Members' Meetings for 1994/95

14 September (3.30 pm for 4.00 pm start)	Joint meeting with BCS Computer Security Specialist Group **Computer Security Policies:** **Standards, Guidelines and Practice**	Jim McClymont Independent Consultant David Watson Independent Consultant
11 October (full day) Contact: Steve Pooley 0580 891036	Discussion Group **Developing a Strategy for Computer Audit**	
8 November (4.00 pm for 4.30 pm start)	**Client/Server Systems** **Decentralisation of Data and** **Software Control**	Horst Kurzinger Software AG
13 December (full day) Contact: Alison Webb 0223 461316	Discussion Group **Controls in Electronic Payment Systems**	
1995 17 January (3.30 pm for 4.00 pm start)	Joint meeting with the IIA-UK, Home Counties District **Business Process Re-Engineering and Its Impact** **on Internal Controls, with Examples**	Peter Adams Adams Training & Advisory (formerly UK BPR Manager, DEC)
14 February (full day) Contact: Bill Barton 0883 623355	Discussion Group **Runaway IS Projects**	
14 March ICAEW, Moorgate Place London (4.00 pm for 4.30 pm start)	Joint Meeting with the IT Faculty, ICAEW **Unix Security** Please inform Margaret Ellis, ICAEW on 071 920 3431 if attending	Steven Duke RAXCO
4 April (4.00 pm for 4.30 pm start)	Joint meeting and debate with EDPAA London Chapter **Debate - Topical Motion**	Speakers to be announced
10 May (full day) Venue to be announced	**Annual Conference** **Topic to be announced** **followed by the Annual General Meeting**	Speakers to be announced

*Meetings are usually held at the Royal Institute of Public Health & Hygiene, 28 Portland Place, London WIN 4DE
(Ground floor, Lecture Room 1), except as noted above. For last minute confirmation, telephone 071-580 2731 or
071-636 1208. Meetings start at 4.00 for 4.30pm, unless otherwise stated. Tea and coffee are available before each
meeting; sandwiches and refreshments afterwards.*

*Details of discussions groups are forwarded directly to members as part of the quarterly mailing. Please contact
the relevant organiser for further information.*

For details of the annual conference please contact Raghu Iyer 071-236 8000.

SUBSCRIPTIONS DUE - See page 2

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Editorial

The Summer Journal marks the end of another successful year of discussion groups and meetings, including our conference at the Barbican. These events were excellent value for money and time invested: good speakers, alert and knowledgeable audience, followed by some very good wine and sandwiches - what more could a computer auditor want? (Apart from a user friendly PC based tool for analysing journals and monitors, a foolproof way of controlling 'superzap' and an all expenses paid trip to an international conference in the Caribbean, of course.) But it has to be said, on several occasions the attendance was not what it could have been. This may cause us problems in future; to get excellent speakers, they must see it as a worthwhile event. If the group does not support the meetings, the speakers will not either, and that will be sad. So clear the diaries and encourage your colleagues/managers to come as well.

* * *

My pleas for help in setting up a bulletin board have paid handsome dividends. There is a lot of interest from UK and USA, and it is likely that a meeting will be set up (virtually or in real life) to progress matters. We hope to meet early in September, probably in London. If you want to be involved in this meeting please call/mail/fax me as soon as possible.

* * *

In this issue is a reprinted article from *Computer Finance*. We have arranged for the Journal to use selected articles of particular interest to auditors. In addition, APT Data - the publishers - have offered us the opportunity for members to receive sample copies of *Computer Finance*. If you wish to try out this very useful journal, please telephone Simon Carruthers on 071 867 9880 and he will arrange it.

* * *

There has been a lot of media exposure about Internet, especially when - it has to be said - an academically questionable paper drew attention to the prevalence of 'computer porn' in schools. (Apart from the totally inadequate sampling methodology, the author and the press seemed unable to distinguish between 'on line' bulletin boards and the exchange of floppy disks . . .) Now the *Guardian* has its 'Online' supplement, and every GQ had a story about 'cyberspace'. It seems that if a journalist is stuck for an alternative to flesh eating bugs and Lady Di, any tenuous connection between computers and sex will do. For those of us who are longstanding fans of the Internet of course, this is nothing new. This year has brought new 'netsex' stories. The first was an acquaintance who downloaded a screensaver, thinking it was just pretty patterns, and went through all sorts of horror when he realised that 'graphic' can have more than one meaning. The second relates to a facility on our university conferencing system, the Talker. Briefly, it contains public rooms and private rooms; the latter being very popular with young lovers. An eager Romeo used the talker to converse with his Juliet (who was about 6,000 miles away in California at the time). What he did not realise was that his ardour was unrequited: she had set up a program to reflect back his words and thereby carry on a conversation without actually being there. So Romeo would say 'I love you'. Juliet's electronic alter ego would select key words and say 'love you too' etc. It wasn't until the poor chap arrived on a surprise visit that he realised what had been going on. The moral is, don't believe what the first person tells you, even if that person is yourself. Have a good summer, and if anyone wants to know how to access our system please e-mail me.

ROB MELVILLE

DISCUSSION GROUPS

Due to demand we will be holding three Discussion Group meetings this year. The format will be to have four speakers at each meeting who will introduce an aspect of the subject under discussion. Typically this will be for about twenty minutes and the subject is then open to the floor. In order to encourage discussion, each day will be limited to just twenty delegates. The cost of each day is £75, which includes all refreshments.

The dates, subject matter and committee member responsible for the day are shown below. Bookings will be accepted on a first pay basis. This means what is implies: those who pay first get a confirmed booking! Please contact the responsible Committee Member for more details of each day.

Topic	Date	Contact	Telephone
Developing A Strategy For Computer Audit	11th October 1994	Steve Pooley	0580 891036
Controls in Electronic Payment Systems	13th December 1994	Alison Webb	0223 461316
Runaway IS Projects	14th February 1995	Bill Barton	0883 623355

The Discussion Groups provide a very cheap and focused training day of a practical nature. We look forward to seeing you at one, if you can get in of course!

Contents

Chairman's Corner

John Mitchell

The BCS has some sixty Specialist Groups (SGs) of which we are one. The areas covered are as diverse as Nursing and Geographic Information Systems, and range from Data Management to Computer Conservation. *Computer Conservation,* I hear you ask. Does that have anything to do with Computer Audit? Well, yes it does. In order to understand control and audit as it is practiced today, we sometimes need to look into the past to see how and why the concepts that we use today differ from those of yesterday. The move from central mainframes to end-user empowerment has knocked a huge hole in our traditional control mechanisms, a hole that we are only just beginning to fill. Looking back, I can see just how easy my first computer audit job actually was. Stand-alone batch systems running on a single tasking centralised resource were a doddle to audit. Now it is much more complicated and we need new auditing techniques to help us through the morass. I have been preaching the need to use data mining techniques in order to prove the integrity, or otherwise, of real-time applications since 1985 and at last there seems to be some movement in that area. Not in the textbooks however, which still seem to treat real-time systems as simply super-fast on-line batch systems. Indeed, many authors (and auditors) still do not seem to know the difference between real-time and on-line, so how can they be expected to know the audit implications posed by the subtle difference between the two terms?

* * * *

However back to the *Computer Conservation* SG. This group re-builds old computers. They have currently restored a LEO machine, of Joe Lyons corner shop fame, and are now working on machines such as the Elliot 803. As the Elliot was the first computer that I ever played with (on a school visit to London University, where I was heavily defeated at Nim), I have a certain affection for these lobotomised dinosaurs. Soon, we will be able to see them in surroundings that reflect the era of their birth, because a museum for such beasts is being created at Bletchley Park in Buckinghamshire, the home of World War II code breaking. This was where the first electronic computer, the ENIAC, was built, so it is of important historical significance. The museum will open in July and we have made a donation to this important cause. If you get a chance to go along, then do so and stand in awe of these ghosts from the past. But remember, size is not everything and it is their smaller, more powerful, offspring that are giving us the problems.

* * * *

You should have noticed from the front page that it is subscription time again. Please don't forget to renew. We have an excellent programme of meetings planned for next season, plenty of discounts to offer and one of the best Journals in the audit world. I look forward to seeing you after the summer break.

Membership Renewal

Some of you reading this edition of our Journal will not yet have renewed your subscription for next season (subscriptions are due in August of each year).

If you have not yet renewed your subscription, I urge you to use the renewal form that you will find elsewhere in this Journal otherwise you will lose out on the significant benefits of membership. These include:

- free attendance at our late afternoon meetings
- free quarterly journal
- 20% reduction in the subscription price of the *Computer Fraud and Security Bulletin*

- 20% reduction in the subscription price of *Computers and Security*
- a saving of at least £75 on our own Annual Conference
- 25% reduction in the subscription to the *Quality Software Report* newsletter
- discounts on attendances at many other conferences and training opportunities
- the opportunity to take part in our Discussion Groups

As Corporate Membership costs only £75, you will realise that membership of the Group can actually save your organisation many hundreds of pounds each year.

☛ RENEW NOW TO RETAIN THESE IMPORTANT BENEFITS ☚

BRITISH COMPUTER SOCIETY

COMPUTER AUDIT SPECIALIST GROUP

Minutes of the Annual General Meeting
held at the Barbican Centre on 11th May 1994

Held in the presence of 13 members of the Group, including the Chairman, the Secretary and the Treasurer.

1. Approval of the minutes of the 1993 AGM

The minutes of the 1993 AGM held on the 12th May 1993 were approved as a correct record of the meeting.

2. Chairman's Report

John Mitchell presented his report for 1993/94 and highlighted the following.

The full text of the Chairman's report would be printed in the Journal.

A drop of some 90 members was disappointing in view of the importance of Information Technology control in all business sectors. An analysis indicates that the major drop has been in corporate membership.

A donation of £500 was made to the new computer museum at Bletchley Park.

Our good relations with the EDPAA continue and we held our second annual debate. Reciprocal attendance at each others meetings had been agreed.

3. Treasurer's Report

Fred Thomas circulated a copy of the unaudited accounts for the year to 30th April 1994. The accounts showed an overall deficit of £1531, the majority of which related to recurring activities such as meetings and the Journal. Reserves stood at slightly over £30,000. The Group was financially sound, but a careful eye would have to be kept on the cost of its recurring activities.

4. Election of Officers and the Management Committee

There being no nominations for Chairman, or Secretary, the existing incumbents, John Mitchell and Raghu Iyer respectively, were re-elected.

Fred Thomas, the Treasurer for the last eight years, indicated that he wished to retire. Nigel Smith had expressed an interest in taking the post and there being no other nominations Nigel was duly elected. The Chairman formally

recorded a note of thanks to Fred for his hard work for CASG since its inception in 1965.

Tony Locke of Day, Smith and Hunter was re-appointed as Honourary Auditor. The outgoing Treasurer proposed a vote of thanks to Tony for his work as auditor.

A number of changes in responsibilities were announced and the Chairman welcomed Jenny Broadbent and David Peak to the committee. The responsibilities for next season were announced as follows:

Elected Officers

Chairman:	
John Mitchell	Little Heath Services
Secretary:	
Ragu Iyer	KPMG Peat Marwick McLintock
Treasurer:	
Nigel Smith	NJ Associates
Hon. Auditor	
Tony Locke	Day Smith & Hunter

Members & Associated Responsibilities

Membership Secretary	
John Bevan	Audit & Computer Security Services
Meetings	
Paul Howitt	Tesco Stores Ltd
Meetings	
Jenny Broadbent	Cambridgeshire County Council
Journal	
Rob Melville	City University
Discussion Group	
Alison Webb	Independent Consultant
Discussion Group	
Steve Pooley	Independent Consultant
Discussion Group	
Bill Barton	The Rank Organisation
Discussion Group	
Jacqui Race	The Stock Exchange
Public Relations	
David Peak	Metropolitan Police

5. There being no other business the 1994 AGM of the British Computer Society CASG was closed.

CASG Chairman's Annual Report - 1993/94

This is the text of a report given by the chairman at the AGM

Introduction

Six years have now passed since I first had the honour to address you as chairman of this group. During that time, the foundations laid by my predecessors have been consolidated and expanded by the hard work of your Management Committee. Unlike many other professional groups, ours is still on a firm financial footing and this report is really a tribute to the members of the committee who have made this possible.

Management Committee

Your management committee comprises four elected positions (chairman, secretary, treasurer and auditor), as required by the rules of the BCS, and a number of volunteers. The chairman is required to be a BCS member and it is desirable that the other elected officials, with the exception of the auditor, are also members, although there is some flexibility on this point.

Fred Thomas, who has been a member of the Group since its inception in 1965 and has acted in a variety of capacities since then has announced that he will retire as our Treasurer as soon as a replacement can be found. I will personally miss Fred's long experience in the Group and his steady hand at our financial wheel. I am sure that you will join me in my thanks to him and wish him a long and enjoyable retirement.

The list below shows the committee for next season. As you notice, each member of the committee has a defined responsibility and where possible there is some "shadowing" of roles to cater for the invariable moves that take place where professional people are concerned.

Elected Officers

Chairman:
John Mitchell — Little Heath Services

Secretary:
Ragu Iyer — KPMG Peat Marwick McLintock

Treasurer:
Nigel Smith — NJ Associates

Hon. Auditor
Tony Locke — Day Smith & Hunter

Members & Associated Responsibilities

Meetings
Paul Howitt — Tesco Stores Ltd

Meetings
Jenny Broadbent — Cambridgeshire County Council

Member Services
John Bevan — Audit & Computer Security Services

Journal
Rob Melville — City University

Discussion Group
Alison Webb — Independent Consultant

Discussion Group
Steve Pooley — Independent Consultant

Discussion Group
Bill Barton — The Rank Organisation

Discussion Group
Jacqui Race — The Stock Exchange

Public Relations
David Peak — Metropolitan Police

Finances

The report from our Treasurer, which is included elsewhere in this Journal, shows that we made a small loss last year.

Membership

Our membership records, which have been ably maintained by Jacqui Race and her computer tell us that we currently have some 265 members. This represents a drop of 90 members and is disappointing in view of the importance of Information Technology control in all business sectors. An analysis of the numbers shows that the major drop has been in corporate membership.

By type of Membership	1994	1993	1992	1991	1990	1989	1988
Corporate	136	224	245	195	140	139	139
Individual BCS	37	64	63	57	45	33	35
Individual Non BCS	92	100	106	78	61	34	37
	265	355	393	390	301	207	211
External Audit	34	26	42	48	47	41	38
Internal Audit	196	277	309	290	214	130	151
Other	35	52	42	52	40	36	22
	265	355	393	390	301	207	211

Discussion Groups

Two Discussion Group meetings were held during the year; the first dealing with LAN security and the second with quality issues. Steve Pooley and Bill Barton were responsible for the exemplary administration in both cases.

The format is to have four sessions, each of which is addressed by a speaker for about 30 minutes, followed by about an hour's discussion. We limit attendance to keep the meeting small enough to ensure that discussion actually does take place.

Both meetings were well supported, even though we make a charge to cover the cost of accommodation and refreshments.

Meeting Venue

Our regular and popular venue, at the Institute of Public Health and Hygiene in Portland Place, has served us well and we will be continuing our use of these facilities for next season.

Member Meetings

The annual meeting programme was superbly handled by Alison Webb, aided by John Bevan. The subjects covered, including our annual conference and two discussion groups, were as follows:

1993	Subject	No.of Attendees
12th October	Controlling End-User Computing	37
19th October	LAN Security (Discussion Group)	40
9th November	Automating Software Testing	17
14th December	Insuring Computer Related Risks	18
1994		
12th January	Document Image Processing (Joint Meeting with IIA)	43
8th February	Access Control	25
22nd February	Quality Issues (Discussion Group)	20
8th March	Viruses	
12th April	Annual Debate with EDPAA	18
11th May	Outsourcing of IT (Annual Conference)	40

In view of the relatively low attendance at our meetings we have decided that next season we will hold more joint meetings in order to spread the cost and to increase attendance.

The Journal

Under Rob Melville's stewardship, our main communication arm with our membership goes from strength to strength and it has become the envy of other Specialist Groups within the BCS. For those members unable to attend our meetings it provides valuable information at both a practical and theoretical level on computer audit and control matters.

Contributions from our members still provides the main material and I hope that more members will consider sharing their ideas and experiences in this way.

Other Member Services

During the year we created a new committee responsibility which we have called *Member Services*. This post amalagamates the old separate responsibilities of Publications and Membership Secretary, but we expect to see its scope increase to include responsibility for the central negoiation of member discounts for conferences, publications, hotels, etc. Nigel Smith initiated this new post.

Annual Conference

Our most recent conference, held in May of this year, was well organised by Paul Howitt and was on the subject of *Outsourcing of IT*. A last minute switch from our normal venue, the London Press Centre, to the Barbican, due to rebuilding work at the Press Centre was deftly handled by Paul.

Liaison with the BCS

Our relationship with our parent body has improved over the last year. The £500 limit that they tried to impose on our cheque signing powers has now been raised to a more sensible £1,500 and, on balance, we manage to keep a professional relationship with BCS Headquarters.

External Relations

Our annual joint meeting with the Home Counties District of the Institute of Internal Auditors was its usual success and we also held our second annual debate with the London Chapter of the EDPAA.

This was a most enjoyable meeting with the motion *"this house believes that if IS Audit is to be professional it should conduct its audits under BS5750"*. An enjoyable and lively debate took place between the two mixed teams who had volunteered to debate the issue with the final vote being a resounding

defeat for the motion. The whole evening was once again so enjoyable that we have agreed to repeat the exercise next season.

Some of you may be aware that a computer museum is being established at Bletchley Park, the home of War World II codebreaking. The various BCS Specialist Groups were asked to make a contribution and your committee has donated £500 to this worthy cause. The museum has already restored an early LEO machine and an Elliot 803 is to follow soon. As the Elliot was the first computer that I ever played with (on a school visit to London University,

where I was heavily defeated at Nim), I am looking forward to visiting the museum when it opens in July.

Conclusion

The past year has been a year of great progress which has only been achieved due to the hard work of your management committee. I would like to propose a vote of thanks to them on your behalf, but more especially on my behalf, as without their generous help and support my job would be impossible.

John Mitchell
11th May 1994

Guidelines for Potential Authors

The Journal publishes two types of article: refereed and invited. Refereed articles should be technically oriented, and based on current or future issues related to computer audit, security or control. This type of article will be reviewed by at least one member of the editorial panel (anonymously). If published, it will be identified as a refereed paper.

An invited article need not be technical or overly academic (even Computer Auditors have a sense of humour!). In fact it need not even be 'invited'. Submission without invitation is encouraged and although this may lead to severe sub-editing by the Editor, submission will virtually guarantee publication.

We also invite members to volunteer for book, product and course reviews (anonymously if required).

Why not call Rob Melville at CUBS (071 477 8646) to discuss how you can get your name in print?

SUBMISSION DEADLINES

Spring Edition	**14th February**
Summer Edition	**14th May**
Autumn Edition	**14th August**
Winter Edition	**14th November**

INCOME AND EXPENDITURE ACCOUNT

FOR THE YEAR ENDED 30TH APRIL 1994

RECURRING ACTIVITIES

	1993-94 No	1993-94 £	1992-93 No	1992-93 £	1991-92 No	1991-92 £
INCOME						
Subscriptions - Corporate Members	36	2600	54	2700	67	3350
- Individual Non BCS Members	81	1885	114	1704	103	1545
- Individual BCS Members	39	540	66	660	61	610
- Student	1	10	–	–	–	–
	157	5035	234	5064	231	5505
BCS Allocation (Office Services)		–		(116)		116
Interest on Bank Accounts	£	808	£	1312	£	1615
Discussion Days - Income	2701					
- Expenditure	2101	600		393		259
Sundry Income		176		–		161
Joint Meetings - Share of Profits		–		51		(23)
		6619		6704		7633
EXPENDITURE						
Members' Meetings - Hire of Halls	345		435		390	
- Speakers' Costs	401		280		143	
- Audio Visual Aids	68		60		52	
- Refreshments	819		651		782	
- Contribution to Joint Meeting	102	1735	–	1426	–	1367
Programme Cards		834		935		984
Administration		1145		614		632
Journal - Expenditure	5487					
- Income	1658	3928		3666		2365
Development Project		–		954		–
Donation		500		–		–
		8042		7595		5348
RECURRING ACTIVITIES SURPLUS/(DEFICIT)		(1423)		(891)		2285

SPECIAL ACTIVITIES

	1993-94 No	1993-94 £	1992-93 No	1992-93 £	1991-92 No	1991-92 £
CONFERENCE - Income (Net)	3276		5489		5428	
Expenditure (Net)	3817	(541)	3944	1545	3350	2078
SALE OF BOOKS - Income and Royalties	788		358		337	
SALE OF BOOKS - Expenditure	355	433	118	240	21	316
INTEREST - Special refund of Income Tax		–		1257		–
SPECIAL ACTIVITIES SURPLUS/(DEFICIT)		(108)		3042		2394
OVERALL - SURPLUS/(DEFICIT)		(£1531)		£2151		£4679

Fund Balance 1.5.93   £31616
Less 1993/4 Deficit   1531
Fund Balance 30.4.94   £30085

Represented by:
Cash at Bank and on Deposit 30.4.94   £29985
Accruals, Advance Receipts & Creditors   (£2622)
Payments in Advance and Income due 30.4.94   £2722
   £30085

Interest on Gold Account amounting to £340
has been estimated.

PC Assets Escape Cost Control

Authors: Kevin White (Editor) Janice McGinn (Dep.Ed.)

Despite the fact that PC networks have become the major corporate investment,
firms are failing to control PC assets - largely because they are ignorant of the precise age,
configuration and distribution of hardware and software inventories.

It is not just for financial reasons that organisations will have to get serious about PC asset management.

As well as spending more on PCs, systems are getting more distributed. There is more of a need to know exactly which software is running on what PC and on whose desktop before systems and services can be sensibly coordinated.

The problem with the management of PC assets is their proliferation. The sheer number of PCs has been the biggest contributory factor to the loss of inventory control, management control and cost control.

COSTS CENTRE ON DESKTOP

The growth of PC LANs has outpaced the management methods developed to track and monitor their use, to plan for their replacement, to ensure their compatibility or even to calculate their full costs. And there is mounting evidence that companies are wasting money on PCs.

Overconfigured PC hardware can represent a sizeable corporate overspend, the Personal Computer Assets Management Institute (PCAMI) argues. This US pressure group of large corporate users of PCs says there are thousands of dollars to be recaptured in terms of asset inventory and asset reallocation.

It estimates that 'organisations can reduce PC hardware and software purchase and support costs by 30% or more by implementing effective planning, management and control processes'.

Unfortunately, it takes a 250-page manual to outline how it can be done.

ASSET SOFTWARE SHOWS HOW

Use of PC asset management software has so far had a relatively poor showing in any list of computing priorities and it is only lately that it has become an imperative.

Organisations are well aware they now pour more money into distributed PC and mobile computing than they spend on the central mainframe.

They are also beginning to realise that updating, distributing and controlling software across PC LANs is costly and time consuming.

The problem is that there is no simple software solution for enterprise-wide asset management. This will involve much more than a census of the basic desktop hardware configuration.

Although this is usually a good starting point, put in to proper perspective, an asset audit should be thought of merely as the first step in a logical progression towards a point where software distribution is automated, software licences are actively managed and software usage is accurately metered.

In this context, an asset management system would underpin the planning, purchasing, allocation, usage and support of PC networks:

- It would allow better negotiation of purchase, service and support agreements.

- It would help ensure compliance with software licences.

- It would lead to better planning for major software upgrades.

- It would enable new applications to be deployed more quickly.

- It would avoid unnecessary or duplicate equipment purchases.

- It would reduce the opportunity for equipment losses (laptops and modems and other portable devices, in particular).

Suprisingly few organisations - even those with meticulous charge-back schemes operating for the cost recovery of their central computing services - will doggedly track PC costs.

In this sense, PC asset management is all to do with saving money.

Analysts calculate that any organisation taking a serious look at asset management should look for an immediate return of 15% savings in the software budget alone.

Suppliers of PC asset management software add that it should be possible to recoup £50 per PC in the first year of an asset audit.

PC AUDIT START UP

With the right kind of software (there are more than 60 PC asset packages around) - hardware identification is relatively straightforward, though generally each PC will need to be visited manually to carry out the audit, making it a laborious though relatively inexpensive process.

On average, though, a 500 PC site will still cost around £20 per seat to audit.

Tally Systems produce one of the best known packages costing between £10 and £15 per workstation, which is said to be capable of automatically recognising and identifying brand name PCs, add-on drives, communication cards, processors and other installed devices.

It also identifies software by brand name, version number, embedded serial number and foreign language edition against an in-built database of software and hardware products.

As its name implies, NetCensus will collect data on software and hardware components on networked and standalone PCs, Apple Macintosh and network server machines.

No product is perfect, however. One of the biggest barriers to accurate asset tracking is that there are an estimated 80,000 different desktop components manufactured by different vendors, so no asset software databases can be expected to be either exhaustive or current.

When an audit is operated across a network rather than manually, products like NetCensus will also execute in quiet collection, without end-users being aware that an inventory is taking place.

This is helpful in that it can be scheduled to occur so as not to impact end-user productivity, but it is arguable if this is the correct approach. Audits are usually best done with the full knowledge of the end-users.

While it is important that network asset management procedures are transparent to the end-user, PC audits are generally considered intrusive.

Organisations that have been through the process say that the single biggest mistake is to start off the technical audit without first educating end-users about how the asset data is to be used.

There are schemes specifically designed to reduce the risks and costs associated with a first-time audit. KickStart from f.Print is a fixed-fee offering costing £495 that is said to provide all the necessary software, consultancy and technical advice.

There is a temptation to start off the technical evaluation without taking into account how the audit data will be used, warns f.Print. If there is an existing corporate asset register then the data requirements of that system should be a key consideration in planning the audit.

Help-desks, fixed asset registers and departmental inventories will all use data collected during an audit.

DATA ADDS UP TO COST SAVINGS

Audit data can also be used to leverage the purchase of software upgrades at bulk rates.

In one documented case of a US power company with an estimated PC population of 5,000 servers and workstations, it successfully bought software at 60% discounts by negotiating with vendors for volume purchases.

Volume discounts offer a high level of savings, but they require reliable management data on exactly how many users require any given application with accurate estimates of future requirements.

Then, sensible purchasing decisions can be made on the trade offs available in licensing by the node or by server, rather than using volume or site licences.

Equally, once the specification and configuration of the PC population has been profiled, there are direct savings to be made by re-assigning hardware among end-users.

After a late start, suppliers of asset management systems have started to realise the real need is not for products that can throw out reams of hardware or software inventory listings. But rather, systems that can produce a concise report on which end-users have machines configured to run windows, or a profile of all those machines where a memory upgrade is required to run a graphical user interface.

Without this kind of information, the size of the charges incurred in upgrading hardware and software will continue to be underestimated or go largely unchecked.

THE RISING COST OF UPGRADES

According to analysts with KPMG Consulting, there is a price to be paid for this type of poor financial planning.

In its latest survey of large PC users for its *Workstation Management Network Global Report 1993*, some 65% of companies were found to lack any formal policy on hardware renewal which, it is suggested, will lead to higher spending when it comes to product replacement.

And KPMG calculates that there is a significant latent demand for future capital expenditure, since 32% of the installed base of PC workstations is recorded as being over 3-years old.

As the statistics in Table 1 illustrate, this ageing installed base is unlikely to support the increasing demand from end-users for new or enhanced applications.

It is worth noting that anyone installing Windowing front-ends or piloting client-server networks will want to be putting in as standard 486SX-based machines with 8Mb memory and 120Mb hard drives. This is well above the specification standard of the installed base.

Table 1. On average, the installed base of desktop machines comprises machines of the specification shown below.

32% of PCs have been installed for at least 3 years.
46% of PCs have been installed for between 1 & 3 years.
22% have been installed for less than 1 year.
Of these:
7% are XT class systems.
24% are AT class systems.
49% are 386 class systems.
11% are Macintosh machines.
3% are other types.

13% have 640k of memory or less.
18% have 640k of memory or more.
25% have 2Mb of memory or more.
43% have 4Mb of memory or more.

5% have 20Mb of hard disk or less.
21% have 20Mb of hard disk or more.
53% have 40Mb of hard disk or more.
20% have 100Mb of hard disk or more.

Applications on workstations	Min	Av	Max
Word processing	1	2	5
Spreadsheets	1	2	5
Data management software	1	2	5
Graphics	1	2	7

The average number of applications per workstation			8

Source: KPMG Workstation Management Network Global Report October 1993.

ON THE DESKTOP PC LEGACY

The spread and mix of workstations and LANs has come historically via individual business units acting independently rather than any central IT function, which had led to a proliferation of diverse hardware which is difficult to manage and costly to support.

KPMG contends that the key to controlling LAN costs is to optimise the ratio of support personnel to end-users, and that standardising on hardware configurations, network protocols and applications software is an initial step that is only permissible by proper asset management.

Here PC asset management can help by identifying and then implementing incrementally the optimal configuration for memory, config.sys files, autoexec.bat files, screen drivers and other configuration elements.

This will refine down the hardware-software mix - and ultimately, should help reduce the support burden.

MANAGING ASSET SUPPORT COSTS

The report put out by KPMG Consulting concludes that support requirements (and costs) are increasing in two ways.

As technology moves out of the data centre and becomes increasingly distributed, there are potentially more troublesome components in the infrastructure itself, and the components themselves may be quite diverse.

The second dimension is associated with the support of end-users. With the proliferation of easy-to-use graphical user interfaces, technology is becoming more accessible. Not only are more people using PCs, they are using more applications and more features.

So, for example, slow response time on spreadsheet applications could be a factor of workstation hardware, operating software, applications software, the LAN, the network server or a combination of all these.

Furthermore, even if the issue is identified as an applications software problem, additional investigation may be needed to determine if it is a problem particular to that particular version, that particular package, or to any type of spreadsheet software used in a particular way.

Standardisation may mean a loss of flexibility, but it is a small price to pay for support cost savings. Server consolidation and the automation of networking tasks like software distribution is estimated to yield 25% savings in support staff.

THE NEXT GENERATION

Emerging asset management tools are expected to include not only hardware and software inventory but metering tools with automatic log updates and change notification.

Auditing programs are already appearing that look to offer metering tools that can be used to log software usage - both the duration and time of usage and records of successful and unsuccessful end-user attempts to access an application.

Under a licensing agreement, Tally Systems will be selling OpenV*Assets, for PC and Unix asset management which is reported to help manage licensing issues and configuration planning across and between heterogeneous local area networks.

There is a strong case for tighter controls here, as one US report shows.

When a company upgraded its 100 PC users with desktop software it spent $200,000 on replacing hard disk programs with network versions.

But when it examined the actual usage of its new software across its network, it calculated that of five packages, the most popular was used by only 65 of the 100 users at any given time. The least was used by only 30 or so end-users.

The company is reported to have overspent on concurrent licences by $115,000.

LICENCE MANAGEMENT SOFTWARE

The Sabre Enterprise Application Manager or SEAM is another of the new breed asset managers that opens a door to better use of software assets through proper management of concurrent licensed programs.

SEAM runs as NetWare Loadable Module to allow groups of end- users to share licences, and is sold as a means of reducing software acquisition costs.

It provides metering for NetWare users running DOS and Windows applications and is said to be one of only a few products on the market that allows real-time licence sharing across multiple servers.

Importantly in the context of licence compliance and PC asset management, the Software Publishers Association has said that it will accept this sort of application audit report as a means of guaranteeing compliance with a company's licence agreements.

SEAM is designed to provide corporate-wide licence management, allowing groups of users to share licences - so, in theory at least, enabling a LAN administrator to reduce software acquisitions costs.

It is claimed that the product will track the distribution of application licences across servers, laptops and/or local hard drives and produce accurate reports of usage. No matter where it resides, SEAM will reflect the actual usage of software.

But the problem then is what exactly needs to be measured. Is it concurrent users, number of seats, or even the number of hours accessed?

SEAM costs £495 per server, but under a volume purchase licence agreement, the price falls to £320 for up to nine servers and just over £200 for 50 or more.

KPMG's finding that, on average, corporate PCs are each loaded with eight applications indicates that the investment in desktop software is not insignificant.

Even at the notional cost of £100 per application, this could add up to £800 per PC, which for an installed base of 200 PCs, represents a minimum investment of £160,000.

It is important to find out how much of the installed software is actually used. Underused software could then be reallocated to new users, so saving unnecessary expenditure on additional copies.

But without accurate usage records, it is virtually impossible to calculate software depreciation, or to realistically forecast future software expenditure.

Before any practical upgrade policy can be planned, it is essential to know not just who has what, but who uses what.

UNFOLDING ASSET STANDARDS

Not unsurprisingly, the PC industry has been dragging its feet over the production of the necessary standards for asset management.

Vendors are happy for organisations to continue to overspend on PCs, and developments are very slow to unfold.

Initiatives like the Desktop Management Interface (DMI) do offer some hope, however, in that it will allow data to be gathered and pooled automatically into an asset database.

Some 40 hardware and software vendors are involved with DMI.

The idea is to develop a desktop application program interface (API), which, when added to PC components such as CPUs, hard disks, operating system or applications, will pull together asset data on the status and type of the various components.

Then the automatic building of PC asset databases could be feasible without recall to specialist asset packages or PC audits.

But, as PCAMI points out, while that is all well and good for newly-installed systems, there is then the problem of finding ways to retrofit the DMI to the installed base. Some cost is likely to be involved.

ANOTHER FINANCIAL ANGLE

There is also a big opportunity to link PC asset management to accounting applications, much in the same way as mainframe assets have been managed.

Both Comdisco and IBM have products that are being steered in this direction. Class from Comdisco will track inventories of leased and purchased PCs and peripherals as all standard asset packages do. But it has an additional Windows-based financial analysis support tool known as FAST that will carry out standard book and tax valuations against an organisational database of asset information.

It is said that it will manage any classification of assets, from mainframes to PCs to PBX equipment. It is possible to search for specific asset by product type, by end-user or whether it is leased or owned. Then once the depreciation methods and time periods have been entered, FAST will automatically produce net book values based on purchase or rental, including upgrade costs. This produces a snapshot of the financial position of all installed equipment.

AssetNet is similar product from IBM's finance arm, IBM Credit Corporation, that uses Lotus Notes to manage a LAN- based database covering information about machines, the location, the financing and the maintenance history of each leased asset on a network. ■

JOURNAL REVIEW

TITLE: Computer Finance

PUBLISHER: APT Data Services Ltd
              4th Floor, 12 Sutton Row
              London W1V 5FH
              071 867 9880

PRICE: £395 per year - 12 issues

The title says it all. This journal analyses the real cost of computing. Now IT auditors are sometimes accused of being too interested in the technicalities and not enough in the practicalities; especially the financial implications of the recommendations. Well, this journal may well help you in that area. Each issue covers a very wide range of subjects. The July 1994 issue, for example, covered the cost of converting from System/36 to Unix, the cost of connecting remote users to networks, the costs of migrating from the mainframe, downsizing from CICS and Facilities Management. From an IT audit point of view it provides valuable information on the cost of alternative strategies and provides pointers for cost reduction, or efficiency improvements. Not every issue will be of immediate benefit, as it is more likely to be used as a reference document when you start an audit, or when you are attempting to cost a recommendation. A very useful addition to the audit bookcase.

1994 MEMBERS' SURVEY

We promised that we would give a wine voucher to the winnner of a lucky draw comprising those of you who bothered to respond to our survey. Well, only 24 of you took the trouble to return a completed survey form and the lucky winner is **Caroline Gould of Reading Borough Council.** Well done Caroline and our condolences to the rest of you who took the trouble to let us know your views. Unfortunately, such a small return means that we are unable to conduct any meaningful analysis, but we have noted your preferences. As a committee we were disappointed in the lack of response, but must assume that you are satisfied with the services being provided.

ANNUAL DEBATE WITH THE EDPAA LONDON CHAPTER

Once again the annual debate with our cousins of the EDPAA was a hugely enjoyable event. The motion was *"this house believes that if IS Audit is to be professional then it should conduct its audits under BS5750"*. Debating for the motion were Erik Samuelson of the EDPAA and our own Nigel Smith; against were Gerry Penfold representing the EDPAA and John Bevan from our side. Archie Watt, the EDPAA London Chapter President, and our own Chairman, John Mitchell, acted as joint chairmen in order to see fair play and the audience were allowed to question the teams after their presentations. The debate was amusing, intelligent, closely argued and well reasoned. The result was a resounding defeat of the motion and we have taken the opportunity to include Gerry's case for the opposition to enable you to obtain a flavour of what was a most enjoyable evening. Our thanks to the teams for their efforts.

BCS CASG/EDPAA Joint Debate

The Motion:

"If IS Audit is to be professional, it should conduct its audits under BS5750"

The case for the opposition

GM Penfold - April 1994

The views expressed in this paper are those of the author and not necessarily those of KPMG

Introduction for the opposition

I have elected to oppose this motion, not because I disagree with quality systems (on the contrary I strongly support them) but because I want to challenge the misconceptions about BS5750 that exist and highlight the pitfalls that wait for the unwary. The theme for this talk is therefore:

"Quality systems - Yes! But don't bank on BS5750".

The real world

At best BS5750 supports quality improvement initiatives and adds formality to an existing culture which seeks high standards. At worst, BS5750 is a bureaucratic nightmare, draining resources, costing money and diverting attention away from the real business priorities. It has nothing to do with whether the standards are the right ones for an organisation or whether they produce high quality products or services. Indeed BS5750 can perpetuate poor quality.

Many projects to introduce BS5750 are poorly managed, fail to achieve any significant benefits and lead to tension and division within an organisation. And to cap it all, there are a growing number of "cowboy" outfits, not authorised or accredited as assessors, who are awarding BS5750 certificates to anyone willing to pay the fees and go through the motions.

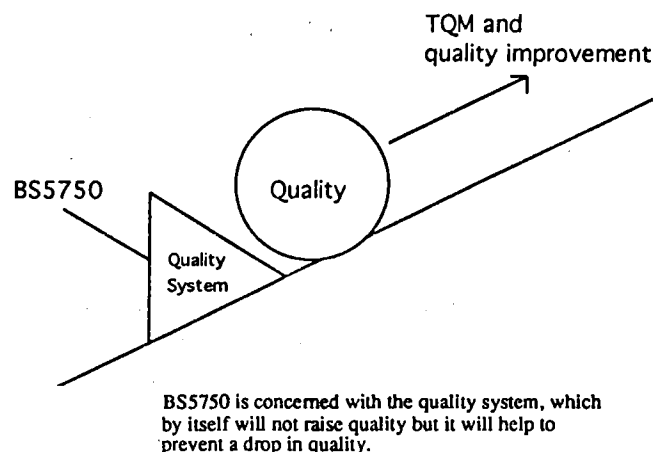In my view, IS audit departments with existing high standards are those most likely to adopt BS5750 and seek certification and who have least to gain from it. Those with poor or mediocre standards don't need BS5750, they need a quality improvement initiative (eg. TQM). If the latter do pursue BS5750 on its own, they are more likely to formalise existing poor standards, rendering a certificate at best meaningless, at worst misleading.

BS5750 facts

Let's look at what BS5750 is, and more importantly what it isn't. It is a recognised standard for what a quality system should be. BS5750 is looking for:

- Standards and procedures that document a quality system
- Responsibilities of key staff clearly defined
- Staff to be skilled in their jobs
- Review mechanisms to ensure the quality system works
- Effective processes for corrective action.

It seeks to ensure that a quality system is applied consistently, it does not, therefore, guarantee high quality or the appropriateness of the standards. These are addressed by quality improvement initiatives.

BS5750 is concerned with the quality system, which by itself will not raise quality but it will help to prevent a drop in quality.

Whose standards?

BS5750 does not require independent standards to be adopted. AN IS Audit department can set its own standards. There is therefore a danger that the standards will end up fitting the department not the department developing to fit the standards. For example, one IS Audit department may aim to finalise 95% of all reports within one month of fieldwork while another may aim to finalise 80% of reports within two months. Both departments could achieve BS5750 certification but only one delivers reports promptly, one important aspect of quality.

BS5750 developed in industries that had developed high standards of quality and hence the association with high quality. As it has spread to other industries with more variable standards it has retained this high quality image which has been reinforced by its use as a marketing tool. I am sure there are not many people who would have greater confidence in second hand car salesmen or estate agents just because they displayed a BS5750 certificate.

Ends v Means

Many organisations pursue BS5750 for reasons other than quality improvements, such as customer pressure, marketing needs or in the hope that it might solve other problems such as poor skill levels or personality clashes. This inevitably leads to BS5750 being seen as an end in itself rather than a means to an end. The most likely results are mediocre standards and a bureaucratic burden that weighs down the business rather than supporting it.

The wrong approach

Even organisations who adopt BS5750 as part of a quality improvement initiative can fail by taking the wrong approach. Typical pitfalls include:

- not recognising project management needs;
- weak sponsorship from senior management;
- managers and staff not convinced of benefits at the start;
- poor training in new standards;
- not building on existing material - re-inventing the wheel.

So even for the quality minded - be prepared, there are plenty of pitfalls. It is not a task to be taken lightly.

Costs

The costs of achieving BS5750 certification are high. The least of these is the fee of the body awarding the certificate. For a small IS Audit department of two or three people this could be £1,000 in the first year and £500 per year thereafter. For a large department of 50

staff, this could be £4,000 and £1,500. On top of this is the cost of consulting advice while preparing for assessment and certification, which could be £500 - £1,000 per day.

However, the most significant cost is the time required of management and staff - in other words the opportunity cost of diverting valuable resources from real business activities or chargeable work. Bearing in mind the number of people likely to be involved and that a typical time period for achieving certification is between 9 and 18 months, the real cost of BS5750 should not be underestimated. For IS Audit departments going for BS5750 for the right reason and with the right approach, the benefits can outweigh the costs. However, the costs are very visible and up front while the benefits can be difficult to quantify and take time to arrive.

For those going for BS5750 for the wrong reasons or with the wrong approach, there will be few benefits and plenty of costs. No wonder that one organisation was moved to say that BS5750 was "a lot of trouble and expense to engage someone to certify that you have met your own standards."

Cowboys

Finally, it now emerges that anyone can set themselves up to award BS5750 certificates! Although the Dti set up the NACCB to authorise bodies making the award, it turns out that the regulations do not make this essential. So the quality of the assessors themselves is not above question, never mind the quality systems and standards they will accept. With the number of "unofficial" bodies reportedly growing, "Buyer beware"!

From the point of view of IS Audit, even NACCB accredited auditors are not likely to know much about IS auditing or even the business that is being audited. They are not therefore likely to add much value by helping to raise standards and improve quality. Indeed compared to IS auditors, the skills and experience of quality system auditors are limited. There is probably a very good case for IS auditors taking over the role of quality system auditors for the IS function at least.

The real priorities

Above all the IS Audit must be driven by the needs of its "customers". I don't hear senior management calling for improvements in the quality of IS Audit. I hear them calling for more IS Audit! The unique combination of audit, IT, business and accounting skills found in many IS auditors enables them to provide a valuable interpretation of what changes in IS mean for the business, both the benefits and the risks. This is what IS Audit should be concentrating on.

For some IS Audit departments, quality improvement initiatives have their place alongside other issues such as training and recruitment. For these and others with existing quality systems and high standards, the need for BS5750 needs to be questioned. Why do you want it? What are the benefits and costs? How will you go about it? Who will award the certificate?

Summary

- BS5750 is concerned with the consistent application of defined procedures;
- It's not concerned with the standards themselves or the quality of IS Audit Services;
- Independent quality standards are not required;
- BS5750 is the means to an end, not an end in itself;
- It supports quality improvement which requires a managed approach;
- The costs of certification can outweigh the benefits;
- There are a growing number of "unauthorised" assessors;
- IS Audit already has recognised standards for delivering quality services. ∎

BOOK REVIEW

Auditing the IT Environment

Andrew Chambers and Graham Rand

Financial Times/Pitman £45

This is a very timely and useful book. The authors successfully manage the difficult balancing act of 'theory' and 'practice'; not surprisingly, given that Andrew Chambers has for some years now been the leading authority on internal auditing in Europe and Graham Rand has a great deal of experience in computer auditing. Professor Chambers was the author of the first texts I ever read on computer and internal auditing, and over the years has produced a series of readable books. The latest is focused more towards the practitioner than the student, but there is sufficient academic depth to make this a useful purchase for university and other specialist libraries.

Chambers and Rand introduce their risk assessment methodology in a practical and clear way, with each chapter covering key audit areas. The whole point of the type of matrix used is to impose
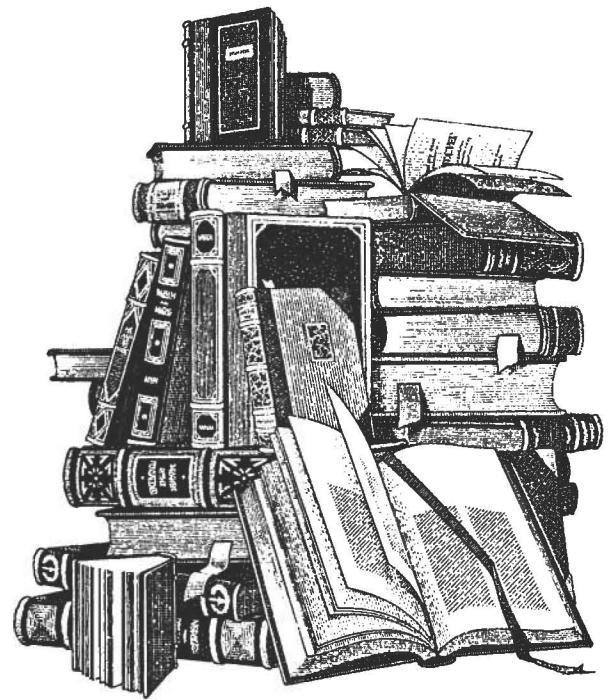
order and objectify the otherwise amorphous and probabilistic universe of IT. Although the formulae used are complicated and require a minimum of a spreadsheet to support their use, the results should be plain enough to convince even the most battle scarred and sceptical ex-techie of their use.

For the price of 30 minutes consultancy the reader gets the benefit of about 40 years' experience and knowledge; a worthwhile investment.

CASG members get a 10% discount on *Auditing the IT Environment*. Please write directly to Pitman Publishing, 128 Long Acre, London WC2E 9BR mentioning the Journal and their CASG membership.

SOFTWARE REVIEW

PACKAGE: The Barefoot Auditor

SUPPLIER: Pathfinder
138 Compstall Road
Romiley, Stockport,
Cheshire, United Kingdom
SK6 4EW

Tel: +44 (0)61 406 7399

PRICE: £377.00 + VAT

REVIEWER: John Mitchell

Don't be put off by the name. This is a very sophisticated product.

Although there are a couple of other packages which help the auditor to ascertain what software is resident on a particular machine, this is the first one that I have come across which does not rely on a pre-supplied database of products for the identification process. This has one major advantage; it can never get out of date! Other packages require their identification database to be updated to cater for new software releases, but the *Barefoot Auditor* extracts the relevant identification information directly from the very software it is examining. It does this by using an expert system to identify the copyright information which is written into most packages. Sometimes, of course, this information is not available, but in such instances the Barefoot Auditor does at least tell you that it has encountered an unidentifiable product. If you wish, the software can *tag* the machines it audits so that when a machine is subsequently audited you are told the date and time of the last audit.

This is a well behaved product and it ran successfully on my equipment the first time that I tried it. What's the significance of that? Well, I run a Tandon machine with two 40 megabyte exchangeable hard drives and a third SCSI fixed drive of 525 megabytes. In all I have some 15,000 files spread across my system. Some software I have encountered cannot take this mishmash, because they work by circumnavigating the DOS BIOS, so it was nice to see the *Barefoot Auditor* go through each drive in turn. What was even nicer was to see it correctly identify bespoke software written by your reviewer; something that no other similar package has been able to do in the past without manual intervention. It does not open up *zipped* files for analysis, so it is possible to miss software that has been archived away, but it does detect files which have the DOS hidden attribute set.

The database of identified products can be passed on to other machines being audited, with only newly identified products being added as they are encountered. This makes for very fast auditing indeed, and as the software fits onto a low density floppy and holds the audit output on the same floppy, it is quick and easy to audit a number of machines by using a single floppy. The data so collected can then be analysed at leisure on the auditor's own machine using the package's merging and reporting capabilities.

The merging and reporting capabilities are quite sophisticated and allow, among many other things, the reconciliation of software licenses to the software actually found. I particularly liked the facility to output the data in standard comma delimited format for subsequent import into dBase, or any other package, for more bespoke analysis if so required.

What about speed? Well, the system learns as it goes. This means that it creates its own database of products and once a particular piece of software has been identified subsequent identification of the same package, even on other machines, takes next to no time. To give an indication of the speed improvement, the first pass of my system took a tad under thirty minutes (it is huge by conventional standards), but when I made a second pass it took less than three minutes, because the various pieces of software had already previously been inserted into *Barefoot's* database. By the way, this package operates from the DOS command line, or via DOS batch files, but I also ran it under Windows and Desqview, where the only difference was the expected degradation in speed.

It has only two real failings. The first being that it cannot currently audit floppy diskettes, and the second is the lack of a user-friendly front-end. However, the Pathfinder people indicated that they would be doing something about these soon.

The price enables the auditor to run the package on many different machines, providing that the package is only being used once at any moment in time. This enables a complete network to be audited from a single node, providing the user has the appropriate access privileges for the network. I only tested the package on a stand-alone machine, but the documentation claims that it will work with all the standard networks

I liked this package a lot. It is powerful, flexible, fast (after its learning process), portable and has an easy to assimilate manual. As such, it fills a very important hole in the auditor's tool bag.

Management Committee

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46 Queens Road, Hertford,
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COMPUTER APPLICATIONS SYSTEMS AUDIT WORKSHOP

Objectives

This workshop is intended to provide delegates with sufficient knowledge for them to be able to review, evaluate and audit the controls in the various computer based applications that they may encounter during their audit duties.

At the end of the course the participants will be able to:

- Identify the different types of computer environment that they may come across during their duties.

- Be aware of the differences in control commensurate with the various types of environment and computer application.

- Understand the requirement for controls, both internal and external, to the application that they are auditing.

- Adopt a methodical approach to assessing application control risks.

- Be able to evaluate the integrity, or otherwise, of application controls.

- Be able to conduct tests to evaluate the operational effectiveness of the controls.

Although the workshop concentrates on live applications the areas covered are also applicable to systems under development.

Who Should Attend

General and financial auditors with a limited understanding of information systems and recent entrants to computer audit who have not previously attended a structured course on application control and audit.

Course Programme

The workshop will consist of a mixture of lectures, case studies and exercises. The practical nature of the workshop is emphasised by the fact that every lecture is followed, or sometimes preceeded by a related case study or exercise. Delegates will be expected to undertake some evening work on the first day of the workshop.

Topics covered will be:

- The information systems environment

- Types of application

- Types of control

- Auditing batch applications

- Auditing real-time systems

- Use of computer assisted audit techniques

- Auditing for control

Date : **31 October – 1 November 1994**

Venue: **Swallow Hotel, York**

Fee: **IIA & BCS CASG Members: £536 +** VAT

Non-members: **£630 +** VAT

Note: This workshop is fully residential

Contact: The Training Officer
Institute of Internal Auditors – UK
13 Abbeville Mews
88 Clapham Park Road
London SW4 7BX

Tel: 071 498 0101
Fax: 071 978 2492

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PORTLAND

NEW CAVENDISH STREET

PLACE

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Royal Institute of Public
Health & Hygiene
28 Portland Place
London W1

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