www.time2meet.com/asq1508/index.shtml

March 2007 Volume 48 Issue 7

ASQ Section 1508 St. Petersburg/ Tampa DINNER MEETING Monday, March 12, 2007

Speaker: Jason Schmidt Automation Solution Provider, HPE Automation

Uses of Machine Vision for Quality Control Inspections

The field of machine vision has changed over the last 5 years. As in most electronically driven industries, the power of the products has dramatically increased while the price has lowered considerably. This, coupled with demand for higher quality in every industry, has helped drive the growth and use of vision. With increased processing speeds available, the software tools have also seen major enhancements. Jason's presentation will show many examples of machine vision solving today's quality issues in the factory environment including guidance, inspection, gauging and identification. If you have product that you would like to discuss the use of vision for we encourage you to bring it to this meeting.

Jason Schmidt graduated from the University of Florida in Mechanical Engineering in 1996. Since his graduation he has spent the last 10 years working in the field of Industrial Automation for HPE Automation. His areas of expertise are pneumatics, robotics, sensors and machine vision. He has worked extensively with Cognex's In-Sight and DVT vision system platforms. Cognex Corporation is the world leader in machine vision. He has provided solutions for companies in the automotive, electronic, food/beverage, medical, metal processing, packaging, and plastics industries to name a few.

Message from the Chair

Dear members:

Our Section was treated to a "trifecta" of excellent speakers at our last dinner meeting.

First, Kerry Clawson gave us a great overview of Cardinal Health's St. Pete operations, where soft gelatin pharmaceuticals are manufactured. Kerry filled us in on the interesting process for filling soft gel capsules. The process goes back 100 years, and yet still continues to find new applications all the time. Thank you, Kerry, for the overview and also for the bucket of gummy candy you passed around before dinner!

We also learned about a really unique business called .decimal ("dot" decimal). Richard Sweat and Chris Warner, CEO and Sr. Vice President, showed us how they are using Six Sigma to grow their medical device business 8% per month! The company machines filters out of brass and aluminum block for new-technology cancer treatment machines. Intensity Modulated Radiation Therapy (IMRT) saves as much healthy tissue as possible while targeting cancer cells. .decimal's patented process takes in CAT scans from cancer therapy centers through a web portal. The scans are automatically converted to radiation therapy models, then to CNC machine instructions, and actual production of each filter in just hours of a order. No two filters are alike. If you want to read more, please go to www.dotdecimal.com. Thank you, Richard and Chris, for a really interesting discussion about your business. Your company is a shining example of speed and quality accomplished together for a very human cause.

The Section is very pleased to sponsor a statistics course suitable for the CQE or Six Sigma Black Belt certification exams. Also, we are able to offer it to you as a great value. Please see the announcement in this newsletter and plan on attending if you are able. This is bound to be a popular and enjoyable course, so sign up early.

We would really enjoy hearing about your company and your personal experiences in quality at an upcoming dinner meeting. Would you care to share that with us?

Until next time, take care, and good luck in your own quality efforts.

Sincerely,

Steve Babb

Chair, ASQ Section 1508

ASQ Section 1508 St. Petersburg/Tampa Next Meeting: Monday, March 12, 2007 Hilton Tampa Airport Westshore 2225 North Lois Ave Tampa, FL.



Due to the board meeting running from 4:30-5:30, Registration for the meeting will not start until 5:30.

5:30pm Registration

5:30-6:00pm Appetizers/Networking **

** Appetizers are provided at no cost to members by the section.

6:00–6:30 Pre-Dinner Topic

6:30pm –7:30 Dinner

Entrée - Corned Beef and Cabbage

Salad - Green Salad

Dessert - Bread Pudding

7:30pm-8:30 – Speaker

On-line Reservations: www.time2meet.com/asq1508/index.shtml

Reservations should be made by 4:00PM, Thursday, March 8, 2007

If you experience a problems using the website for making a reservation, send an e-mail with your phone number, company name and address to Heike.

Heike @ e-imagestudios.com

Cancellations should be made by noon on the Friday before the meeting but every effort will be made to accommodate late cancellations. If you have a special dietary request - vegetarian or low fat. - please indicate this at the time you make your reservation. \$21.00 per member with a reservation or \$26.00 at the door for guests and members without a reservation. Only cash or check accepted at the door.

If you make a reservation and <u>do not attend</u>, the section must still pay for your meal.

In this event you should <u>reimburse</u> the section by sending a **check**, payable to ASQ, for **\$21.00** to our treasurer,

Glen Cavanaugh, 9212 Rustic Pines Blvd. W, Seminole, FL. 33776

Directions:

.FROM 275 NORTH TAKE EXIT 40B/LOIS AVE. WHEN EXITING TURN LEFT ONTO LOIS AVE. HILTON IS LOCATED 1/2 MILE ON RIGHT.

FROM TPA - FOLLOW AIRPORT EXIT TO SPRUCE STREET TO THE THIRD LIGHT- LOIS AVENUE. TURN RIGHT AND THE HOTEL IS ON THE LEFT.



Recertification

Recertification Chair: Heike Johnson

Please send all recertification packets to: Heike B. Johnson, ASQ 1508 Recertification Chair e-image Digital Studios, Inc. 2106 Climbing Ivy Drive Tampa, FL 33618-1709

To contact Heike for questions, her e-mail address is as follows: Heike@e-imagestudios.com

CERTIFICATION EXAM DATES 2007

EXAM DATES APPLICATION DEADLINE

Biomedical Auditor		
HACCP Auditor	Manak 0	Danad
Manager of Quality / Organizational Excellence	March 3	Passed
Quality Inspector	April 29 (Orlando)	March 16
Quality Technician Reliability Engineer	(Onando)	Water 10
Six Sigma Black Belt	October 20	August 17
Calibration Technician		
Quality Auditor	April 29 (Orlando)	March 16,
Quality Engineer		
Quality Improvement Associate	June 2	April 6,
Quality Process Analyst	555	, , , , , ,
Six Sigma Green Belt	December 1	
Software Quality Engineer	December	
		October 5,
Note: Orlanda based seems will be sendented at the West	1 O. alita Canfananaa an O. alita and	Tarana a sana a sana

Note: Orlando based exams will be conducted at the World Quality Conference on Quality and Improvement. For more information, go to

https://secure.asq.org/wcqi-2007-certification-application.html



Section News and Local Events

If you have inputs for the newsletter, please send them to Camie Williams

for consideration at c4cwill@tampabay.rr.com. The deadline for submitting newsletter items is the 2nd. Friday of each month.



See pages 7,8 & 9 for details on the Certified Quality Engineer & Certified Six Sigma Black Belt course being offered by the section. There is a class schedule and contact information.

APICS-Sponsored Six Sigma, Lean, and Supply Chain Seminars

Your ASQ Section is in cooperation with APICS (The Association for Operations Management) and the Society of Manufacturing Engineers (SME) for four seminars over the coming months at a reduced cost. *** Note that each seminar will yield 0.8 ASQ re-certification credits:

Supply Chain Management April 11, 2007
Integration of Lean, Six Sigma & Supply Chain Management May 9, 2007

All seminars are local, full-day, in-depth, and feature national speakers!

Please visits the APICS website for a brochure (PDF) and more details about each seminar, at www.apics-flwc.org

REGISTER NOW!

All seminars will be held in the St. Petersburg/Clearwater area, 8am - 5pm Registration 727.209.0890

Email: seminar@apics-flwc.org

<u>CERTIFIED QUALITY ENGINEER (CQE)</u> & CERTIFIED SIX SIGMA BLACK BELT (CSSBB) EXAM PREP SEMINAR

This 25-hour seminar provides a thorough overview of the quantitative method / statistics topics covered in the Bodies of Knowledge (BOK) for <u>both</u> the CQE and CSSBB exams. (See the accompanying table for a complete listing of the topics covered vs. the exam Body of Knowledge paragraphs for each topic.) Each topic is presented in a practical, easy-to-follow manner that emphasizes the correct application of the tools covered.

Participants will be given the opportunity to practice all of the tools during class as well as with optional homework exercises. This program focuses on the quantitative topics since they are the topics most commonly failed by people taking both of these exams. It has been so successful that the pass rate for people taking this course (through 2006) is over 90%, which is more than double the international pass rate (typically in the low 40% range).

An extensive reference manual with all necessary statistical tables is provided (and can be used during the exam), as well as a statistical calculator that participants will be taught to use during class and a set of over 500 sample exam questions with an answer key. There are no pre-requisites for the course, but basic high school level algebra is very helpful.

COST (for all 5 sessions, manual, calculator, and sample questions): \$500.00

NOTE: This is the same course offered by ASQ National (through Dr. Lois Jordan) for \$1570 (plus travel) for ASQ members. It is being provided at this significantly discounted rate exclusively to our section members.

DATES: Saturdays – March 24, March 31, April 7, April 21, and May 19

TIMES: 8:30 AM – 1:30 PM

LOCATION: The John H. Sykes College of Business at the University of Tampa

401 W. Kennedy Blvd., Tampa, FL

(The room numbers will be announced closer to the start date)

INSTRUCTOR: Dr. Lois A. Jordan, P.E.

DEADLINE FOR REGISTRATION: Monday, March 19

DEADLINE TO RECEIVE PAYMENT: Saturday, March 24 (at the seminar)

MAKE CHECKS PAYABLE TO: ASQ SECTION 1508

For more information or to register for this program, please contact Lois Jordan at:

loisjordan@transformationtech.com • (813) 835-5529

For more details on either certification, including the detailed Body of Knowledge list, or to register to take an ASQ certification exam, please visit www.asq.org and go to the section on "Training & Certification".

CERTIFIED QUALITY ENGINEER (CQE) & CERTIFIED SIXSIGMA BLACK BELT (CSSBB) EXAM PREP SEMINAR

Exam Body-Of-Knowledge (BOK) Topics Covered (by paragraph number)

MODULE 1:

<u>TOPIC</u>	CQE EXAM BOK	CSSBB EXAM
	<u>ITEM</u>	BOK ITEM
Collecting & Summarizing Data:	VI.A:	V.C:
Types of Data	VI.A.1	V.C.1
Measurement Scales	VI.A.2	V.C.2
Data Collection Methods	VI.A.3	V.C.3, V.C.4
Graphical Methods for Depicting Relationships	VI.A.6	V.C.6
Quality Control Tools: Pareto charts, check sheets, scatter dia-	V.A.1	V.C.6
grams, histograms		
NOTE: Control Charts covered in Module 5		
Measurement System Analysis	IV.F	V.E.2
Quantitative Terms & Concepts:	VI.B:	V.B:
Terminology	VI.B.1	V.B.1
Probability Terms & Concepts	VI.B.3	V.B.3
Descriptive Statistics	VI.A.5	V.C.5
Reliability & Maintainability	III.E:	N/A
Reliability & Maintainability Indices	III.E.2	
Bathtub Curve	III.E.3	

MODULE 2:

TOPIC	CQE EXAM BOK	CSSBB EXAM BOK
Probability Distributions:	VI.C:	V.D.1
Continuous Distributions	VI.C.1	V.D.1
Discrete Distributions	VI.C.2	V.D.1
Other Distributions	VI.C.1	V.D.2
Acceptance Sampling:	IV.C:	N/A
Sampling Concepts	IV.C.1	
Sampling Standards & Plans	IV.C.2	
Graphical Methods for Depicting Distributions: Normal Probability	VI.A.7	V.C.6
Plots		
Non-Normal Data Transformation	N/A	V.F.6

<u>CERTIFIED QUALITY ENGINEER (CQE)</u> <u>& CERTIFIED SIXSIGMA BLACK BELT (CSSBB) EXAM PREP SEMINAR</u> <u>Exam Body-Of-Knowledge (BOK) Topics Covered (by paragraph number)</u>

MODULE 3:

TOPIC	CQE EXAM BOK	CSSBB EXAM
		BOK
Statistical Decision-Making:	VI.D:	VI.B:
Point Estimates & Confidence Intervals	VI.D.1	V.B.2, VI.B.2
Hypothesis Testing	VI.D.2	VI.B.1, VI.B.3
Statistical Decision-Making:	VI.D:	VI.B:
Paired-Comparison Tests	VI.D.3	VI.B.4
Goodness-of-Fit Tests	VI.D.4	VI.B.5
Contingency Tables	VI.D.6	VI.B.7

MODULE 4:

TOPIC	CQE EXAM BOK	CSSBB EXAM
		BOK
Relationships Between Variables:	VI.E:	VI.A:
Linear Regression	VI.E.1	VI.A.2.a
Simple Linear Correlation	VI.E.2	VI.A.2.b
Time-Series Analysis	VI.E.3	
Design & Analysis of Experiments (DOE)	VI.H:	VII.A:
Terminology	VI.H.1	VII.A.1
Planning & Organizing Experiments	VI.H.2	VII.A.2
Design Principles	VI.H.3	VII.A.3
One-Factor Experiments	VI.H.4	VII.A.4
Full-Factorial Experiments	VI.H.5	VII.A.5
Two-Level Fractional Factorial Experiments	VI.H.6	VII.A.6
Analysis of Variance (ANOVA)	VI.D.5	VI.B.6

MODULE 5:

TOPIC	CQE EXAM BOK	CSSBB EXAM BOK
Statistical Process Control (SPC):	VI.F:	VIII.A:
Objectives & Benefits	VI.F.1	VIII.A.1
Common & Special Causes	VI.F.2	VIII.A.1
Selection of Variables	VI.F.3	VIII.A.2
Rational Sub-grouping	VI.F.4	VIII.A.3
Control Charts: Attributes & Variables Data	VI.F.5	VIII.A.4
Control Chart Analysis	VI.F.6	VIII.A.5
Pre-Control Charts	VI.F.7	VIII.A.6
Short-Run SPC	VI.F.8	VIII.B
Process & Performance Capability:	VI.G:	V.F:
Process Capability Studies	VI.G.1	V.F.1
Process Performance vs. Specifications	VI.G.2	V.F.2
Process Capability Indices: Cp, Cpk, Cpm, Cr	VI.G.3	V.F.3, V.F.7
Process Performance Indices: Pp, Ppk	VI.G.4	V.F.4, V.F.5



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	=====

620

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