





ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

# Welcome to the EPTAC Webinar Series: Training: Do You Really Need All This Certification Stuff?

You are connected to our live presentation delivered via the internet. The webinar will begin shortly.

You will see the presentation slides on your computer monitor. To hear the audio, you must use a telephone.

For Audio: Please use a telephone and call: 605-772-3434

Enter access code: 173-459-813

Sponsored by:





THE LEADER IN HI-TECH TRAINING

800-643-7822 www.eptac.com



ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:

STANLEY
Supply & Services

#### **Attendee Quick Reference**

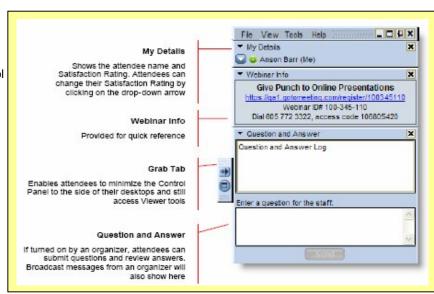
 You can ask questions by typing text directly to the presenter using the "Question and Answer" box

#### **Control Panel Features:**

Once you have joined our Webinar, you will see this GoToWebinar Control Panel and Grab Tab. The control panel contains three panes that can be expanded or collapsed by clicking the arrow on the left side of each pane.

#### To Leave a Webinar:

- From the Attendee Control Panel File Menu, select Exit – Leave Webinar.
- On the Leave Webinar?Confirmation dialog box, click Yes.







THE LEADER IN HI-TECH TRAINING

800-643-7822 www.eptac.com



ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director



# **Training:**

## Do You Really Need All This Certification Stuff?

Sponsored by:





### What is Training?



ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

"Learning is the acquisition of new skills, attitudes and knowledge." Designing Training Programs, the Critical Events Model" by Leonard Nadler

"Workforce Performance will determine which organizations prosper and survive in the marketplace of the foreseeable future." Robert L. Craig

STANLEY
Supply & Services





ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:

Supply & Services

### **Two Types**

- Knowledge Based Training Program
- Skill Based Training Program

Training has to answer the question: Can the individual use the new information out in their work environment?





THE LEADER IN HITECH TRAINING

#### 800-643-7822 www.eptac.com



ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Why Do We Need It?

"Training has to be customer focused, do it right the first time"

Sponsored by:







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

### **Product Changes**

 Technology changes, whether revolutionary or evolutionary, drive the need for new knowledge in putting them together.

Sponsored by:





THE LEADER IN HI-TECH TRAINING

800-643-7822 www.eptac.com



ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

### **Process Changes**

- Smaller components
- New solder alloys
- New board materials
- New fluxes

Sponsored by:







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

### **Employee Capabilities**

 We have to be aware it may be necessary to learn new technologies to manufacture new products with minimal rework or rejects.

Sponsored by:







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:



#### **Business**

- Improve product quality
- Improve yields
- Reduce scrap
- Improve throughput
- Improves morale & employee retention
- Remaining competitive and current







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:



#### **Business**

- Take advantage of new technology
- Increased flexibility with cross training
- Compliance with contracts
- Obtaining accreditation
- Compliance with law (RoHS/WEEE/FDA)







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:



#### **Personnel**

- To learn new subjects or new skills
- To reinforce the value of the employees
- To make employees more employable in volatile markets
- Creates understanding of what they are doing and why







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:



#### **Personnel**

- Provides an awareness of the cost and value of the product
- Improves communications with design, manufacturing, quality and acquisition groups
- Creates a knowledgeable workforce
- Clarification of accept/reject criteria







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

#### **Customer**

 Provides customers with information that their products are being manufactured by people who are proficient in their jobs.

Sponsored by:





ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:

Supply & Services

### **What Are the Programs?**

#### **Knowledge Based Programs:**

- IPC-A-610
- IPC/WHMA-A-620
- IPC-A-600







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:



### **What Are the Programs?**

#### Skills Based Programs:

- J-STD-001
- IPC-7711
- IPC-7721
- EPTAC Hands On







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:

Supply & Services

#### **Training Impacts Cost of Quality**

What is the Cost of Quality?







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

### **Cost of Quality**

Find defect at:

Assembly Factor = 1

Inspection Factor = 10

Test Factor = 100

Field Service Factor = 1000

Sponsored by:







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:



#### **Assigning Cost Numbers**

- Consider following example:
  - Given
    - 95% yields implies 5% of units are defective
    - If quantity of products is 5000 units, @ 95% yields = 250 bad units equates to 50,000 ppm and if 50% are found in the field, that equates to 125 defects at \$125,000, and if found at test, 125 defects at \$12,500 for a total cost of \$137,500.







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:

Supply & Services

#### **Training Impacts Product Value**

#### What's the value?

"You don't get paid for what you know, you get paid for how you use what you know"







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

### **Tangible Values**

- Improved yields
- Reduce scrap
- Increase throughput
- Reduce time to market

Sponsored by:







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

#### Sponsored by:

Supply & Services

#### **Values From OEM Perspective**

- Customer satisfaction
- Company brand name
- Competitive advantage







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:



#### **Values from EMS Perspective**

- Marketing advantage
- Quicker time to market
- Improve throughput
- Lower manufacturing cost
- Improved yields
- Reduce rework
- Reduction in inventory







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:

STANLEY
Supply & Services

#### **Where Can You Go From Here?**

- Call us for help in designing programs to fit your needs
- Have us come in and review your processes to work with you in designing and developing training programs







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

# **Cost of Training**

- Is it worth the cost?
- It sounds expensive.
- How am I going to justify this cost?

Sponsored by:







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:

Supply & Services

#### **Cost of Training Programs**

 Call Brenda or Kerry in our office for specific prices.







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

Sponsored by:

Supply & Services

### Upcoming . . .

- March 19<sup>th</sup> Assembly
  - **-** 610
    - In-process insertion, lead clinching, polarity
    - Use of hardware, sequence of assembly for connectors and other mechanical devices
    - Warp and twist, how it impacts installation







ABOUT THE PRESENTER Leo Lambert Vice President, Technical Director

### **Further Information**

For questions regarding this webinar, please contact Leo Lambert at

leo@eptac.com

STANLEY
Supply & Services

For information on any of EPTAC's or IPC's Certification Courses, please visit our website at <a href="http://www.eptac.com">http://www.eptac.com</a>