



SOLE-MESA Cooperation

Ben S. Blanchard, Professor-Emeritus, Virginia Tech

A formal cooperative relationship between SOLE and MESA (Maintenance Engineering Society of Australia) was established recently. MESA, which is affiliated with the Institution of Engineers - Australia, was established in 1992, includes a membership in excess of 1,300, and constitutes 11 Chapters located throughout Australia. Its mission is to *promote and advance all facets of the science and practice of reliability and maintenance engineering and the engineering management of assets, and to facilitate the exchange of information and ideas related thereto*. The membership of MESA is open to any person who has an interest in the fields of reliability, asset management, and maintenance engineering. MESA membership embraces practitioners, educators, leaders and students in the field. Corporate Membership for any Enterprise is also encouraged.



Among its many technical and educational activities, MESA sponsors an annual conference, *ICOMS (International Conference Of Maintenance Societies)*, usually held in May, which draws 200 to 400 from not only within and throughout Australia but internationally as well. The first such conference was *ICOMS-94* (Sydney), followed by *ICOMS-96* (Melbourne), *ICOMS-98* (Adelaide), *ICOMS-2000* (Melbourne), *ICOMS-2001* (Wollongong), and just this past month, *ICOMS-2002* (Brisbane and Gladstone). Current planning is underway (and a “call for papers” has been issued) for *ICOMS-2003*, scheduled to be held at the Sheraton Hotel, Perth, Western Australia, May 20-23, 2003. The theme for this forthcoming event is *Maintenance: It Makes Good Business (\$) Sense*.

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ICOMS-2002, hosted by MESA and just recently conducted May 21-24, Brisbane (with an extension in Gladstone - several hundred miles north of Brisbane), was a great success. The Principal Sponsor was Transfield Services, and co-hosts included SOLE, IFRIM (International Federation for Research in Maintenance), Plant Engineering and Maintenance Association of Canada, and the Maintenance and Reliability Professional Society. The conference theme was *Changing the Future*, and there were individual sessions covering *maintenance management, maintenance strategy, maintenance resources, maintenance engineering, maintenance planning, asset management, condition monitoring, and maintenance case studies*. Additionally, there were several technical workshops, a social program, and an associated golf tournament.

On a more personal note, I was fortunate to be able to participate (physically and in person) in each of the first three MESA conferences (*ICOMS-94*, *ICOMS-96*, and *ICOMS-98*). While I wasn't able to travel to Australia for *ICOMS-2000*, *ICOMS-2001*, and *ICOMS-2002*, I was able to participate in each of these conferences through a “live,” interactive, two-way audio/video link between the Virginia Tech campus in Blacksburg and the conference venue in Australia. For instance, I was scheduled for one of the Keynote Addresses in *ICOMS-2002*, Thursday, May 23rd, 8:30-9:15am (Australian time), and my topic was “Maintenance: An Individual Perspective of the Past, the Present, and the Future.” In response, I was able to present my paper from a classroom at Virginia Tech, Wednesday, 6:30-7:15pm (Virginia time), and was able to “interact” with each of the two scheduled Australian sites (Hilton Hotel in Brisbane and the venue on the campus of Central Queensland University in Gladstone, which were involved in the simultaneous transmission of conference papers for two days). The uniqueness of this year's event (versus my prior experience relative to *ICOMS-2000* and *ICOMS-2001*) was the ability of being able to go back-and-forth (through a question and answer period) with two different remote sites, in a formal conference environment, and being able to converse freely with friends and associates at the other end. Being able to utilize the “technology” in this manner was certainly an exciting experience.

If you are interested in learning more about MESA, please visit web site www.mesa.org.au. For information pertaining to *ICOMS-2003*, contact Sally Nugent, P.O. Box 634, Brentford Square, Victoria 3131, Australia (fax: +61-(0)3 9874 4800; e-mail: icoms@corrprev.org.au).

ICOMS-2002, Brisbane and Gladstone, Australia, May 21-24

Peter Robinson, MESA Public Officer, Victoria, Australia

The *ICOMS Conference* this year was a great event with a mix of Forums, Seminars, Papers, and Distance Delivery. With a focus on debate, discussion, learning and networking, delegates looked at new ways of dealing with old challenges and at some very satisfactory old ways of dealing with new challenges. Presentations and discussions alike showed that in many cases we have the tools and technology to achieve our goals in maintenance engineering and asset capability management. Not just talking heads, the Conference, Workshops, and the "Engineering Excellence" Awards at the Gala Dinner presented Maintenance Engineering at its best.

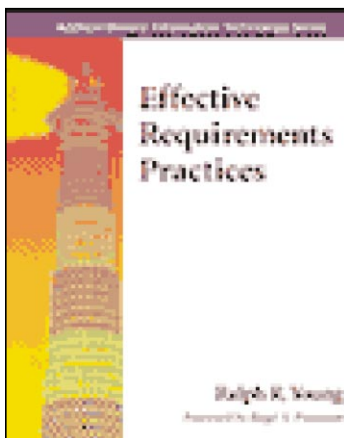
The two very busy conference days exposed new insights into maintenance engineering and asset capability management, condition monitoring, reliability and the scientific basis which underpins much of this work. Delivery ranged from "Open Space Technology" to direct debate in vigorous style. Delegates were able to drill down to hands-on maintenance and move upward to presentations from those achieving excellence through the Australian Maintenance Engineering Excellence Award as part of the Institution of Engineers-Australia awards.

ICOMS-2002 included the presentation of over 60 technical papers, plus seminars, forums, discussion groups, and networking with a theme of "Changing the Future" and an emphasis on people in maintenance. Electronic communications connected the concurrent activities in Brisbane and Gladstone (distanced by over an hour's flying time) plus the keynote addresses from the USA and the UK. Selected papers will be streamed to the Internet in the next several weeks.

Book Reviews



With the objective of introducing some variety in the form of the material presented in each monthly issue of the *SOLEtech*, it was decided to include a number of abbreviated book reports, along with the Calendar of Events, in this newsletter. SOLE Headquarters has been the recipient of a number of new books, some of which have been covered in recent issues and herein, and which will ultimately help in expanding the library at Headquarters.



Effective Requirements Practices

Ralph R. Young,
Addison-Wesley, 2001
(ISBN 0-201-70912-0)

Dealing effectively with requirements tops the list of the challenges to managers and practitioners developing systems and software. This book describes ten requirements practices that provide

a framework for overcoming current industry problems. Although systems and software development efforts have been going on for five decades, the industry has major difficulty worldwide in delivering products that meet customer needs. By applying effective requirements practices, one can remove causes of project failure. The reasons for failure are well documented (Chapter 1). The needed improvement activities can be financed via the one-third of total project costs now

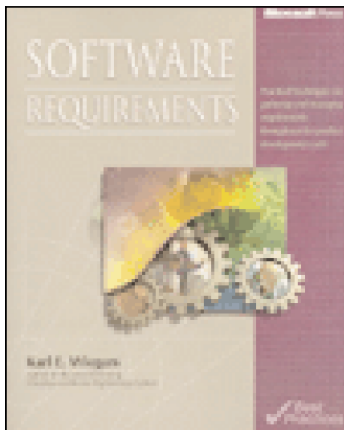
wasted. This book is full of suggestions concerning how to transform this waste into productive use.

The theme of this book is that practitioners should insist on using requirements practices. The use of effective requirements practices will reduce costs, improve the quality of work products, and increase customer satisfaction. The practices, ideas, suggestions, and recommendations provided in this book can be applied individually or collectively, the results of which can produce excellent benefits.

This book includes three basic Parts and a number of Chapters within. A more detailed breakout of the material by Parts and Chapters follows:

1. **Part I: Background** — (1) *Introduction*.
2. **Part II: Recommended Requirements Practices** — (2) *Commit to the Approach*; (3) *Establish and Utilize a Joint Team Responsible for the Requirements*; (4) *Define the "Real" Customer Needs*; (5) *Use and Continually Improve a Requirements Process*; (6) *Iterate the System Requirements and Architecture Repeatedly*; (7) *Use a Mechanism to Maintain Project Communication*; (8) *Select Familiar Methods and Maintain a Set of Work Products*; (9) *Perform Requirements Verification and Validation*; (10) *Provide an Effective Mechanism to Accommodate Requirements Changes*; and (11) *Perform the Development Effort Using Known, Familiar Proven Industry, Organizational, and Project Best Practices*.
3. **Part III: What To Do Next** — (12) *How to Proceed*.

Book Reviews (Continued)



Software Requirements

Karl E. Wiegers,
Microsoft Press, A
Division of Microsoft,
Inc., One Microsoft
Way, Redmond, WA
98052-6399, 1999
(ISBN 0-7356-0631-5).

Despite some fifty years' collective experience, many software development organizations struggle to gather, document, and manage their product requirements. Lack of user input, incomplete requirements, and changing requirements are the major reasons why information technology projects do not deliver all of their planned functionality on schedule and within budget. Many software developers aren't comfortable or proficient at gathering requirements from customers. Practical requirements engineering techniques aren't widely known to developers, and educational curricula favor technical topics over the softer requirements issues. Project participants often don't even agree on what a "requirement" is.

Software development involves at least as much communication as computing, yet we often emphasize the computing and neglect the communication. This book offers tools to facilitate that communication and help software practitioners, managers, marketers, and customers apply effective requirements engineering methods. It presents many approaches to help the development team and its customers agree on what software must be built to satisfy actual user needs, along with ways to document and manage changes to that agreement. The techniques presented here represent mainstream "good practices" for requirements engineering, not exotic new techniques from the world of academics or an elaborate methodology intended to solve all your requirements problems.

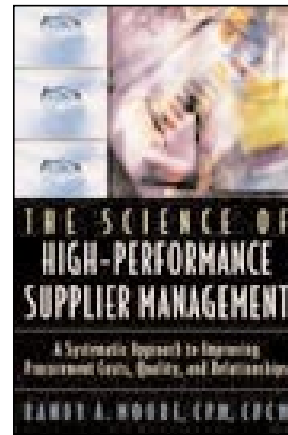
This book includes three basic Sections and a number of Chapters within each section. A more detailed breakout of the material by Sections and Chapters follows:

1. **Section I: Software Requirements: What And Why** — (1) *The Essential Software Requirement*; (2) *Requirements from the Customer's Perspective*; (3) *Good Practices for Requirements Engineering*; (4) *Improving Your Requirements Processes*; and (5) *Software Requirements and Risk Management*.

2. **Section II: Software Requirements Development** — (6) *Establishing the Project's Vision and Scope*; (7) *Finding the Voice of the Customer*; (8) *Hearing the Voice of the Customer*; (9) *Documenting the Requirements*; (10) *A Picture Is Worth 1024 Words*; (11) *Software Quality Attributes*; (12) *Risk Reduction Through Prototyping*; (13) *Setting Requirements Priorities*; (14) *Verifying Requirements Quality*; and (15) *Beyond Requirements Development*.

3. **Section III: Software Requirements Management** — (16) *Requirements Management Principles and Practices*; (17) *Managing Change Requests*; (18) *Links in the Requirements Chain*; and (19) *Tools for Requirements Management*.

(Editorial note: the first two paragraphs were taken directly from the book's "Preface").



The Science of High-Performance Supplier Management: A Systematic Approach to Improving Procurement Costs, Quality, and Relationships

Randy A. Moore, American
Management Association
(AMACOM), 1601 Broadway,
New York, NY 10019, 2001
(ISBN 0-8144-0633-5)

Roughly have of a typical corporation's revenues go right back out the door in the form of purchases. From pencils to product components, information technology to advertising, outside expenditures can surpass internal labor payrolls by more than 600 percent. In spite of these eye-opening numbers, the buying processes at most major companies remain remarkably unfocused. Although individuals in charge of particular budgets do shop around for "good deals," rarely have entire organizations sought to make the procurement function a cornerstone of financial health.

Companies that recognize how powerfully their buying strategy affects bottom-line results must do more than haggle over the prices of particular goods and services; they must control relationships with their suppliers and vendors by redefining performance expectations. This book shows how to systematize procurement functions through the use of the STeP (Systemic Technology for Procurement) process, a model developed in the high technology arena and now adapted for any and all large-scale purchasing operations. With STeP, companies will be able to create repeatable processes that can be applied to all of their current and future supplier relationships.

Book Reviews (Concluded)

This book includes four basic Parts and a number of Chapters within each. A more detailed breakout of the material by Parts and Chapters follows:

1. **Introduction** — (1) *A Strategic View of the Customer/Supplier Relationship*; (2) *Systematic Technology for Procurement (STeP) - An Overview*; and (3) *Introduction to Supplier Performance Management*.
2. **Part I: Alignment of the Procurement** — (4) *Form, Train, and Charge the Procurement Team*; (5) *Define Procurement Strategy*; and (6) *Align Top-Level Objectives*.
3. **Part II: Preparation Within the Organization** — (7) *Develop Detailed Requirements*; (8) *Prepare a Contract Tailored for the Deal*; and (9) *Prepare and Release the Request for Proposal*.
4. **Part III: The Deal Transaction** — (10) *Establish and Maintain Control*; (11) *Competitively Evaluate the Proposals*; and (12) *Negotiate, Select, and Award*.
5. **Part IV: Ongoing Interaction With the Suppliers** — (13) *Contract Management*; (14) *Rights, Remedies, and Rewards*; (15) *Long-Term Programmed Improvement*; and (16) *Managing the Unmanageable Supplier*.
3. *37th Annual International Logistics Conference And Exposition (SOLE-2002)*, sponsored by the International Society of Logistics (SOLE), Pointe South Mountain Resort, 777 South Mountain Parkway, Phoenix, AZ 85044, August 10-15. The theme is "21st Century Logistics: The Global Bridge." For additional information, contact John Davis, General Chair (JDavisCPL@aol.com) and/or SOLE Headquarters (solehq@erols.com). Also, visit the SOLE web site at <http://www.sole.org>.
4. *15th International Congress And Exhibitions On Condition Monitoring And Diagnostic Engineering Management (COMADEM)*, University of Birmingham, United Kingdom, September 2-4. For additional information, contact Professor B.K.N. Rao (rajbknr Rao@btinternet.com) and/or visit web site <http://www.comadem.com>.
5. *Council Of Logistics Management Annual Conference*, sponsored by CLM, Moscone Center, San Francisco, CA, September 29-October 2. The theme is "The Rules Are Changing" The Keynote Speaker for the opening session will be Michael L. Eskey, Chairman and CEO, United Parcel Service. For further information, contact CLM Headquarters at clmadmin@clm1.org and/or visit web site <http://www.clmadmin@clm1.org/conf2002/index.asp>.
6. *18th International Logistics Congress And Exhibition (ILC-2002)*, sponsored by SOLEurope and hosted by the Munich Chapter, Gasteig Arts Center, Munich, Germany, October 6-9. The Conference theme is "Outsourcing Life-Cycle Support: Sharing The Opportunities, Sharing The Risks." For additional information, visit web site www.sole-muc.de and/or visit the SOLE web site www.sole.org.
7. *10th Annual SMRP Conference*, sponsored by the Society of Maintenance and Reliability Professionals (SMRP), Nashville, TN, October 27-30. For further information, contact genna@smrp.org and/or visit web site www.smrp.org.
8. *28th International Symposium For Testing And Failure Analysis (ISTFA-2002)*, Phoenix, AZ, November 3-7. For further information, contact Donald D. Dylis at DDylis@IITRI.org or contact ISTFA@asminternational.org.
9. *15th International Conference-Software And Systems Engineering And Their Applications (ICSSEA-2002)*, Paris, France, December 3-5. The theme is "Development And Globalization." For further information, contact Jean Claude Rault (rault@cnam.fr) and/or visit web site www.cnam.fr/CMSL.
10. *The International Symposium On Product Quality And Integrity (RAMS-2003)*, sponsored by 10 technical societies (to include SOLE), Tampa Waterside Marriott Hotel, Tampa, FL, January 27-30, 2003. The theme is "Transforming Technologies For Reliability And Maintainability Engineering." For further information, visit web site www.rams.org and/or SOLE web site www.sole.org.

Calendar of Events

1. *12th Annual International Symposium On Systems Engineering*, sponsored by the International Council On Systems Engineering (INCOSSE), Riviera Hotel and Casino, Las Vegas, NV, July 28-August 1. The theme is "Engineering 21st Century Systems: Problem Solving Through Structured Thinking." The program will include six technical tracks, 138 technical paper presentations plus poster sessions, 11 full-day and six half-day tutorials, an Academic Forum, numerous exhibits, and several technical tours. For additional information, contact PCMI (tel: 1-858-565-9921; e-mail: incosepcmisandiego.com). Also, visit web site <http://www.incose.org/> for up-to-date information.
2. *2002 International Military And Aerospace/Avionics COTS Conference, Exhibition, And Seminar*, Mission Valley Marriott Hotel, San Diego, CA, August 7-9. For further information, contact Edward B. Hakim (tel: 732-449-4729; fax: 775-855-0847; e-mail: ebhakim@bellatlantic.net).

Calendar of Events (Concluded)

11. *Conference On Systems Integration (CSI)*, Charles V. Schaefer School of Engineering, Stevens Institute of Technology, Hoboken, NJ, March 12-14, 2003. The theme is the "Design, Analysis and Modeling, Management, Use and Operations, and Support of Complex Systems in Information Technology, Telecommunications, and Network Centric Aerospace and Defense Domains." For additional information, contact Dr. Dinesh Verma, Associate Dean and Professor of Systems Engineering, School of Engineering, Stevens Institute of Technology, Hoboken, NJ 07030 (tel: 201-216-8334/201-216-8645; e-mail: dverma@stevens-tech.edu).
12. *15th Software Technology Conference*, sponsored by the Software Technology Center, Salt Palace Convention Center, Salt Lake City, UT, April 28-May 1, 2003. The theme is "Strategies And Technologies: Enabling Capability-Based Transformation." For further information, visit web site www.stc-online.org.

13. *International Conference Of Maintenance Societies (ICOMS-2003)*, sponsored by the Maintenance Engineering Society of Australia (MESA) and co-hosted by SOLE, Sheraton Hotel, Perth, Western Australia, May 20-23, 2003. The theme is "Maintenance: It Makes Good Business Sense." For further information, contact Sally Nugent, ICOMS, P.O. Box 634, Brentford Square, Victoria 3131, Australia (e-mail: icoms@corrprev.org.au) and/or visit web site www.mesa.org.au.

**SOLE – The International Society of Logistics***Presents***SOLE 2002 – The 37th Annual International Logistics Symposium****August
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