

Promoting the role of the ISA

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Independent Safety Assessors (ISAs) are professionals whose job involves the formation of a judgement, separate and independent from any design, development or operational personnel, that the safety requirements for a system are appropriate and adequate for its planned application and that the system satisfies those safety requirements. It is an ISA's task to understand the scope and context of the system such that they can reach this judgement in a manner that is both cost-effective and proportionate to the risk involved. This can involve gathering evidence through a combination of auditing for conformance to planned arrangements, reviewing project documentation and performing additional analyses.

The precise requirement for independent safety assessment varies in different domains, with some placing the emphasis on audit of processes and documentation and others focussing on detailed technical assessment. This has led to a variety of terminology, with names like 'Functional Safety Assessor' or 'Independent Safety Auditor' being used in different areas. What is common is the requirement of many high-hazard industries for some kind of assessor to provide an independent opinion that enhances confidence in the safety assurance process operated by duty holders and their suppliers.

In September 2000, the Independent Safety Assurance Working Group was set up to promote the ISA role. The term 'assurance' is used in the group's title to focus on the end product of safety assessment—confidence in the safety of a system—rather than the methods used. Since its establishment, the aim of the group has been to: -

- promote the ISA role as a means of providing independent safety assurance of products to the supplier, purchaser and user;
- promote the ISA role of a safety professional in standards;
- support professional development by defining minimum standards, identifying training that meets minimum standards, and providing supporting resources; and
- support professional ISAs by developing guidance and providing information that affects their role.

The group consists of a mixture of ISA practitioners, with experience across many technology and industry domains, their customers, academics, and representatives of other interested bodies such as the Health and Safety Executive and the 61508 Association. Originally it was affiliated to the Institute of Electrical Engineers (now the Institution of Engineering and Technology) and the British Computer Society; it

now also enjoys the support of the Institute of Mechanical Engineers and the Safety and Reliability Society.

The ISA Working Group achieves its aims by providing a forum for discussion and building consensus, with meetings held four times per year. Key themes discussed by the group in the past included 'competence' and 'professionalism', leading to publication of two of the Group's key documents: the *Code of Practice for Independent Safety Assessors (ISAs)* [1] and the *Competency Framework for Independent Safety Assessors (ISAs)* [2].

The Code of Practice is a voluntary code, focussing on the particular responsibilities of independent safety assessment. Although it is a standalone document, it is designed to supplement rather than duplicate the existing codes of the professional institutions. It is intended to help ISAs and their clients manage expectations and understand each other's roles. Assessors can use the Code to help demonstrate their commitment to a high level of professional conduct, helping their employers and clients gain confidence in the standard of the assurance process. Customers can use it to help understand what should and should not be expected as part of the ISA role. Claims of adherence to the Code may also help customers to select a professional ISA. First published in 2008, and revised in 2012, the Code has now been adopted by a number of ISA service providers as well as customer organisations such as the Ministry of Defence.

The Competence Framework gives a basis for ISAs and their employers to assess competency. It is intended both to assist with personal development and to build a framework for demonstration of competence. The Framework can also be used by customers to help define the competence requirements and selection criteria for ISAs, and to understand what sort of evidence they should look for as demonstration of that competence. Similarly to the Code of Practice, the Competence Framework is not intended to stand alone: it focuses on aspects of competence relevant to ISA work, building on guidance from other sources, such as the IET / BCS Red Book and Blue Book [3, 4].

The Working Group's next major publication, planned to be developed during 2013, is a guidance document for the review of safety cases. It is hoped that this will help spread good practice and provide reference material for aspirant ISAs. It is also intended to be a useful guide that can provide help during the authoring, peer review and customer acceptance of safety case reports.

In addition to producing guidance documents, the ISA Working Group organises seminars for the independent safety assurance community to raise awareness of developments in the profession. These are held roughly every two years. Recently these events have been run successfully with the assistance of the Safety-Critical

Systems Club, covering themes such as “New Risks and Challenges”, “Adding Value”, and “Life Saving Second Opinions”. The next seminar will be held in autumn 2013 - please get in touch if you have any suggestions for topics to be included.

For further information about the ISA Working Group, please contact us at isawg@theiet.org or visit our pages on the IET website [5], where our publications and many of the seminar presentations are available.

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References:

- [1] Code of Practice for Independent Safety Assessors (ISAs), version 3, 8 Mar 2012, <http://www.theiet.org/factfiles/isa/isa-code-page.cfm>
- [2] Competency Framework for Independent Safety Assessors (ISAs), issue 1, 22 Oct 2009, <http://www.theiet.org/factfiles/isa/comp-frame-page.cfm>
- [3] Managing Competence for Safety-related Systems, HSE/IET/BCS, 2007 [Red Book], <http://www.theiet.org/factfiles/msc/index.cfm>
- [4] Competence Criteria for Safety Related Practitioners, IET/BCS, 2007 [Blue Book], <http://www.theiet.org/resources/books/policy/comp-crit.cfm>
- [5] Independent Safety Assurance (ISA) Working Group website, <http://www.theiet.org/policy/collaboration/isa/index.cfm>