INCOSE UK Newsletter

Business as Usual

The administrator has fielded a number of questions recently about what is happening within INCOSE UK, because there is perceived to be a lack of events being publicised. Hopefully this issue of the Newsletter should correct this perception, although it is true that there were a few problems to be faced at the beginning of this year.

To put it simply, we have had something of a financial crisis. In the past we have raised funds through the UK Symposium that have enabled us to underwrite future symposia and retain the services of John Mead. Last year, the International Symposium replaced the UK symposium, and despite being a technical success it did not realise any financial benefits for the chapter. The Autumn Assembly failed to replenish our coffers, so we have had the problem of starting from the bottom. Whilst we have not resolved all the problems yet, we have worked out a way forward and we are generating a new momentum that we hope will carry us through.

Another complication has been finding dates to hold our own events given the vast array of SE related events in a crowded calendar. Not least we have had to consider joint events with the IEE. It is flattering to be invited to sponsor events with the IEE, but this has resulted in more 'must avoid' dates in our calendar.

The UK Board has risen to the challenge. We have a new action plan that identifies a range of activities in which INCOSE UK should be involved. The problem, as always, is finding members to initiate and support activities. This is why you have recently received an invitation to volunteer for specific INCOSE activities. The response so far has been encouraging, and hopefully we will be able to channel new efforts into activities that will benefit us all. There is already a 'cell' looking into approaches for developing a better interface with academia, and with enough volunteers we will be able to tackle all the subjects listed in the invitation.

With regard to National events, we are planning to put on an Autumn Assembly in November that will address a number of topics 'in depth'. The SEPDC is currently wrestling with the identification of suitable subjects and relevant speakers. If you have any ideas for topics then please let us know. We have also set the dates for next year's National events - a Symposium in May and an Autumn Assembly in November.

We are also encouraging more local events. Those held in Bristol and Southampton have been highly successful, and have attracted many current and prospective members to presentations on a number of SE's 'hot topics'. The great thing about local events is that, with the support of local companies, they can provide a useful service to members at a very low cost to all involved.

Underlying all this is the unprecedented number of enquiries that have been received, from all quarters, inviting involvement from INCOSE. It is clear that INCOSE with its international connections, inclusive attitude to SE practitioners, and links to standards organisations, is becoming a focal point for Systems Engineering, both in the UK and worldwide. As a nationally based chapter we are well placed to explore the possibilities for involvement with other organisations. The US part of INCOSE finds this much more difficult because the chapters do not have national coverage. We are therefore in the position of being able to write the INCOSE rule-book regarding links with other organisations.

There is much to be done, but I believe that the results that can be achieved will be well worth the effort. Please help us to secure the benefits that INCOSE can bring to the world of Systems Engineering.

Pete Lister
President of the UK Chapter of INCOSE

The INCOSE International Workshop 2000

The annual INCOSE International Workshop took place in Scottsdale Arizona during the last week in January. The Arizona weather was kind to us, but that seems a long time ago as I look out of the window at the unseasonable snow and gales while writing this piece.

The event was a 'first' in that it was totally organised by PCMI - the company that manages the International Symposium. It seems to be getting ever harder to get a Chapter to 'stand-up' to organise the International Workshop or a Symposium. The hot news on Symposia is that the 2001 event is likely to be the last that depends on a single Chapter. Even the Regional Symposia are typically pooling the resources of two or three Chapters.

This was the third IIW that I had attended, and it has become apparent that the same faces appear every year. If anything, attendance seemed to be a little lower this year, reflecting possibly the recent upheavals in the Defence sector, with less time and budget available for people to spend time on the wider technology issues. The UK Chapter was well represented, though not as well as last year when we were on the final run into the Brighton Symposium.

I did my bit for the Chapter by attending the Chapters Committee, which consists of all available Chapter representatives and provides the opportunities to swap ideas and discuss problems. There was also a Region III meeting which provided a useful 'face-to-face' with other European Chapter Presidents and the Region III Director. The big news was the imminent formation (now officially ratified) of the Swedish Chapter. There was also a representative from Italy and there are hopes of a Chapter forming there in due course. Overall, Europe is a growth area for INCOSE, with the UK Chapter leading the way at approximately 10% of all INCOSE members.

Freed from the Symposium 'chain gang' I took the opportunity to sign up for some real 'techy' work with the Model Driven System Design WG. Diving into the middle of a 'rolling' working group is a bit strange at first, but I am now beginning to get the hang of it. The main problem is sharing my INCOSE time with Chapter activities, but I am determined to pursue my technical interests. The MDSD WG is part of the Modelling & Tools Technical Committee, and as a result of some little understood logic this TC has become the home of the Soft Systems Interest Group. Allen Fairbairn carried the torch from the UK Soft Systems Group on this one, and managed to get it ratified as an INCOSE technical activity. A couple of well attended meetings were held at the IIW, and if Allen and the rest of the group can identify some specific objectives, the IG could be promoted to a WG. This is probably the first time that a non-US initiative has

resulted in the establishment of an IG/WG, so we should all be very proud of our local heroes.

The underlying message that I brought back with me is that INCOSE is changing. It is more open to new ideas and initiatives, and it is beginning to look beyond the confines of Defence and Aerospace world. This is good news, because in today's world those individuals and institutions that do not embrace change will be consigned to the history books. The UK Chapter is well placed to lead this change, both in terms of challenging the orthodoxy of some of the US members and providing the focus for other European Chapters to have their say.

Pete Lister

Dates for Your Diary

INCOSE UK CHAPTER EVENTS

The Board has agreed dates for INCOSE UK National events as follows:

2000 AGM - tbd October 2000

Event to be hosted by the Bristol group.

2000 Autumn Assembly - 6/7 November 2000

2001 UK Symposium - 14-16 May 2001

2001 Autumn Assembly - 12/13 November 2001

The SEPDC is currently working on the programme for this year's Autumn Assembly, where we plan to organise half day in-depth sessions on issues of interest. Anyone who has ideas for session topics or would like to help with the organisation of a session please contact Mike Prince. We would also welcome offers for sponsorship, in return for publicity and recognition from INCOSE UK. Anyone who thinks that their company would be interested in supporting the event with money or in kind should contact Pete Lister (contact details are at the end of this Newsletter).

INCOSE REGIONAL EVENTS

2nd European Systems Engineering Conference - 13-15 September

Event hosted by the German Chapter of INCOSE with assistance from the Netherlands Chapter and to be held in Munich. You should have already received a call for papers, and brochures will be distributed later in the year.

INCOSE INTERNATIONAL EVENTS

10th Annual International Symposium - 16-20 July

Event hosted by the North Star and Heartland Chapters of INCOSE and to be held in Minneapolis. Brochures have been distributed to INCOSE members. The Editor of the Newsletter has some spares if anyone wants one, or access the web site at www.incose.org/nrthstar/i2k.

IEE EVENTS

Systems Engineering in Business 1 - 22/23 June 2000

Event co-sponsored by INCOSE and held at Coventry University. The objective is to focus on establishing best practice, tools and techniques used in the application of Systems Engineering in Business environments as a precursor to an end-user oriented Symposium in the Autumn. The event aims to pull together a wide and rich picture from the various professional groups operating in this field. An open forum at the end of each session will be used to drive out the basic core tools, techniques and application methodologies.

Systems Engineering in Business 2 - 12/13 October 2000

Event co-sponsored by INCOSE and held at IEE London. This follow up to the June event will investigate the potential use and benefits that the identified expertise can bring to corporate management operating across a wide variety service sectors.

For more details on either of these events please contact Bryan Manning at bryan.manning@btinternet.com.

Have We Got You Right?

When I was looking at the address labels for a recent mailing, it was evident that some of the addresses looked even more eccentric than you would normally expect. Can I ask you all to check the address label on the envelope that you received this Newsletter in, and advise us of any corrections/updates that are required. Please send corrections to John Mead by mail (you can return the label marked up) or by e-mail. His contact details are at the end of this Newsletter.

Pete Lister

Marketing Systems Engineering

Following the recent rationalisation of the Defence Industry I thought it was time to see what was going on in other, hopefully growing, sectors. My thoughts so far (from attending INCOSE events and various journals) is that systems engineering has a foothold in large value projects in the following sectors: civil aerospace, transport, automotive, telecommunications, software, manufacturing and possibly civil engineering and medicine. However, the presence of systems engineering in these sectors is variable and some areas of the economy are not included.

The February edition of the IEE's Engineering Management Journal reported a survey by Asta Development (project management software tool vendors) of 455 organisations involved in project management over a 12 months period. What caught my attention was that 47% of the project managers involved had received no formal training and the average overspend, per organisation, was £400k per year. If this is extrapolated UK wide the overspend comes to £1 billion. Surely we have a role to play in improving these figures.

How does systems engineering get its foot in the door of new sectors and smaller projects? Ideally all boardrooms should see the incorporation of system engineering into their business as a competitive advantage. Railtrack is seeking to include systems engineering companies in an alliance to update the west coast mainline control systems. The project will take 10 years with a budget of £1 billion. Unfortunately, having started to review all UK public sector contracts there is no indication of a general systems approach in that sector.

My perception is that systems engineering will have to be sold into each sector separately. However, how many of us can articulate the benefits of systems engineering to board level management within their attention span (given as 3 seconds, only half jokingly, by Patrick Moore at the Autumn Assembly)? One approach would be to get the message across by working with other professions who already have an established rapport with the decision makers. Management consultants (did I notice a wince?) and project managers for example. However, a visit to one project management web site indicates that there is still a long way to go to ensure that project managers have, from our viewpoint, an understanding of systems engineering.

Small businesses overall employ more people than the blue chip companies which make the headlines. I am sure they could benefit from the application of some or all of the elements which make up systems engineering. However, as far as I am aware none of the current processes are easily tailored for use by a smaller organisation or project. An untapped market?

This article raises more questions than answers on marketing systems engineering. I know that there are many members already working in this area for their parent organisations. Perhaps marketing could form the basis of a discussion at a future INCOSE gathering........?

Martin Testo

If you have any thoughts or comments related to this article please contact Martin Testo (Tel/Fax 01225 334690, mtesto@iee.org.uk) or send something to the Newsletter for wider publication. This is a subject that INCOSE at all levels has been grappling with, so some new ideas would be very welcome.

Technical Board Appeal for Funds

Dr. John R Snoderly, the INCOSE Technical Board Chair, circulated the following (in e-mail form) to CAB members & Chapter Presidents:

"As of 1 May the INCOSE starts a new fiscal year. At the IW2000 in Phoenix 2 months ago, I discussed with the CAB possible CAB support for Dave Oliver in his representing INCOSE on the ISO-SC4 efforts. I also was approached by the Chapter President's Committee about supporting the Technical Board efforts financially by having local chapters sponsor Technical Board efforts. INCOSE is developing relationships with external organizations that develop standards and other useful products that advance the practice of systems engineering. We need your financial support to allow INCOSE to participate in these activities:

a) Liaison to ISO/IEC 15288 activity (System Life Cycle Processes) and ISO/IEC 15504 (Process Capability)

b) Liaison to ISO 10303/AP233 TC184 / SC4 activity (Systems Engineering Data Exchange)

c) Liaison to G-47 EIA 632 and 731 activity (Systems Engineering Process and Capability)

d) Liaison to UML upgrade activity (make compatible with SE)

Please note that we have an opportunity for additional participation in the SC7 work since Halligan is allowed to take a delegation to the ISO meetings to help "cover" all the concurrent activities that go on at these meetings. We are trying to round up a few "delegates" to go to the Madrid meeting. Some of these people could perhaps have their company fund them, but others may not. We are going to have a hard time supporting both 15288 and 15504 work with only one person (Halligan). 15504 is planning to have its own CD out end of this year. And there are always several meetings going on at the same time when the SC7 meets. I would welcome CAB

members and INCOSE Chapters to think about funding partially (one quarter to one half) as well as the full amount. I would provide recognition of such support at symposiums and IWs for the CAB and Chapters that participate.

The areas of concern along with dollars needed are listed in the paragraphs below:

1 The TC184/SC4 subcommittee is developing standards and other standards products (e.g., guidebooks) that directly affect the practice of systems engineering. The SC4 is currently developing AP233, a data exchange standard for systems engineering. The first committee draft from the AP233 formulating committee is planned for review in 4Q2000. INCOSE would like to participate in this review, but will not be allowed to participate unless INCOSE has an official representative on the committee.

Publication of this new standard is planned for late 2001 or early 2002. All SE tool vendors are anxiously awaiting this data exchange standard which greatly facilitate the exchange of information between SE tools themselves and between SE and non-SE tools (e.g., SW tools). This effort for 2001 is projected to cost $10,000 for Dave Oliver's travel

2 The ongoing efforts of Robert Halligan as the INCOSE Category A Liaison with ISO SC7 and the 15288 efforts will cost approximately $10,000 for his travel expenses.

3 I recently received the a proposal for additional useful participation by INCOSE: I am sending this proposal for the Model Driven Design Working Group and Howard Lykins who heads the UML interest group. The proposal has been reviewed within MDSD and was the subject of discussion in the last MDSD conference call. We feel there is some urgency in proceeding to set up INCOSE representation at Object Modeling Group Technical Meetings and a working relationship with the informal OMG interest group working on the RFP for UML extensions.

If this activity is found to be important, then MDSD will work actively to make UML useful to INCOSE members and sponsors. The cost for travel for this activity will be approximately $10,000.

4 The participation of the INCOSE with EIA as a close partner has been successful over the years in helping to establish standards for the practice of SE. The GEIA G47 SE Committee has produced the EIA 632 standard with inputs from the INCOSE participants. G47 has several important votes coming up this year of interest to INCOSE:

- upgrade of EIA/IS 731 to full standard vs. 731 cancellation and adoption of CMMI

- putting ANSI/EIA 632 on fast-track to ISO standard

- ratification of new ISO technical committee on systems engineering (not within IT or SW structure)

The charge for being a voting member is $2000 per year. Additional charges for travel of the INCOSE rep when meetings are not conducted in the Washington area. The travel cost is estimated at an additional $2000/year."

The UK Chapter is not in a position to offer any funding, but if any organisation is willing to support INCOSE's efforts in helping to drive these important standards developments, then I am sure that John will be pleased to hear from you. His contact details are:

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Academic Outreach

I am now leading the Academic Outreach Initiative, having answered the recent

"Situations Vacant" advert. This has sprung from the perception that INCOSE and academics involved in systems engineering are often unaware of each others' existence and activities. Also if academics are aware of INCOSE they may not consider it sufficiently relevant to their work to join and participate. The aim is to bridge this gap for the mutual benefit of both INCOSE and academia. The plan is to identify the needs of academics and to make sure they know how INCOSE can meet these needs. In the other direction INCOSE will continue to benefit from access to up to date academic input and a broad membership base.

We already have a number of active academic members whose experience we can draw on. However, we do need a few volunteers to complete this initiative.

Please contact me directly with any offers of help, opinions, views or comments.

Martin Testo, Tel/Fax 01225 334690, mtesto@iee.org.uk

Martin Testo

Volunteering for Active Service

I hope you have all received the 'Situations Vacant' flyer that was distributed in early April. There are a number of ideas for getting more out of your membership of INCOSE. If you haven't volunteered yet it is not too late,

and if you did not receive the flyer, visit the INCOSE UK Website (www.incose.org.uk), where the information is posted.

One of the ways to involve yourself in the workings of INCOSE is to sign up with one of the many Working/ Interest Groups. Don't be shy! Volunteers are welcomed with open arms and given things to do. The internationalisation of INCOSE means that volunteers from outside the US are particularly welcome.
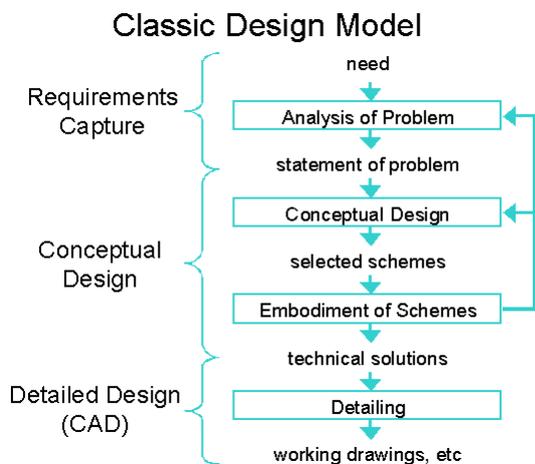
If you are worried about finding the time and budget to get involve with a working group, choose something that has a recognisable value to your company. It is much easier to persuade company budget holders of the benefit of a technical activity that is directly related to company goals.

A list of the current technical Committees and related Working/Interest Groups is included with this Newsletter. The current UK involvement is also listed so that you can identify 'green-field' sites or someone to contact regarding the activities of the particular group. If I have made any errors or have missed anyone out then please let me know. I will try and keep the list up to date and re-issue it periodically. Don't expect instant activity, because all the working group members have the same problem with the 'day-job' as everyone else.

Pete Lister

From Computer Aided Design to Knowledge Based Systems

Most design is routine and structured so why don't we use computers to speed this up? Well, the answer is that we do and the extensive use of CAD tools shows this. These tools, however, neglect a whole area of design: that of Conceptual and Functional design.
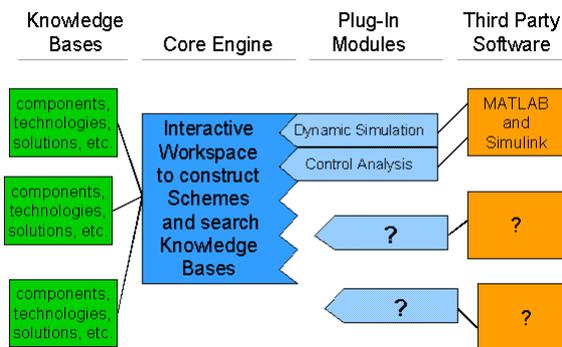

Classic Design Model

The early stages of the design process, before CAD becomes useful, are concerned with selecting the right concept/configuration/technology. Just like the later stages the early stages can also be structured and

routine, to the extent that methods such as QFD and German Design Guideline VDI2222 exist. However, there is very little in the way of software tools available that can bring modern computing power to help us do conceptual design.

Perhaps one reason why software tools have concentrated on the later stages of design is the difficulty in capturing, storing and searching abstract ideas and concepts using the digital medium of a computer. Schemebuilder is a software tool developed at Lancaster University's Engineering Design Centre and is based on a well-researched methodology. At the heart of Schemebuilder is a generic method of representing the types of knowledge used in engineering design. It is founded on Domains Theory, Systems Theory and the Object-Oriented Paradigm. Objects representing both abstract and concrete knowledge (components, technical solutions, sub-systems, best practices, common configurations, etc.) may be stored and retrieved from knowledge bases. Because the representation method used by Schemebuilder is generic, the tool is cross discipline and so ideal for modern products and systems. Special plug-in modules must be used to handle non-generic data that is concerned with specialised views of the system (e.g. dynamic simulation).

Schemebuilder Structure

If you use a generic (cross-discipline) method to build your knowledge bases then it follows that users with different skills will be able to use the system to share ideas and perhaps even work on the same design. But there is an added benefit: the range of users is not limited to just the designers and ready access to the product knowledge will be welcomed right through the chain from sales to support. Imagine a tool where you can build a design by tapping into a range of specialised knowledge bases over the Internet, much like a standard search engine except that the information retrieved is in the form of objects that may be readily fitted together to build a system. The first concepts or configurations may be generated during an initial sales contact, and at this stage a plug-in module may provide cost and performance estimation. These initial schemes are then refined, tested and designs produced by interfacing to

appropriate software. For example, the EDC has produced a plug-in that can automatically generate a dynamic simulation (Simulink model), from a scheme that has been built using Schemebuilder. The next actor in the chain may be the customer, now the scheme could be used to generate documentation, say a maintenance schedule or perhaps a user interface.

Ian Porter

SCHEMEBUILDER RESEARCH AND DEVELOPMENT

Lancaster University is currently looking for more partners to join an existing consortium with a view to submitting a proposal to the EC in autumn of this year. It will be based on the ability of Schemebuilder to improve the necessary sharing of knowledge in a chain of actors involved in any product: designer(s), supplier, integrator, installer, customer and user.

For further details on any aspect of Schemebuilder please contact Ian Porter: i.porter@lancs.ac.uk or see the Engineering Design Centre Homepage:

http://www.comp.lancs.ac.uk/edc

Members on the Move

As some of you may already be aware, Paul Hewitt moved from Ascent Logic to QSS at the end of last year. From what he said to me in a recent phone call, he seems to be getting on well on the other side of the DOORS - RDD bridge.

Trevor Cockram is to leave Rolls Royce after 26 years. He is joining Praxis Critical Systems as a Safety Engineer.

Another new starter at Praxis is Toby Waters, who is taking up a post as Business Manager. Toby, currently a lapsed INCOSE member (but he has promised me he will rejoin), is leaving Aerosystems International after 7 years.

Peter Brook, INCOSE Director at Large, has recently left DERA Malvern to take up a challenging new post heading the new Integration Authority at the Defence Procurement Agency. This means we shall probably see less of him at INCOSE meetings and functions, but I hope he will find time to give us the benefit of his experiences.

If you are changing jobs or have news on anyone else's career moves let the Editor know.

Pete Lister

Event Reports

SOUTHAMPTON MEETING

The first meeting in the Southampton area was held on 9 February 2000. It was attended by 30 members or prospective members. The meeting was hosted by Archer Communication Systems Limited, and organised by John Davies and Sarah Curran from BAE SYSTEMS at Christchurch. ACSL kindly supplied food and refreshments, and thanks are due to Fariba Hozhabrafkan for getting the excellent domestic arrangements organised.

The speaker was Allen Fairbairn who spoke on two related topics:

1   Work on Soft Systems that started at the INCOSE 99 Symposium, was the subject of one day at the INCOSE-UK Autumn event and has now led to the formation of the INCOSE Soft Systems Interest Group.

2   The relationship of Systems Engineering to Project Management and Enterprise Management, and the need to consider systems not just as 'deliverables' but in terms of how they change the state of the world into which they are introduced.

These both were received very well and led to involvement of the members in questions and discussions.

Some members came from as far away as Hertfordshire and Weymouth, but felt it worthwhile. There are more members living nearer Southampton, and certainly more Systems Engineers in the area, but the nature of our work is that we are often away and unable to attend any one meeting. We hope the IEE/INCOSE Systems Engineering Roadshow at DERA Fareham will stimulate more interest and attendance at future meetings, and word-of-mouth of members who attended will encourage others.

Reaction to the meeting and ideas for future events we solicited through a questionnaire which gave a very positive response to the evening and the need for further meetings. We hope to hold the next meeting in June.

Results of the questionnaire:

Preferred Location: Southampton is reasonable for the people attending and Archer Communications is easy to get to, (and a good host) Others could host.

Preferred Frequency: Quarterly

Preferred Time: 6-8 pm

Preferred Format: Presentation and discussion

Proposed topics for further meetings (in alphabetical order):

• Applications (especially non-aerospace/defence)

- Enterprise and Systems Engineering
- Introduction and overview of SE for new members
- SE in the project Lifecycle, when is the project complete?
- SE Process and Models of SE
- SE standards, SE-CMM, CMMI etc.
- Smart supply chains
- Soft Systems
- System Effectiveness
- System of Systems
- Tools and methods

For further information or to add any comments, please contact sarah.curran@bae.co.uk or john@johndmead.demon.co.uk (INCOSE UK Chapter administrator).

Sarah Curran

BRISTOL MEETING

On 28 March, Stuart Arnold travelled to Bristol to give a presentation on System Engineering Standards. As one of the editors for ISO 15288 his talk came straight from the 'horses mouth'. The meeting was as well attended as we have come to expect, and was followed by a lively debate that continued in the bar.

The Bristol group is currently planning a workshop event to be held in June. Details have still to be finalised.

Local Groups

Local meetings are a major success story within INCOSE UK. Wherever local events have been put on there has been much interest and everyone involved has been encouraged to repeat the experience. The Bristol group is well established, and the Southampton group looks as if it is set to continue. It is not easy for the UK Board to make things happen at the local level, so we rely heavily on local support to get things underway.

The first hurdle is to find a 'local hero' who is prepared to kick things off, usually by persuading a couple of others to share the load. It has not proved to be too hard to persuade local companies to provide a meeting room and some light refreshments on the basis that their staff get some 'free' training. We can provide local organisers with a list of local members drawn from the membership database so that potential attendees can be directly targeted. Exploiting contacts in local companies can also draw in people new to INCOSE.

Whilst people do travel long distances for a local event (see Sarah Curran's report), most people find anything more than an hour's travel a bit too much for an evening's education. This means that local groups can be quite close together without 'stealing' each other's audience. I

would regard refereeing a turf war between local groups as the ultimate sign of success!

At a recent board meeting we discussed potential areas where local groups could flourish. These include Farnborough (around 40 people turned up for Jim Brill's lecture last December), Preston/Warton (there are a large number of members on the list), Crawley and last but not least London. We have fielded world class speakers on SE Process, Smart Procurement, SE Standards, and Soft Systems. There are many other subject areas that could be covered and each can provide a training opportunity as well as promoting inter and intra-company networking.

If you want to be part of a success story, contact myself or John Mead. We know that you won't regret it.

Pete Lister

Insight Deadline

If you have any material that is suitable for inclusion in the Insight magazine, then make sure you forward it by16 May. The best method of delivery is via e-mail to insight@incose.org. Other details for submission can be found on the INCOSE web site (www.incose.org). On the site you will find a list of the 'themed' issues planned for the future.

If you feel that you have material relevant to one of the themes, make sure you get in contact with the theme editor nominated for that issue. There have already been significant contributions from UK members - the recent issue on requirements featured excellent articles from David Corrall and Paul Davies.

Pete Lister

Membership Matters

Unless you have joined INCOSE within the last month or so and have paid for the 'rollover' to cover next year's dues, you will shortly be receiving a renewal notice for 2000/2001. You will probably receive notification from INCOSE central (priced in US$), but you should also receive notification from the UK Chapter (priced in £). You are free to renew using either route, but there are some advantages to you and the UK Chapter of by renewing locally.

Firstly, we will be offering the opportunity to pay your dues by Direct Debit, which will save you the hassle of sending us a cheque each year. The Direct Debit form and full instructions will be provided with the UK renewal notice. If you don't want to use Direct Debit we can accept a cheque drawn on a UK Bank. Three quarters of the money is forwarded to INCOSE Central (to pay for Insight, the Journal and all the other things that INCOSE

does internationally). If you send the money via the UK not only do we get the Chapter's share sooner, but we also have the use of Central's share for a few months.

Renewing via the US can be done by credit card, but if you want to send a cheque you will find yourself paying your bank around £8 for the privilege of sending a cheque in US$. Most credit card make some sort of conversion charge for overseas expenditure.

The sharp eyed amongst you will note that the cost of the dues in £ is slightly higher than the equivalent in US$. This is because we set the rates for the year, and we need to take a view on future exchange rates. There is also an element of 'rounding up'. The cost has increased since last year to reflect the fall in the exchange rate over the last few months - the increase would be even higher if we were paying in Euros - but I hope you will agree that £56 still represents extremely good value.

Pete Lister

Contact Details

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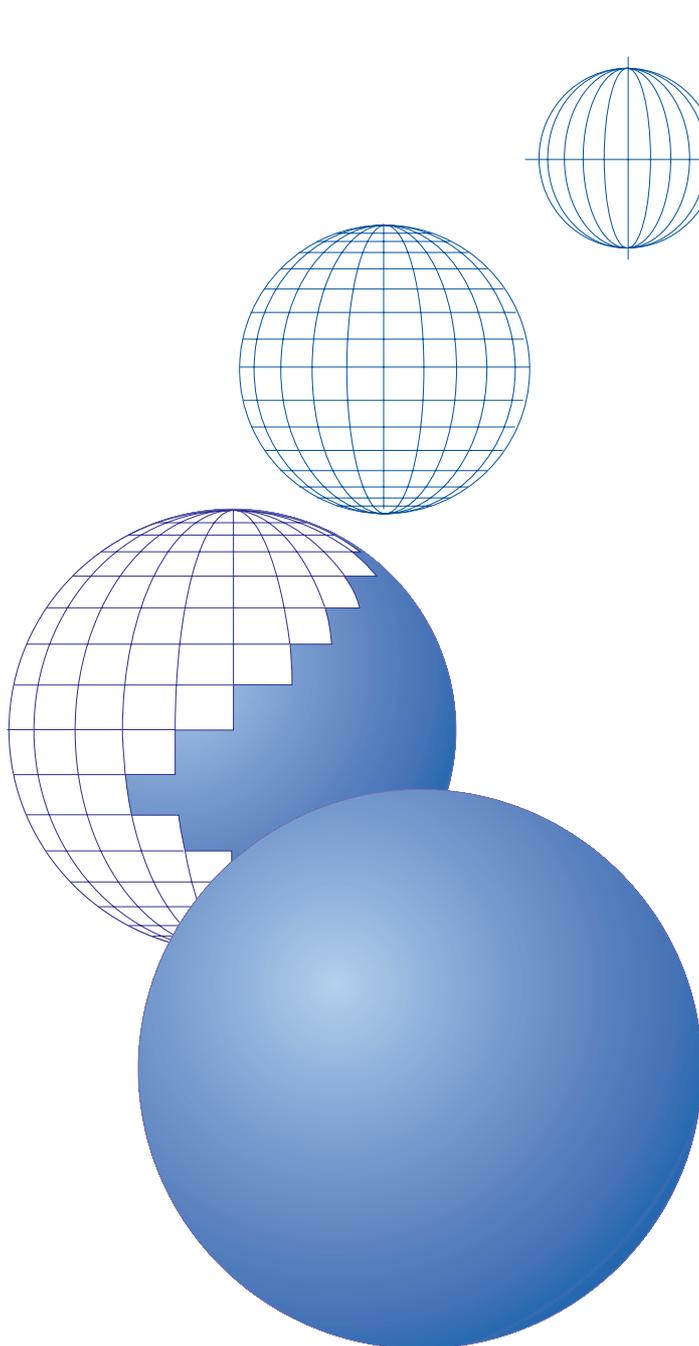
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If your toolset does not support the entire systems lifecycle or you are concerned about the stability of your current systems engineering tool solution, 3SL would like to offer you an attractive upgrade package to the premier systems engineering environment - Cradle.