In Memorium

DfR Solutions is mourning the passing of Mike Silverman, Managing Partner of Ops a la Carte. Mike was an amazing presence within the field of reliability and his influence was felt far and wide throughout the world of electronics. His dynamism was infectious and his efforts helped hundreds of individuals with their pain and pointed numerous organizations in the right direction. We were proud of the engagement we have had with Mike and his company since our founding ten years ago. Mike was an early and often supporter of DfR and we will sorely miss him.

Introducing Sherlock Version 3.2

Sherlock Version 3.2 has radically changed the paradigm that mechanical and thermal simulation and modeling is too difficult, too long, and too inaccurate to perform on every electronic design and redesign. As a result of this advance in model development and reliability prediction, Sherlock users can dramatically increase their use of thermal and mechanical simulation tools, such as Abaqus and Ansys® Workbench™, and experience a measurable decrease in time to market and warranty returns compared to their competition.

Sherlock 3.2
Advanced Features Include:
Hi Fidelity PCB Modeling
Through-Hole Lead Modeling
Part and Package 3D Model Viewer
Shared Parts Library
For more information and a demonstration of the new features, contact Tom O’Connor at 301-640-5812 or toconnor@dfrsolutions.com.

Replacing MTBF/MTTF with Bx/Lx Reliability Metrics

Jim McLeish recently presented a paper entitled Replacing MTBF/MTTF with Bx/Lx Reliability Metrics which proposes the use of a simple and eloquent solution that has successfully been used in the ball bearing and machine industry for decades (that actually predates MTBF/MTTF), that should be considered as a replacement to MTBF/MTTF. Read this interesting paper here. For more information please contact Jim McLeish.

Reliability of Next Generation ICs
One of the more effective techniques, reliability physics, has been excluded from prediction processes and used more for design iterations because of its singular focus (i.e., solder joints) or complexity (i.e., three-dimensional finite element multi-physics simulations). DFR Solutions has introduced a physics-based prediction process that is designed to address the limitations of assessing the reliability of complex integrated circuits. If any of you missed Ed Wywaz's webinar on Next Generation ICs you can review the presentation here. For more information please contact Ed Wywaz.

---

**Improving Unmanned Aerial Vehicle (UAV) Reliability**

The UAV/UAS has become a staple of the mission options available to the Department of Defense, with its roles and capabilities increasing along with utilization. However, this increase in utilization has been accompanied by significantly higher failure rates when compared to conventional airframes. This insight is critical at a time when domestic use of UAVs is poised to experience unprecedented growth. Read this insightful paper written by Greg Caswell and Ed Dodd of DFR Solutions.

---

**7 Things DFR Solutions Can Do to Improve Your Business**

DFR Solutions offers a wide array of product design and reliability services. Click below to learn how we can help your business design and develop better, more reliable products now.

- Design Review Services
- Simulation and Modeling
- Sherlock Automated Design Analysis™ Software
- Failure Analysis
- Component Testing and Qualification
- Supplier Assessment
- Component Counterfeit Detection

---

**Other Interesting Items**

Cheryl Tulkoff of DFR Solutions has been selected to receive the SMTA's Technical Distinction Award on September 30th at their upcoming annual meeting. Congratulations Cheryl on receiving this prestigious award. PCD&F/Circuits Assembly magazine has published the paper "Non-Functional Pads: Should They Stay or should They Go?" For more information please contact Cheryl Tulkoff or Greg Caswell.

Thanks to Tim Gaens from Jabil for noting DFR Solutions white papers and publications on LinkedIn. Help yourself and download for free any of our white papers and publications on our website Resource Center. For those of you who can read Czech, Cheryl Tulkoff recently had an article published entitled Design for Manufacturing: pravidla DFM in DPS magazine. View it here.

Watch for an upcoming article entitled 3-D ICs: Progress Updates, Reliability Concerns, and Failure Mechanisms in a future issue of EDFA magazine. This article was jointly written by Jan Vardaman of Techsearch International and Greg Caswell and Craig Hillman. For more information please contact Greg Caswell.

Be on the look out for Greg Caswell's article on The Reliability of Wearable Electronics in and upcoming issue of EDN Magazine.

---

**On Location**

At DFR Solutions we still believe that personal relationships are best. Our Senior Staff spend a lot of time visiting clients in order to personally ensure that their projects are going well and discussing their overall reliability needs.

If you would like a personal visit from DFR Solutions, please Contact Us.