TWO-DAY WORKSHOP IN Houston, TX – June 20-21, 2007 (Wed-Thur)

**Cause Mapping®** Effective Root Cause Analysis

**Analyze, Document, Communicate and SOLVE PROBLEMS EFFECTIVELY**

This workshop improves the way individuals and groups solve problems by changing the way they collect and organize information. Wasted time and misunderstandings occur because people *see problems differently*. The Cause Mapping methodology provides a simple, objective, evidence-based approach for breaking down any issue into its cause-and-effect relationships so that everyone *sees* the same information.

The Cause Mapping approach can be immediately applied to all types of problems in your organization. Attend this workshop to improve the problem solving capability of your group.

**EACH ATTENDEE WILL RECEIVE:**

- The two-day Cause Mapping Workbook is 126 pages of explanation, examples and exercises that follow the workshop presentation.
- The Excel® Booklet contains tips, skills and suggestions for creating Cause Maps and Process Maps using tools within Microsoft Excel®.
- The Titanic Cause Map is a 24”x36” poster that shows the causes of the Titanic tragedy at three different levels of detail. Specific lessons about how people communicate when discussing a complex problem are provided in this example.

**TOPICS COVERED IN THIS COURSE:**

- Basic lessons of cause-and-effect
- Right-answer versus systems thinking
- How process and cause-and-effect relate
- Prevention and risk management
- How goals dictate problems
- Focus on principles, not “magic bullets”
- Blame versus the prevention mentality
- Analysis: Specific versus general
- Conducting a detailed analysis
- Identifying creative and effective solutions
- The basics of facilitating an investigation
- Thoroughly documenting a problem or incident
- Additional problem solving tools
- Develop drawing skills in Microsoft Excel®
- Measuring results against the goals
- Steps to getting started within your group

Mark Galley will be the instructor for the workshop. Mark is with ThinkReliability, an international consulting and training company focused on improving the way individuals and groups analyze, document, communicate and solve problems. He received his undergraduate degree from the University of Colorado in Boulder in mechanical engineering and is a Certified Reliability Engineer through the American Society for Quality. Mark was employed for almost 9 years at Dow before working exclusively on facilitating group problem solving and incident investigation. He has taught the Cause Mapping approach to over 10,000 people ranging from executives to managers and technicians in a wide variety of industries.

**TO REGISTER:**

- Online   www.thinkreliability.com
- Email    register@thinkreliability.com
- Phone    281-489-2904
WORKSHOP FORMAT:

Day 1
- Relationship between Process & Cause-and-Effect
- Risk, Prevention & Problem Solving
- The Cause-and-Effect Principle – Basic Lessons
- Examples, Exercises & Case Studies

Day 2
- Elements of a Thorough Investigation
- Documenting an Incident - Various Formats, Excel
- Leading/Facilitating an Problem Solving Session
- Getting Started in your Group Right Now

OBJECTIVE:
To teach individuals how to apply the basics of cause-and-effect to become better problem solvers.
Each person will be able to define problems based on their organization’s overall goals, to conduct a structured, objective, evidence-based analysis and to identify the best solutions for improving the processes in which the problem occurred.

TESTIMONIALS:

- “Excellent workshop. Cause Mapping is an easy to follow process that should be implemented at every level within our organization.”

- “Truly the Cliffsnotes® for Six-Sigma, Lean Manufacturing and Total Quality Management. This workshop will teach you in two days (versus four weeks) how to document, analyze and solve problems, any problem, within your organization.”

- “A priceless tool for every employee at every level.”

- “I have been an advanced Excel® user for years, but I had no idea that Excel® could be used to document work processes and problems (Cause Maps). The Excel® tips alone were worth the price of admission.”

- “I strongly recommend anyone in business attend the Cause Mapping workshop and learn how a simple process can have profound effects upon managing complex problems.”

- “This by far is the best and easiest problem solving course I have ever attended.”

- “This course was excellent. The light came on when systems thinking was taught. This will definitely help me in my job.”

BONUS MATERIAL:
Cause Mapping/ Process Mapping Templates in Microsoft Excel®

Time will be spent on the Day 2 demonstrating tools within Microsoft Excel® that make it extremely simple to capture Cause Maps and Process Maps using boxes and connectors just like many other drawing tools (Visio®). Many people have used Excel® for years without knowing the powerful drawing tools have been built in to the application. The ThinkReliability templates in Microsoft Excel® are provided electronically to all attendees at no additional charge.

ATTENDEES WHO HAVE FOUND THIS WORKSHOP VALUABLE:

By ROLE
Operations  Production
Supervisors  Maintenance
Executives  Reliability
Technicians  Quality
Risk Managers  Process Improvement
Safety  Compliance Officers

By INDUSTRY
Manufacturing  Food Processing
Healthcare  Petroleum
Telecommunications  Aircraft, Aerospace
Power Generation  Information Technology
Banking  Regulatory Agencies
Military  Chemical
**Date**
June 20-21, 2007

**Times**
Day 1 - Room opens at 7:30 AM. Workshop starts at 8:00 AM, ends at 4:30 PM
Day 2 - Room opens at 7:30 AM. Workshop starts at 8:00 AM, ends at 2:00 PM

**Location**
Hilton Garden Inn
Bush Intercontinental Airport
15400 JFK Blvd.
Houston, TX 77032
Hotel phone 281-449-4148

**Meals**
Lunch, continental breakfast and snacks are provided both days.

**Materials**
Workbooks, Excel® booklets, Excel® templates and Titanic Cause Map posters are provided to every attendee.

**Additional Workshops**
- April 11-12, 2007 - Kansas City, MO
- May 9-10, 2007 - Chicago, IL
- July 25-26, 2007 - Seattle, WA

Visit our web site for other workshop dates/locations in 2007.

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### Registration Form

**Name**

**Organization**

**Phone**

**Email**

**Credit Card Information**
(if applicable)

- [ ] VISA
- [ ] MASTERCARD
- [ ] DISCOVER
- [ ] AMERICAN EXPRESS

**Number**

**Expiration Date**

**3-digit SEC Code**

**Name on Credit Card**

**Signature of Card Holder**

**Billing Address of Card:** Street, City, State, ZIP

**NOTE to ThinkReliability**

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### Fee
The workshop fee is $595. This includes the workshop, the 126-page workbook, the Excel® booklet, Excel® templates and the Titanic Cause Map poster, lunch, continental breakfast and snacks.

### Discounts
Early registration is $495 per person if registered by May 18, 2007.

A group discount of $50 per person is available for groups of two or more. The group discount applies to early registration also.

### Cancellation
Attendance can be transferred to another participant or to another upcoming workshop. Fees will be refunded more than two weeks prior to the workshop, less a $25 processing fee. If you fail to attend without notice, the fee is not refundable.

### Questions
Call us with any questions
Office phone 281-489-2904
Email info@thinkreliability.com
www.ThinkReliability.com

### Billing
#### Credit Card
By using the online form or the form below. (VISA, MC, AMEX, DISC)

#### Invoice/ Check
Issue a purchase order to ThinkReliability or mail a check

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This workshop is for anyone who wants to become more effective at understanding...

- why the error happened.
- why the project took too long.
- why the miscommunication occurred.
- why the equipment failed.
- why the orders were late.
- why the person was injured.
- why the numbers are down.
- why the numbers are up.
- why the incident occurred.
- why the code was incorrect.
- why the defect happened.
- why the measurements were off.
- why the spec was missed.
- why the component didn’t work.
- why the information was missed.
- why the system failed.
- why the risk was so high.

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**ThinkReliability**
P.O. Box 301252
Houston, TX 77230

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**Cause Map - Loss of the Shuttle Columbia**

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This poster is an example of a complex issue, the Titanic tragedy, broken down into specific cause-and-effect relationships by using the Cause Mapping approach. The Titanic sank because it hit an iceberg, but the detailed Cause Map shows over 100 cause-and-effect relationships revealing specific ways the risk of the incident occurring could have been mitigated.