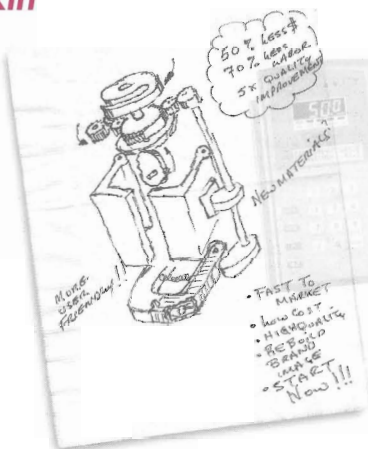


DESIGN HIGH-QUALITY PRODUCTS FASTER, CHEAPER & BETTER TO CREATE HIGHER PROFITS . . .

From Napkin
Sketch . . .



. . . To Production

Workshop

**Design Prophet™
Design Profit**

DESIGN FOR ASSEMBLY

DETROIT (TROY), MICHIGAN

OCTOBER 27-28, 1998

DECEMBER 8-9, 1998

For Quick, Simple Registration –
Fax to: 248-362-5117
or Call: 248-362-5110

Munro
&
Associates, Inc.



®

DESIGN PROPHET™ DFA WORKSHOP FROM MUNRO & ASSOCIATES, INC.

October 27-28, 1998
&
December 8-9, 1998

Hosted at Munro & Associates'
DFM Technology Transfer/Workshop Center
Troy, Michigan

IMAGINE . . .

- A methodology to help companies design and manufacture high-Quality products **faster, cheaper, and better to create higher profits.**
- A way to maximize profitability at the product design stage – where **70 to 75 percent** of a product's total life-cycle cost is determined.
- **Simpler designs** that help achieve high Quality, fast cycle time, lower cost and agile manufacturing.
- An analytical approach that allows you to quickly evaluate an existing or new product design and make comparisons against alternate designs to **maximize product profit and Quality.**
- A **catalyst** to pull your cross-functional design team together at the beginning of product development and focus their efforts on **bottom line results.**
- A way to accurately predict and **suggest real solutions** to manufacturing problems to guide your company toward understanding the labor cost, investment and Quality of a product . . . while it's still in the design phase.

IMAGINE NO LONGER . . .

Experience the benefits of the Design Prophet™ DFA methodology. By attending this workshop, you'll be able to **attack the real problems** and concerns manufacturers face, including:

- ✓ Assembly complexity
- ✓ Manufacturing cost
- ✓ Quality issues
- ✓ Ergonomic issues
- ✓ Poka-Yoke problems
- ✓ Government documentation
- ✓ Defects
- ✓ Hazardous material handling

WHY CHOOSE THE DESIGN PROPHET™ DFA METHOD?

- Simple, graphic flow chart analysis is easily understood and leveraged for manufacturing engineering processes.
- Focused on methods of creating Design Profit for manufacturers, not just implementation of software products.
- Consideration of build issues like Poka-Yoke (error-proofing) and Ergonomics during design.
- Flexible and straightforward method based on real industry application – not academic theories.

WHO SHOULD ATTEND?

- Product design engineers & managers
- Manufacturing engineers & managers
- Quality improvement managers
- Product cost & pricing strategists
- Cycle time reduction experts
- Operation managers
- Anyone responsible for improving product development results

WHAT YOU'LL WALK AWAY WITH

- Design Prophet™ DFA Manual
- Design Prophet™ Tool Card
- Good Design Principles Tool Card
- Recipe for team success
- Real redesign ideas on your product designs to increase Design Profit
- Information on leading edge manufacturing technology and material solutions

TECHNOLOGY TRANSFER RESOURCE CENTER

Technology-transfer session at Munro & Associates' leading-edge DFM Technology Transfer Center.

- How to set up your own DFM Technology Transfer Center
- Share information gathered from the latest industry shows, the internet and design benchmarking activities.
- See new material applications and design guideline information on a variety of manufacturing technologies.
- Focus on new fastening and part integration methods that can maximize your Design Profit.
- Investigate potential solutions to your biggest manufacturing and design problems.

Design Prophet™ Workshop AGENDA

DAY ONE 8:00 a.m. - 5:00 p.m.

Registration – 7:30 a.m. – 8:00 a.m.

- ❑ *Changing the Rules:* An introduction to DFA/DFM concepts and case study documented benefits
- ❑ *Profit Boosting Technologies:* Munro DFM Technology Transfer session to identify new or cross-industry technologies your company could benefit from.
- ❑ *Seeing Things Differently:* The rules and processes for performing a Design Prophet™ DFA analysis
 - Flow charting the process steps
 - Defining “part-to-operator” & “part-to-part” interfaces
 - Fastening and non-value added operations
 - Tool usage and the “Part Value Challenge”

————— Lunch Break —————

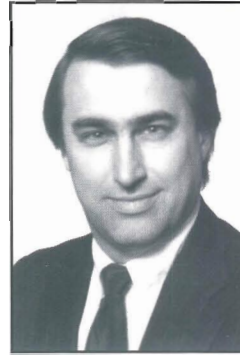
- ❑ *Experience the Difference:* “Hands-on” team Design Prophet™ DFA analysis and re-design application exercise
- ❑ *Focused Brainstorming:* Creativity and teamwork integration into Design Prophet™ DFA process
- ❑ *Know Where You Stand:* Design Prophet™ DFA baseline analysis of your company's product to identify and brainstorm improvement opportunities (Call for details on product information required and scope of analysis)

DAY TWO 8:00 a.m. - 5:00 p.m.

- ❑ *See the Potential:* A start-to-finish insider's DFA case study on how to succeed with your implementation
- ❑ *Make It So:* Redesign of your company's product using prioritized redesign concepts and innovations to generate more Design Profit

————— Lunch Break —————

- ❑ *Expand the Impact:* Integration of other key concerns for redesign including Quality, manufacturing processes, Ergonomics and service
- ❑ *Take It Home:* Building the business case for your company's Design Prophet™ DFA implementation based on workshop results



William R. Sprague
Associate
Munro & Associates, Inc.

Workshop leader Bill Sprague has extensive knowledge of new product development, integration of development process tools and implementation of concurrent engineering techniques. His strong

analytical abilities will help attendees focus on factors offering the greatest return. He gained worldwide recognition as an industry expert in DFA implementation for his work at NCR on the 2760 Retail Terminal.

He has conducted hundreds of DFA and related topic workshops to train thousands of design and manufacturing engineers in an engaging, results-oriented style that draws on extensive team and design examples. Previous experience includes NCR, Nortel, Siemens, ITI and Boothroyd Dewhurst, Inc.

Bill has spoken at more than 100 conferences worldwide and published six papers on DFA/ Concurrent Engineering. His work and views on industry trends have been featured in numerous publications, including *Business Week*, *Design News*, and *Industry Week*. He received the *Assembly* “Productivity through Assembly Technology” Award and numerous NCR technology citations.

MUNRO & ASSOCIATES, INC.:

- Is the leading consulting firm that helps manufacturers **improve profitability** by implementing DFA/DFM and related techniques, involving the cost of Quality, Ergonomics, service, agile manufacturing and recycling.
- Has assisted in implementing numerous **DFA/DFM projects** – spanning virtually every industrial segment – which have helped global manufacturers save some **\$40 billion**.
- Takes a **hands-on, results-oriented** approach to help manufacturers achieve significant improvements in product cost, Quality and profitability on high- and low-volume production.

REGISTER NOW! SEATING IS LIMITED!

Fax your registration form to **(248) 362-5117** or mail with your check to:
Munro & Associates, Inc., 900 Wilshire Drive, Suite 301, Troy, MI 48084
Questions??? Call Angela Maidment at **(248) 362-5110**

THE DESIGN PROPHET™ WORKSHOP in Troy, Michigan

Cost: \$895.00

October 27-28, 1998

December 8-9, 1998

Name: _____ **Title:** _____

Company: _____ **Phone:** (____) _____

Address: _____ **Fax:** (____) _____

City: _____ **State:** _____ **Zip:** _____

Check enclosed **P.O. enclosed** **MasterCard** **VISA** **American Express**

Acct # □□□□-□□□□-□□□□-□□□□

Signature: _____ **Expiration Date:** ____/____/____

For more information on Design Prophet™ or Munro & Associates, visit our website www.MunroAssoc.com

**DESIGN PROPHET™
DFA WORKSHOP DETAILS**

DATES: October 27-28, 1998
December 8-9, 1998

LOCATION:
MUNRO & ASSOCIATES, INC.
DFM Technology Transfer/Workshop Center
900 Wilshire Drive, Suite 301
Troy, Michigan 48084
Phone: (248) 362-5110
Fax: (248) 362-5117
www.MunroAssoc.com

**(Convenient to Detroit Metro Airport and located
near area hotels, restaurants.)**

REGISTRATION FEE:
Individual: \$895.00
Team of 3-4: 10% discount
Team of 5 or more: 20% discount

Payment must be received prior to the workshop and includes course material, workbook, refreshments, continental breakfast and lunch daily.

CANCELLATION POLICY

Cancellations made less than two weeks prior to the workshop are subject to a \$100.00 cancellation fee.

*Map and hotel information
provided upon registration.*

I cannot attend, but I am interested in the following:

- Future workshops in:
 - Boston
 - Dayton
 - San Diego
 - Minneapolis
 - Orlando
 - Other city: _____
- Information about on-site workshops focused on my company's product development activities.
- Information about Munro & Associates, Inc. and its full portfolio of tools, more specifically:
 - Design Prophet™ DFA methodology
 - Quality Report Card™ analysis tool
 - Design for Manufacturing
 - Design for Serviceability
 - Design for Recycling
 - Ergonomics
 - Agile Manufacturing

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