



IAP Symposium
Autumn 2017

Improving Software for Society



Thursday 7th, September 2017

Where software professionals belong



IAP Symposium Autumn 2017

Improving Software for Society

The programme will include

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| 09:00 | Registration and Refreshments |
| 10.00 | Welcome and Opening Remarks: <i>Alastair Revell, Director General</i> |
| 10:10 | Lt Gen Sir Edmund Burton: <i>Leading Change in an Uncertain Environment</i> |
| 10:55 | Ian Bryant: <i>Can We Make Software Better?</i> |
| 11:40 | Refreshments |
| 12:05 | Professor Igor Schagaev: <i>The Role of Technology - Software</i> |
| 12:50 | Paul Lynham: <i>FURST</i> |
| 13:35 | Pre-Lunch Drinks |
| 14:00 | Lunch |

Our guest speakers for the IAP Symposium Autumn 2017



**Lt Gen
Sir Edmund Burton**
KBE DL

Sir Edmund retired from a 38 year military career in 2000. His final years of service included the appointments of Military Attaché, British Embassy Washington, during the first Gulf War; Commandant of the Royal Military College of Science and, latterly, as Deputy Chief of Defence Staff (Systems), with responsibility for the UK's defence equipment capabilities and applied research programme.

On retirement from the Army, he was tasked by the Cabinet Secretary and Director GCHQ to undertake a review of GCHQ's New Accommodation Programme, followed by a review of the UK's Information Security capability, leading to the establishment of the Central Sponsor for Information Assurance, subsequently renamed Office of Cyber Security and Information Assurance.

He was appointed by the Home Secretary as Executive Chairman of the UK Police IT Organisation in 2001, with responsibility for reforming the approach of the Police Service to defining, procuring and supporting ICT capabilities. In 2008, he undertook the review of MOD data losses. He was appointed as Visiting Professor of Cranfield University in 2000 and awarded a DSc (honoris causa) in 2009. He has recently also been awarded a DSc (honoris causa) by the University of Chester.



Ian Bryant

Ian Bryant fulfils the overlapping roles of Standards Development Advisor for the Trustworthy Systems Foundation (TSFdn) -- a cross sector, Public Good activity remitted to "Make Software Better" -- and Chair of the British Standards Institution (BSI) Expert Panel responsible for the related Standards, the forthcoming BS10754 series. He was previously the Technical Director of the predecessor, government-funded, Trustworthy Software Initiative (TSI).

His primary role is as Professional Engineer working for HM Government, and he is also an Adjunct Professor of the Cyber Security Centre (CSC) at the University of Warwick. He is a Fellow of both the Institution of Analysts and Programmers (FIAP) and of the Royal Society of Arts, Manufactures,

Ian Bryant Continued

and Commerces (FRSA); a Member of the Institution of Engineering and Technology (MIET); and a Principal Expert on several other BSI committees.

Most software has defects in the coding which can cause the software to fail. Trustworthy Software is software that is appropriately free from such defects. It performs as it should, when it should and how it should. No software can be proven completely free from defects, but the level of "trustworthiness" should be appropriate to the software's purpose. Five facets make this happen: safety, reliability, availability, resilience and security.

The Trustworthy Systems Framework (TSFr) is a body of knowledge that provides signposting to various detailed sources of good practice, supported by educational and training reference curricula, and explanatory media such as videos. The TSFr is currently enshrined by BSI as PAS754:2014 from a software viewpoint and is now being updated to form a new British Standard.



**Professor
Igor Schagaev**

Professor Igor Schagaev received a degree in Engineering from Moscow Power Engineering Institute in 1977 and a PhD in Computer Science in 1987 from the Institute of Control Sciences, Russian Academy of Science. Currently, Professor Igor Schagaev is Director of ITACS Ltd, in the UK.

Igor has been a keynotes speaker at several international conferences and congresses:-

- Dynamic Safety of Aircrafts, IFAC'98, (Patras)
- Fault Tolerance Past Present and Future IFAC'99 (Sofia)
- Real Time Reliable Distributed Systems CWANC'12 (Hainan)
- Active Control, Safety and Maintenance Flight Global Safety'15 (London)
- Active System Control Flight Global Safety'16 (London)
- Role of Technology, ISPI Annual Conference'17 (Montreal)

Igor has worked, collaborated and acted as a consultant to provide his expertise to corporations and government agencies, including:-

- Sukhoi Design Bureau (Design of avionics and safety systems)
- Boeing (On fault tolerant avionic design and safety systems)
- Airbus (On active system safety for aircrafts)
- Swedish Government (On efficiency of research programs)

For more about Igor, see <https://independent.academia.edu/IgorSchagaev>



Paul Lynham

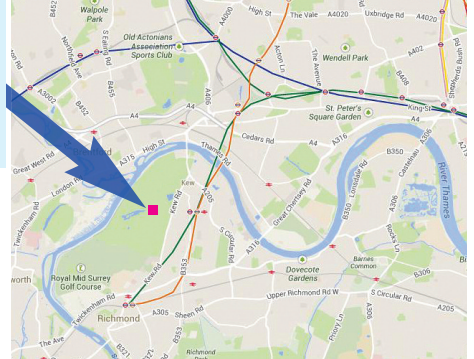
Paul Lynham is a freelance software consultant who is currently engaged as the principal lead applications architect in a project to implement electronic hospital referrals between consultants within the NHS in Wales. He has a long and wide experience in producing software using a variety of technologies and has used over a dozen Turing complete programming languages. His work has spanned various sectors including agriculture, education, health, defence, policing, wealth management and the Foreign Office. Previously he lectured in colleges and for the Open University and is interested in research and practices which can be used to improve software quality. One particular interest is the notion of 'Compealing Code', i.e. code which is comprehensible and compelling while being appealing. Another is the longer term goal of improving professionalism in software development.

Paul says *"The presentation is on FURST - a framework that can help in producing higher quality software. The five principles are Fit For Purpose, Unit Tested, Reviewed, Standard and Timely. The concept is a simple one and includes many ideas that have been forwarded in books such as 'Clean Code' and 'Code Complete' as well as current best practices. Each principle can be decomposed into attributes and these can be assessed to provide a guide to how well the organisation's goals are being met"*.

Location



Cambridge Cottage,
Royal Botanic Gardens
Kew, 37 Kew Green,
London TW9 3AB



Nearest tube station

Kew Gardens (District Line, 10 minute walk)

Nearest train stations

Kew Bridge (5 minute walk)

Kew Gardens (10 minute walk)

Please see the Kew Gardens web site www.kew.org for more information about parking location and charges



Prices

Cost to IAP members is **£200** including VAT

Cost to non-members is **£250** including VAT

Cost to IAP Fellows is **Free**



To reserve your place



- visit our website www.iap.org.uk
- email admin@iap.org.uk
- call 020 8434 3685
- or send your cheque to

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