SOFTWARE CERTIFICATION CONSORTIUM

MEETING #13: Requirements with Intent

cps-vo.org/group/scc

Annapolis, MD | May 4-5, 2014

Sunday, May 4, 2014

12:30 – 13:00	Lunch
13:00 – 13:15	Welcome and Introductions
13:15 – 13:45	**Lori A. Clarke** – University of Massechusetts
	"Using Requirements Engineering to Track Down Medical Errors"
13:45 – 14:15	**Mats Heimdahl** – University of Minnesota
	"Requirements on the Physical Side of Cyber-Physical Systems"
14:15 – 15:00	**Discussion 1**
15:00 – 15:15	Coffee
15:15 – 16:30	**Breakout #1**
16:30 – 17:00	Report back from Breakout
17:00 – 17:30	**John Hatcliff** – Kansas State University
	"Certifiably Safe Software-dependent Systems: Challenges and Directions"
17:30 – 17:45	**Discussion 2**
19:00 – 21:00	SCC Dinner

Monday, May 5, 2014

08:30 – 09:00	**Michael Holloway** – NASA
	"Requirements Validation is Impossible: Let's Stop Pretending Otherwise" - *remote presentation*
09:00 – 09:30	**Connie Heitmeyer** – US Nuclear Regulatory Commission
	"Requirements Models for Human-Centric Decision Systems"
09:30 – 10:00	**Discussion 3**
10:00 – 10:15	Coffee
10:15 – 10:45	**Joseph D'Ambrosio** – General Motors Research
	"Requirements Development in the Automotive Industry: Challenges and Status"
10:45 – 11:15	**Edward Griffor** – Chrysler
	"A Logical Framework for Software Development Process Standards/Requirements"
11:15 – 11:45	**Discussion 4**

11:45 – 12:45	Lunch
12:45 – 13:15	**Lori A. Clarke** – QRA
	"Tales of a Quantum Theorist in Aerospace Testing"
13:15 – 13:45	**Arnab Ray** – Fraunhofer USA
	"Capturing Safety Intent Using Assurance Cases"
13:45 – 14:15	**Discussion 5**
14:15 – 16:00	**Breakout #2** *(includes coffee)*
16:00 – 16:45	Report back from Breakout
16:45 – 17:00	Actions and Wrap-up

POTENTIAL BREAKOUT #1 SESSION TOPICS

What Body of Knowledge do Developers & Certifiers of Safety Critical Systems Containing Software Need to Know?

How can Developers & Certifiers Gain This Knowledge?

How can the Software Certification Consortium Contribute to the Development of the Body of Knowledge, and the Availability of Education & Training That Encompass the BoK?

Is there a system and software engineering process (based on an existing standard) that can be adopted to organize the BoK, educational and training material?

Beyond educational and training material, is there a need for a comprehensive set of procedures that capture effective methods for development and certification of safety critical systems containing software?

If needed, what role can SCC play in getting the procedures developed in an open access manner?

What measures/metrics are available now for arguing the adequacy of software quality?

Which domains should SCC address first? (medical devices, nuclear power, automotive, aviation, financial, other)

BREAKOUT #2

Discussion 4 cut to 20 minutes

Next 10 minutes: present suggested topics, ask for other suggestions, vote for top 5 to be used in the breakout session.

Suggested topics:

- Goals: research, education, regulatory, practice
- SCC's role in the challenges
- How do we implement a certification regime for the challenges?
- Rules for the challenges
- Timeline – publications, competition, educational materials
- Work plans for the PCA and/or insulin pump challenge problem

Breakout: 5 groups. Each group assigned a primary topic. Must report back on that topic. Can/should also report back on the other 4 topics