

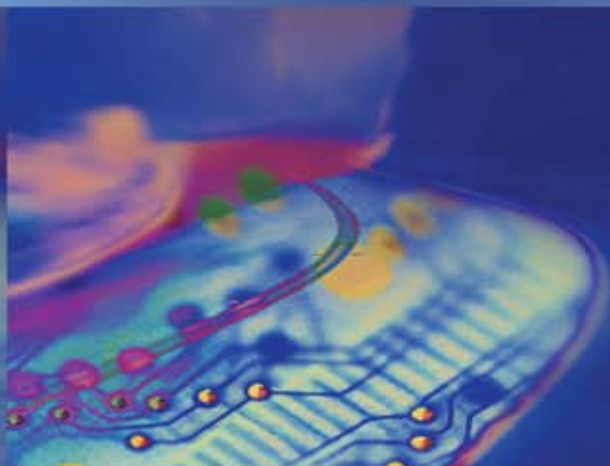
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"Woman Owned Small Business"

Volume 8, Issue 3

June 2009



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One day my office phone rang and the caller ID said "Athens State University". Quick thoughts ran through my head along the lines of: overdue library books? parking tickets? meal plan overdrawn? Since I never went to school at Athens State, the quick answer to all of those was "No" so I answered the call not knowing what to expect. They wanted to know if I would be the guest speaker at their Delta Mu Delta Induction Dinner. I laughed and asked if they had dialed the correct number. They assured me they had. By this time I was trying to guess which of my friends was behind this joke. Eventually, they convinced me it wasn't a joke which left me with two obvious questions: 1) What is Delta Mu Delta? & 2) Why me? Delta Mu Delta is a National Honor Society for Business Students whose purpose is "to promote higher education in business administration by recognizing and rewarding scholastic accomplishment". That answered my question quickly of why I hadn't heard of them or even been allowed in the same building where they met. Throughout my college career I helped make the upper 10% possible. Not to mention I wasn't in the School of Business at the time. (I was traded there later but that's a whole other story). They answered the second question and kept assuring me that I was their first choice while I kept guessing that at least 99 people had already turned them down. I agreed to do it. (I'll usually show up when food is part of the deal.) Now I had two weeks to figure out what I was going to say to these people who were obviously ready to take on the world while I'm trying to survive each day. (Or as my daughter kept asking, "What are you going to say to the smart kids?") They were the thoroughbreds of their class, my goal was to not be their one eyed, three legged donkey. Eventually, the night came (I finished writing my speech about 4:00pm that afternoon). I told them my story and STI's (mostly the same) and talked about how the world has gotten so much smaller since I came out of school and how that could be a good thing if you had unique talents and big ideas or a bad thing if you didn't. I also talked about entrepreneurship and the pros and cons but emphasized it really isn't for everyone. It seemed to go well with many favorable comments afterwards. After my speech I had the pleasure of watching these men and women be inducted into Delta Mu Delta and hearing a brief bio on each of them. They were impressive. I normally think of college seniors being 22 or 23 years old and maybe living at home and working in retail or a service industry to get through school. Some were exactly that but others were older (some even older than me) and working major full time jobs but putting

in the effort and time to get their degree(s). There were even a couple of bios along the lines of "has a 4.0 in accounting and economics while raising two kids and completed two semesters on line while serving in Iraq." One had even been awarded a Purple Heart. They went out of their way to thank me for being there but it truly was my honor to meet them. These were not your average college kids but I sure hope there are a lot more like them.

Generally, I try to make decisions based on long term outlooks but I faced a situation a few weeks after the dinner that made me wonder if they covered this in business school. Our local schools were closed because of swine flu but businesses, including STI, were still open although we were supposed to be taking precautions to prevent the spread of the virus. That was when we got the word that a tornado was headed for Madison. I decided the short term (tornado) took precedence over the long term (flu) and it was a good time to gather all local STI employees, students, and visitors in our new conference room/tornado shelter. Luckily, the tornado missed us although it did cause damage all across Madison. I'm very happy to say there were no serious injuries in Madison and no swine flu outbreak later at STI.

We've all got many stories on how the world has changed over the years. I have a new one to add. Remember when we all drank tap water (I still do) and dogs drank from puddles or whatever they could find? Our family has now been told that our dog should only drink bottled water. What's next?

STI continues to add to our not so average group of people. Please make sure you read inside about Jerry Michael, Lynn Norman, and Brandy McGinniss the new additions to the STI "family".

What's next in our economy? I wish I were smart enough to know. What I do know is we at STI keep growing and constantly strive to serve our customers more effectively. Throughout this newsletter you will read about certain things we have to offer. Please let us know if you are interested in more information on any of the products and services we offer. We look forward to hearing from you soon.

David E. Raby

President/CEO

draby@stielectronicsinc.com

Training Services: IPC Meetings, New Instructors, & Training

By Pat Scott, Director of Training Services



Recently I was able to attend some of the IPC committee and training meetings held at APEX 2009. The first meeting that I attended was for the IPC-A-610E. This committee had over 300 comments to get through and was able to address 180 of those comments in just two

days. This summer this committee should finish the final comments. The next meeting I attended was J-STD-001E. This committee met for one day and was able to get through 60 comments. Both the IPC-A-610E and J-STD-001E documents are scheduled to be completed in the spring of 2010.

The IPC-J-STD-001 Space Addendum committee met and covered the comments to resolve the negative vote on this document. All the comments were reviewed and a new ballot was sent out. The J-STD-001 Space addendum training committee met and discussed the following three training course options. All three training options will be recognized by NASA.

First is a 40-hour IPC CIS Space Training Option. This option would be an IPC controlled program with official IPC certification. Only Class 3 requirements along with the space addendum requirement will be covered. This option would only be portable within the space community. Current 001 CIT's can teach this course without additional training. This training is not modular and will require each student to pass an eye exam.

The next option is the base J-STD-001 with an additional DS module. (currently the way it is being done). This is an IPC controlled program with official IPC certification. This is a fully portable certification and is taught by CIT's. The CIS course offers a choice of using leaded or lead free solder.

The final option is a user approved program. Companies would develop their own course (cannot use IPC Copyright materials) which could be tailored to suit the users needs. This course would not be an IPC controlled program. Each company would provide a specific certificate. This certification would not be portable.

The final meetings that I attended were the 620A and 620AS Training Meetings. There was a lot of information discussed during these meetings but I seem to be running out of space so I'll have to keep it short and sweet and give you more details in the next newsletter. Look for the addition of hands-on workmanship for both courses.

STI is proud to welcome two instructors to our staff Jerry Michael and Brandy McGinniss. Jerry & Brandy will be working with the Training Services department teaching CIT (instructor) and CIS (operator) level courses for IPC-A-610, J-STD-001, IPC-A-600, IPC-A-620 and IPC-7711/7721, as well as custom classes for the electronics manufacturing industry. Jerry comes to STI from Jabil and brings more than 10 years experience in classroom instruction and electronics manufacturing. Brandy comes to us from RWD Technologies where she worked as a Technical Instructor training employees in the IPC-610 and J-STD-001 as well as doing operator training on Assemblon and Universal SMT equipment and Electrovert Wave Solder equipment. Brandy also worked her way into the training department at ADTRAN by gaining experience working on the Manufacturing floor in many areas from hand build, surface mount machine operation, rework and repair, to final mechanical assembly and pack-out.

If you have any questions or need a quote for on-site training contact me at 256-705-5528 or e-mail me at psscott@stielectronicsinc.com.



IPC-A-610 Certified IPC Trainer (CIT) Certification Courses

September 8-11, 2009 Alpharetta, GA
October 12-15, 2009 Houston, TX
November 9-12, 2009 Phoenix, AZ



To register for these courses or for additional information go to www.stielectronicsinc.com
or e-mail us at training@stielectronicsinc.com.

Training Services 2009: July/August Schedule

Madison, Alabama



Date	Course
July 13-26	IPC-A-610 Certified IPC Trainer (CIT) Certification
July 20-22	IPC-A-610 Certified IPC Specialist (CIS) Certification
July 20-24	IPC J-STD-001 CIT Certification
July 27-28	IPC-Rework/Repair and Modification CIT Recertification
July 29-30	IPC/WHMA -A-620 CIT Recertification
August 03-04	IPC-A-610 CIT Recertification
August 05-06	IPC J-STD-001 CIS Recertification
August 07	J-STD-001 DS Update, Space Application Addendum to J-STD-001D
August 10-14	IPC Rework/Repair and Modification CIT Certification

To register for a course or for additional information go to www.stielectronicsinc.com or e-mail us at training@stielectronicsinc.com.

Training Materials: Cable and Harness Training Kit

By Mel Parrish, Director of Training Materials



Mel Parrish

At the request of customers, we have made our Cable and Harness application skills kit available to our trainers. Over the past few years we have used this kit and refined the content to support our NASA Cable and Harness Training Course that is conducted several times a year in STI resident training. We find that this kit satisfies training needs for many other industry segments in addition to the initially intended NASA focus. It is especially well suited for Military applications. It provides training advantages for the industry in general for basic operator skill needed to be successful for Cable and Harness production.

The kit is provided with a Drawing Overlay and Wire List typical of those encountered in production operations. Additionally, as requested by our customers, we've also included a terminal soldering kit for enhanced soldering skill development. As with our PWB Soldering Skills Kits, the materials and content of this kit can be customized as desired to provide additional or unique capability.

During recent IPC Training Committee meetings in support of the IPC-A-620 Standard there was expressed interest for a "Hands On" training module to support the standardized IPC-A-620 Certification Training. To support this concept there should be an additional training materials kit that focuses more on commercial materials content. We'll keep you posted on this progress and as always you can count on STI for the best and latest Training Materials for your training projects.



For a FREE Lead Free Sample Soldering Kit, please fill out a request on our web site (www.stielectronicsinc.com). We also have a new shipment of the FREE Component ID Posters, so get them while they are HOT! Sorry we can only ship to the Continental US.

To receive additional information or to order Cable and Harness kits from STI contact one of our Customer Service Representatives at 1-800-858-0604 or sales@stielectronicsinc.com.

Engineering Services: A walk down "Memory" lane...

By Marietta Lemieux, Analytical Lab Manager



Some weeks ago, my father in law, Rene Lemieux, was cleaning up some storage boxes from his basement. These boxes contained all types of electronic parts and devices that had been collected over some 40+ years he had been working in the industry.

In the process he came across a device he thought I might be interested in seeing. Of course when he did show it to me, I had no clue what it was that I was looking at. When he told me it was a core memory, I needed to take a closer look. And what better way to do that than with a Scanning Electron Microscope!

Core memory, or magnetic core memory (ferrite-core memory) is a random access memory system that was first developed in the late 1940s. The memory consists of an array of ferrite cores (small magnetic ceramic rings), through which wires are threaded to store information via the polarity of the magnetic field they contain. Like the example shown here, the early core memories used large cores and four wires: X, Y, Sense and Inhibit. Later cores combined the sense and inhibit wires into one line. Each ring stores one bit (0 or 1). Only a magnetic field over a certain intensity (generated by the wires through the core) can cause the core to change its magnetic polarity. To select a memory location, one of the X and one of the Y lines are driven with half the current required to cause this change. Only the combined magnetic field generated at the intersection of the driven X and Y lines is sufficient to change the state of the bit. By driving the current through the wires in a particular direction, the resulting induced field forces the selected core's magnetic field to point in one direction or the other.

The read operation consists of doing a "flip to 0" operation to the bit in question, while the write operation consists of a "flip to 1" operation. The sense and inhibit wires are used one after the other, never at the same time. A write cycle will always follow a read cycle. Either new data is written, or the old data is put back.

The performance of the early core memories can be roughly compared to that of an early 1980s home computer.

Although computer memory has come a long way with the introduction of the silicon chip, I must say that seeing one of the original devices up-close was a welcoming treat for me. I would like to thank my father in law for sharing this little piece of history with me.

For information on analytical services, please contact Marietta Lemieux at mlemieux@stielectronicsinc.com.

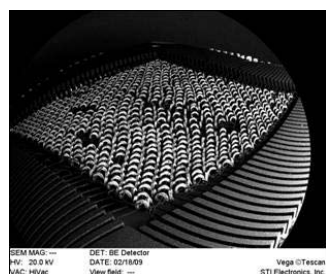


Figure 1

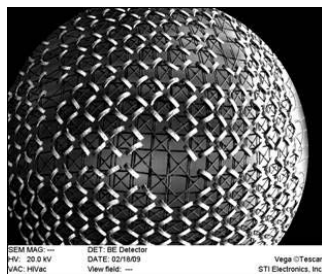


Figure 2

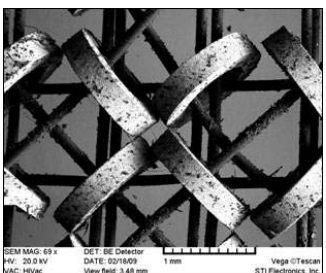


Figure 3

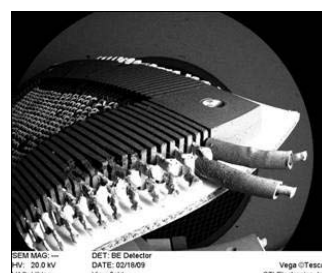


Figure 4

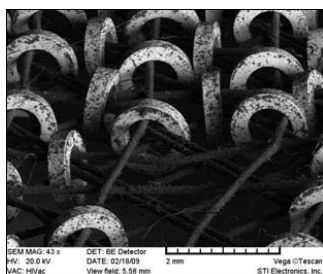


Figure 5

Electronic Sales & Distribution: STI Electronics Introduces 25th Anniversary American Hakko Silver Lining '09 Promotion

By Sissie Eckstein, Sales Manager



Sissie Eckstein

Some people look at the current economic conditions and all they see are dark, gloomy clouds. However, every cloud has a SILVER LINING. American Hakko wants to be that SILVER LINING to you by offering you aggressive savings in celebration of their 25th anniversary year.

Buy any combination of 3 of the 25 promo items and receive a 4th product for free. 4th product must be equal to or less than the MSRP of the least expensive purchased item.

25 Hakko Products to Choose From! MIX and MATCH!

To take advantage of this special offer just contact STI Electronics, Inc. at 1-800-858-0604.

25th Anniversary
HAKKO SILVER LINING '09
BUY 3 Get 1 FREE
— every cloud has a silver lining —
25 Hakko Products to Choose From!

 FM203-01 Soldering Station	 FM203-DP Soldering Station	 FX351-66 Soldering Station	 FX301B-03 Soldering Pot	 FX300-03 Soldering Pot
 FM204-01 Desoldering Station	 FM204-CP Desoldering Station	 FM205-01 Desoldering Station	 FM204-21 Desoldering Module	 FM2022-05 Parallel Remover
 FM2023-05 Mini Hot Tweezer	 FR801-11 SMD Hot Air Rework	 15 FR802-11 SMD Hot Air Rework	 FR803B-11 SMD Hot Air Rework	 999-324B Boom Stand
 FR820-02 Preheater	 FR1012B-01 Preheater	 FG100-01 Thermometer °C	 FG100-02 Thermometer °F	 FT700-05 Tip Cleaner
 FG101-10 Tester °F	 FG101-16 Tester °C	 FT800-01 Thermal Wire Stripper	 999-205-01 and 999-205-02 Loc-Line Duct Kits	 HJ3100 Fume Extraction System

For complete details, see "Hakko Silver Lining '09" Terms and Conditions

Check out our Web Site at www.stielectronicsinc.com to see our complete line of products. Kester, Pace, Hakko, OKI/Metcal, JBC, 3M/SCC, Protektive Pak, Atlas Copco Tools & Assembly, Excelta, Tech Spray, ITW Chemtronics, DEK, Production Basics, Micro Care, Cooper Tools, etc.

Industrial Sales & Distribution: PINpoint Information Systems

By Ryan Kirk, Industrial Sales Manager



Ryan Kirk

PINpoint Information Systems is a leading provider to Plant Floor Management Systems. Whether our need is product birth history, specialty error proofing systems or a complete comprehensive operator information strategy, PINpoint Information Systems can provide your company everything about every product you ever built; tell you who built that product, and guarantee that person is qualified to do the job. For the best and latest innovative technology in error-proofing your assembly process, STI can provide a solution with PINpoint and the products offered: from below smartscreen (description below), SmartCart, To SmartArm, to Smartbuild and other products offered.

A line side Operator Information Station that provides a unique strategy for 2 way communication with the plant floor.

Whether your process is high volume or high complexity, the PINpoint SmartScreen manages the relationship between your documentation and the people that need to access that documentation. Provides everyone in the plant with the information required to perform their jobs correctly.

Paperless Accountability!

Operator Skills Management. Track the certification of every operator by station and be guaranteed that your people are certified to perform the job to which they are assigned.

Operator Work Instructions. Create and update instructions using standard Microsoft Office tools and broadcast them anywhere in the plant without leaving your desk. With a few key strokes confirm the intended individual viewed and acknowledged the change.

Quality Alerts. Create a quality alert and deploy it to a station, a line or plant wide in seconds.

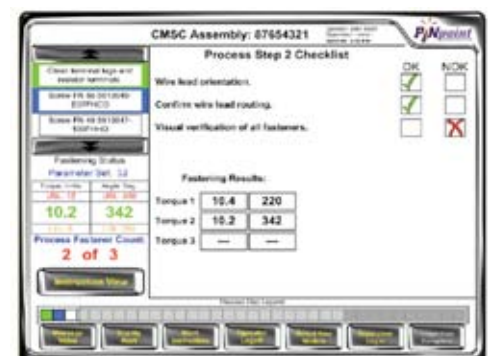
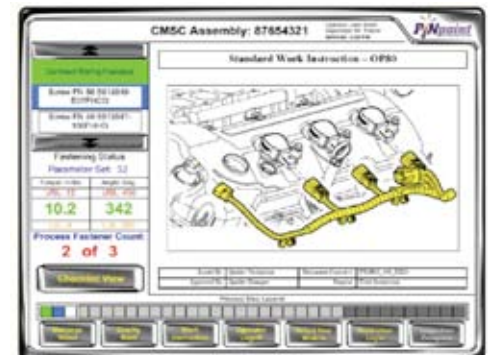
Live Video on the PlantFloor. Leverage station level video capabilities to keep training up to date, provide motivational encouragement and detailed work instructions.

Two-Way Communication. Allows operators to update a virtual check list or enter inspection data to be led to Quality Gates up the line. Eliminate paper and go electronic at the Source

Quality System Compliance. Whether you are QS or TS certified, SmartScreen will help keep you compliant with no paper and no overtime.

System Management. Centralized, Web-based management system to configure all parameters of the system.

For more information, please contact Ryan Kirk at (256) 278-8957 or rkirk@sti-electronicsinc.com or you can visit www.pinpointinfo.com to learn more about this System.





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Engineering Services, and Product Distribution.
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Jim's Corner

By: *Jim D. Raby, PE, Technical Director*



This week I was in California on business and in going through airports and in restaurants one can not miss the military people that are in uniform in transit to various parts of the world and country. While in Dallas waiting for a plane, I had some time to spend and sat down in a chair next to a military person. I thanked him for his service to our country and wished him well then got up and walked over to a nearby lunch counter to get a quick sandwich. The only seat available was at a table with a military person. I asked if I could join him and he said yes, so I sat down with Colonel Rafael C. Montagno, and we began a nice discussion. He was pleased that a civilian would talk to him and expressed so.

We talked about his family here at home, about his hobbies, and the problems of the world. I must say we resolved most of them. He was happy to have someone to talk to and I enjoyed the time with him. He has been in the Army 18 years and said that he thought he might make a career of it. He has a daughter in the ROTC at the University of Kentucky and is looking forward to military service also. Colonel Montagno told about some of the problems that the military experiences and most of it seemed to be related to the news media. He said that much of the time the news media will get too involved in a bombing

or street fight and always focuses on the bad guys and how rough we are treating them instead of focusing on the US military and the reason they are in the activity in the first place. He gave one example of how they were driving down a back street and a man was beating up on a woman and his team stopped and broke up the fight, in doing so the man was dragged over to one side of the street to get him away from the woman, and when they had him under control they saw the news man photographing the woman while another man was beating her and a soldier was intervening in that event. The soldier was blamed for the beating when all he was doing was attempting to restrain the beater. So he would like to see the news media work from briefings rather than be embedded in their military activities.

In talking with Colonel Montagno, he stated that military personnel didn't get much respect here at home, and all I could do was apologize for the actions of our countrymen. So I ask everyone that reads this column, when you see a man or woman in uniform, please go and shake hands with them and let them know that we are thankful for them and the things they do. Please let them know we appreciate them. Buy them a lunch or dinner or just be kind to them.

Jim D. Raby, Technical Director
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