SMTA Upper Midwest Chapter hosts:
DFX Chapter Tutorial Program

Meeting Details

Instructor: Dale Lee, Plexus

Place:
Hennepin Technical College
Eden Prairie Campus
13100 College View Drive
Eden Prairie, MN 55347
(952) 995-1300
www.hennepintech.edu

Date: Thursday, May 20, 2010

Cost: $200 Members/$275 Non-members

Time: 8:30am - 4:00pm

Register Today!

DFX Project Setup, Measurement Definition, and Elements: From Introduction to Advanced DFX Analysis

This course will provide an introduction into the major elements for establishing a DFX program, major elements of mechanical and printed circuit board design, assembly process design, inspection/test design and software verification tools including examples of opportunities and demonstrations.

Who should attend:
This event is ideally suited to new and experienced PCB/PCBA designers, manufacturing and process engineers, quality and inspection staff, production operators and any members of staff tasked with looking at yield monitoring and process improvements. Managers and supervisors would also benefit from a fuller understanding of the issues currently being experienced in industry.

About the Instructor:
Dale is a Staff DFX Process Engineer with Plexus Corporation primarily involved with DFX analysis and definition/correlation of design, process, legislative and tooling impacts on assembly processes and manufacturing yields.
Hello Everyone,

Well, I hope everyone is seeing the light after 2009. This summer is sneaking up fast.

This year is shaping up to be a full of exciting topics and fun. We are looking finalize a few events scheduled for this year but otherwise it is turning out to be great. On May 20th, we are having a full day chapter tutorial program with Dale Lee training us on how to use DFX to build our products right. Our vendor expo is coming up quick on June 9th. We are setting up a membership appreciation event in August for all chapter members and one addition guest. Please review SMTA.ORG for times and places on these events.

- May 20th – DFX Chapter Tutorial Program
- June 9th – Vendor Expo
- July 29th – 19th Annual Golf Outing
- August 19th – Membership Appreciation Event (Twins vs. CWS @ Target Field)
- September ?? – IPC-610E Updates

For our members that have lost their jobs due to the economy, we would like to keep our networking of members open and will allow free attendance to the meetings in 2010. If you know of these individuals, please let them know of the events to keep them in the loop.

Thank you all for your support throughout 2009 and into 2010.

Alexander Zeitler
Program Engineer
Printed Electronics Manufacturing Division

Soligie, Inc.
8647 Eagle Creek Parkway
Savage, MN 55378-1284
Phone: 952 808-6918
SMTA Upper Mid-West Chapter President
Alexander.Zeitler@soligie.com
Title: From DFX Project Setup, Measurement Definition, And Elements From Introduction to Advance DFX Analysis

Introduction:
Electronic system designs are increasingly dependent upon capabilities of multiple skilled individuals and electronic software tools for the creation, simulation, design, manufacture and test. In the past, companies were vertically integrated with internal design, manufacturing, inspection, test and in some cases component manufacturing. With these capabilities in a single facility, DFM issues or questions could be resolved with a review of an internal guideline, a few simple phone calls or meetings with the appropriate organization. As design complexity increased, the use of design specialists and specialized EDA and CAD tools increased at the same time when many corporations were beginning to outsource manufacturing, test and physical design of their products to service providers.

As product technology continued to decrease in size (length, width, thickness), interconnection density per unit area increased (thinner PCB’s, smaller lines & spaces), functional performance increased (thermal, mechanical, electrical), the complexity of “ability” design increased in importance and specialized.

As a result, traditional DFM programs have transformed into DFX to address this increase in scope to topics and specialization. Depending on the complexity of the product under design, these programs can consist of a few key individuals or organizations working together to formalize complex teams spanning many organizations and companies.

This course will provide an introduction into the major elements for establishing a DFX program, major elements of mechanical and printed circuit board design, assembly process design, inspection/test design and software verification tools including examples of opportunities and demonstrations.

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About the Instructor:
Dale is a Staff DFX Process Engineer with Plexus Corporation primarily involved with DFX analysis and definition/correlation of design, process, legislative and tooling impacts on assembly processes and manufacturing yields.

Dale has been involved in surface mount design, package & process development and production for over twenty years in various technical and managerial positions. These activities have included research, development and implementation of advanced manufacturing technologies and interconnect techniques, design and development of CSP & BGA packages, PCB & PCBA support, DFX analysis of flex & rigid PCB/PCBA’s including supply chain, process qualification and new process introduction for domestic and foreign low, medium and high volume production applications.

Dale has authored, instructed and spoken frequently on advanced SMT packaging, PCB and SMT design, assembly, DFX and rework. He is a past recipient of the Surface Mount Technology Association’s “Excellence in Leadership” award.
SMTA International Electronics Exhibition 2010
Technical Conference: October 24-28, 2010
Exhibition: October 26-27

The 2010 SMTAI Conference and Show will once again be held under one roof – moving to Walt Disney World Swan and Dolphin Resort, Orlando, FL, from October 24-29, 2010. SMTAI will continue to offer the same great conference – focused exclusively on the electronics assembly industry.

View the SMTAI Scrapbook for featured presentations and photos from the conference.

What you’ve said:
"I am impressed year after year at the quality of the technical papers, they are timely, well researched and advance the overall knowledge of our industry. SMTAI is the best!"

"SMTAI continues its reputation of providing the best technical program in our industry."

"Strong presentations with research to back them up."

"SMTAI is the best conference for the latest lead-free information and to find a gathering of industry experts." -Irene Sterian, Celestica, Inc.

Tech Links

Download a Glossary of Acronyms Relevant to Electronics Manufacturing
Please insert the following link into your browser:

Chapter Calendar of Events

<table>
<thead>
<tr>
<th>Date / Time</th>
<th>Event</th>
<th>Location</th>
<th>Phone</th>
<th>Contact / E-mail</th>
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<tbody>
<tr>
<td>May 20, 2010</td>
<td>Chapter Tutorial Program - DFX</td>
<td>Hennepin Technical College – Eden Prairie Campus</td>
<td>763-425-7910</td>
<td>Sue Blankenheim <a href="mailto:sue@omni-tronics.com">sue@omni-tronics.com</a></td>
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<tr>
<td>June 9, 2010</td>
<td>Vendor Day</td>
<td>Sheraton Bloomington, MN</td>
<td>952-920-7682 952-808-6918</td>
<td>Leslee Johns <a href="mailto:leslee@smta.org">leslee@smta.org</a> Alex Zeitler <a href="mailto:alexander.zeitler@soligie.com">alexander.zeitler@soligie.com</a></td>
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<tr>
<td>July 29, 2010</td>
<td>19th Annual Golf Outing</td>
<td>Tartan Park Lake Elmo, MN</td>
<td>612-803-2619 612-435-4843 Fax</td>
<td>Erik Stromberg <a href="mailto:estromberg@e-tronix.com">estromberg@e-tronix.com</a></td>
</tr>
<tr>
<td>August 19, 2010</td>
<td>Membership Appreciation Outing CWS vs. Twins</td>
<td>Target Field Minneapolis, MN</td>
<td>612-860-2599 612-677-3399 Fax</td>
<td>Mark Vininski <a href="mailto:EMSPartners@charter.net">EMSPartners@charter.net</a></td>
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<tr>
<td>September ??, 2010</td>
<td>IPC-610E Update Meeting</td>
<td>??</td>
<td>612-803-2619 612-435-4843 Fax</td>
<td>Erik Stromberg <a href="mailto:estromberg@e-tronix.com">estromberg@e-tronix.com</a></td>
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Corporate Members of our Chapter

3M Company  
Altron, Inc.  
Analog Technologies Corporation  
ASC International  
Ayrshire Electronics MN  
Bergquist Company, The BTW Inc.  
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Global Participating Members of our Chapter

Creation Technologies Inc.  
Creation Technologies – St. Peter
RATES REDUCED 20%!
TARGET YOUR CUSTOMERS
With an ad in our all-electronic newsletter. This newsletter is posted on the SMTA website and readers throughout the world have access over the internet. Open your company’s opportunity as out readers open our pages of information. Contact Alex Zeitler, chapter president, for more information.
alexander.zeitler@soligie.com

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Reduced Newsletter Advertising Rates For The New All Electronic Format

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The SMTA membership is an international network of professionals who build skills, share practical experience and develop solutions in electronic assembly technologies, including Microsystems, emerging technologies, and related business operations.

Our Chapter Leaders

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex Zeitler</td>
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<td><a href="mailto:alexander.zeitler@soligie.com">alexander.zeitler@soligie.com</a></td>
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<td>Erik Stromberg</td>
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<td>612-803-2619</td>
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</tr>
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<td><a href="mailto:tness@stanleyworks.com">tness@stanleyworks.com</a></td>
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<td><a href="mailto:sue@omni-tronics.com">sue@omni-tronics.com</a></td>
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<td>Bill Barthel</td>
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<td>920-996-8681</td>
<td><a href="mailto:Bill.Barthel@plexus.com">Bill.Barthel@plexus.com</a></td>
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Directions to Hennepin Technical College – Eden Prairie Campus
Hennepin Technical College
13100 College View Drive
Eden Prairie, MN 55347

From Southbound 494:
- Exit from 494 onto Highway 212 West
- Exit from Hwy 212 onto Prairie Center Drive
- Turn right and follow Prairie Center Drive to Flying Cloud Drive.
- At Flying Cloud Drive, turn right and follow to College View Drive
- Turn right to Eden Prairie Campus

From Westbound 494:
- Exit from 494 at the Chaska/Prairie Center Drive exit.
- Follow the Chaska/Flying Cloud Drive part of the exit ramp (stay to the left)
- At Flying Cloud Drive, turn left and follow to College View Drive
- Turn right to Eden Prairie Campus

From Northbound 169:
- Exit from 169 at the Pioneer Trail/Cty Rd 1 West exit
- Turn left onto Pioneer Trail/Cty Rd 1 West and follow to Flying Cloud Drive
- At Flying Cloud Drive, turn right and follow to College View Drive
- Turn left to Eden Prairie Campus

From Southbound 169:
- Exit from 169 at the Anderson Lakes Parkway exit
- Turn right onto Anderson Lakes Parkway and follow to Flying Cloud Drive
- At Flying Cloud Drive, turn left and follow to College View Drive
- Turn right to Eden Prairie Campus