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Software Risk or Risky Software

Software is being increasingly utilized to exercise control over safety-critical system functionalities. It may have passed all of its testing, but how can one be assured that it is safe, that it won't surprise us in operation with an unexpected behavior?

Here is where assessing a software's safety criticality is beneficial. For hardware, the reduction of hazard probability is achieved by reducing component failure rates or by adding redundancy and dissimilarity. In software, one reduces the probability of undesired behavior through more rigorous developmental methodologies.

Therefore, assessment of safety criticality is necessary to determine the required developmental rigor for acceptable risk to use software in a given application.

Successful verification of developmental rigor provides assurance that software has been appropriately developed for the safety of its given application.

New Clients

- Curtiss-Wright
- Scaled Composites
- Wabtec

New Offering

HCRQ now offers QA/QC expertise.

Increasingly, clients who, for various reasons are in serious trouble with their clients for reasons pertaining to QA/QC, are seeking our assistance.

Due to our reputation in system safety, which is significantly more difficult than QA/QC, the immediate effect is a reassurance of their clients and a welcomed improvement in their relationships with their clients.

It is not unusual for our clients' clients to interface with HCRQ directly due to the level of trust that has been established between HCRQ and its clients as well as between HCRQ and its clients' clients.

On-Site Courses Currently On Our Horizon

- Architect of the Capitol
- BAE Systems
- Thales Australia
  - including Boeing Defence

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Contributing to Safety?

In our travels, naturally we encounter other system safety consultants who are either under contract to our customer or our customer's customer. Often these consultants are tasked with overseeing and commenting on products developed by HCRQ.

The mark of a good system safety engineering reviewer is to identify areas in the analysis where the hazard may not be fully identified or understood, or the mitigation does not fully control the hazard.

Often reviewers insist on making the analyst jump through hoops that do nothing to increase the safety of the product. This results in a waste of the analyst's time, and causes contract money to be spent that does not accomplish what it was allocated for.

HCRQ has a history of providing value-added services that contribute to the project.

3-Day MIL-STD-882E Course

This course has become increasingly popular. Amongst other things, it benefits from our history dating back to 882B.

Webinars

We are witnessing a significant increase in interest in our webinars, especially "System Safety: How To Save Money", "System Safety: If You Were Us What Would You Watch Out For" and "Operating & Support Hazard Analysis".