref: C/9152/CEJ
- **SYSTEMS ANALYST** **C. LONDON** **£15-20K**
Assist in the implementation of new releases and functions. Good understanding of insurance terms and processes and the ability to analyse them is an essential requirement. The existing package, Genius, has gone through rapid development over the last 12 months with two new releases pending. The client plans to implement the new releases and the considerable amount of new and enhanced functionalities. Ref: C/8927/BOF
- **TRAINERS** **C. LONDON** **TO £40K**
Must have a proven track record and the ability to design, write and deliver to groups from some of the top UK and European companies. Solid skills in desktop development with specific skills in Visual Basic, Visual C++, MS Access, Lotus Approach, SQL, MS SQL Server and MS Foundation Class Libraries would be highly desirable. Development experience in at least two of the above is essential. Ref: C/9179/BOF

At Reed Computing, we believe that if you want to get on, you have to stay ahead of the times.

That's why we were one of the first consultancies to exploit the full potential of today's technology, including the internet. All the vacancies you can see here, and may more besides, including a large number of contract requirements, can now be seen on your screen. And these are updated everyday, providing you with the most immediate listing of IT opportunities around.

This is just the latest in a long line of innovations we have introduced to improve our service to you. Including Direct Access, our revolutionary on-line database service which allows potential employers to access your CV (confidentially), any time of the day or night, 7 days a week, via the PC on their desk.

If you are interested in any of the opportunities advertised here or on the internet, or would like to know more about Direct Access, please call Reed Computing today on

(01483) 569061.

Alternatively, you can send us your CV, ideally on disk or by any of the following methods:

E:MAIL: reedcomp@dial.pipex.com

INTERNET HOME PAGE: <http://www.reed.co.uk>

FREEPOST: Reed Computing, FREEPOST 757,

51 High Street, Guildford, Surrey GU1 3BR

FAX: (01483) 301151.

BULLETIN BOARD: (01483) 306982

Ahead Of Our Time

REED

●●●●computing

PROJECT MANAGERS, IT MANAGERS, COMPUTER MANAGERS, PERSONNEL MANAGERS

COULD YOU BENEFIT FROM REDUCING YOUR IT CONTRACTS BILL

BY PAYING UP TO **25 %** LESS?

If the answer is 'YES', look at what we can provide you with:

Progressive Computer Recruitment was formed in 1990 and we have now established ourselves as a market leader in the supply of IT professionals, both contract and permanent.

We specialise in placing first time contractors whose rates are up to 25% less than hardened contractors, although experienced contractors are available if you prefer. We cover all technical and geographical areas and if Progressive can't find the right contractor for you, then they don't exist. In fact we currently have over 10,000 candidates who are looking for new assignments in 1996.

Benefits include:

- Largest available database in the UK
- Consultants who really understand your requirements
- An agency that doesn't offer hollow promises but one that *always* delivers
- Free access to 7 1/2 pages of weekly IT recruitment advertising
- People who truly appreciate your urgency
- Contractors can be supplied on a free trial period
- We work the way you want us to

The only telephone number you need for all your contract requirements is 0181 785 333 – give us a call, you've got nothing to lose but a lot to gain.

If the answer is 'NO' please call Andrew Wall on 0181 785 3333 and let us know why. We also have an excellent permanent recruitment division and their number to call is 0181 780 1694.

"I look forward to doing more business with you in the future" – MS, Software House, Avon.

"Excellent understanding of the requirement" – SB, Banking, Consultancy, London.

"Very good quality candidates supplied" – CT, Media Co, London.

"Exceptional overall service" – JD, Government Body, Kent.

"Progressive were very helpful and prompt throughout – Thanks" – GL, Construction, Midlands.

"CV supplied – appointment – excellent" – SF, Management Consultants, Herts.

ORACLE ANALYST/DESIGNER
Years in IT: 12
Technical Skills: Oracle (all versions), Oracle Designer 2000 (8 months including BETA testing)
Location: London
Ref. No: 0124022 RB

ACCESS AP
Years in IT: 9
Technical Skills: Access
Location: UK Wide
Ref. No: 0120245 EP

FIELD SERVICE/HARDWARE ENGINEER
Years in IT: 8
Technical Skills: PCs, Macs, Novell
Location: UK Wide
Ref. No: 0123449 DC

ADABAS NATURAL AP
Years in IT: 6
Technical Skills: Adabas Natural, Cobol
Location: North West
Ref. No: 0123873 JH

UNIFACE ANALYST PROGRAMMER
Years in IT: 6
Technical Skills: Uniface, Sybase, Client Server
Locations: London/Home Counties
Ref. No: 0124123 RB

EXCEL AP
Years in IT: 7
Technical Skills: Excel Macros, Lotus Macros
Location: UK Wide
Ref. No: 0117270 EP

PC SUPPORT
Years in IT: 10
Technical Skills: Novell, MS-Office, SmartSuite
Location: South East/London
Ref. No: 0118163 DC

COBOL, CICS, DL/I AP
Years in IT: 8
Technical Skills: Cobol, Cics, DL/I
Location: North West
Ref. No: 0123873 JH

POWERBUILDER ANALYST PROGRAMMER
Years in IT: 15
Technical Skills: Powerbuilder (all versions)
Location: London/South West
Ref. No: 0114159 RB

VISUAL BASIC AP
Years in IT: 5
Technical Skills: Visual Basic, Access
Location: South East
Ref. No: 0119911 EP

HPUX SYSTEM ADMINISTRATOR
Years in IT: 8
Technical Skills: HP-UX, Aix, X25, Informix
Locations: London, Surrey, Sussex
Ref. No: 0123756 DC

EASYTRIEVE AP
Years in IT: 6
Technical Skills: Cobol, Easytrieve DB2
Location: Anywhere
Ref. No: 0122688 JH

SYBASE DBA
Years in IT: 8
Technical Skills: Sybase, SQL Server, Powerbuilder, Visual Basic, Oracle V7
Location: UK Wide
Ref. No: 0116846 RB

GUPTA AP
Years in IT: 4
Technical Skills: SQL Windows, SQL Base
Location: UK Wide
Ref. No: 0114106 EP

PC HELP DESK
Years in IT: 5
Technical Skills: Novell, MS-Office, SmartSuite
Location: UK Wide
Ref. No: 0123463 DC

OPS ANALYST
Years in IT: 7
Technical Skills: MVS, Informan, JES2
Location: Surrey
Ref. No: 0122987 JH

INGRES ANALYST PROGRAMMER
Years in IT: 6
Technical Skills: Ingres 6.4, Open Road
Location: UK Wide
Ref. No: 0119924 R

UNIX SOFTWARE ENGINEER
Years in IT: 18
Technical Skills: Unix, C, C++
Location: South East
Ref. No: 0121664 A

BPBC's SPECIALIST
Years in IT: 17
Technical Skills: BPC's, AS/400
Location: Home Counties
Ref. No: 0120814 R

PRO IV AP
Years in IT: 7
Technical Skills: PRO IV, Delphi
Location: South East
Ref. No: 0119910 JL

ORACLE, INGRES, POWERBUILDER, SYBASE, UNIFACE

CONTACT: RICHARD BUCK

| | | | |
|----------|----------------|----------------------------------|------------|
| Surrey | Trainer | Oracle Financials | 3 months+ |
| C London | AP | Powerbuilder | 3 months |
| C London | AP | Powerbuilder, Oracle or Sybase | 6 months |
| C London | AP | Oracle Designer/Developer 2000 | 6-9 months |
| W London | DBA | Sybase | 6 months+ |
| C London | AP/Support | Powerbuilder | 3 months |
| Herts | AP | Oracle V7, Forms 3 | 3 months |
| Middx | AP | Ingres 6.4, ABF | 6 months |
| C London | AP | Uniface | 6 months |
| Hants | AP | Ingres Open Road | 3 months+ |
| Hants | AP | Ingres, ABF, Cobol | 3 months+ |
| C London | AP/Team Leader | Uniface, Client Server | 12 months |
| Surrey | AP | Sybase, SQL Server | 5 months |
| Surrey | AP | Oracle V7, Forms 4.5 Development | 3 months+ |
| Beds | AP | Oracle V6, Forms 3, Reportwriter | 3 months |
| C London | Implementor | Oracle Financials 10 | 6 months |
| Middx | AP | Oracle V7, Case*Designer, PL/SQL | 3 months |

RDBMS AND PC DATABASES – CONTACT: NALIN JAY

| | | | |
|--------|-------------|------------------------|-----------|
| London | Senior AP | Foxpro 2.6 | 3 months |
| Berks | AP | Clipper | 3 months |
| Lancs | AP | Progress V.7 | 6 months |
| Surrey | Team Leader | Informix New Era | 12 months |
| Essex | AP | Informix 4GL | 6 months |
| Wilts | AP | Clipper | 9 months |
| London | AP | Foxpro 2.6 for Windows | 6 months |
| Avon | AP | Sculptor | 3 months |
| London | AP | Dataease | 3 months |
| Avon | AP | Lotus Notes | 9 months |
| London | AP | Parsadox | 12 months |
| Berks | Senior AP | Dbase 4 | 6 months |
| Lancs | Senior AP | Lotus Notes | 6 months |
| Cambs | AP | Dataflex | 3 months |

PRO IV, POWERHOUSE, DEC VAX – CONTACT: JASON LEGGATT

| | | | |
|----------|----------|---------------------------------|--------------|
| Midlands | Operator | Dec Vax/Vms, pref. SQL | 4 months |
| Herts | AP | Powerhouse, HP3000 | 3 months |
| Wilts | AP | Cobol, Powerhouse, AIX/UNIX | 3-6 months |
| Essex | AP | Vista 4GL | 12-18 months |
| N East | AP | Powerhouse, HP3000 | 6 months |
| Herts | AP | Pick | 3 months |
| Middx | AP | Pro IV | 18 months |
| Avon | AP | Pick, Unix, Universe, Databasic | 3 months |

SELECTION OF AVAILABLE CONTRACTORS

SELECTION OF CONTRACTORS

PC/UNIX DEVELOPMENT – CONTACT: JASON LEGGATT

| | | |
|---------------|-------------------|------------------------|
| Surrey | AP | Visual Basic, TCP/IP |
| Cambs | AP | Visual Basic, Access |
| Herts | AP | Visual Basic, Oracle |
| Oxon | AP | SQL Windows |
| Tyne and Wear | AP | Visual Basic, Access |
| W Yorks | AP | Visual Basic |
| Kent | AP | Access |
| Essex | AP | Access, VBA |
| London | AP | Access, Banking |
| Surrey | AP | Access, Visual Basic |
| Sussex | AP | Delphi |
| London | AP | Delphi |
| Warks | Software Engineer | Visual C++, SQL Server |
| Berks | AP | X400, TCP/IP, Social |
| Surrey | AP | C, C++, VHDL |
| London | AP | C++, Windows SDK |
| Kent | AP | Visual C++, Windows |
| London | AP | C, Windows SDK, Visual |
| Middx | AP | Unix, C, Motif |
| Cambs | Software Engineer | Borland Owl, C++ |
| London | AP | Windows NT, TCP/IP |
| Berks | AP | Unix, Realtime, C/C++ |
| Yorks | AP | Unix, Visual C++ |
| Midlands | Software Engineer | Windows NT, C/C++ |
| London | AP | C, TCP/IP, X Windows |

PC/UNIX SUPPORT – CONTACT: JASON LEGGATT

| | | |
|----------|------------------------|------------------------|
| Midlands | Support Analyst | Novell, PC's, Mac, A |
| London | Field Service Engineer | PCs and Printers |
| Sussex | Bench Engineer | Electronics exp. |
| London | Help Desk | Novell, MS Office |
| Surrey | Technical Support | Sunos, TCP/IP |
| Middx | System Administrator | Sunos, Solaris, TCP/IP |
| Cambs | Network Specialist | Windows NT |
| N West | Unix Specialist | Unix, Kernel/Device |
| N West | EMAIL SPECIALIST | Groupwise/Wordperfect |
| London | Network Analyst | Novell, MS Office |
| Surrey | Unix Support | Unix, TCP/IP |
| Herts | PC Specialist | Novell, Excel, 123 |
| Essex | PC Analyst | Pathworks, NT, ENL |
| Hants | Tech Support | Lan Server, AS400 |
| Middx | Help Desk | Chameleon 2000 |

progressive

Computer Recruitment Ltd.

9am-7pm Monday-Friday

0181 785 3333

Fax 0181 780 0207

CONTRACTORS

FIRST TIME CONTRACTORS

Progressive Computer Recruitment is 'the agency' to choose as your partner for entering the contract arena. The market is extremely buoyant and with definite skill shortages across all technical areas client companies are now using first time contractors extensively. This quite simply means by starting contracting now in 1996 you could get up to **double your current salary**. We are able to simplify everything for you whilst finding you ongoing assignments with top companies. We deal with a vast array of organisations, financial institutions, end users and software houses – many on an exclusive or preferred basis. We will help you with your initial set up with access to Specialist Contractor Accountants, and tax specialists. We offer ongoing support through the contract and you benefit from the security of working for the market leader.

EXPERIENCED CONTRACTORS

Progressive Computer Recruitment is a well established leading supplier of IT professionals to the industry. We deal with all the major banks, software houses and end users, many on an exclusive or preferred basis. If you are an established Contractor looking for a new contract now or in the near future, contact us for impressive and immediate results.

The service we offer includes:-

- Impressive choice of client/contracts
- Top rates of pay
- Prompt payment
- Expert advice for established and first time Contractors
- The security of working with the leading supplier of IT professionals.

IMMEDIATELY AVAILABLE CONTRACTORS

VISUAL FOXPRO ANALYST PROGRAMMER

Years in IT: 6
Technical Skills: Visual Foxpro, Foxpro, Foxpro 2.6 for Windows
Location: London/Essex
Ref. No: 0119144 SD

REALTIME AP

Years in IT: 16
Technical Skills: C, C++, ADA, Fortran
Location: Southern England
Ref. No: 0123592 AJ

AS400 OPERATOR

Years in IT: 6
Technical Skills: AS/400, OS/2, Lan, PC's
Location: London
Ref. No: 0124091 RJM

PICK AP

Years in IT: 14
Technical Skills: PICK, Reality, Databasic, English
Location: UK Wide
Ref. No: 0121015 JL

NEW ERA ANALYST PROGRAMMER

Years in IT: 4
Technical Skills: Informix New Era, 4GL, SQL On-Line
Locations: Hants/London/Berks/Surrey
Ref. No: 0121451 DM

UNIX 'C' AP

Years in IT: 5
Technical Skills: Unix, C, Windows
Location: London/South East
Ref. No: 0123762 AJ

AS400 MANUFACTURING AP

Years in IT: 10
Technical Skills: RPG400, BPCS, JBA
Location: Herts
Ref. No: 0123823 RJM

COBOL, AM, ICL AP

Years in IT: 7
Technical Skills: ICL (VME), COBOL, AM, IDMSX
Locations: London, Surrey
Ref. No: 0121713 JL

PROGRESS ANALYST PROGRAMMER

Years in IT: 4
Technical Skills: Progress V7, V6 with GUI
Locations: Surrey/London
Ref. No: 0119190 YP

VISUAL C++ DEVELOPER

Years in IT: 13
Technical Skills: Windows, Visual C++, C/C++
Location: Midlands
Ref. No: 0115421 AJ

MIDAS AP

Years in IT: 7
Technical Skills: RPG 400, Midas
Location: C London
Ref. No: 0114623 RJM

POWERHOUSE DEVELOPER

Years in IT: 9
Technical Skills: Powerhouse, VAX, DG, HP3000
Location: UK Wide
Ref. No: 0122582 JL

OMNIS 7 ANALYST PROGRAMMER

Years in IT: 3
Technical Skills: Omnis 7, Oracle 7, Ingres, Novell
Location: Anywhere
Ref. No: 0109710 AS

PC LAN SPECIALIST

Years in IT: 4
Technical Skills: Novell, Lan Manager, NT
Location: South East/West
Ref. No: 0123749 DC

COBOL, CICS, DB/2 AP

Years in IT: 7
Technical Skills: Cobol, Cics, DB2
Location: Herts
Ref. No: 0124044 JH

VAX SYSTEM MANAGER

Years in IT: 11
Technical Skills: Dec VAX/VMS, DCL, DECNET, PC's
Location: London, Thames Valley
Ref. No: 0119443 JL

IBM AS400 – CONTACT RUSSELL MUNDAY

| | | | |
|---------------|--------------|-----------------------|-----------|
| Bath | AP | RPG/400 | 6 months |
| Northampton | Operator | AS/400 | 6 months |
| C London | AP | RPG/II, RPG/400 | 12 months |
| Leicester | AP | RPG400 | 3 months |
| H Counties | Tech Support | AS/400, OS/2 | 6 months |
| N London | AP | RPG/400 Manufacturing | 9 months |
| C London | Various | Insure 90 | 12 months |
| Midlands | Operator | AS/400 | 3 months |
| Kent | AP | RPG/400, Synon | 9 months |
| Surrey | AP | RPG/400, CL | 6 months |
| Berks | Various | BPCS | 12 months |
| Manchester | AP | RPG/400 BPCS | 12 months |
| Middx | Various | JDE | 9 months |
| Home Counties | Operator | AS/400 | 3 months |
| C London | AP | RPG/400 Midas | 6 months |
| Oxon | AP | RPG/400 CL | 12 months |
| Southampton | Operator | AS/400 | 6 months |

IBM MAINFRAME – CONTACT JUSTIN HUGHES

| | | | |
|----------|----------|-------------------|----------|
| Bristol | AP | Cobol, Cics, DB2 | 6 months |
| Herts | Sys Test | Batch Cobol, DB2 | 6 months |
| Berks | AP | APS | 6 months |
| N West | PM | M/F, PC | 6 months |
| Midlands | AP | Adabas Natural | 3 months |
| Hants | AP | Easytrieve, Cobol | 6 months |
| Herts | AP | SAP R/2, RF | 3 months |
| London | AP | Cobol, Cics, DB2 | 3 months |
| N West | TA | M/F, PC | 3 months |
| London | OPs | MVS, JES2, CA7 | 3 months |
| Wilts | AP | Cobol, Cics, DLI | 3 months |
| London | AP | SAP R3 | 6 months |
| Bristol | AP | APS, Cobol | 3 months |
| Cardiff | Sys Test | Cobol, DB2 | 3 months |
| Bucks | AP | Cobol, Cics | 3 months |

ICL, TANDEM, STRATUS, HP – CONTACT JASON LEGGATT

| | | | |
|--------|-------------|------------------------|--------------|
| London | Operator | HP3000 | 4 months |
| N East | AP | Tandem, Cobol | 3 months |
| Herts | AP | Tandem, Base 24, TAL | 12 months |
| Surrey | AP | ICL, Cobol, AM | 6 months |
| Middx | Operator | ICL/VME | 3 months+ |
| London | Senior Prog | Stratus, Scobol | 6 months+ |
| London | 5 x AP | ICL, Cobol, IDMS, TPMS | 12-18 months |
| Berks | AP | Cobol, HP3000, Unix | 6 months |

"Thanks very much for getting me into Contracting" – NH, Vax System Manager.

"Thanks for all your help and expert advice" – IC, 'C', AP.

"Progressive have kept in touch all through the contract" – AD, Help Desk.

"They chase me for my invoices and timesheets" – PB, IBM Mainframe.

"My first contract and Progressive helped all the way through" – PM, AS400 Specialist.

"Progressive had me working within 24 hours of me faxing the CV" – KB, Oracle expert.

or send your CV to:

Progressive Computer Recruitment,
Europa House,
266-276 Upper Richmond Road,
London SW15 6TQ

or 0181 780 1694

The following are urgent requirements

VALENTINE



SUPPORT SPECIALIST

SOUTH WEST LONDON £16,000
QAS is a market leading Software Company with a client base in excess of 1,700. Due to expansion they currently require a Support Specialist to provide a multi faced role which will encompass pre and post Sales Support. To qualify you will ideally be a graduate with at least 12 months experience in a technical role with an in depth knowledge of MS DOS, Windows and ideally UNIX. Any previous knowledge of relational databases, Novell, VMS and AS400 would be an advantage however not essential as training will be provided. It is essential however that you are enthusiastic, ambitious and have excellent inter personal skills as well as being well presented. In return for your commitment to the company they are offering a generous salary including Profit related Pay Scheme and opportunities to grow within this fast moving company. To find out more please call Julia Kenny at Valentine Scott.



CONSULTANCY

USA/EUROPE CONTRACT
Founded in 1980 SE Technologies Inc. have provided systems integration solutions to hundreds of companies throughout the world. With HQ in Connecticut, the company now employs more than 250 professionals through seven worldwide offices. Due to massive growth the following skills are required throughout their network of offices.

- * Triton
- * Oracle Financials V10
- * Oracle manufacturing
- * QUAD - MFG/Pro
- * Manman Classic

Multiple openings at all skill levels - UK & Europe - California - Texas - Atlanta - Chicago.



CHRISTMAS IS OVER (NOW IT'S TIME TO FOLLOW THIS STAR)

HERTS TO £26,000 + CAR + BENS
Twenty years on, we're still the leading light in computer services for the IT industry. Customers are flocking to us to seek out guidance and to profit from our expertise, and we need to further expand our customer services installation team. If you are high calibre technical specialist with an electronics or engineering background and an excellent knowledge of PC architecture, you should consider heading our way, particularly if you come with the gifts of CNE status attainment or certification as a Microsoft Product Specialist and familiarity with Microsoft's NT environment with applications products. Make your new year a bright one. Send your CV to Dean Ridgewell.



TRAINEE & EXPERIENCED CONSULTANT

BERKS £15 - 28,000 + CAR
Our Client is a well established Consultancy employing over 50 Specialists and with an extensive Client Base envious of its competitors. An Implementation Consultant is required to be involved in a variety of activities including Project Management working with Customers to define, Pilot and Implement Systems. Candidates will have a proven Project management and Systems Implementation background coupled with business knowledge of Programme/Project Management Systems and/or Financial Applications. Also a Trainee Consultant is required. Applicants will be graduates with a minimum of twelve months UNIX Development experience ideally utilising one of the mainstream RDBMS's. Excellent salary plus guaranteed career prospects.



MOUNTAIN CLIMBERS WANTED (OO Business Analysis, Design and Methodology experience desirable)

HERTS £30 TO 40,000 + BENS
Not content with being the UK's leading supplier of Service Management Systems, Pinnacle is reaching even higher. Our prestige development project, codenamed 'Everest', has just one objective: to capitalise on our knowledge and experience to create the world's finest service management system. Naturally, we have selected the world's finest development tools and methodology, and our climbing kit includes superb CASE, Object-Oriented and Knowledge Base technology, targeted at producing outstanding, fast GUI applications in database-independent client/server open systems environments. If you are capable of scaling the peaks in Sales, Pre Sales Support, Project management, Knowledge Base Engineering or Object Programming, preferably in a commercial environment, you could be eligible to join our assault team. If, like us, you are intent on going straight to the top, we'd like to hear from you. Please contact Adam Joining.



COMPUTER SERVICES

ORACLE

ESSEX to £25,000 + BENS
Sherwoods Computer Services Ltd are one of the most successful IT Consultancies in the business. Their success is as a result of their innovative approach as well as the investment in people. They are currently in the process of strengthening their Insurance Division hence they require a talented Oracle Developer. Applicants will be well educated and have a minimum of eighteen months SQL*Forms 3.0 experience ideally with knowledge of 4.5 however not essential as training will be provided. This is an excellent opportunity to work for a market leader and gain much sought after SQL*Forms 4.5 skills.



ORACLE

DOCKLANDS £22 - 25,000 + BENS
The Daily Telegraph's reputation speaks for itself, so does its IT department. They are currently in the process of enhancing and developing a range of new internal commercial systems utilising the latest technology including Oracle V7, SQL*Forms 4.5, Visual Basic and CASE. In order to continue building sophisticated systems a talented developer is required. Applicants will have a minimum of two or three years development experience gained in a structural environment coupled with at least two of the following: SQL*Forms 3/4.5, PRO*C or Visual Basic. In addition to your technical skills applicants will be articulate, well presented and have a lively outgoing personality. In return for your commitment they offer an excellent salary package plus full range of benefits including six weeks holiday.

JUNIOR SUPPORT

SURREY £15,000
Expanding training consultancy and software development company based in Surrey are currently looking for a Junior to join their expanding technical and user support team. This young and friendly company require a candidate with first class inter personal skills as you will be liaising with first class clients, coupled with technical knowledge including Windows, Visual Basic, MS Access, Novell or OS/2. These skills are advantageous, however not essential as training will be provided to the right candidate. An exciting opportunity to join a company that has excellent career progression and attractive salary to match. REF: 1255

SCOT

INSURING PARADOX

CITY To £20,000
A highly respected Insurance Organisation with offices throughout Europe are currently looking to recruit another Analyst Programmer to join their growing IT department. Developing In House Insurance Systems, you will be an integral part of an IT department that is planning to move into Client Server technology during the course of the year. Applicants to be considered should have a thorough understanding of Paradox for DOS and Windows, gained in a commercial environment, and the ability to work alone as well as in a team. Projects will be varied and challenging, and will allow you the opportunity to expand your Paradox knowledge and break into the challenging environment of Client Server.

PRE SALES CONSULTANTS RDBMS

SURREY £40,000 + CAR + BONUS + BENS
One of the largest Software Vendors in the world employing over 1,200 employees in 50 countries is looking for two Pre Sales Support Consultants as a result of increasing growth and expansion. The first role requires the skills of an Open Systems Specialist with at least five years IT experience utilising flavours of UNIX, NT, Oracle, Sybase and/or Informix. The second role requires an IBM Specialist with solid technical skills encompassing the majority of the following DB2, CICS, DL1, IMS/DC and IMS/DB. Both roles require extensive business acumen, an understanding of the sales process as well as first class written and verbal communications skills. It is essential that candidates have a flexible attitude as there will be travel involved. In return for your commitment the company is offering an attractive basic, fully expensed car, bonus, pension, Healthcare.

NETWORK SUPPORT SPECIALIST

BERKS To £25,000
Xenova Ltd is a Biopharmaceutical company specialising in the discovery and development of new medicines. The IT department plays a vital role in the success of the company and hence their investment in people is paramount. They currently require a Network Support Specialist with a track record in the Management of Multiple Server Novell Networks. Initially to cover for a current employee on maternity leave. However due to expansion the role may possibly become a permanent position in due course. In addition the role requires extensive user Support and the ability to deal at all levels. Applicants will have a minimum of two years experience in a similar role (preferably CNE or CNA) with strong technical skills encompassing Windows, Word, Excel and Harvard Graphics. Any knowledge of Anti virus and Origin Scientific Graphics Software would be an advantage however not essential. Attractive role with an excellent salary package. Contact Julia Kenny

VB TEAM LEADER

SURREY £30,000
Our client is a major Software House providing the leading Building Societies and Estate Agencies with Mortgage software and other financial packages. They are currently looking to take on board a Visual Basic Team Leader. You will be leading a team of three on an exciting new project developing new software for the property sales market. You must have three full years of Visual Basic, with Windows NT and Telecoms being highly desirable. This is an excellent opportunity for a Senior Programmer to take a leading role in a progressive company. You should have very good skills with regard to dealing with people, have excellent business acumen and be ambitious, hard working and thoroughly professional. In return your remuneration will be generous and your career will be greatly enhanced.

If you only apply for one job this year...

You owe it to yourself to make it one of these. Here are 400 jobs our client has on offer.

Hampshire, Berkshire, Lancashire, Nottinghamshire, London, East Anglia, Scotland, West Midlands and Yorkshire.

Salary range £16,000 - £70,000 + Bonus + Benefits

Informatiq Consulting have been retained by one of the world's largest 'blue chip' computer organisations. Our client is experiencing a period of exceptional growth resulting in the need for over 400 experienced computer professionals, to be based at various locations throughout the UK.

Lotus Notes Implementors

This is a client facing role working for the Lotus Notes company. You will have extensive experience of implementing large scale Notes applications across hundreds of users. You should have at least two years experience of Notes either as an implementor or a developer, together with the ability to work independently. We are particularly interested in candidates who are prepared to undertake international scale implementations and InterNotes applications.

PL/1 IMS DB2 Programmers

You must have a minimum of 2 years of PL/1 and IMS ideally gained in a DB2 environment. This role will be based on client sites and will involve maintenance as well as development.

Senior IT Consultants

This role involves bridging the gap between business and IT. You must have a strong understanding of technology and its application together with a track record of senior staff influence.

Network Systems Management/Designers

These roles involve designing, implementing and managing large scale network systems for clients. You will be able to analyse current infrastructure and predict future network traffic using defined design criteria. You will be dealing at senior levels and so excellent interpersonal skills are vital. Technical knowledge should include - LANS, WANS, UNIX and PCs. For some positions internet literacy and a background in problem and configuration management is required.

All of these roles offer the outstanding career prospects that come from working for a truly professional organisation. On-going training and development will allow you to expand your current horizons. All positions carry an extensive benefits package and all staff are eligible for a variety of bonus schemes. In the first instance please send your C.V. to Kevin Williamson or John Scott at the address below.

Client/Server Application Developers

You will be working for the prototyping area of the systems solution division. They are currently working with a variety of state of the art systems and you will be involved with designing and delivering prototype systems on client sites. To be considered for this role you will need at least two of the following - UNIX, OS/2, MVS, CICS, DB2, C, C++, Informix, Oracle, RPG400, MQ, LANS, TCP/IP, SNA, OOD, Smalltalk and RAD.

DB2 and DB2/2 Designer & Developers

Our client currently needs over 20 DB2 professionals who can work in a variety of roles including database design, database administration, COBOL programming and client/server database implementation. These positions will allow you to work with the latest DB2 tools and gain consultancy experience.

OO Designer & Developers

Multiple vacancies exist nationwide for strong OO developers. You should be able to design Windows based applications as well as being able to code them. The client is currently undertaking some of the largest and most ambitious OO projects in the UK using combinations of C++, Smalltalk, VisualAge and Delphi.

Project Managers/Directors

Experienced Project Managers with formal management methodologies and exposure to new technologies (Client/Server, OO, RDBMS) are required throughout England and Scotland. Positions range up to Senior Director.



Gresham House, 53 Clarendon Road, Watford, WD1 1LA. Tel: (01923) 224481 Fax: (01923) 224493 Email 100672.2430@compuserve.com

LINK UP WITH A MAJOR INNOVATOR NETWORK MANAGER

£22 - £24k

Riverside is an innovative, dynamic community health trust serving the people of West London. We're committed to delivering quality services which are responsive to local needs and supporting them with the latest technology.

A case in point is the sophisticated networking strategy we're currently implementing. Initially, we're establishing communication links between 18 of our main sites and clinics, subsequently introducing office automation and bringing in smaller sites. The system is now data based but will eventually run to voice.

Your brief will be to provide support for the network and carry out all the associated development. You'll also be the main point of contact for all external contractors and suppliers.

A logical thinker with excellent interpersonal skills, you'll have significant experience of managing LANs and WANS and an extensive knowledge of PCs, Windows and Microsoft Office. Conscientious and self-motivated, you'll relish the challenge of seeing a project through to completion in a rapidly expanding area of the NHS.

You will be working within a progressive environment and a culture which welcomes new ideas and supports personal development. For an informal discussion contact Graham Williamson on 0181-846 7838.

For an application pack please contact the Human Resources Directorate, Parsons Green Centre, 5-7 Parsons Green, London SW6 4UL. Tel: 0181-846 7834 (office hours) quoting reference number GJ/2026.

Closing date: 22nd January 1996.
Interview date: 29th January 1996.

RIVERSIDE
Community
HEALTH CARE

BANKING/FINANCIAL CONTRACTS

| | |
|------------------------|--|
| C++/UNIX | 12 MONTHS |
| | Life cycle development of a Fixed Income System |
| C/SYBASE WINDOWS NT | 12 MONTHS |
| | Roll out of trading system onto Windows 95 utilising C, Sybase and C++ |
| C++ UNIX/SQL | 12 MONTHS |
| | Analysis, design and development of a currency options/derivatives system |
| VISUAL BASIC | 6 MONTHS |
| | Front Office Client Server development of a Global Risk Management System |

We are preferred suppliers to all the top financial institutions in the City. We require contractors for top jobs with top rates. Call Paul Wilkins NOW 0171 287 2525. Alternatively please send or fax your CV to us at: ARC International, Recruitment & Consultancy Services, 15-16 New Burlington Street, London W1X 1FF.

Tel: 0171-287 2525



Fax: 0171-287 9688



A peach of an opportunity for OO Developers

Atlanta, USA
Home of the 1996 Olympics
\$50,000 - \$75,000

Do you have at least a year's experience developing Object Oriented applications?

If so, Computer People has an excellent opportunity for you to live and work in the USA! Our client, a world-renowned telecommunications company, has a number of challenging, long-term development projects based in Atlanta, Georgia.

Successful candidates will need to have either:

UNIX C++ CLIENT/SERVER APPLICATION DEVELOPMENT EXPERIENCE

or

SMALLTALK DEVELOPMENT EXPERIENCE

Familiarity with **ORACLE** or a **TELECOMMUNICATIONS SYSTEM DEVELOPMENT** background would be a plus.

Client interviews will be held in London in late January. To receive a full information package on these excellent opportunities, which includes details of our comprehensive range of benefits, call **Ian Tynan** or **Anita Batish** on 0171-440 2000 during office hours, or 0181-879 3037 (eves/weekends). Alternatively, send your details to them at: Computer People International, Piccadilly House, 33 Regent Street, London SW1Y 4NB. Fax: 0171-440 2026.



COMPUTER PEOPLE INTERNATIONAL
0171-440 2000
THE MARKET LEADER



Spend 1-2 years in charming New England while enhancing your career!!
LONDON AND DUBLIN INTERVIEWS EARLY 1996

Our client is the nation's largest full service provider of a wide range of financial services and software solutions to the mutual fund and banking industries.

Openings exist for **ANALYST/PROGRAMMERS** educated to degree standard or equivalent with 4+ years experience in any of the following:

- **BATCH MAINFRAME COBOL**
- **MVS JCL, TSO and VSAM or IDMS**
- **Database experience and CICS a plus**
- **Custom Statement Formatter experience also a +**

Openings also exist for candidates with any of the following:

- **Windows-NT, SQL-Server, Powerbuilder**

We offer competitive salaries, paid air-fare and relocation allowance, paid health insurance and all visa processing.

Over 25 years of **personalized** experience in international recruitment. To arrange a confidential meeting with our client's senior management, phone (reverse charges accepted), fax or e-mail Julie Levine/Michael Starr at:



LEXSTRA INTERNATIONAL, INC.

240 West 44th Street, #8 • New York, NY 10036 USA
Tel: (212)575-2799 • Fax: (212)575-2820 • e-mail: lexstra@ingress.com



GET ON THE RIGHT TRACK!!!

USA 1996

NEW YEAR – NEW OPPORTUNITIES

We have, and will continue to have, the very best opportunities on the East Coast. Current requirements are for Analyst Programmers with skills in the following areas:

- BOSTON:** PL/1 IMS DB/DC
COBOL CICS DB2 VSAM
UNIX/C with Oracle or Sybase
- CONNECTICUT:** COBOL DB2
- NEW YORK:** COBOL CICS VSAM DB2 IMS
- NEW JERSEY:** IEF Design and Construction
- PHILADELPHIA:** COBOL CICS

Initial interviews will be by telephone followed soon afterwards by personal interviews in London. Our client, a major Consultancy employing nearly 700 IT professionals, offers competitive salaries, exceptional benefits and generous relocation assistance. For more information send your CV to:

Diana Johnson
DJ Recruitment, 74 Tongdean Lane,
BRIGHTON BN1 5JE
Tel: 01273 506457 Fax: 01273 507141



We work in partnership with our clients to provide marketing enhancements to enable them to acquire and retain their customers through membership-based discount services. As part of CUC International, which has over 8,000 employees and 34 million members, we are committed to making our products and services ever more accessible to a broad range of consumers through our support of the very latest delivery technologies. As we continue to expand in Europe we seek flexible, highly self-motivated individuals who will be committed to enhancing our already outstanding reputation for service.

ANALYST/DESIGNER

You will liaise with business analysts and our users to define and document business needs and establish requirements for new systems or enhancements to current systems. You will design these systems or enhancements in accordance with documented needs and will play an important role in all aspects of Information Systems projects. You may be required to travel within Europe.

You must be a Computing or Business (with a computing element) graduate with at least three years' experience in an analyst/designer role including the use or design of Relational Databases. Ideally, you will have programming experience and exposure to DEC VAX/VMS computers while exposure to structured analysis/design methods would be useful. Some knowledge of European languages (especially French or Spanish) would be an advantage.

PROGRAMMER/ANALYST

You will be part of a small but growing team dedicated to developing and supporting our bespoke commercial applications which are fundamental to our business in Europe. This will involve supporting and enhancing existing applications and producing software to support new services.

You must have at least two recent years' Fortran programming experience in a VAX/VMS environment allowing you to be comfortable in structured/modular programming. Ideally you will be a graduate with Relational Database experience (particularly Oracle).

The salary and benefits packages we offer reflect the real importance of these positions while, equally importantly, our expansion plans offer a genuine opportunity to develop your career.

Please send your CV, with salary expectations, to: Rosemarie Edwards, CUC Europe, Eton Court, Eton, Windsor, Berkshire SL4 6BY.



CUC EUROPE

CTI Systems Development

£20K to £26K + Car

In response to its continuing success, particularly with its call centre product ROSTRVM, IDS is recruiting software professionals for development roles in the Telephony/CTI area. Previous experience of Telephony systems is not required, but you will have:

- a degree in computer sciences or a numerate discipline,
- 2/3 years experience of real-time software development in a project environment,
- experience with client/server architectures,
- good 'C' or 'C++' development experience,
- a good knowledge of Unix and/or MS-Windows,
- self-motivation,
- enthusiasm with good customer facing skills.

Our Telecomms Systems Group specialises in the provision of high quality CTI enabled call centre solutions, and is continuing its growth. We can offer:

- rapid career progression opportunities,
- the chance to apply your skills to new and exciting technical areas,
- a committed and professional team environment,
- the chance to learn new applications and techniques.

To find out more about the opportunities which IDS has to offer, including our comprehensive benefits package, call Jeff Dawson on (01483) 755205, or send a CV to him at the address below.

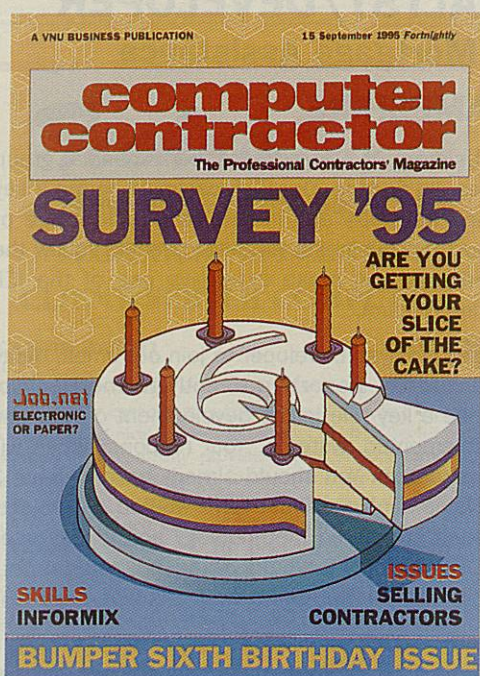
Intercom Data Systems Limited, Kings Court, Church Street East, Woking, Surrey GU21 1HA.

Fax: (01483) 729131.



success
through
quality

Interested in contracting? Then read



The demand for contractors continues to grow at a phenomenal rate. Once again people are talking about the skills shortage and the problem that most employers now face is finding people with the right skills to suit their requirements.

There has never been a better time to consider working on contract and there is no better way of finding out about the market than reading Computer Contractor.

Every two weeks you will receive a magazine that contractors have come to rely on for the most up to date news, views and jobs. The Editor, John Samson is an experienced contractor himself, concerned with contracting issues on a day to day basis and so he closely reflects the attitudes, concerns and perceptions of people like you.

You can receive your own free issue of Computer Contractor by completing the coupon to request a free subscription application form and returning it (no stamp required) to the address below or by calling our circulation department on 0171 316 9700.

**FREE
FIRST TIMERS
GUIDE
(SECOND EDITION)
APPLY NOW**



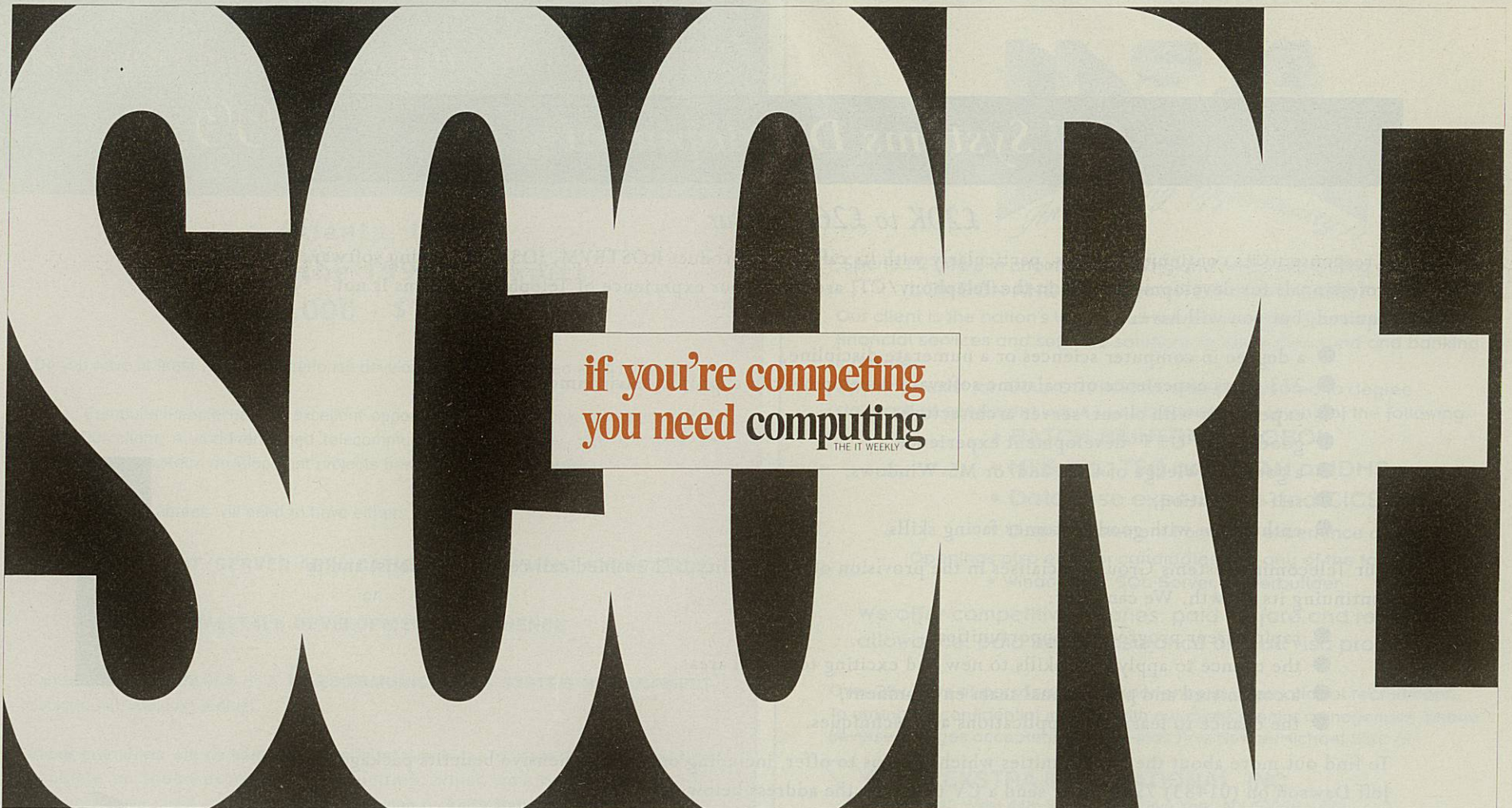
New subscribers will also receive a FREE 70 page First Timers Guide packed with useful information (limited period only so apply for your FREE subscription today).

Computer Contractor FREEPOST 1, 32-34 Broadwick Street, London W1E 6EZ

NAME JOB TITLE

CONTACT ADDRESS

TEL NO



**if you're competing
you need computing**
THE IT WEEKLY

**Get measurable results from your advertising.
Place it in *computing* and reach the IT professionals who matter most.**

SAS

Programmers & Developers
to £24k + car
Manchester
Minimum of 3 years SAS exp.
Contact Ian Bennett at

Kramer Westfield
SEARCH AND SELECTION

The Old Pound House,
London Road, Sunningdale,
Berkshire SL5 0DJ
Tel: 01344 875087
Fax: 01344 874877
e-mail: KW@kramwest.demon.co.uk

HELP DESK

to £20k + benefits
Thames Valley
Fluent Italian & Windows exp. vital
Contact Ian Bennett at

Kramer Westfield
SEARCH AND SELECTION

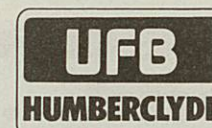
The Old Pound House,
London Road, Sunningdale,
Berkshire SL5 0DJ
Tel: 01344 875087
Fax: 01344 874877
e-mail: KW@kramwest.demon.co.uk

MVS

Systems Programmer
to £25K + Bonus
Thames Valley
Minimum of 4 years exp.
Contact Ian Bennett at

Kramer Westfield
SEARCH AND SELECTION

The Old Pound House,
London Road, Sunningdale,
Berkshire SL5 0DJ
Tel: 01344 875087
Fax: 01344 874877
e-mail: KW@kramwest.demon.co.uk



SYSTEMS ANALYST/DEVELOPER **C.£27,000 + Mortgage Assistance** **HAMPSHIRE**

UFB Humberclyde is the UK subsidiary of a large European financial group specialising in corporate and sales aid finance. Our IT department forms a key part of the company strategy and develops and maintains a wide range of comprehensive systems to support our business. All developments follow the Information Engineering Methodology and make extensive use of the IEF toolset and the Focus report writing product.

We require an experienced Systems Analyst/Developer to join our small, multi-disciplined systems development team. Reporting directly to the Head of Systems Development you will take a key role in the development of new and the maintenance, of recently implemented systems. Your responsibilities will include analysis, design and construction. You should already have at least 3 years experience in software development and must have worked on projects which have followed an established structured methodology and ideally used CASE toolsets. Knowledge of DB2 and CICS would be an advantage. Your qualities should include good inter-personal skills and positive drive and initiative.

This position is based in our head office at Hook in Hampshire and qualifies for an excellent package including mortgage subsidy, non-contributory pension and private medical treatment. Full training will be given in IEF.

If you have the right qualities please write with full CV, including current salary details, to:

Human Resources Manager, UFB Humberclyde,
United House, Bartley Way, Hook, Basingstoke, Hampshire. RG27 9UF

No Agencies

ANALYST PROGRAMMER **SOUTHAMPTON BASED**

Mann Motorships Limited is one of the UK's leading Liner Agency Companies, with an international reputation for innovation in all business areas including IT. The company operates within the AS400 environment with Novell based PC networks locally and remotely attached.

In order to enhance our position, we wish to recruit an ANALYST PROGRAMMER. The ideal candidate will be able to demonstrate good knowledge of RPG400, have the ability to communicate well on a technical and non-technical level, and be willing to put forward creative but practical business solutions. The successful candidate will show commitment and team working abilities.

A competitive salary and benefits package, dependent on age and experience, will be offered.

To apply please post or fax a CV including current salary for the attention of Lyn Halfpenny, Mann Motorships Limited. College Keep, 4-12 Terminus Terrace, Southampton SQ14 3QD.
Tel 01703 237711 Fax 01703 231310.

LEXMARK INTERNATIONAL INC. a multinational company who develop, manufacture and sell Personal and Network Printers and associated Supplies, require a

EUROPEAN DATABASE PROJECT MANAGER

to work in their European Support Centre, situated 15 kms (8 miles) from Orleans, France.

The Role : As part of the European Marketing department, you will be responsible for managing a Lotus Notes database Project, designed for the electronic communication of marketing and sales information to our European Business Partners.

Working closely with our 13 European subsidiaries and with the European Marketing and M.I.S. departments, your responsibilities will also include the definition, implementation and maintenance of this database system in accordance with our Subsidiaries' requirements, and you will be required to advise, train and provide support to the system's European administrators and users.

Qualifications : A University level (or equivalent) education in Computer Studies or associated subjects. Knowledge of Lotus Notes is required, with experience in Notes Development an advantage, although additional training can be provided.

Fluent English is essential, as well as a good knowledge of French. A self-motivator, you will have strong communications and organisational skills, and will demonstrate a keen sense of team-spirit.

The initial contract is for a minimum period of twelve months.

Please send your application, together with a detailed CV, by fax, to : (33) 38 71 10 48, SERVICE DU PERSONNEL, quoting reference number GESBD 2.

LEXMARK™

ADVANCING THE ART OF PRINTING

Systems Solution Specialist

required to scope, design and assist, via an existing channel, in the implementation of total business solutions within the DIP and Workflow marketplace. Experience of Windows/systems integration required. Based in Surrey, Salary circa £25,000 plus benefits. Call 01483 726222.

SOFTWARE PROFESSIONALS

who want to be challenged

Data Sciences, one of Europe's foremost Software Technology based IT Services companies, are urgently seeking **Software Professionals** across a wide range of disciplines to join teams working on a variety of projects. If you have one or more of the following skills, are degree educated with a strong customer focused background, this is your opportunity to join a company committed to providing varied career development and training opportunities to its employees.

- Databases: Oracle, Ingres, Informix, SQL Server
- UNIX, C, C++
- Visual Basic, Windows NT, Windows Development
- MS Access, MS Office
- ADA
- IBM/Cobol/CICS/DB2
- Lotus Notes
- Novell Netware

Data Sciences, with more than 1700 employees, is a market leader in each of its chosen sectors, having the in-depth market understanding to offer a full spectrum of services from consultancy through system design and integration, software development and project management to the operational management of the installed systems. With a strong order book, we are planning for sustained, controlled growth over the coming years.

Locations: Farnborough (Hants), City, Wilmslow (Cheshire)

Benefits include: Excellent salaries, free BUPA, 25 days Leave and a Company Pension Scheme. Senior positions attract fully expensed company cars.

If you are interested in what Data Sciences can offer you, please send your CV to

Lesley Lovell, Technical Recruitment Department
Data Sciences Ltd, Meudon House, Meudon Avenue
Farnborough, Hants, GU14 7NB

Phone: 01252 544321 ext 3512 Fax: 01252 513739
email: recruit@fam03.datasci.co.uk



DATA SCIENCES

Making the best communication better

UNIX TECHNICAL SUPPORT ADMINISTRATOR



Telstra is the biggest name in Australian telecomms, employing more than 60,000 people around the world.

Our up-and-running UK operation is already set for dynamic growth, creating excellent opportunities for ambitious, self-motivated people who share our commitment to professionalism and appetite for success.

As part of our expansion, we're planning to further upgrade our software systems and are looking for an experienced professional to take on the administration of HP-UNIX technical support. You will be involved in system security, the installation and configuration of software and the establishment and maintenance of network services. We'll also expect you to maintain systems, disk resources and hardware, whilst implementing a standard hardware and software environment for production systems. It's a role which requires 3 to 5 years of similar experience, where you will have gained a thorough understanding of the software life-cycle and an ability to write shell scripts. A background in telecommunications or a knowledge of Oracle would both be a definite advantage.

If you'd like to make your mark in a rapidly expanding company, we can promise you a share of the rewards, which start with a competitive salary, generous benefits and unlimited career opportunities. To apply, please send your CV and current salary details to John Pepper, Telstra UK Ltd, 44-48 Paul Street, London EC2A 4LB. No agencies please.



Telstra



DATABASE ADMINISTRATOR

Until 31st March 1997

£14,943 - £15,942 with possible progression to £17,667

Can you program in SQL? Do you have at least two years' experience in an IT environment, and a logical mind? We are looking for a Database Administrator to join our IT team based at Shire Hall.

Responsibilities include monitoring of data integrity and development of a range of reports from our departmental Oracle databases. This is vital work as the information will help the Social Services Department make informed decisions about its work and will also help us improve the quality of the data held in our systems. We need someone who can communicate clearly both orally and in writing, and who can work both alone and in a team.

For further information contact Janet King, Head of IT, on 01734 234838.

Application forms and job descriptions are available from the Personnel Section, Social Services Department, Shire Hall, Shinfield Park, Reading, Berkshire, RG2 9XH. Please telephone 01734 234867, this is a 24 hour answerphone service for which you will need to quote the job title and reference number BC 44610 together with your name and address.

Closing date: 22nd January 1996.

Interviews will be held on 29th January 1996.

We offer a no-smoking working environment.
AN EQUAL OPPORTUNITY EMPLOYER



Royal County of
BERKSHIRE

TechnoSys

Technology Systems Solutions

TECHNICAL SPECIALISTS

CLIENT/SERVER COMPUTING

MIDLANDS BASED

TO £35,000

A number of opportunities are available for exceptional individuals to join a new, rapidly expanding, company specialising in the provision of a wide range of technical services in the area of client/server computing infrastructures. The company provides technical consultancy, systems integration and technical support services to a range of clients, including very large corporate customers. We have particularly strong expertise in Microsoft NT and related products, having implemented on one of the largest NT networks in the UK. The company is based in the Midlands but provides services to clients throughout the UK.

Technosys is keen to recruit additional technical specialists who have both high levels of technical ability and the interpersonal and communications skills necessary to interact effectively with customers. We are particularly interested in people with experience of Windows NT and related Microsoft products plus sound communications expertise. We would also like to hear from anyone with relevant skills in other disciplines such as Unix, remote working and groupware. There are excellent career development prospects for the right individuals.

A highly attractive benefits package is provided which includes regular bonuses and an annual profit sharing scheme.

For more details contact Steve Carvell or David Vines on 01203 697007.

Written applications, with full CVs, should be submitted by 19th January 1996 to:

Technosys Limited
Sovereign Court
University of Warwick Science Park
Sir William Lyons Road
Coventry CV4 7EZ

Please note that agency applications will not be considered

PROGRESS 1996

Advance your career in PROGRESS 4GL in the New Year.

We specialise in the fast expanding PROGRESS market place and always have attractive vacancies to fill - Version 6, Version 7 and (soon) Version 8.

Our clients include end users and software/systems houses working on a variety of applications - accounting, banking, commercial, distribution, manufacturing etc etc.

Jobs are available throughout UK and EU at salaries from £16,000 to £35,000 depending on experience and level.

REGISTER NOW

Please send your CV in confidence to our PROGRESS team

REFLEX

Computer Recruitment

Brabazon House, High Street, Redhill, Surrey RH1 1SQ
Tel: 01737 778282 Fax: 01737 778950
Email: reflexcomp@compulink.co.uk

For your
International vacancies
please refer to
page 50

Have You Got What It Takes To Be A

World Player?

Manchester

Barcrest is a wholly owned subsidiary of Bass PLC and Europe's leading manufacturer of coin operated amusement and gaming machines. Barcrest has succeeded in achieving market leadership in all its product sectors through dedicated teams who combine flair and creativity with the use of state of the art computer technology.

A significant increase in their portfolio of products, combined with increasing market share in Europe, North America, Australia and the Far East has highlighted the following opportunity.

EMBEDDED SOFTWARE ENGINEER

TO £21,125

This is a key technical role within Barcrest's core product division and is both challenging and rewarding. You will join a team developing the next generation of amusement and gaming machines for a truly global market, your responsibilities will include developing new and innovative embedded software solutions.

The pre requisite skills for the role are fluency in C or FORTH and an ASSEMBLY level language, ideally M68000 or M6809. In addition you must be self motivated, flexible and able to work on your own initiative in a very demanding environment.

Previous experience of developing real time software using structured programming techniques or video/graphics programming would be an advantage.

REMUNERATION

Barcrest offers a highly competitive salary based on your experience and ability. Additional benefits include a pension scheme with life assurance, profit share, share save schemes and company discounts after a qualifying period. If you have the ability and commitment to help Barcrest retain its position as a true market leader then we would like to meet you.



Please contact Intellect Recruitment on 0161 236 3776 quoting reference BCRM or forwarding a detailed CV to the following address: Intellect Recruitment Limited, PO Box 520, Clarendon House, St Peters Square, Manchester M60 2HT. Alternatively fax your resume to 0161 236 3770 or Email to perm@intellect.demon.co.uk (uncoded format please).



To advertise
here
please fax
your copy
on

0171 316
9100

ACADEMIC COMPUTING SERVICE

Network Development Officer

The Open University has a large network infrastructure encompassing 19 sites throughout the UK. As well as an ongoing process of development of the network to meet the demands of research and administrative applications, the University has ambitious plans for teaching with technology. Projects include enhancement of the existing technical infrastructures to allow much greater exploitation of the Internet, interactive multimedia and the provision of on-line information services and administrative systems for direct tutor and student use. The University will have over 15,000 students and tutors working over remote access links in 1996 growing to 20,000 by 1997 and at least 50,000 by the turn of the century. The Academic Computing Service is currently engaged in the delivery of the infrastructure and services to support the above goals.

Applications are now invited for the position of Network Development Officer to provide the technical lead within a team responsible for the specification, evaluation and development of networked services. Applicants should have a degree in a computer related subject and possess a good technical working knowledge of some or all of the following areas: Ethernet, routing, bridging, dial up modems, X.25, FDDI, ATM, TCP/IP, LAN Manager, Unix, Windows-NT.

Appointment will be made on the Academic Related Grade 3 scale £22,374 - £26,430 p.a. depending on qualifications and experience.

This position, which is based in Milton Keynes, offers interesting and varied work and a commitment to professional training and development within a stimulating environment.

Access details for disabled applicants are available from Chris Tombs on Milton Keynes. (01908) 653563.

Application forms and further particulars are available from the Administrative Officer, The Open University, Academic Computing Service, Walton Hall, Milton Keynes MK7 6AA.

Telephone Milton Keynes (01908) 653563 or email to ACS-Recruitment@open.ac.uk.

Closing date for applications: 19th January.



The Open
University

University education and training open to all adults. Disabled applicants whose skills and experience meet the requirements of the job will be interviewed. Please let us know if you need your copy of the further particulars in large print, on computer disk, or on audio cassette tape.

Equal Opportunity is University Policy.

ADMINISTRATIVE COMPUTING OFFICER

£15,054 - £16,078

OR

ADMINISTRATIVE COMPUTING TECHNICIAN

£10,585 - £14,594

The College is continuing with its planned growth as part of its Corporate goal of achieving University status. As a result of this growth, the college is to expand the role of the IT Service by providing further support and expertise to the College's administrative areas such as Registry, Personnel and Finance Offices.

Acting together with IT Network staff, external suppliers and Administrative staff the Administrative Computing Officer/Technician will assist with the development and maintenance of specialist software and operation of two HP 9000 Unix machines. It would be expected that the applicant has an awareness of MIS and Unix system administration, possess a degree/HND or equivalent in Computer Science or related discipline, together with experience of working in a technical and/or education establishment. Experience in Novell, DOS, Windows and TCPIP would also be welcomed.

Applicants for the alternative post should also possess a degree/HND and be interested in pursuing a career in administrative computing. Full training will be provided and salary accelerations will be provided once experience has been acquired.

For an application form and job description please send an A4 stamped addressed envelope to The Director of Personnel, Worcester College of Higher Education, Henwick Grove, Worcester, WR2 6AJ.

Closing date: 19th January, 1996.

Submission of CV's will not be accepted.

No agencies please.

W.C.H.E. is an exempt charity which exists to provide quality, accessible education.



WORCESTER

COLLEGE
OF HIGHER
EDUCATION

A UNIVERSITY SECTOR COLLEGE

| | | |
|--|---|------------|
| AVON | PRODUCT MANAGER | £30K + Car |
| Dynamic and fast growing company is seeking an experienced Product Manager, you will have several years experience of managing multiple projects developed in a Windows environment employing small numbers of Developers. | | |
| WILTSHIRE | 'C'/C++ SOFTWARE ENGINEERS | To £25K |
| Growing Services Company that specialises in Comms, Real Time, Embedded Systems has vacancies for 3 people. You must be able to produce design and test documentation as well as communicate with clients. | | |
| WEST MIDLANDS | MUMPS A/Ps & TEAM LEADERS | To £35K |
| Large Financial Group seeks Analyst/Programmers with Mumps (not essential) and financial application knowledge. For the Team Leader position they also require Quasar experience. | | |
| BERKS | COBOL-PL1 ANALYST PROGRAMMERS | £20K |
| 2-4 years experience in Mainframe development using Cobol (or PL1) and JCL, some Selcopy would be an advantage. For a Software House which specialises in software for improved End User Decision making. | | |
| AVON | 'C' ANALYST PROGRAMMERS | £Neg |
| For this expanding company you must have a minimum of 2 years commercial 'C' and 3-4 years VMS. | | |
| LONDON/SURREY | TANDEM DEVELOPERS | £Neg |
| This Public Limited Company has an immediate need for people with experience of Tandem, Non Stop SQL and TAL. | | |
| DEVON | COBOL X-TRAIN TO SYNON | £20K |
| Junior Programmers to Project Leader to work in AS400/Cobol for Manufacturing Company. | | |
| NATIONWIDE | PICK ANALYST PROGRAMMERS | To £25K |
| Marketing Support Company seeks an AP with 2 years Pick. Knowledge of Comms and PC based packages an advantage. | | |
| HERTS | SOFTWARE COMMUNICATIONS ENGINEER | £Neg |
| Graduates with 3 years C/C++ experience, with X.25, TCP/IP, OOD + Satellite Comms Systems Design. | | |

RPG400

WE'VE RACKED OUR BRAINS FOR AN EYECATCHING AD TO PERSUADE YOU TO CALL US - AND CAME UP WITH

0117 987 7755

IMPRESSIVE? NOT REALLY BUT WE SPECIALISE IN

RECRUITMENT - NOT ADVERTISING

OUR AS400 TEAM IS WAITING FOR YOUR CALL

EITHER AT THE OFFICE OR AFTER HOURS ON 01934 843965

SOUTH WEST COMPUTER RESOURCES

14-16 St Thomas St, Bristol BS1 6JJ. Tel 0117 987 7755 Fax 0117 987 7701

North West Vacancies

SUPPORT ANALYST - DISTRIBUTION/MFG to £20,000
This major player in the IT services industry seeks a graduate to provide in depth support to clients of its commercial RDBMS/UNIX package. Excellent applications the key - Distribution or Manufacturing.

IMPLEMENTOR - INTERNATIONAL £15,000 + Huge Bens/Ex's
Scientific background? First career move? In this role you will install and tailor our client's systems at laboratories worldwide (Malaysia & Hong Kong next). Programming skills can be any language as full training available.

LOTUS NOTES/NETWORK SPECIALIST £16-19,000
Using your excellent skills as a LOTUS NOTES administrator and developer, you will also monitor performance of our clients NOVELL network and provide support to regional users.

COBOL CAREER MOVE £12-15,000
This UK conglomerate offers an excellent opportunity for a COBOL professional seeking their first move. Long term prospects are excellent in this secure, team orientated company.

GROUP PC NETWORK MANAGER c£25,000
In this newly created role you will manage the worldwide expansion of our clients PC networks and oversee a small team providing support to existing users Excellent NOVELL skills essential with WAN and TCP/IP or mainframe connectivity.

C SOFTWARE ENGINEER c£15,000
This corporate scientific organisation seeks to strengthen its team developing products on UNIX and VMS platforms. Skills in C++, RDBMS will also be gained here.

MAINFRAME COBOL DESIGNER/DEVELOPER to £20,000
This financial services giant seeks a structured design/programming background (IBM or TANDEM ideal). Financial systems background unnecessary - break into this marketable area!

PROJECT MANAGER to £25,000 + Car
This commercially focussed organisation seeks project managers to oversee multiple implementations for multi site UK clients. You will draw upon your technical/commercial expertise in distribution systems and utilise centres of excellence within the company for implementation, training etc.

LAN/WAN OPS MANAGER £18-20,000
In this management role you will oversee internal operations and systems administration in a multi site, multi platform consultancy. NOVELL 3.1X, TCP/IP, UNIX, KILOSTREAM, ISDN, BRIDGES, ROUTERS etc - WINDOWS/OFFICE useful on top.

TRAINING MANAGER £16,000 + Car + PRP
Within this market leading systems house you will utilise your training and accounting systems background to control a team of 3 implementing systems across the UK, taking a hands on role with key customers, and manage the training sales budget.

Further clients seek: Support Services Manager, payroll systems support.

Ask for Jane Hardman or Shelley Coxhead on 0161 834 8881,
Fax: 0161-834 3838, Home: 0161 881 4458 (Jane), or 0161-761 6096 (Shelley)
The Dane Partnership
Conavon Court, 12 Blackfriars Street, Manchester M3 5BQ



AS/400

RETAIL SYSTEMS

Surrey to £40k package
Implementation Project Managers
Systems Analysts
RPG400 Analyst Programmers
This company leads its marketplace in the supply of total system solutions to the retail markets. It has achieved 25% growth in the last 12 months and is set to match or exceed this in the future. This expansion has led to requirements in all the above areas. We are looking for individuals with experience in one or more of the following: Retail systems, Distribution systems, Systems Design/Development, AS/400, Project Management, Package Implementation, RPG400. For all vacancies we require excellent communication skills, the ability to interface with clients at all levels together with enthusiasm and the desire to become a key member of a successful team. Successful applicants can look forward to excellent salary packages and extensive training.

| | | |
|---------|--|-----|
| City | RPG400 Analyst Programmers | 30k |
| Herts | Synon/2 Senior Analyst Programmers | 30k |
| W. Mids | RPG400 Analyst Programmers | 25k |
| Avon | RPG400 Analyst Programmers | 25k |
| London | Junior RPG400 Programmers | 20k |
| Norfolk | RPG400 Analyst Programmers | 25k |
| Bucks | RPG400 Analyst Programmers | 30k |
| Kent | RPG400 Analyst Programmers | 30k |
| Notts | RPG400 Snr Analyst Prog/Project Leader | 25k |

MAINFRAME

ICL ANALYST/PROGRAMMERS

Berkshire to £30k + Bens
This rapidly expanding market leader are currently looking for a number of Analyst Programmers with at least two years experience in ICL VME, IDMS/X, TPMS and COBOL. Excellent cross-training opportunities await enthusiastic, self motivated professionals who want to make something of themselves. Excellent Relocation package also on offer.

MVS Systems Programmer

Lancs £22k+
Our client, a leading player in their marketplace are currently looking for an experienced MVS Systems Programmer with at least two years experience with exposure to AS/400's or Networks. Excellent working conditions and a relocation package are on offer.

| | | |
|-----------|--|-----------------|
| Middx/ | PL1 A/Ps, any CICS or VSAM an | |
| Bucks | advantage | £24k + Ex. Bens |
| Kent/City | Proj. Man., must have managed Contractors and 10 man yrs dev | £35k + Car+Bens |
| Milton | MVS Ops Analyst, 3yrs exp. Driving | |
| Keynes | Licence essential | £21k + Bens |
| Middx | A/P, COBOL, IMS or DL1 - 18 months + experience | £23k + Bens |
| City | Analyst Designer with strong IBM M/F ASSEMBLER | to £28K + Bens |
| Nation- | ADABAS NATURAL, all levels | |
| wide | 12 months+ experience | to £35k + Bens |
| Hants | COBOL, CICS, DB2, 12 months + Insurance/finance an adv. | to £30k + Bens |
| City | IBM Mainframe and PC skills (pref C) World-wide travel opportunities | to £28k + Bens |
| Nation- | Leading Software Consultancies require COBOL, CICS, DB2. All levels. | |
| wide | | to £35k + Car |
| City | COBOL and IDEAL DATACOMM A/Ps required, excellent benefits | £25k + Bens |

These are a small selection of our current requirements, for further details please telephone 01252 816666 (8:00am - 8:00pm), fax or send your details to the address below.

VADIS
Placing people first

Vadis Recruitment Services Ltd
Victoria House, 18-22 Albert Street,
Fleet, Hants GU13 9RL
Tel: 01252 816666
Fax: 01252 816606

PC AND UNIX

Cross-Training to C++/VC++

Hants Neg. depending on experience
An opportunity has arisen for developers in one of the latest and best Windows products in the European market place. You will have the chance to work with Hypermedia products that are taking the market place by storm!!! Experience of either C, C++, or VC++ is required but cross training to VC++ will be provided for the right people. This is a brilliant chance to get into the fastest growing market.

IMPLEMENTATION & SUPPORT CONSULTANTS

Surrey £25k + Car + Bonus
Leading Software Provider is looking for experienced support professionals to implement and support Windows based products. Experience of MS Office, Networks and installing software is a must. Travel to Client sites is a large part of this position. Opportunity to work with NT and Win 95.

| | | |
|--------|--|---------|
| Hants | Manuf requires 1 yrs support/networks MS-Office and D/Base or Clipper | £15k |
| Hants | Neural Computing company requires dev 1 yrs experience C++, VC++. | to £25k |
| London | Software Houses and End Users require C++ or VC++ developers, all levels | to £35k |
| London | Development Project requires 1 yrs exp Uniface for major migration. | Neg |
| London | Novell Network Guru's required either CNE qualified or relevant experience | to £30k |
| Surrey | Software House req. VC++, C++ and Unix for develop of financial front ends | to £15k |

CONSULTANTS VB/RDBMS OR POWERBUILDER

City £18-32k
One of the leading and fastest growing suppliers and integrators of IT solutions in the corporate environment require Consultants urgently. If you are educated to degree level with sound client facing ability and possess excellent written and verbal communication skills along with either Visual Basic/Access/Sybase OR PowerBuilder development experience then contact us NOW.

TECHNICAL DESIGNER

London E1 £35-40k
Leading supplier of systems to the International Insurance market require an individual who is educated to degree level with 5 years I.T. experience, PC client server, customer skills, analysis, feasibility studies and experience as Technical Designer of a major project. Access/Visual Basic would be an added advantage but not essential for these insurance and non-insurance exciting projects.

| | | |
|------------|---|------------|
| Herts | Access/Complex Algorithms Analyst & Development | c£25k |
| London | PC Developers Visual Basic/Access | £22-24k |
| Kent | Sybase Developers | to £40k |
| City | Consultant Groupware | £25-30k |
| Essex | Oracle Programmer/A/P | £neg |
| City | Support Desk Manager - Gupta SQL Windows/OO | £25-35k |
| Kent | C++/VC++ Developers | £22-35k |
| Nationwide | PC Support | £13-22k |
| Nationwide | Field Service Engineer PCs/Net | up to £20k |
| City | 10 years+ C experience + Investment Management | £28-35k |



Once upon a time, an excitable Geoff Squire, former number two at Oracle and still shamefully overlooked for an OBE, described his role in life as 'running the world'. Since those heady days, senior Oracle bods appear to have developed a more fitting humility. At a recent dinner debate, Philip Crawford, Oracle UK's managing director, was introduced as a disciple of our lord and saviour, Larry Ellison. 'Yes, John the Baptist,' called out an overexcited Mike Evans, former Oracle UK marketing director. To which the pious Crawford replied humbly: 'Philip was a disciple too, you know.' All together now — bring me the head of Philip the Baptist.

Thieves relate to marital woes

Do computer thieves have a heart? Recent experience seems to prove they don't.

One recent victim was the marriage guidance agency Relate, which lost several disk drives full of information, causing some concerned calls to *Backbytes* about the security of marital details.

So for the sake of matrimony, *Backbytes* would like to set some minds at rest and state that only training data was stolen, which the thieves discarded to take the processors.

Considering that every cloud has a silver lining, at least this little crisis has shown the marriage guidance counsellors what life is like when the chips are down.

Final stretch for IBM ideas

We'll spare the blushes of the IBM boss who suggested that the next piece of company memorabilia should be condoms with IBM stamped on them. In the right circumstances these could expand to spell International Business Machines.

Neat idea, we said, perhaps other companies could pick up on it. Sun Microsystems, for example. Yes, agreed our IBMer, but those condoms had better just say Sun to prevent blushes. Ouch!

Lotus gets the message

It is essential to ensure that the message you put out to the market is consistent throughout your organisation.

In the good old days, when Ingres was part of The ASK Group, this custom was honoured more in the breach than the observance.

If you asked a European executive the company's policy on a particular issue, then asked a US executive to expound the same policy, as sure as eggs is eggs you'd get two different answers.

Ingres and ASK are, sadly, things of the past, but the tradition lives on. At Lotus' recent strategy announcement in Boston, European executives argued strongly and convincingly that Notes is not an application development tool. We were convinced.

It was perhaps inevitable then that Mike Zisman,

Lotus' chief executive, should stand up the next morning to boast what a powerful tool Notes is for developing applications. Clearly a replication error on the marketing groupware.

Happy with the Jolly Blue Giant

But on the positive side, Lotus is brimming with confidence now it is safely under the comforting wing of IBM. So much so that it can see a new and challenging role for itself.

A UK-based Lotus employee told *Backbytes* he had been talking to Lou Gerstner, IBM's chief executive, recently. Well, he'd sat at an intercompany pep-talk with around 200 others, which is just as good...and the great man had sung Lotus' praises.

Apparently, IBM had not realised how valuable Lotus was when it made the purchase, but now Lou is more convinced than ever that it was the right thing to do. In fact, boasted our Lotus employee, Lotus could save IBM.

We're unsure what, in particular, Lotus is going to save IBM from, but presumably this new role as corporate caped crusader

will stop Big Blue flogging Notes to the Japanese — as persistent rumours would have us believe.

Informix helps Oracle answer

By one of those strange quirks of fate which make life worth living every so often, stranded Oracle customers phoning the vendor's support centre must go to a help desk running an Informix database before their problems can be solved.

The centre handles around 1,400 calls every day — Oracle is awfully helpful — and each cry for assistance fills Informix with glee.

Andrew Logan, infrastructure manager at Oracle, was quick to point out that the offending Informix software is a small part of the system. 'It's not a big deal. I've got no problems with the Informix database being in there.'

Informix is quite proud of selling its technology into its competitor's UK heartland. Phillip Page, director of business development at Informix, said: 'It's an unusual situation, but one we would like to find ourselves in more often.'

It does rather make *Backbytes* wonder who's more embarrassed: Oracle because it needed a competitor to solve its problems, or Informix because it helps make unhappy Oracle users happy again.

Experts set for concrete boots

Recent adverts in *Computing* have caught *Backbytes'* eye, and left us wondering whether organised crime is moving into IT.

The suspected Mafia is using traditional methods of persuasion — and we don't mean the horse's head in the bed, but concrete boots.

Embedded software engineers are all the rage, but adverts fail to make clear what they are embedded in. It certainly left us wondering — considering the weather, do they mean mud? or maybe embedded C refers to becoming part of the latest M25 repairs.

It became obvious that the syndicate was actually looking for people who want to be trees — the final clue was a request for real-time kernals. Or is the Ministry of De-fence hiring people?

Prize crossword

Across

- 1 Seize the photograph (4)
- 4 About to attack steep rock (4)
- 9 Apache, in North maybe, has sense of style (7)
- 10 In the middle of mountain find sweet (7)
- 12 Influence musical drama? Not I, that would be stupid (9)
- 13 Queen returns professional copy (5)
- 14 Carry American betting machine (4)
- 15 Kurt and Del met to play instrument (10)
- 17 Careless, silly Liberal put inside, but it's not significant (10)
- 20 Some meat eaters enjoy, primarily, duck (4)
- 22 Imposes curfew on Bill perhaps (5)
- 23 Cut hay by small amount for bird (9)
- 25 Sailor hits shields (7)
- 26 Put in place everything after this month (7)
- 27 Cold little boy is covered (4)
- 28 From which the golden eagle normally gets its food (4)

- 7 Unfortunately I've got strain — he'll find out why (12)
- 8 Inspire those in classroom maybe (6)
- 11 Menial and expert work together — that's provisional (12)
- 16 Get wrong letters girl! Hide (8)
- 17 Perhaps shifts chess pieces by the sound of it (6)
- 18 Inside, one hundred employed — impressed? (7)
- 19 I'd angle awkwardly in front (7)
- 21 Sound of body, little Henry goes in river (6)
- 24 Ship found in enemy canal (5)

Solutions to 7 December

Across

- 7 Donation 9 Obolus 10 Stud 11 Articulate
- 12 Bonded 14 Charting 15 Escrow 17 George
- 20 Gable end 22 Ballet 23 Correspond 24 Sand
- 25 Mantra 26 Shipmate

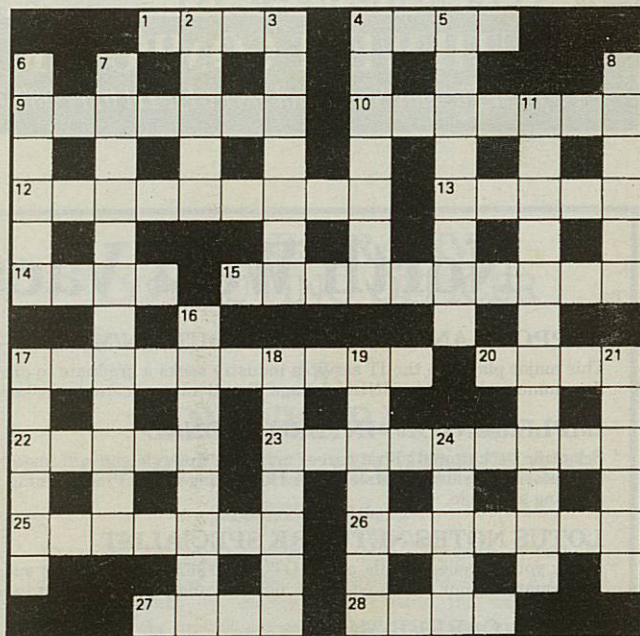
Down

- 1 Postpone 2 Bard 3 Lizard 4 Conclave
- 5 Collateral 6 Isatin 8 Notice 13 Decelerate
- 16 Overseas 18 Eternity 19 Odious 21 Amoral
- 22 Budgie 24 Semi

WINNER: M PRIESTMAN, BIRMINGHAM

Computing's prize crossword is sponsored by Microsoft. This week's prize is 3D Movie Maker. Solutions to: Computing prize crossword, 32-34 Broadwick Street, London W1A 2HG. Closing date: 11 January.

Microsoft



If this isn't your copy of *Computing*, why are you tearing it up? To avoid future embarrassment, tick this box and receive a personal circulation form

NEXT WEEK

Test Case Developers pull out all the stops to make end-user software as user-friendly as possible. But what about the poor old developers? There's been little effort to produce 'developer-friendly' software for the people who actually build the software we use in our daily lives. Until now that is. This month's *Frontiers*, looks at how Oracle and others have decided that making Case tools easier for developers to use could be key to broadening the appeal of Case in the market

Training Track We send senior analyst programmer Mark Wilme to review a hands-on Oracle7 training course from *Computing Awards for Excellence* Gold winner Learning Tree International

Plus News and analysis of the week's events