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Developing System Safety Cases using Goal Structuring Notation (GSN) and ISCaDE
One-Day Hands-On Training Course 501
London: 9 November 2004 **York: 25 November 2004** **Bristol: 14 December 2004**

rcm2 limited, in conjunction with Origin Consulting (York) limited, is pleased to announce this one-day hands-on training course on System Safety Case development using the Goal Structuring Notation (GSN) and ISCaDE (Integrated Safety Case Development Environment).

What is GSN and How Does ISCaDE Help?
GSN is a graphical notation that can be used for presenting system safety arguments. It offers an explicit means of representing the decomposition of safety requirements into claims, and support for these claims from available safety evidence. ISCaDE (Integrated Safety Case Development Environment) is a unique networked software environment that helps users to audit or build a high confidence safety case efficiently. ISCaDE combines the features of DOORS multi-user, multi-access object-oriented database with graphical presentation capabilities in an integrated environment. It enables traceability of safety case arguments to hazard log information and to certification requirements arising from standards.

Who is the course for?
Our course is suitable for those whose roles involve System Safety/Reliability Management, Assurance and Risk Mitigation, Safety Engineering and Analysis, Hazard Management, Compliance and Certification.

What will you learn in just one day?
This one-day course introduces the GSN method with two case studies and one group exercise. The attendees are introduced to the ISCaDE GSN software package and have an opportunity to use this tool to develop a GSN diagrams within the day's group exercises. In particular, attendees will be shown how it is possible to explicitly link Goal Structures in ISCADE to existing safety documents, requirements and safety standards (such as Defence Standard 00-56 Issue 3 and the HSE Railway Safety Case Assessment Criteria).

Who are the speakers?
Dr Saeed Fararooy is a Speaker on systems engineering, requirements management processes and IT tools, whole-life system safety and reliability (RAMS/Dependability) management and engineering. He is a practitioner with rcm2 limited, a system safety/reliability solution provider to safety-critical industries.

Dr Tim Kelly is an established academic and consultant in the field of safety-critical systems development and assurance. He has been extensively involved in the development of GSN over the last ten years.

I wish to book a place on Course 501 GSN/ ISCaDE **Course Date** ----------

Name ---------- **Organisation** ----------

Address ----------

Tel ---------- **Email** ----------

I enclose a company PO/Cheque for £375 + VAT ☐

Purchase Order No. ----------

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Learning Outcomes

- How to use the functionalities of ISCaDE within the advantages of DOORS database (Dynamic Object Oriented Requirements System) for safety case development
- How to apply the GSN module within safety case development
- Understanding the benefits of using GSN to present the structure of a safety argument
- How to improve technical management with an integrated approach and effective teamwork

Speakers

Dr Saeed Fararooy is a Director of rcm2 limited, offering systems safety and reliability consultancy and systems engineering/integration services and solutions to safety-critical industries. He is the author of over 30 technical publications and a speaker at international conferences and training seminars on topics such as the System Safety Case in an integrated database environment. He has trained over 60 discipline engineers and project managers in 'Requirements Management' and IT Tools such as DOORS.

Dr Tim Kelly is an established academic and consultant in the field of safety-critical systems development and assurance. He is a Director of Origin Consulting (York) limited, offering systems and software safety consultancy services. He is also the author of over 40 technical publications covering topics in systems and software safety. He has been extensively involved in the development of GSN over the last ten years. Tim has trained over 1500 engineers in systems safety topics.

Programme of the Day

08:45 Refreshments

09:00 Introduction to the Goal Structuring Notation
- Motivation
- Basic Principles of Argumentation
- Principal Elements of GSN
- Examples
- Informal Exercise

10:30 Coffee

10:45 Introduction to ISCADE
- Motivation for Integrated Multi-User Multi-Access Database Environment
- ISCaDE Implementation of GSN with Examples
- GSN Traceability to Hazards/Requirements

11:30 Group Exercise: Electronic Throttle Safety Case
- Learning how GSN relates to narrative safety cases
- Gaining experience of the principles of GSN

12:45 Illustration of ISCADE Application to the Electronic Throttle Safety Case
- How Goal Structures are managed in ISCADE
- Linking Imported Documents to Goal Structures

13:00 Lunch

13:45 The GSN Method: Detailed Guidance on creating Goal Structures
- Step by Step Description
- Example Developments
- Common Mistakes

15:15 'Hands-on' Group Exercise in using ISCADE and Applying GSN
- Using ISCADE to create Goal Structures
- Using ISCADE to link Goal Structures to Safety Requirements (in DOORS)
- Linking Safety Arguments to Regulatory Requirements (such as Defence Standard Issue 3)

(incorporating Refreshments Break)

16:40 Wash-up
- Informal Q&A
- Next Steps

17:00 End of Day

Registration
Available places on our courses will be on a first come, first serve basis due a limited number of spaces.

Location
Our courses will be held in Central London, York Central & Bristol City. Full details of the hotel venue and directions will be provided with your registration confirmation.

Course fees and cancellations
The course fees are £375 per delegate. This includes course notes & refreshments during breaks. Cancellations received up to 10 working days prior to the event will be entitled to a refund of 50%. After this period there will be no opportunity for refund of monies paid.