

SCSC Data Safety Initiative – WG Meeting 37

13th December 2017, Rolls-Royce, Solihull

Minutes and Actions

Attendees

Mike Parsons (MP) – NATS, Rob Ashmore (RA) – DSTL, Eric Bridgstock (EB) – Raytheon, Des Burke (DeB) – BAE Systems (part), Nick Hales (NH) – DE&S, Dave Banham (DB) – Rolls–Royce PLC, John Bragg (JEB) – MBDA, Brent Kimberley (BK) – Durham (phone), Paul Hampton (PH) – CGI.

Apologies

Martin Atkins (MaA) – Mission Critical Applications, Michael Aspaturian (MA) – EDF Energy, Janette Baldwin (JB) – Thales, Steve Clugston (SC) – JLR, Shaun Cowles (SC) – EDF Energy, Andrew Eaton (AE) – CAA, Paolo Giuliani (PG) – EDF Energy, Robert Green (RG) – NATS, Amira Hamilton (AH) – CGI, Louise Harney (LH) – Leonardo, Chris Hartgroves (CH) – Leonardo, Ali Hessami (AH) – Vega, Clive Kelsall (CK) – BAE, Bernard Twomey (BT) – Rolls Royce, Fan Ye (FY) – ESC, Sam Robinson (SR) – EDF, Ebby Joseph (EJ) – RINA, Robin Cook (RC) – Thales, Mark Templeton (MT) – QinetiQ

Agenda

1. Finalise new version of guidance document
2. Guidance document production schedule and arrangements for delivery at SSS'18
3. Overleaf status
4. New trifold
5. SCSC update, including data-related poster and paper abstracts for SSS'18
6. Review of 2018 plans, including changes, new topics and improvements
7. Sales/Downloads Update
8. Formal modelling activity update
9. Dissemination update
10. Standards update
11. Future Events
12. SCSC SurveyMonkey
13. Minutes and actions status
14. AOB, etc.
15. Data Safety in the News
16. Further work.

NOTE: All comments or opinions in these notes are attributed only to individual attendees of the meeting, not to their respective organisations.

*[Note that actions are presented in the form **N.Mx** where **N** is the meeting number, **M** a reference number for the action raised in that meeting and **x** is an optional letter that differentiates related actions arising from the same discussion point].*

1. Finalise new version of guidance document

The latest draft of the guidance document produced by RA was reviewed [4]. MP showed the new blue/purple themed front cover picture developed by PH on a printed version of the document and it was agreed as being suitable for the next publication. MP noted a couple of whitespace/pagination presentational issues with the document and RA updated the draft during the meeting and a new pdf version was generated and agreed to be satisfactory.

Action 37.1 PH Send updated image to NH for Facebook page, LH for LinkedIn and MA for the tri-fold and to MP.

MP also noted the crosses in the Principles cross-reference table and suggested a tick would be better but this was purely cosmetic so no action was taken.

MP noted that the document says it will not be updated for at least 2 years and questioned whether this should be so definite. RA edited the document during the meeting to correct the text to say it is in a 2 year review cycle.

There was some discussion around the use of the term “Treat” as this applies not only to the general method of dealing with risk as well as a specific case of handing specific risks. It was suggested that the overall strategy should be “modification” rather than “treatment”. However, it was decided that it was too late in the production process to risk making such a significant change. This will therefore be deferred for resolution in the next version.

It was suggested that we have a page in the LaTeX source document to have a list of items to address in the next issue.

Action 37.2 RA Add comments/open issues to the document as a comments section after the v3.0 version of the document is published

Action 37.3 DB Ensure the model is included in the next version of the document

Action 37.4 RA Close down old Overleaf project

Action 37.5 BJ Close down old docuwiki, remove content, and refer future authors to MP

2. Guidance document production schedule and arrangements for delivery at SSS’18

EB said he will get the books delivered to his house. The Raytheon delegate (Vincent Martin) will liaise with Alex King to agree delivery time to the hotel on Monday 5th Feb.

PH said we should put the document through CreateSpace earlier as he is anticipating similar problems with the spine as last year.

3. Overleaf status

There is a cost of \$12 per month for the Overleaf product and the group discussed whether it is worth continuing with this. It was thought that other documentation such as tutorials and the tri-fold could be done in LaTeX so would justify the license costs. It was noted that the problem with the free version is that it doesn't track changes and is open so any member of the public could potentially edit the document. There are a number of funding sources available (e.g. SCSC), and these are very hopeful.

4. New trifold

MP noted that MA has sent through an updated Trifold [2]. This needs some further work, including incorporation of latest guidance cover, and possibly references to SSS'18 papers. One comment was raised on specifying the actual year of the A400M crash as it is no longer considered recent.

It was suggested that we need a generic trifold and then sector specific versions (e.g. Health, Automotive, Nuclear, etc).

Action 37.6 PH Consider production of sector specific template tri-folds starting with a healthcare example

It was thought that more sector specific guidance in general should be the focus for next year.

5. SCSC update, including data-related poster and paper abstracts for SSS'18

MP said Tim Kelly is still keen on promoting the working groups. "System of systems" was noted as a group looking for a working group chair. Typical effort commitment is about 1 day per month.

MP showed the abstracts and outlines for the papers to be presented for SSS'18:

- *Data in Police and Criminal Justice Systems: How data errors could lead to harm to innocent citizens*
- *A System Engineering Approach to Data Risk*

A data-related poster is also going to be presented - *The Safety Assurance of Intelligent and Self-Adaptive Systems*.

There was a general discussion on the increasing difficulty of managing police datasets. BK noted that there are methods of detecting issues with large data sets using different dimensions.

6. Review of 2018 plans, including changes, new topics and improvements

The following areas were considered candidates for future work by the working group:

- General document updates and improvements. The plan is to have a 2-year review cycle;

- Produce some training material and tutorials. A seminar was discussed but it was thought that the focus should be on some worked examples so a tutorial is preferred (although it was acknowledged that tutorials require a lot more preparation work). It was agreed to aim for a tutorial at the end of 2018;
- Sector focussed activities (e.g. sector specific trifolds, etc.);
- Database of data-related accidents
- Common impact assessments across different areas. In particular data can be used as a link between safety and security, noting that the WG has done some initial work on this;
- Providing guidance for emerging technology trends as previously presented by RO [3];
 - Internet of Things and OT/IT Convergence
 - Cryptography
 - Big Data
 - Cloud Computing
 - Cyber Physical Systems and Autonomy
 - Machine Learning and Self-Learning
 - Wireless Communications

7. Sales/Downloads Update

MP reviewed the sales and download statistics for the Data Safety Guidance documents:

- v1.0 303 sales, 1246 downloads
- v2.0 222 sales, 1281 downloads.

8. Formal modelling activity update

DB said the model has been updated to reflect recent changes in the OMG risk model. DB thought he may have less time to spend on it and it is largely in a proprietary tool that makes it hard to collaborate on.

It was suggested that further effort should be spent refining the model but we should also look at 'instantiating' the document to check that terms used in the document can be mapped to the model and vice-versa.

Plan for progressing:

- Produce a baseline model that can be reviewed along with a list of any outstanding issues
- Carry out a review cycle within the subgroup;
- Hold a special model-focussed meeting to resolve any issues;
- Map the model to the document and reconcile any issues; this could initially be on the normative sections only, but the aspiration is that all the document is mapped.

Action 37.7 DB Produce a baseline model for review including any outstanding issues.

9. Dissemination update

It was thought that autonomy and machine learning would be areas where data safety is applicable and the group should seek representation in those emerging areas. [Note that the DSIWG already has some representation in these areas as there are at least four DSIWG members who are also in the SASWG.]

Action 37.8 MP Invite representation from automotive to attend strategy meeting (e.g. Roger Rivett)

PH said there had been some email exchanges with the IET Healthcare SIG and all parties seem amenable to further discussion.

RA suggested we could lobby the steering groups (e.g. SCSC) to promote data safety. MP thought the SSS'18 conference would be key point to bring the various sectors together.

A concern was raised on whether the various working groups are potentially overlapping in some specific areas and it was thought some coordination between the groups (and group leaders) would be prudent.

Action 37.9 MP Speak to Tim Kelly to coordinate working group leader meetings to ensure there is consistency and reduced overlap between groups

10. Standards update

EB explained that there is a new environmental standard DEF STAN 00-051 circulated as a draft. This has some connection with safety as this also includes environmental impact. It was thought the group should look at this standard to assess relevance and impact.

Action 37.10 EB Distribute draft DEF STAN 00-051 to the group if possible for information

11. Future Events

SSS'18 will be the next major event in February 2018, <http://scsc.org.uk/e503>.

A WebEx meeting was suggested prior to SSS'18 [Now set for January 10th], <http://scsc.org.uk/e546>

A strategy setting meeting was suggested for around March'18. PH will investigate the new CGI London offices as a possible location.

Action 37.11 MP Arrange the next group meeting via WebEx mid-January'18

Action 37.12 MP Arrange a strategy setting meeting for the group around March'18.

12. SCSC SurveyMonkey

SCSC has purchased a license for SurveyMonkey that the group can use. One suggestion of a potential use was to elicit feedback on version 2.0 of the guidance. For example, to add a link to the download page for v3.0 and ask questions about whether they've used v2.0 and what feedback they would like to provide.

13. Minutes and actions status

The following actions were closed: 32.1, 34.1, 35.3, 35.5, 36.1, 36.2.

Action 37.13 MP Prompt MT, SC, MaM, on actions 31.8, 31.19, 33.7

Action 37.14 MP Update all SCSC website links for the new version of the document

Action 37.15 NH Update the Facebook page with new links and images to new documents

Action 32.6 Ongoing. DeB said BAE are producing accident bulletins from a number of sources and there will be a database of these created. MP asked whether a data element could be added to these database bulletins.

Action 35.5 Ongoing. There were some discussions but nothing concrete; it was decided to close the action.

14. AOB, etc.

None

15. Data Safety in the News

This item was not discussed.

16. Further work.

This item was not discussed.

17. Thanks

Thanks to DB and Rolls Royce for hosting the meeting and providing (Christmas) lunch!

Thanks to PH for taking the minutes and actions.

18. Summary of Open Actions

Ref	Owner	Description	Target Guidance Version
31.8	MT	Look at applying the guidance to the autonomous aircraft airworthiness example previously used to assess the dataware framework report.	3.0
31.19	SC	Write some text about sampling rate issues and consider where in the guidance this could be included.	3.0
32.6	DeB	Generate a database of historical incidents and accidents where data is considered to have been a contributory factor.	3.0
33.5	LH	Add a couple of posts before making the LinkedIn page public.	N/A
33.6	LH	Add everyone on the DSIWG distribution list to the LinkedIn page.	N/A
33.7	MaA	Investigate what simulation tools may be appropriate for data safety modelling in their sector.	N/A
36.3	MaA	Update the trifold (based on material to be provided by MP).	N/A
36.4	MC	Coordinate the production of training material (based on v3.0).	N/A
37.1	PH	Send updated image to NH for Facebook page, LH for LinkedIn and MA for the tri-fold and also MP.	N/A
37.2	RA	Add comments/open issues to the document as a section after the v3.0 version of the document is published	3.1
37.3	DB	Ensure the model is included in the next version of the document	4.0
37.4	RA	Close down old Overleaf project	N/A
37.5	BJ	Close down old docuwiki, remove content, and refer future authors to MP	N/A
37.6	PH	Consider production of sector specific template tri-folds with a healthcare example	N/A
37.7	DB	Produce a baseline model for review including any outstanding issues.	N/A

Ref	Owner	Description	Target Guidance Version
37.8	PH	Invite representation from automotive to attend strategy meeting	N/A
37.9	MP	Speak to Tim Kelly to coordinate working group leader meetings to ensure there is no overlap	N/A
37.10	EB	Distribute draft DEF STAN 00-051 to the group if possible for information	N/A
37.11	MP	Arrange the next group meeting via webex mid-January'18	N/A
37.12	MP	Arrange a strategy setting meeting for the group around March'18.	N/A
37.13	MP	Prompt MT, SC, MaM, on actions 31.8, 31.19, 33.7	N/A
37.14	MP	Update all SCSC website links for the new version of the document	N/A
37.15	NH	Update the Facebook page with new links and images to new documents	N/A

19. References

- [1] Meeting Slides http://scsc.org.uk/file/gd/37th_DSIWG_MP_Slides-366.pptx
- [2] Draft updated Trifold http://scsc.org.uk/file/gd/Working_Group_Trifold_v6-367.docx
- [3] Data Safety: Technical Trends and Strategy http://scsc.org.uk/file/gd/DSIWG_Tech%20Trends-194.pptx
- [4] Latest draft of the guidance document (v3.0) [http://scsc.org.uk/file/gd/diswg2-1copy_\(5\)-365.pdf](http://scsc.org.uk/file/gd/diswg2-1copy_(5)-365.pdf)