

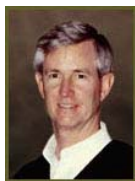


July 26 & 27, 2006

CDM & Class 0 Highly Interactive ESD Workshop

(CDM = Charged Device Model; Class 0= Ultra-Sensitive Components)

ESD Dream Team
www.dangelmayer.com



Hands-on ESD Workshop with the Dream Team: CDM & Class 0

Learn How to Prepare for the “Perfect ESD Storm” that is brewing in the Electronics Industry!

The Industry trend towards extensive use of ultra-sensitive components (Class 0) and the wide spread lack of CDM understanding are brewing the “Perfect ESD Storm”! It is no longer business as usual and it can take up to two years to prepare. Join the “ESD Dream Team” in this highly interactive workshop and learn why this is inevitable and how to prepare for it.

Intended For Professionals Who:

- Have Achieved Basic Knowledge Of ESD
- Understand Its Potential For Damage
- Desire Roadmap For Current And Future Protection
- Need A Better Understanding of CDM

What You Will Learn:

- CDM (Charged Device Model) & Class 0 Basics
- Why Industry Trend Toward Class 0 Is Inevitable
- Over 90% of ESD Failures are CDM
 - – Confirmed by Failure Mode Analysis
- How To Prepare For the ESD “Perfect ESD Storm”
 - CDM & Class 0
- Hands-On CDM & Class 0 Test Methods
- Why ESDA S20.20 Is The Right Choice
- How To Tailor ESDA S20.20 For Class 0 & CDM
- How to Develop and Implement Sound ESD Programs
- How to Solve Your Problems

Workshop Agenda

Day 1: Wednesday July 26, 2006

8:00

- **Basics of CDM & Class 0 – Dr. Terry Welsher**
 - Why CDM & Class 0 are Not Well Understood
 - CDM & Class 0 Basics
 - CDM vs. HBM vs. MM
 - Discharge Characteristics
 - Current Limitations of Design-in-Protection
 - Demonstrations and Videos
 - Simulation Stress Testing
 - FMA: Differentiation Among the 3 Models
 - Device Design Modeling for CDM
 - Impact on Manufacturing



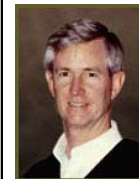
Terry Welsher
Vice President

12:00

- **Lunch**

1:30

- **Class 0 & CDM Trends - Ted Dangelmayer**
 - It Is No Longer Business As Usual!
 - Standard Controls are Necessary but Insufficient
 - Industry Wide Trends and Drivers
 - Who Will be impacted and When?
 - It Can Take Up to Two Years to Prepare!
 - The New Manufacturing Challenges!
 - High Failure Rates (up to 100%)
 - How to Prevent CDM & Class 0 Damage in Manufacturing
 - Proven Manufacturing Control Requirements
 - Highly Challenging but Not Expensive!



Ted Dangelmayer
President

3:30

- **Overview and Strengths of S20.20 – Larry Fromm**
 - Why S20.20 is Preferred
 - Tailoring for Class 0 and CDM



Larry Fromm
Director

6:30

- **Evening Cookout**

Workshop Agenda

Day 2: Thursday July 27, 2006

8:00

- ESD Program Management Excellence- [Ginger Hansel](#)
 - *A Total Quality System Solution!*
 - Unparalleled Quality Metrics
 - An Operational Necessity
 - EPM Performance Scale™
 - Benchmarking
 - Twelve Critical Factors
 - Planning & Managing Class 0 & CDM Programs



**Ginger
Hansel
Director**

9:30

- CDM & Class 0 Test Methods - Hands-on - [Dream Team](#)
 - EMI/ESD Event Detection
 - EM Aware – Data Acquisition System
 - Discharge Current Measurements
 - Voltage Measurements and the Limitations
 - Auditing Measurement Equipment Usage
 - Avoiding Common Pitfalls
 - Proper Use of Key Instruments

- Lunch

12:00

- Problem solving session - [Dream Team](#)

3:30

- Bring Materials to Test
- Share ESD Problems and Solutions
- Open Discussion

- Adjourn

5:00

Location: Cape Ann, Gloucester, MA

(1st USA Fishing Port & Home of the Movie “The Perfect Storm”)



Location: Cape Ann, Gloucester, MA

Sightseeing and Accommodations: www.cape-ann.com

Major hotels w/i 30 minutes of Gloucester:

Peabody Marriott 978-977-9700

Comfort Inn, Peabody 978-777-1700

Courtyard Marriott, Danvers 978-777-8630

Transportation

45 minute drive from Boston’s Logan airport

55 minute train ride from Boston

1.25 hr. drive from Manchester, NH airport



Larry Snow
Director
Training



Vicki
Dangelmayer

Sales Vice
President



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CDM & Class 0
Highly Interactive ESD
Workshop**

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14 Butternut Lane, Gloucester, MA 01930

REGISTRATION FORM

Two day Workshop includes two lunches, two continental breakfasts, one dinner
Fee: \$895.00 per person. Register by June 30, 2006 and deduct \$50.

Registration Information – Ref. Automated Learning

Name: _____ Title: _____
Company: _____
Mail Stop: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: work _____ home _____
E-mail: _____ Fax: _____
Preferred method of contact: Phone _____ E-mail: _____ Fax: _____

Please make check payable to:
Dangelmayer Associates
Mail to: 14 Butternut Lane
Gloucester, MA 01930

For Accommodations, go to www.cape-ann.com
Peabody Marriott 978-977-9700
Comfort Inn 978-777-1700
Danvers Marriott 978-777-8630

Thank you!
Vicki Dangelmayer
Vice President of Sales
vicki@dangelmayer.com
978-283-5156
978-987-1938 cell

**Seating is limited!
Mail your registration today!**

Detach and retain for your records

2006 ESD Dream Team Workshop \$895.00 (\$845.00 by June 30, 2006):

Date paid: _____ Check #: _____ Amount: _____

Received from: _____ Company name: _____

Contact: Vicki Dangelmayer; vicki@dangelmayer.com; 978-283-5156; 978-987-1938