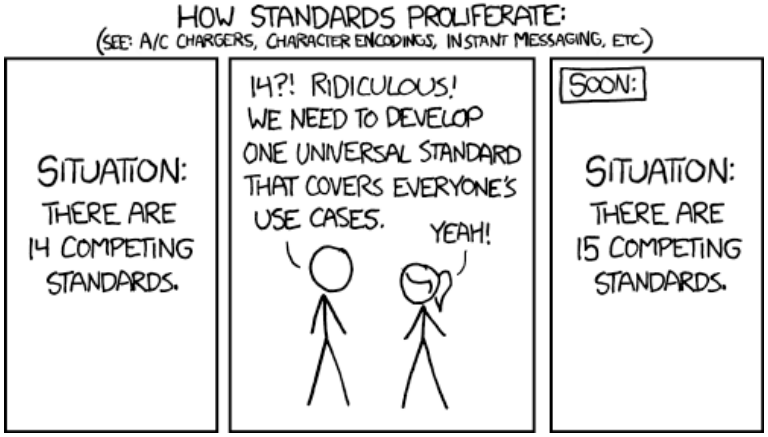
PHM Standards Experience for Manufacturing Panel



xkcd, 2013

845- 855: Introductions and Objectives
855- 940: Three 10 minute talks with 5 minutes of discussion
940- 1010: Discussion and Prioritization of issues from the questions
1010- 1015: Wrap-up and way forward: PHM Standards Interest group

Facilitators

Jeff Bird, Brian Weiss, Karl Reichard

PHM Society Standards Committee

Jeff Bird, Kai Goebel, Karl Reichard, Ginger Shao

Background

Background: Standards review, users' perspective, innovation debate, adaptation:

https://www.phmsociety.org/events/conference/phm/12/phm_standards

http://www.phmsociety.org/node/1529

http://www.phmsociety.org/node/1562

http://www.phmsociety.org/node/2208

Sample PHM Standards Activities

- ASME
- IEEE P1856 PHM for Electronics Systems
- International Standards Organization- TC 108 SC4
- Radio Technical Commission for Aeronautics – DO-178C Software Certification
- SAE International

…. And for manufacturing?

Panel Objectives

1. Begin a conversation on PHM needs and opportunities for manufacturing stakeholders
2. Understand the relevant knowledge and processes for information, guidelines and standards from PHM in the aerospace and mobility sector
3. Understand the comprehensive application of processes in the system level application in aerospace and how these could be the basis for other sectors, particularly the complex domain of manufacturing
4. Collectively identify issues, gaps and opportunities

Introductions

- Panelists
  - Dr. Brian Weiss (National Institute for Standards and Technology)
  - Mr. Logen Johnson (SAE Internationa')
  - Dr. Ravi Rajamani (drR2 and SAE HM-1)
- Facilitators
  - Jeff Bird, Karl Reichard

Plenary

- Issues
  - How and why to get involved internal vs collaborative
  - Am I going to lose IP
  - Compliance for clients and regulators if present
  - Supply chain communication/integration
  - What standards can be long-lasting in the face of adaptive manufacturing processes?
  - Are standards the appropriate solution or should I develop less restrictive guidelines? And/or should I develop best practices?
  - What is the IMPACT of developing these necessary standards v. NOT developing them?

- Priorities
  - What standards challenges need to be addressed now?
  - What standards challenges CAN be addressed now?
  - What standards challenges have to wait and WHY?

Way Forward

- IJPHM papers and Communications
- Updates on standards in progress
- ISO TC 108 Standards Review Process
- Standards forum with email list?
- What else would be useful?

- See you at the Smart Manufacturing Panel after the break
  - PHM's current and envisioned applications within factory environments
  - How the needs, data stream, and supporting PHM tools, can be better designed, developed, implemented, verified, and validated to impact smart manufacturing.