

IAPetus



Quarterly Bulletin For the Institution of Analysts & Programmers

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Year 2000: A (sort of) Case Study

Standing in a case, tucked away at the back of my desk drawer, are four 3.5 inch floppy disks, a legacy from a small consultancy job I undertook some years ago. They contain the source code, installation diagrams and schematics for a system developed several years before my involvement by a company who, as far as I am aware, ceased to exist shortly after the system was installed.

There must be thousands of similar cases tucked away in the drawers and filing cabinets of contractors up and down the country, I know my drawer contains several.

Unlike most of my other cases, which relate to systems long defunct or surviving as rarely used instrumentational relics, the system detailed in this particular case is probably very much alive. Never powered down, at a temperature that fluctuates by a couple of degrees from summer to winter, and in a virtually dust-free environment, it could physically go on almost for ever. Unfortunately, I doubt very much if it will survive the millennium.

*"one little oversight
and I might expose
myself to a pretty
substantial claim for
damages"*

As the last person to review the system, I am of course well placed to pick up the work of seeing it through the year 2000. The question is "do I want it?".

I could offer to check the code (C, assembler and dBase III) for a small sum – but one little oversight and I might expose myself to a pretty substantial claim for damages.

I could go on site and do some BIOS checking but that would mean powering down the system and there's a fair chance that at least some of it wouldn't come up again. (What are the odds with a ten-year-old system comprising some 50+ micro-processors that haven't been switched off in years?) More to the point, could I prove it wasn't my fault!

I could even do roll-over and clock-set tests but that would mean backing the system up (onto 720K floppies?) and I positively cringe at the prospect of restoring from them.

Or I could leave well alone. Of course I could try to write all sorts of disclaimers into the contract, but the problem with that approach is that against a large company it can cost you a packet just to defend yourself. Whilst PI cover can prevent you losing your house, if you ever have to be defended, it isn't going to do your future prospects much good.

Returning to the code check; let's suppose I discover a number of potential problems. Am I going to poke around in somebody else's ten-year-old code?

Do I have suitable compilers, and perhaps more importantly, do I trust the source to match what is actually installed? Is there something missing

on the disk set? Do I have sufficient information to install the system and bring it up again? The list is endless.

What if something goes wrong? Like so many embedded systems the development costs pale into insignificance alongside the potential costs of an unexpected failure mode; and I know through the grapevine that the original installation was quite eventful. Could I prove that I hadn't introduced errors when I modified the code? The original developers must have had a fairly elaborate test set-up. To reproduce that would be prohibitively expensive.

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At last – the sun is shining! Even if I intend to spend the day indoors curled up at a computer it's much nicer if the sun is blazing down outside.

There has been much debate on CiX – an on-line conferencing system I lurk on – about what (if any) role a 'professional body' has in the world of the computer programmer. Most of the contributors have been focusing on what's wrong with our sister institution, the British Computer Society, but it is something all professional bodies – as stated by the Director General elsewhere in this issue – ought to be thinking about on a regular basis.

Questions like "Why are we here?" and "What are we for?" need asking, as well as speculation on how we can serve both our members and society as a whole. We need to serve 'society' or we become a trade association not a professional body; we need to serve our members or there is no good reason for them to join!

As computers become more central to every activity in normal life, there are two possible routes for what at present is the 'profession' or 'trade' of computer person.

Either the use of computers becomes as routine as that of driving a car – most of you have driving licences and can more or less make one go, even if you don't know what's going on inside and are unlikely to make your mark at the next Grand Prix – with a few specialised people making it the key focus of their activities; or it will rise to similar status as other 'professions' on which we depend, such as health care, engineering and so on.

Whichever happens, there will still be a role for a community of specialists dedicated to ensuring that society is well served by computers and those who make them go, which is of course where the professional bodies come in.

The IAP and others need to be ready to fulfil that role, flexible

enough to meet needs as and when they arise, responsive enough to the concerns of society and of the professionals themselves to be able to cope. Tall order, what?

It takes the participation of all members to achieve such aims. Write to the Director General, or to IAPetus, with your views. Join in the email discussion list (send an email to "ListServer@INCA.CLARA.NET" with "SUBSCRIBE IAP" in the body of the message; to send a message to the mail list ensure that it is addressed to IAP@inca.clara.net), look through the Handbook for members near you and get together, if you are on CiX there is an IAP conference..... there are many ways to air your bright ideas – and this is part of being a true 'professional' – caring about the well-being and future of your profession!

Rant over – the sun is still shining.....

Megan C. Robertson

IAP Council Elections

Notes:

1) All candidates were invited to submit their manifesto and a photograph before 14th February, 1998 for inclusion in IAPetus and to go onto the website. One candidate did not submit such a document.

2) Ref. Phase 2 Count 5.

This is a case where two candidates have the same count and one has to be excluded. It is particularly relevant in this case that the "correct" route is taken as the alternative exclusion could seriously affect the count.

I took advice from the Electoral Reform Society on this, and their policy is that the candidate with the lower or lowest count in the first count of this phase should be excluded. If this doesn't resolve it, or (as later) it is the first column, then reference should be made to the first count of the first phase.

Effectively this extracts in the first case the preferred candidate based on the "currently active first choice vote", and in the second the candidate with the highest number of "absolute" first choices.

Therefore, the voting having closed today, and the votes counted as per the attached schedule, I declare that:-

**Mr Steve Cumbers
Ms Jenifer Edwards
Ms Cecilia Flavell
Mr Selva Naidu
Mrs Megan Robertson**

have been elected to Council to serve from 1st June 1998 to 31st May 2001

and that:-

Mr. Paul Lynham

has been elected to Council to serve from 1st June 1998 to 31st May 2000, to fill a vacancy

and that:-

Mr David P. Morgan

has been elected to Council to serve from 1st June, 1998 to 31st May 1999 to fill a vacancy

Alex Robertson

Deputy President of the Institution and Returning Officer upon the occasion.

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Maybe this all sounds rather negative, but then I have never set out to be a corporate hero. That's probably why I've still got my house. Do something well and they remember it about as long as it takes for your invoice to arrive on their desk. Get associated with what is perceived as a screw-up (even if it isn't your fault) and it becomes company folklore which is passed on for generations.

In the end it boils down to one simple question, whichever approach is taken. Could I possibly get the company to pay me enough to make the risk acceptable? The answer is I very much doubt it. Not yet, anyhow. Maybe, as the millennium gets closer we could come to some arrangement that I would feel happy about, just maybe.

I said this was a case study, and so it is. Four disks in a case, to be precise. And the more I think about it, the more I feel that's exactly where they should stay. For now. But I might just keep free the first few weeks in 2000...

Edwin J. Keen

The Director General writes

I am often asked whether the social and economic changes which are turning most working people into contractors rather than employees in the traditional sense, spell the demise of the professional body. Of course I always say no - what chief executive of a professional body would say otherwise? Only time will tell whether I am right. But I believe the changes which are taking place provide opportunities, if we have the wit to grasp them.

The IAP is not exactly a new-comer to its field. We have been in existence for over 25 years. (Despite the jokes, I have only been in charge for eight!) But this is a short time compared with most of the big professional bodies, some of which have roots going back well into the last century. Many are also still struggling with rules and attitudes which were laid down to meet the aspirations of middle class Victorian or Edwardian society. Often such bodies were started as a protectionist measure, enabling members of a particular profession to control competition, and when necessary avoid trouble by closing ranks. Such attitudes are not acceptable today, but some professions are stuck with them, and will have increasing difficulty surviving as society evolves.

This is one problem the IAP does not have, as yet. But I believe we have to be vigilant. The past is gone. Now we should be looking at the real needs and interests of our members in the society of today, and as far as we can discern it, the society of tomorrow. But this does not mean leaping aboard every trendy bandwagon. We have to remain sober and responsible if the IAP is to provide the professional anchor which members need, now that the old permanent employers are tiptoeing away.

It is also essential that a professional body is seen to stand firmly for the public interest - the long term interest of public and profession alike. Only that way will our voice be respected; only that way can we promote the real interests of our members. A few weeks back a letter appeared in one of the contracting magazines. Professional bodies, it said, are always talking about their high

standards, but you never hear of them throwing anyone out. Let members of this Institution be in no doubt. It may not happen often, but we *do* throw people out.

Designatory Letters

The reason that spurs most people to join a professional body like the IAP is the prestige which membership brings.

Increasingly the letters MIAP after your name are becoming recognised, and mark you out as the right kind of computer professional. But IAP members tend to be versatile individuals, and are often qualified in more than one field. This can cause confusion as to the exact order in which their designatory letters should appear. Practices vary in different countries, and an individual can do whatever he likes (*he shouldn't, but the police won't come round!* - Ed) but the rules we follow in the IAP office are as follows:-

Some qualifications bestow a title which comes in front of the member's name: Doctor and European Engineer come immediately to mind - Dr. and Eurlng. (If you are ordained, 'Reverend' comes right at the front - comes from a 'higher authority'!) Degrees come immediately after the

name, starting with the most humble, usually a Bachelor's degree (BSc or BA), and followed by the others in *ascending* order - MSc then PhD etc. Next comes Chartered status - such as CEng, CMath and, who knows, one day perhaps CProg!

Next comes memberships of professional bodies, and these are printed in *descending* order! But the real problem is deciding the pecking order of the various bodies, and then whether the varying grades of membership you hold within those bodies justify any further rearrangement of the order. For example, the BCS being the senior body, MBCS would come before MIAP. But what if you are MIAP (or even FIAP) and only AMBCS? This particular problem won't arise very often. The more usual difficulty is when the bodies operate in totally different fields. Then it is anybody's guess -however, the usual 'rule of thumb' is to give priority to whatever you consider your main profession.

Oh, and if you happen to be a Member of Parliament, you always use 'MP' whether or not you want to display any other letters you are entitled to!

Mike Ryan

GOING FOR A JOB ?

**Belonging to the IAP
improves your chances of
landing that new job.**

Let us have details of any job application which you are making, and - without making any reference to you - we will brief your potential employer on the IAP and the importance of IAP membership as an endorsement of members' qualifications and standing in the profession.

Call Mike Ryan or Nicole Edwards on 0181 567 2118
or fax 0181 567 4379

Council Election Count

The counts went as follows:-

Phase 1

S Cumbers	11	11	12	13				
J Edwards	25	25	25	26	28	30	43	
C Flavell	20	21	21	21				
E Keen	4							
P Lynham	12	12	12	16	17			
D Morgan	7	8	8					
S Naidu	29	30	30	30	32	36	44	64
M Robertson	55	56	60	62	65	73	81	100
E Vischer	5	5						
No Choice	0	0	0	0	0	0	0	4
Total	168	168	168	168	168	168	168	168
Quota	85	85	85	85	85	85	85	83

Phase 2

S Cumbers	21	25	25	28	35			
J Edwards	35	36	38	42	45	59	85	
C Flavell	27	27	29	29	35	44		
E Keen	7	7						
P Lynham	21	21	21	26				
D Morgan	10	10	12					
S Naidu	39	40	41	41	50	59	74	
E Vischer	6							
No Choice	2	2	2	2	3	6	9	
Total	168	168	168	168	168	168	168	
Quota	84	84	84	84	83	82	80	

Phase 3

S Cumbers	29	30	34	44	53	73		
C Flavell	29	32	33	33	43			
E Keen	9							
P Lynham	26	27	27	33				
D Morgan	16	18	18					
S Naidu	48	49	53	55	67	88		
E Vischer	9	10						
No Choice	2	2	3	3	5	7		
Total	168	168	168	168	168	168		
Quota	84	84	83	83	82	81		

Phase 4

S Cumbers	31	33	42	55	74			
C Flavell	45	50	53	55	82			
E Keen	13							
P Lynham	37	38	40	51				
D Morgan	23	25	28					
E Vischer	16	18						
No Choice	3	4	5	7	12			
Total	168	168	168	168	168			
Quota	83	83	82	81	79			

Phase 5

S Cumbers	45	51	64	80				
E Keen	16							
P Lynham	50	53	59	77				
D Morgan	29	34	38					
E Vischer	23	24						
No Choice	5	6	7	11				
Total	168	168	168	168				
Quota	82	82	81	79				

Phase 6

E Keen	20							
P Lynham	66	70	90					
D Morgan	39	53	67					
E Vischer	37	38						
No Choice	6	7	11					
Total	168	168	168					
Quota	82	81	79					

Phase 7

E Keen	23							
D Morgan	71	87						
E Vischer	58	64						
No Choice	16	17						
Total	168	168						
Quota	77	76						

Phase 8 - Runners-up

E Keen	43							
E Vischer	97							
No Choice	28							
Total	168							
Quota	71							

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An Introduction to the Evolving Development Paradigm

Part 1 of 3 – Hybrid Development Paradigms

The goal of these three articles is to introduce readers to the evolution which is taking us beyond Information Engineering and Object Orientation, into a hybrid business-oriented paradigm, taking the best of many techniques and introducing new concepts. While not 'selling' any particular technology, or going into any great depth on any technique, it does advise what people should look for when selecting approaches, or purchasing tools to help take advantage of this evolution.

As the needs of today's systems has grown larger and more complex, the demands being placed upon systems developers to provide solutions has grown. They are required to manage larger, more complex, more demanding systems. Many experts in the field recognised that in order to cope with this complexity it would become necessary to start to gain more benefit from the code that developers were building. As a result the concepts of Object Orientation were born – centred around the ability to design, build and develop systems that consisted of re-useable, self-contained, objects – that would either be developed in-house or bought from external sources and assembled into applications.

As Object Orientation moved out of the laboratories and research institutions, Object Oriented variations on existing languages (such as C++ evolving from C) and new 'pure' languages (such as Smalltalk and Java) emerged – giving developers the tools they needed to start to take advantage of this revolution in systems design. As with any new process there were many different ways to describe the process, to document the concepts so a new 'common' notation was required. Currently the Object Management Group is in the process of ratifying the 1.1 release of the Unified Modelling Language (UML) as that standard.

Like traditional Analysis and Design, Object Oriented Analysis and Design can be defined as understanding the problem and architecting a solution (Class Model) which encompasses both the current, immediate problem. This design has to address the issues of integrating into an existing environment, planning for the future and building in such a way that there are many common components, and linking those components back to the business need that inspired them. Object

oriented Programming is then able to focus on the task of taking that Class Model and applying design considerations, such as User Interface and Database Design and optimisation for the implementation environment.

If you attempt to just build code without a framework to take you from Analysis and Design you can lose many of the benefits such as modularity and re-useability as you are too close to the problem to see the bigger picture. You also run the risk of coding without taking advantage of the OO constructs and capabilities – developing as though you were using a procedural language such as COBOL or C. By applying Object Oriented Analysis and Design techniques to your business you are in a better position to deliver complete applications which meet the needs of today's users, while retaining the flexibility to support their changing requirements as their business evolves.

To help developers actually implement the new techniques and concepts, new methodologies were developed to guide Analysts, Designers and Developers through the various stages on a successful Object Oriented Project. A majority of the early approaches and their supporting tools assumed a 'green-field' approach but it soon became clear to adopters that to cater for the 'real world' needs of developers a wider approach was needed. The more flexible of these emerging methodologies (such as Catalysis from the Icon Computing Group) recognise the need to treat Object orientation not as a total solution, but something which integrates in with existing and emerging techniques. Those complementary technologies include, but are not limited to, traditional Information Engineering, Business Process Improvement / Re-engineering (BPI/BPR – using for instance techniques from the Rummler-Brache Group) and Component Based Development (More on this latter subject in Part II).

It does not matter if the project in hand is being developed using Object Oriented techniques, Information Engineering principles, a Component Based Development approach or a hybrid of the three – what is important to remember is that without a blueprint, and tools which support the building and realisation of that plan, time and effort will be wasted.

Jeremy E. Cath

... to be continued. In the meantime, for further information on Component Based Development and the Catalysis Method, please visit the Icon Computing web-site at <http://www.iconcomp.com>.

For additional information on the UML please see <http://www.rational.com/uml>.

For information on the Sterling Software COOL:Suite family of products, including COOL:jex (OO Modelling facility) and COOL:jex (Component Based Development facility), please visit the web-site at <http://www.cool.sterling.com>.

For details of the Rummler-Brache BPI methodologies see

<http://www.rummler-brache.com>.

For information on the Microsoft Repository, see <http://www.microsoft.com/repository>.

And Jeremy can be contacted as zzarg@earthling.net

FREE LEGAL ADVICE

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Call Mark Snelgrove on 0115 950 0055, or Selva Naidu on 0171 404 1546, at Browne Jacobson.

ENTRIES FOR THE REGISTER OF CONSULTANTS

The Institution's 1998 Register of Consultants will be published in the Autumn. If you are sometimes available for consulting work we recommend you to have an entry in the Register: it costs nothing and the Register is sent to everyone we hear about who might need a consultant.

Those of you who had entries in last year's Register or have written to us since with new entries or amendments will appear automatically in the 1998 edition. We will follow your most recent instruction with the minimum of editing necessary to standardise presentation and make the entries fit the page.

Some of you may like to add further amendments, or perhaps to draft an entry for the first time. A glance through last year's register and the guidelines below will be helpful:

Name and qualifications

We will print your first name, surname, degrees and professional qualifications as shown in the IAP's main membership database unless otherwise instructed.

Address

We will repeat what we have unless otherwise instructed. You may prefer to use the name and address of your business. We will print telephone, fax, mobile, e-mail and website numbers – just tell us what you want. We cannot overstate the advantage of giving a number where the phone will be answered during working hours by a real live person. We know of many occasions when members have lost business because they only had answering machines.

Work experience

Up to 70 words. Many potential

employers know nothing about IT – that's why they need an expert. This section should be draped with them in mind. Minimise IT jargon: just say in simple language where you've worked and what you did. Try to build in key words that potential clients might use to search the Register on disk.

IT capability

10 key words. This is where you tell your fellow professionals what you know. Jargon permitted!

Remember the Register will be freely available to members of the public. You may get some junk mail or unwanted calls. That is the price you pay for publicity.

The deadline for entries is 31 July. Just post a draft to the Institution office, fax us on 0181-567 4379, or e-mail dg@iap.org.uk

A Tale of 3 Gentlemen

I have come across a question which may be of interest to the wider membership of the Institution.

Three gentlemen by the names of Lempel, Ziv and Welch devised an algorithm for compressing data. Details of the methodology were published in such widely circulated magazines as *Byte*. The LZW compression system was incorporated in at least two of the most common graphics formats used in data transmission, namely GIF and TIFF.

At the time of developing the LZW code, its inventors were employed by Unisys (or one of its antecedents, Sperry or Burroughs). Unisys has subsequently filed for and been granted the patent for LZW, this entitles them to claim royalty payments for its use.

Does anyone know – especially our legally-qualified members – anything about the scope of the patent (e.g. is it valid only in the USA?) and who is liable to pay royalties and under what circumstances?

At least one of my customers may be affected and I would like to be in a position to give them some sound advice (apart from the obvious – don't use GIF or TIFF).

Andy Clark BSc FIAP

My amateur opinion is that Unisys will have to open negotiations (or sue!) with the

authors of GIF, TIFF and anything else using the LZW algorithm; and that even if they get anywhere with that, these formats are by now so well embedded in common use that it wouldn't be feasible to do anything about individual users like Andy's customers..... but I'd be delighted to hear from anyone who has more authoritative comments to offer. – Megan.

IAP GROUP PENSION SCHEME

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Contact the Institution office for an Information Pack

We are particularly pleased to welcome the following members who have been admitted as Fellows of the Institution since *IAPetus* was last published.

Ian W. Anderson BSc

Ian Anderson was trained as a programmer in Cobol working on ICL System 4 hardware almost 20 years ago. Since then he has spent his entire working life as a software designer/programmer with Hydro-Electric of Aberdeen. In recent years he has been heavily involved in the implementation of accounting changes necessitated by the introduction on VAT on domestic energy.

Nigel W. Aston BSc(Hons) MSc

Nigel Aston started programming with British Aerospace in 1982, modelling the flight of missiles for performance analysis. Since 1987 he has been with Taylor Hobson of Leicester, developing software used in metrology instrumentation. He is currently their Principal Software Engineer.

Geoffrey T. Hammond

Starting as a cashier in the Westminster Bank in 1964, Geoffrey Hammond first joined the Electronic Processing Department in 1964, and spent his whole career until early retirement in 1993 with Natwest Bank. He was programming until 1988, when he became Manager of Natwest's telephone banking projects Actionline and Businessline. During this period he built up expertise in Voice Technology and Speech Recognition. Officially retired, he still works as a freelance consultant.

Brian G. Harrigan

Brian Harrigan has been a police officer for more than 20 years. He was involved in the first serious project to transfer all the information held at New Scotland Yard in paper files onto computer. Since then he has supervised and contributed to a huge expansion in the use of computers by the Metropolitan Police, particularly since his appointment in 1991 as Business Manager of Hammersmith Division, a post he still holds today.

David E. Johnston

Trained by ICL in the late sixties, David Johnston moved to Makro Wholesalers in 1971, as Computer Manager in charge of their IBM 360 and 370 mainframes. In 1977, following two short assignments with other companies, he joined his present employers, PJH Group of Bolton. Initially employed to introduce computing to their subsidiary Emerald Stainless Steel, he is now Group Systems Development Manager for PJH.

Peter J.A. Jones

Peter Jones started programming in the late sixties with British Rail at Crewe, where he remained for ten years. In the early years following his decision to go freelance in 1979 he undertook a number of assignments for ICL, in the process building up a specialist knowledge of the Series 39 hardware. This has sustained him through a wide variety of contracts in the public and private sectors.

David P. Kenny

Originally trained as a mechanical engineer, David Kenny commenced his programming career with Osprey Computer Services of Southampton shortly after leaving college in 1977. Osprey specialised in application of the IBM System/32 to the banking sector, and it was programming for this system and its successors that has formed the core of David Kenny's expertise. He moved on to Hampshire Computer Systems as Systems Director in 1982, but left to form his own company, Logique Ltd., when Hampshire were bought out in 1986.

Paul D. Krone

Major Paul Krone is a serving officer in the Army. Since 1967 he has developed a career as Military Accountant and Analyst Programmer, serving in many parts of the world and with widely varying responsibilities. He is currently Officer Commanding the Adjutant General's Systems Group, which is responsible for systems in remote locations such as Nepal, Canada, Singapore and Cyprus.

Keyhan Mestchian BSc MSc Asc

Trained in programming in the USA, Keyhan Mestchian came to Britain in 1985 and then joined Xerox in 1987, where he has remained ever since as a Senior Software Engineer. His work revolves around the needs generated by the special hardware produced by Xerox, programs built into the products themselves, and those required to facilitate production and the running of Xerox's own business and the specialised business needs of their customers.

Roy A. Nelson

Roy Nelson has been a programmer since 1969 and held a number of permanent jobs with employers in the Midlands - including Rolls-Royce - before going freelance in 1977. He is very versatile and has since worked for a wide variety of employers, including ICL, Laing Construction, Citibank, British Shoe Corporation, Trust House Forte, Land Rover, ABC TV, BNFL and others.

Carlo P. Pelusi BSc

Carlo Pelusi was a trainee programmer with the Midland Bank, then had intensive periods of permanent employment with two software houses before going freelance in 1989. Specialising in financial systems his first private assignment was with Woolworths, who were redesigning all their financial systems. A further contract to develop a Direct Mailing database led to a 5-year assignment with Eagle Star, developing Life Policy administration systems. Carlo is now back with Eagle Star, after a brief break at Severn Trent Water.

Gary Taylor

Gary Taylor has worked in IT since 1974 on ICL and IBM mainframes. After 10 years with ICL in Letchworth he spent 4 years with software house Sydney Ltd. He then joined Confederation Life Insurance, and for 7 years led a team of programmers implementing changes to Confederation's main Policy system. Redundancy forcing a change of direction, in 1995 Gary became a Senior Analyst Programmer with Logica for a time, then moved on to Tesco where he is Systems Engineer.

Dear Sir,

I was surprised to read what amounted to a justification for using a more than dubious technique in Edwin J Keen's article "The Year 1999 Problem" (Issue 25). Try as I might, I couldn't think of any legitimate usage of a date field for storing anything other than a date. If a 'whole range of things' need to be flagged, then surely a 'whole range' of flag values in separate flag fields are called for.

In his book, 'Writing Solid Code' (Microsoft Press, 1993), Steve Maguire cites the 'C' library function 'getchar' as an example of this risky dual-purpose (flag and data) interface. Getchar returns an integer value (which is signed), but most programmers forget this and assign the return value to a variable of type char. This is fine, except when getchar cannot get a value, whereupon it return the constant value EOF - which is negative.

However, the range of values that a char variable can take may only be positive (if sign extension is not supported, or if the char type is specified at compile time as being

unsigned), so even if the calling code tests for EOF it will fail!

Maguire calls this an example of a 'candy-machine interface', named after those vending machines which tag each pigeonhole with a number and show the price next to it. Maguire recounts how he was forever typing in the *price* instead of the pigeonhole tag and getting something that he would never eat in a million years!

I find it ironic that in the same issue is the continuation of the article "The Professionals" by Chris Bonnici. In the light of Bonnici's argument for the professionalisation of the industry, can Edwin Keen defend his use of an avoidable shortcut coding method which could easily be seen at the time to cause problems later and is now likely to cost millions to rectify?

What I find most depressing is the blasé attitude in Keen's article - 'Sure we used 9/9/99 ... to flag a whole range of things' ; 'I certainly shan't lose any sleep over it'. I hope that Keen's code isn't involved in any mission critical application and that he at least documented the 9/9/99 assumption.

On a related note, I see that IAPetus at least will never reach the year 2000 - according to the date on my copy it's apparently the March 1997 issue - again!

Daen de Leon

Dear Sir,

I have read with interest the article entitled "The Professionals" in issues 24 and 25 of IAPetus and agree the article was well written, informative and pertinent to a very real problem in the IT industry.

However should we not now be looking at a government backed solution to what is a problem which apparently affects them as greatly as it does the public sector.

If the BCS and others were to join the IAP and government representatives surely a solution could be found which not only answered the question of whom qualifies as an IT Professional in future but also how to vet those who are currently claiming such title.

Stuart Robertson

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