

# Project Performance International

## Systems Engineering

### Newsletter (SyEN)

SyEN #020 - May 20, 2010

Brought to you by Project Performance International

<http://www.ppi-int.com/newsletter/SyEN-020.php>

**Dear Colleague,**

SyEN is an independent free newsletter containing informative reading for the technical project professional, with scores of news and other items summarizing developments in the field, including related industry, month by month. This newsletter and a newsletter archive are also available at [www.ppi-int.com](http://www.ppi-int.com).

**Systems engineering can be thought of as the problem-independent, and solution/technology-independent, principles and methods related to the successful engineering of systems, to meet stakeholder requirements and maximize value delivered to stakeholders in accordance with their values.**

If you are presently receiving this newsletter from an associate, you may receive the newsletter directly in future by signing up for this free service of PPI, using the form at [www.ppi-int.com](http://www.ppi-int.com). If you do not wish to receive future SE eNewsletters, please reply to the notifying e-mail with "Remove" in the subject line, from the same email address. Your removal will be confirmed, by email.

We hope that you find this newsletter to be informative and useful. Please tell us what you think. Email to: [contact@ppi-int.com](mailto:contact@ppi-int.com).

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# A Quotation to Open On

*"Scientists investigate that which already is; Engineers create that which has never been."* - Albert Einstein

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## Featured Article

## Managing Time in Time Management: Failure by Belief

Gene Bellinger  
phoenix@systemswiki.org  
<http://www.systemswiki.org>

What better to occupy one's mind late on a sleepless night than Time Management. This is not the first time my thoughts have been captivated by Time Management. Time Management seems to be something I have pondered at length, usually when I have less than enough time to get something done.

It seems that when faced with recurring time pressure we turn to the concepts of Time Management believing that it holds the answer for an escape from our dilemma. This in fact constitutes a two part fallacy.

Lets get serious, there is no management of time in Time Management. Time is not manageable! Time simply is. As Zig Zigler is so fond of saying, "We all have the same amount of time, 24 hours in every day." It's really a question of what one does within that time that makes the difference.

The second part of the Time Management fallacy is based on the belief that if one simply becomes more effective, a better time manager, then they will be able to accomplish what needs to be done - NOT!

What is to follow is a anasynthesis, i.e. analysis and synthesis, of one's activity within time in an organizational context. The intent is to provide a foundation for a deeper level of understanding regarding the dilemma faced, and provide some more meaningful approaches that can be taken to resolve the Time Management dilemma.

If this will be your first encounter with Systems Thinking [Causal Loop Diagrams \(CLDs\)](#) don't panic as they are really very straight forward as follows:

- A positive relation, indicated by the "+" sign, indicates thing 1 adds to thing 2, or, a change in thing 1 causes a change in thing 2 in the same direction,
- A negative relation, indicated by the "-" sign, indicates that thing 1 subtracts from thing 2, or, a change in thing 1 causes a change in thing 2 in the opposite direction.
- A reinforcing loop is one in which the interactions are such that each action adds to the other. Any situation where action produces a result which promotes more of the same action, it is representative of a reinforcing loop.
- A balancing loop is one in which action attempts to bring two things to agreement. Any situation where one attempts to solve a problem or achieve a goal or objective is representative of a balancing loop.
- At times there is a significant **delay** in the interaction and this is represented by two parallel lines on the influence.

You can also find additional information at the links in the references.

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### Time Pressure

I suppose the best place to start is with the situation as it's perceived, experiencing **time pressure**.



Fig. 1 - Time Pressure

The interaction of **time available** and **things to do** results in **time pressure**. As **time available** increases it subtracts more and the **time pressure** experienced decreases. As **things to do** increases it adds more and **time pressure** experienced increases. From this perspective, there are three ways to deal with the situation, increase the **time available**, decrease the **things to do**, or just live with it. There are actually additional ways to deal with the situation though they are embedded in elements of the system which have not yet been described.

### Things to Do

The situation being described assumes an organizational context and the individual experiencing **time pressure** might be an individual contributor or a manager. I don't think it will change the way the system unfolds. Within this context it is generally perceived that those things in the **things to do** category cannot be ignored - they must be dealt with.



Fig. 2 - Things to Do

From this perspective **time pressure** influences **action** which after some delay subtracts from **things to do**. The reduction of **things to do** has two effects. First, reducing **things to do** causes it to add less to time pressure thus creating **Balancing Loop (B1)**. Yet, at the same time, reducing **things to do** causes it subtracts less from time available creating **Balancing Loop (B2)**. Before you begin to think this is the answer - think again. Would I have led you down this path only to let you off so easily? Of course not!

**Note:** A **Balancing Loop** is a sequence of interactions which attempt to bring two things to agreement. Any situation where one attempts to solve a problem or achieve a goal or objective is representative of a **Balancing Loop**. If you count the number of minus signs around the loop and if there is an odd number of minus signs then it's a **Balancing Loop**.

### Stress, Burnout & Effectiveness

The diagram in Fig. 2 is only valid if **things to do** is only somewhat greater than the **time available**. If **things to do** is far greater than the **time available** in which to accomplish them completing some of the **things to do** will neither reduce time pressure nor increase the **time available**. My experience indicates this is generally the case so where to go from here?



Fig. 3 - Stress, Burnout & Effectiveness

When the action taken doesn't reduce **things to do** and subsequently **time pressure** the most often opted for approach is to **work harder**. While this may resolve the situation, it is usually not likely to as **things to do** is far larger than can be accommodated with **work harder**. And, if one continues under this misguided **work harder** mental model for an extended time the result is generally **stress & burnout** which subtracts from effectiveness, actually resulting in more **things to do** because of rework. This situation creates the **Reinforcing Loop (R3)**. This is just one more instance of the best intentions leading one to where one least wants to be. The system wins! Always!

**Note:** A **Reinforcing Loop** is one in which the interactions are such that each action adds to the other. Any situation where action produces a result which promotes more of the same action is representative of a **Reinforcing Loop**. If you count the number of minus signs around the loop and there is an even number, or zero minus signs then it's a **Reinforcing Loop**.

### Personal Time

If the **work harder** approach doesn't provide an answer suppose we take another approach.

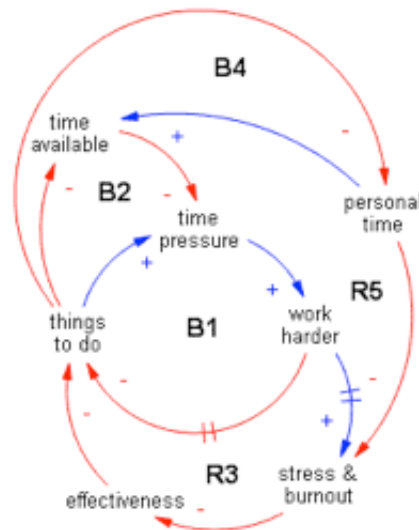


Fig. 4 - Personal Time

If one chooses to use **personal time** this will immediately increase **time available** for work and the sequence **personal time, time available, time pressure, work harder, things to do, personal time** forms the **Balancing Loop (B4)**. This approach is flawed because reducing personal time also has a tendency to increase **stress & burnout** so the system responds much as previously described. And, what makes it even worse is that the sequence **personal time, stress & burnout, effectiveness, things to do, personal time** forms a viscous **Reinforcing Loop (R5)**, acting to make things progressively worse. The more **personal time** you use the more **personal time** you will need to use.

### Time Management

And so in the midst of this dilemma Time Management comes to the rescue.

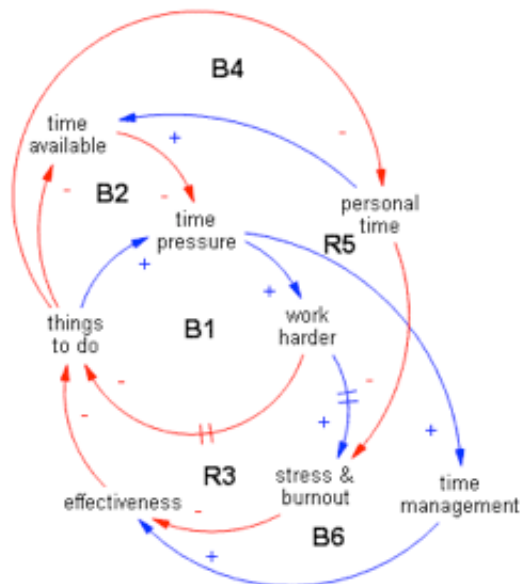


Fig. 5 - Time Management

The belief is that **time management** will improve **effectiveness** subsequently reducing **things to do** and therefore reducing **time pressure** thus creating **Balancing Loop (B6)**. This all seems to make complete sense, and the diagram works. So why is it that in real life it just doesn't seem to work this way? Why is it that **time management** doesn't seem to reduce **things to do** and subsequently **time pressure** allowing individuals to reclaim the precious and essential **personal time**?

### Belief Structure

The critical piece of this system I have been purposely avoiding is founded in a belief structure.

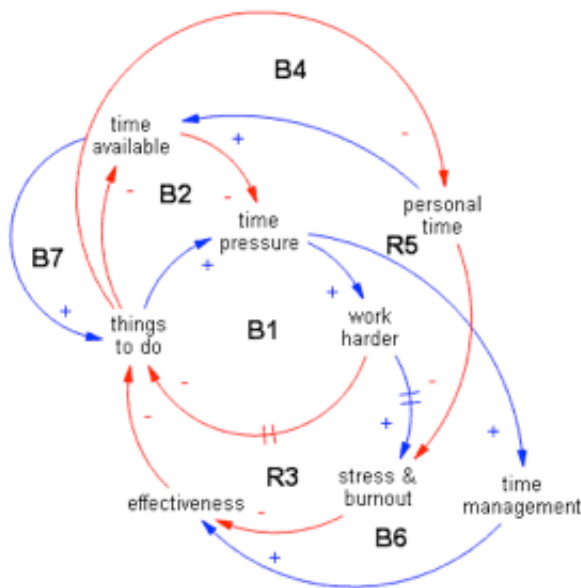


Fig. 6 - Belief Structure

What do you do when you have **time available**? Create **things to do** of course, which is depicted by the addition of the very viscous **Balancing Loop (B7)**. Since we can't conceive of having **time available** we in fact ensure that we have none. How could a person be earning their salary at work if they have **time available**. It is simply unthinkable. And if management believes you have **time available** it is quite certain they will attempt to ensure you don't have it for long.

So, what the real answer comes down to is, to have **time available**, you first have to believe that it's ok to have **time available** and actively identify things you can take out of the **things to do** category, or at least don't need to be done by you. I would expect this answer probably difficult to accept. All I can say is, **Been there! Done that!**

### References

- [Causal Loop Diagrams](#)

- [Balancing Loop Systems Archetype](#)
- [Reinforcing Loop Systems Archetype](#)
- [Ladder of Inference: Short Circuiting Reality](#)
- Diagrams created with [MapSys](#)
- [MapSys Diagram Source](#)

## Systems Engineering News

### Call For Papers: Requirements Engineering (RE) Journal

Special Issue On: Quality Requirements Engineering for Systems and Software Architecting: Methods, Approaches, and Tools

**Important Dates:**

Deadline for submission: 1 November 2010

Date of notification to authors (first round): 30 January 2011

**Guidelines for submitting manuscripts:**

<http://www.springer.com/computer/swe/journal/766>

### Upcoming Submission Deadlines and Themes for INSIGHT

INSIGHT is the newsletter of International Council on Systems Engineering. It is published four times per year (January, April, July, October). INSIGHT features status and information about INCOSE's technical work, local chapters, and committees and boards. Additionally, related events, editorials, book reviews, trends, and how-to-do articles that are pertinent to the many aspects of a systems engineer's job are also included, as space permits.

**Upcoming submission deadlines and themes for INSIGHT**

| Issue        | Submission Date for General Articles | Theme   | Theme Editor                     | Deadline for Theme Article Proposal* |
|--------------|--------------------------------------|---|----------------------------------|--------------------------------------|
| 2nd Qtr 2010 | 15 May 2010                          | The Best of Loughborough: Highlights from the Conference on Systems Engineering Research and SEANET | Roy Kalawsky and Ricardo Valerdi |                                      |
| 3rd Qtr 2010 | 8 Aug 2010**                         | 2010 International Symposium Coverage: Chicago, Illinois, USA                                       | Jack Stein                       | 11 Nov 2009                          |
| 4th Qtr 2010 | 15 Oct 2010                          | Systems Development from Deep Sea to Deep Space: Lessons from the Johns Hopkins Applied Physics Lab | Mike O'Driscoll and Sam Seymour  |                                      |
| 1st Qtr 2011 | 15 Feb 2011                          | Knowledge Management for Systems Engineering  | Regina Griego                    | 21 May 2010                          |

[More information](#)

### The 7th European Systems Engineering Conference (EuSEC) 2010

[EuSEC 2010 Newsletter 4, April 22, 2010](#)

### INCOSE Webinar: An Update on INCOSE Professional Certification and the New Expert Systems Engineering Professional (ESEP) Designation

Date: 19 May 2010

Time: 15:00 UTC / 11 AM EDT

Presenter(s): Dave Walden, CSEP-Acq and Eileen Arnold, ESEP-Acq

General Webinar Details: <http://www.incose.org/practice/webinars.aspx>

Abstract:

INCOSE established its Professional Certification Program to provide a formal method for recognizing the knowledge and experience of Systems Engineering professionals. This webinar will provide an update on the INCOSE certification program and an introduction to its Expert Systems Engineering Professional (ESEP) designation. David Walden, CSEP-Acq, INCOSE Certification Program Manager, will give a brief update on the INCOSE certification program. He will highlight some of the recent certification changes as well as some of the positive indicators related to the on-going growth and recognition of the program. Eileen Arnold, ESEPAcq, member and the immediate past Chair of the Certification Advisory Group (CAG), will provide an overview of the ESEP designation. The ESEP was introduced earlier this year and is targeted towards senior-level systems engineering leaders. She will describe the requirements for ESEP and go over the ESEP application process.

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## CALL FOR PAPERS: Requirements Engineering (RE) Journal Special Issue on Quality Requirements Engineering for Systems and Software Architecting: Methods, Approaches, and Tools

Guest Editors: Rafael Capilla, M. Ali Babar, Oscar Pastor

[More information](#)

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## INCOSE International Symposium Opens Registration (26 Apr 10)

[More information](#)

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## CALL FOR PAPERS: 22nd International Conference Software & Systems Engineering and their Applications ICSSEA 2010; Paris, 7-9 December 2010

Harnessing the Power and Promise of Distributed Software and Systems

[More information](#)

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## Featured Societies

### Requirements Engineering Specialist Group of the British Computer Society

The Requirements Engineering Specialist Group (RESG) of the British Computer Society welcomes members from, and organizes events for, practitioners, academics and students worldwide working in the field of requirements engineering. The RESG defines requirements engineering as the elicitation, definition, modelling, analysis, specification and validation of what is needed from a system. The RESG aims to provide a forum for interaction between the many disciplines involved in requirements engineering. Meetings of the RESG are held in a variety of locations in the UK, including London, Manchester, York and Edinburgh.

Opportunities to exchange experiences and new technologies are through a newsletter, website, workshops, seminars and tutorials on aspects of requirements engineering. These include, but are not restricted to:

- Requirements engineering case studies and experiences
- Requirements engineering standards
- Requirements engineering methods and environments
- Formal representation schemes and specification languages
- Descriptions of the requirements engineering process



- Requirements validation
- Requirements elicitation
- Requirements traceability
- Requirements metrics
- Requirements reuse
- Requirements prototyping
- Animation and execution of requirements
- Multiple viewpoints on requirements
- Non-functional requirements
- Acquisition of requirements through reverse engineering and re-engineering
- Domain modelling and analysis for requirements engineering
- Artificial intelligence techniques for requirements engineering
- Relevance of cognitive science and HCI for requirements engineering
- Requirements for the human-computer interface of computer systems
- Communication in group and co-operative work in requirements engineering
- Organisation modelling, including identification of stakeholders
- Political and cultural issues surrounding requirements engineering
- Philosophical and social underpinnings for requirements engineering.

The RESG website is a rich resource for interested professionals. Highlights include:

- the latest on events organised by the group.
- many speakers' slides can be found in the archive of past events.
- archive of the RESG's regular newsletter (Requirements Quarterly).
- links to pertinent RE resources on the web.
- an archive of articles on the topic of Requirements engineering.
- provision to subscribe to the RESG's latest news via RSS.

The RESG provides an email forwarding service to the requirements engineering community in the UK and worldwide. Calls for papers for RE-related conferences, workshops and special events are forwarded to the mailing list. Mailings also include reminders of coming RESG or related events and position openings for professionals in the RE field.

The RESG community also presents itself through its LinkedIn Group.

More information: <http://www.resq.org.uk/index.php/Welcome>

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## INCOSE Technical Operations

### Risk Management Working Group (RMWG)

<http://www.incose.org/practice/techactivities/wg/risk/>

#### Charter

Identify risk management tools and methods; plan activities to expand knowledge; share information; and interface with related functions.

#### Leadership

Chair: Jack Stein, Terumo Cardiovascular System Corp.

Contact [Risk Management Working Group](#) for additional information or to join this group.

#### Presentations

 [2008 International Workshop Risk Management WG Summary Presentation](#) Size: 200K

#### Accomplishments/Products

- **IS06 Risk Management Panel Session “Myriad Risk Management Standards”**

**Summary:** Panel Session held at the 2006 International Symposium in Orlando. Panel summary published in *INSIGHT* [October 2006 Volume 9 Issue 1 page 17](#). The following panelist slides and position papers were presented and discussed:

 [Technical Panel: Myriad Multiplying Risk Standards](#) - Jack Stein, Moderator (2.0m)

 [Presentation: Myriad Multiplying Risk Managements Standards](#) - Robert Charette (7.7m)

 [Position Paper: A Risk of Too Many Risk Standards?](#) - Robert Charette (46k)

 [Presentation: A Window of Opportunity for INCOSE: The Zeroth Order Risk Management Standard](#) - Mark Powell (487k)

 [Position Paper: A Window of Opportunity for INCOSE: The Zeroth Order Risk Management Standard](#) - Mark Powell (63k)

 [Presentation: The CMMI RSKM Process Area as a Risk Management Standard](#) - Ray Williams (1.7m)

 [Position Paper: The CMMI RSKM Process Area as a Risk Management Standard](#) - Ray Williams (188k)

 [Presentation: Ensuring Safety and Efficacy for Medical Devices Through ISO 14971](#) - Stan Mastrangelo (for Alfred Dolan) (9.4m)

 [Position Paper: Ensuring Safety and Efficacy through ISO 14971? Or "Much Ado about Nothing"?](#) - Alfred Dolan (32k)

 [Presentation: Why an INCOSE Systems Approach is Needed](#) - Dick Kitterman (2.8m)

 [Position Paper: Why an INCOSE Systems Approach is Needed](#) - Dick Kitterman (50k)

 [Presentation: A Path to Convergence of Risk Management Standards](#) - Garry Roedler (1.5m)

 [Position Paper: A Path to Convergence of Risk Management Standards](#) - Garry Roedler (47k)

- **Frequently Asked Questions (FAQs)**

**Summary:** Compiled a set of Frequently Asked Questions (FAQs) and responses relative to the risk management process; made available to interested users via the INCOSE Website and INCOSE *INSIGHT* publication.

- **Tenets of Risk Management**

**Summary:** Compiled a set of tenets of risk management. The tenets are the fundamental principles that drive the effectiveness and efficiency of the risk management process. They are those things that are invariant with time and application. They are simple and basic statements that are unambiguous.

- **Risk Management Bibliography**

**Summary:** Compiled a set of useful risk management references, include related websites and references available via the web.

- **RMWG Charter**

**Summary:** Developed RMWG Charter for INCOSE approval that gives the mission, goals, structure, responsibilities and processes of the group in order to ensure continuity of direction as the RMWG evolves over time.

- **RMWG Website**

**Summary:** Initiated a RMWG Website. Near-term objectives are content describing the RMWG, our goals and objectives, contacts and the results of the work done under projects defined to date. The original web page has been replaced by this page in standard INCOSE format.

- **INCOSE Publication with Risk Management Theme**

**Summary:** Acted as theme editor for [Volume 4, Issue 1](#) of the INCOSE *INSIGHT* publication dedicated to risk management papers developed by the RMWG. Note: those papers were presented at a symposium on risk management in the Hampton Roads area.

## Current Projects

- Organize Risk Management Panel Session “Cultural, Psychological and Motivational Factors in Risk Management” to be held at the 2007 IS in Dan Diego.
  - Monitor and assess RSKM standards, guides and other published material, making the results available to the INCOSE membership.
  - Update the risk management sections of the next revision of the INCOSE SE Handbook (V4.0).
  - Integration of LSE principles with RMWG work (e.g., Hdbk)
  - Strengthen communication with INCOSE members through the RMWG website, RMWG meeting and IW and IS events.
  - Re-establish a liaison with the INCOSE Measurement WG and Certification activities.
  - Establish liaisons with risk management activities outside INCOSE (e.g., ISO, IEC, Carnegie Mellon SEI and PMI).
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## Systems Engineering Software Tools News

### No Magic Announces the No Magic World Conference 2010

No Magic, Inc., announced that it is hosting the first Annual No Magic World Conference, on November 7-10, at the American Airlines Conference Center in Fort Worth, TX.

[More information](#)

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### No Magic Expands and Strengthens its Cameo Suite with Major New Product Releases

No Magic, Inc., announced the general availability release of MagicDraw® 16.8, as well as version 16.8 releases for Cameo Business Modeler, Cameo Data Modeler, SysML plug-in, UPDM plug-in, and Cameo MDA 16.8. The company also announced the release of the Cameo Simulation Toolkit (Alpha release).

[More information](#)

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### New in ParaMagic 16.6 SP1 - Solving Parametrics with OpenModelica

ParaMagic™ plugin is claimed to make MagicDraw SysML models come alive! Using the values and constraint relationships displayed in SysML parametric diagrams, model-builders can run simulations and trade studies for complex systems from concept through final test.

[More information](#)

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## Systems Engineering Books, Reports, Articles and Papers

### Maintenance and Reliability Best Practices



Ramesh Gulati (Author), Ricky Smith (Contributor)  
Industrial Press, Inc, April 15, 2009  
ISBN-10: 0831133112, ISBN-13: 978-0831133115

#### Product Description:

To manufacture quality products or provide services at competitive prices is essential to survive in today's business climate. We

are forced to look for better ways of doing things on continual basis. To meet customer s needs on their schedule requires (high) availability and reliability of equipment and systems when they are needed. In the maintenance and reliability (M&R) field, professionals are constantly challenged to implement the best way to ensure equipment is available as and when it is needed at a reasonable cost. These are called best practices. But it is not as simple as putting something into effect. To truly realize a best practice requires learning, re-learning, benchmarking and implementing better ways of ensuring high reliability and availability of equipment and systems.

Maintenance & Reliability Best Practices is designed to support that learning process. Written by professionals with 60 plus years of shop floor and management experience in a variety of industries, this practical resource will help seasoned professionals and novices understand the basic principles of maintenance and reliability. Written in an easy-to-read format, each chapter discusses the concepts with specific questions and answers. Each topic answers the what, why or how of the topic being presented. Understanding and implementing M&R practices in a cost-effective way is essential. This is perfect book for designers who design the equipment; operators who operate; and maintainers who maintain, as well as warehouse and store personnel who procure and supply materials; engineers who improve the reliability; and human resource professionals who provide and arrange for a work force. Students specializing in the M&R field will also benefit. More information

[More information](#)

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## Resilience and Ruggedness: Why Faster, Bigger and More Complex May Be Better

Alex Steffen, 10 Apr 10

“There's a really cool event happening in Berkeley today, Design 4 Resilience: Thriving in an Uncertain World. It's an open space, unconferency sort of show, not unlike the miniconference we held last weekend on how to rebuild Seattle as a carbon neutral.”.....

“I am really glad there are people revving up the conversation about resilience: it's an essential debate to have. That said, some things about the way resilience is being defined, framed and envisioned in some of discussions strike me as veering from the helpful. While I don't have time to offer a full-blown set of alternative solution-approaches, I thought a few ideas might be useful.”.....

[More information](#)

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## Social Modeling for Requirements Engineering (Cooperative Information Systems)

Eric Yu (Editor), Paolo Giorgini (Editor), Neil Maiden (Editor), John Mylopoulos (Editor)  
The MIT Press (January 31, 2011)  
ISBN-10: 0262240556, ISBN-13: 978-0262240550

### Product Description

Much of the difficulty in creating information technology systems that truly meet people's needs lies in the problem of pinning down system requirements. This book offers a new approach to the requirements challenge, based on modeling and analyzing the relationships among stakeholders. Although the importance of the system-environment relationship has long been recognized in the requirements engineering field, most requirements modeling techniques express the relationship in mechanistic and behavioral terms. This book describes a modeling approach (called the i\* framework) that conceives of software-based information systems as being situated in environments in which social actors relate to each other in terms of goals to be achieved, tasks to be performed, and resources to be furnished.

Social perspectives on computing have provided much insight for many years. The i\* framework aims to offer a modeling approach to the relationships embedded in computer systems that is part of an engineering method that offers systematic techniques and tools providing smooth linkages to the rest of the system development process, including system design and implementation. The book includes Eric Yu's original proposal for the i\* framework as well as research that applies, adapts, extends, or evaluates the social modeling concepts and approach.

[More information](#)

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## A Svstems Approach Makes for Successful Engineering. Saves Former Cornell

## Professor

By Anne Ju

“From leading Cornell's championship RoboCup team to founding a company that uses robots for moving warehoused goods, former Cornell professor Raffaello D'Andrea brings a systems engineering approach to every project.

That was the message he conveyed as keynote speaker at the Systems Engineering Forum, held April 7-8....”

[More information](#)

## Corporate Sigma: Optimizing the Health of Your Company with Systems Thinking



Anwar El-Homsi and Jeff L. Slutsky  
Productivity Press; 1 edition (December 21, 2009)  
ISBN-10: 1439803943, ISBN-13: 978-1439803943

### Product Description:

One study after the next shows that most employees are unhappy with their jobs and that less than a third actively engage with their work. That means that two out of every three are merely putting in their time, rather than maximizing productivity and attaining satisfaction. One could argue that such a malaise is the symptom of an unhealthy workforce.

Corporate Sigma: Optimizing the Health of Your Company with Systems Thinking shows you how to develop extraordinary competence in your employees. Your organization will function as a system capable of learning, adapting, developing, and growing according to the winning vision you set for it. Like Six Sigma, Corporate Sigma is a metric that assesses the quality or the health and wellness of an entire organization. But assessment is only the first step.

Providing you with distinctive tools that will transform your organization into a customer-driven, profitable, and continuous learning organization, this guide:

- Defines the roles that employees and managers should play in a healthy organization and the principles and values that will guide them
- Shows you how to build an inherent sense of purpose, possibility, and commitment in every employee
- Offers you the tools needed to link an entire organization and assess its effectiveness or wellness

Organized in self-contained sections, you can focus on what you believe needs direct attention, such as leadership, vision, or tools for lean improvement. However, once you start a healing journey, you are likely to discover the best cures are always holistic.

## Conferences and Meetings

### The First International Workshop on Dependable Services and Systems (IWODSS 2010)

May 17-18, 2010, Montreal, Quebec, Canada

[More information](#)

### The 2010 International Symposium on Collaborative Technologies and Systems (CTS 2010)

May 17-21, 2010, The Westin Lombard Yorktown Center, Chicago, Illinois, USA

[More information](#)

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### **Software Process Improvement and Capability Determination (SPICE) 2010**

18-20 May 2010 - Pisa, Italy

[More information](#)

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### **12th Annual NASA/ESA Product Data Exchange Workshop (PDE 2010)**

May 18-20, 2010, Norway

[More information](#)

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### **2010 Galorath International User Conference NEW**

May 19, 2010, Williams F1 Conference Centre, Grove, Oxfordshire, UK

[More information](#)

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### **EuSEC 2010: Systems Engineering and Innovation**

May 23 - 26, 2010, Stockholm, Sweden.

[More information](#)

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### **Siemens PLM Connection Americas 2010**

Gaylord Opryland, Nashville, TN, USA

May 24 – Thursday May 27, 2010

[More information](#)

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### **Agile Requirements 2010 NEW**

May 26, 2010, Telford, Shropshire, UK

[More information](#)

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### **XP2010 Workshop: Dealing With Usability in an Agile Domain**

June 1, 2010, Trondheim, Norway

[More information](#)

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### **3rd International Conference - From Research to Teaching Formal Methods: The B Method (TFM-B'10)**

June 7, 2010, Nantes, France

[More information](#)

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### **Exploring Modelling Methods for Systems Analysis and Design (EMMSAD 2010)**

In conjunction with CAiSE 2010

June 7-8, 2010, Hammamet, Tunisia

[More information](#)

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### **11th Workshop on Business Process Modeling, Development, and Support (BPMS'10)**

In conjunction with CAiSE 2010

June 7-8, 2010, Hammamet, Tunisia

[More information](#)

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### **Fourth International i\* Workshop - istar 2010**

In conjunction with CAiSE 2010

June 7-8, 2010, Hammamet, Tunisia

[More information](#)

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### **6th International Workshop on Enterprise & Organizational Modeling and Simulation (EOMAS 2010)**

In conjunction with CAiSE 2010

June 7-8, 2010, Hammamet, Tunisia

[More information](#)

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### **The 22nd International Conference on Advanced Information Systems Engineering (CAiSE'10)**

07-11 June 2010, Hammamet, Tunisia

[More information](#)

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### **21st IEEE International Symposium on Rapid System Prototyping**

June 8-11, 2010, George Mason University, Fairfax, Virginia, USA

[More information](#)

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### **2nd International Workshop on Future Trends of Model-Driven Development (FTMDD 2010)**

In conjunction with the 12th International Conference on Enterprise Information Systems (ICEIS 2010)

June 8 - 12, 2010, Funchal, Madeira - Portugal

[More information](#)

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### **2nd International Workshop on Advanced Enterprise Architecture and Repositories (AER 2010)**

June 8 - 12, 2010, Funchal, Madeira - Portugal

[More information](#)

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### **The Fourth IEEE International Conference on Secure Software Integration and Reliability Improvement (SSIRI 2010)**

June 9-11, 2010, Singapore

[More information](#)

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### **Model-Based Verification & Validation from Research to Practice**

2nd Workshop in conjunction with SSIRI 2010

June 9-11, 2010, Singapore

[More information](#)

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### **3rd Workshop on Model-based Testing in Practice**

June 15 - 16, 2010, Paris, France, in conjunction with ECMFA 2010

[More information](#)

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## **The Fifth Workshop "From code centric to model centric: Evaluating the effectiveness of MDD (C2M:EEMDD)"**

Held in conjunction with ECMFA 2010  
June 15 - 18, 2010, University Pierre & Marie Curie, Paris, France  
[More information](#)

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## **2nd International Workshop on Model-driven Product Line Engineering**

Held in conjunction with ECMFA 2010,  
June 15th-18th, 2010, University Pierre & Marie Curie, Paris, France  
[More information](#)

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## **6th European Conference on Modelling Foundations and Applications (ECMFA 2010)**

June 15-18, 2010, Paris, France  
[More information](#)

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## **3rd Workshop on Model-Driven Tool & Process Integration**

Held in conjunction with ECMFA 2010  
June 16, 2010, University Pierre & Marie Curie, Paris, France  
[More information](#)

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## **An Introduction to Requirements**

June 16, 2010, Cranfield University, Cranfield, Bedfordshire, UK  
More information

[http://www.resg.org.uk/index.php/An\\_Introduction\\_to\\_Requirements\\_2010](http://www.resg.org.uk/index.php/An_Introduction_to_Requirements_2010)

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## **117th Annual American Society for Engineering Education Conference**

June 20 - 23, 2010, Louisville, Kentucky, USA  
[More information](#)

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## **2nd International Workshop on Abstractions for Petri Nets and Other Models of Concurrency**

a satellite event of Petri Nets 2010  
June 21, 2010, Braga, Portugal  
[More information](#)

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## **International Workshop on Formalization of Modeling Languages**

Colocated with ECOOP 2010  
June 21 or 22, 2010 – Maribor, Slovenia  
[More information](#)

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## **31st International Conference on Application and Theory of Petri Nets and Other Models of Concurrency (PETRI NETS 2010)**

10th International Conference on Application of Concurrency to System Design (ACSD 2010)  
June 21-25, 2010, Braga, Portugal



[More information](#)

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## **PETRI NETS 2010**

June 21-25, 2010, Braga, Portugal

[More information](#)

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## **ACSD 2010: 10th International Conference on Application of Concurrency to System Design**

Collocated with Petri Nets 2010

June 21-25, 2010, Braga, Portugal

[More information](#)

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## **IEEE International Conference on Systems of Systems Engineering**

June 22 - 24, 2010, Henry Ford College, Loughborough University, UK

[More information](#)

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## **ISARCS 2010 - 1st International Symposium on Architecting Critical Systems Federated with CompArch 2010**

June 23-25 2010 Prague, Czech Republic

[More information](#)

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## **Conference on Systems Thinking & System Dynamics in the classroom**

June 26-28, 2010, Babson Conference Center, Wellesley, Massachusetts, USA

[More information](#)

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## **1st International Workshop on Collaborative Modeling & Simulation - CoMetS'10**

June 28 - 30, 2010, TEI of Larissa (Greece)

[More information](#)

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## **ICMT2010 - Intl. Conference on Model Transformation**

Co-located with TOOLS Europe 2010, ICSMP 2010, SEAFOOD 2010, TAP 2010

June 28-July 2 2010 - Malaga, Spain

[More information](#)

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## **1st Workshop "RE in Small Companies (RESC)"**

Held in conjunction with REFSQ 2010, Essen, Germany

June 29, 2010, Essen, Germany

[More information](#)

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## **CREARE - 1st Workshop on Creativity in Requirements Engineering**

Held in conjunction with REFSQ 2010, Essen, Germany

29th June 2010, in Essen, Germany

[More information](#)

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## First International Workshop on Product Line Requirements Engineering and Quality (PLREQ'10)

Held in conjunction with REFSQ 2010, Essen, Germany  
June 30, 2010, Essen, Germany

[More information](#)

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## 2nd International Workshop on Model Transformation with ATL

In conjunction with Tools 2010 Federated Conferences.  
June 30, 2010 - Malaga, Spain

[More information](#)

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## 16th International Working Conference on Requirements Engineering: Foundation for Software Quality (RefsQ 2010)

30 June – 2 July, 2010, Essen, Germany

[More information](#)

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## IV Brazilian e-Science Workshop

(in conjunction with CSBC 2010)  
July 2010, Belo Horizonte, MG, Brazil

[More information](#)

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## Transformation Tool Contest 2010

Satellite workshop to TOOLS 2010, 1 - 2 July, 2010, Malaga.

[More information](#)

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## 2010 International Conference on System Science and Engineering (ICSSE2010)

July 1-3, 2010, National Taipei University of Technology, Taipei, Taiwan

[More information](#)

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## 10th International Conference on Web Engineering

July 5 - 9, 2010 in Vienna, Austria

[More information](#)

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## Dutch Model Checking Day

Friday July 9, 2010, Eindhoven University of Technology

[More information](#)

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## Summer Computer Simulation Conference (SCSC 2010)

July 11–14, 2010, Ottawa, Canada

[More information](#)

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## 20th Annual INCOSE International Symposium (IS10)

11 - 15 July, 2010, Rosemont, IL, USA.

[More information](#)

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## **Eighth International Workshop on Dynamic Analysis (WODA 2010)**

Co-located with [ISSTA 2010](#)

July 12th or July 13th 2010, Trento, Italy

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## **4th ACM International Conference on Distributed Event-Based Systems (DEBS 2010)**

July 12-15, 2010, Cambridge, United Kingdom

[More information](#)

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## **4th IEEE International Workshop on Requirements Engineering For Services (REFS'10)**

In conjunction with COMPSAC 2010

Seoul, Korea, July 19 - 23, 2010

[More information](#)

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## **1st International Workshop on Complexity and Real World Applications Using the Tools and Concepts from the Complexity Sciences to Support Real World Decision-making Activities**

July 21-23, 2010, Southampton, England, UK

[More information](#)

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## **System Dynamics Society 2010 Conference**

July 25 – 29, 2010, Seoul, Korea

[More information](#)

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## **ECAI 2010 Workshop on Intelligent Engineering Techniques for Knowledge Bases**

Aug 16, 2010, Lisbon, Portugal

[More information](#)

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## **2nd International Workshop on Open Design Spaces (ODS 2010) - Socially Crafting Interactive Experiences**

in conjunction with DIS 2010

August 17 2010, Aarhus, Denmark

[More information](#)

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## **The 7th Annual INCOSE SA Conference**

August 17 - 19, 2010, CSIR International Convention Centre, Pretoria, South Africa

[More Information](#)

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## **The 2nd International Workshop on Enterprise Architecture Challenges and Responses**

To be held in conjunction with ICIS 2010

August 18 – 20, 2010, Yamagata University, Yonezawa, Japan

[More information](#)

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## **The Second International Conference on Advances in System Testing and Validation Lifecycle (VALID 2010)**

August 22-27, 2010 - Nice, France

[More information](#)

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### **Improving Systems and Software Engineering Conference (ISSEC 2010)**

23 - 26 August 2010

Brisbane Convention & Exhibition Centre, Brisbane, Australia

[More information](#)

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### **Workshop on Multi-Agent Systems and Simulation (MAS&S)**

August 30 – Sep 3, 2010, Lyon (France)

[More information](#)

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### **2nd International Workshop on Model-Driven User-Centric Design & Engineering (MDUCDE'10)**

September 1st & 2nd, 2010, Valenciennes/France

[More information](#)

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### **European Systems & Software Process Improvement and Innovation**

1-3 September 2010, Grenoble Institute of Technology, France

[More information](#)

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### **INTERACT 2011 - 13th IFIP TC13 Conference on Human-Computer Interaction**

September 05-09, 2011, Lisbon, Portugal.

[More information](#)

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### **3rd Workshop on Autonomic and SELF-adaptive Systems**

September 8, 2010, Valencia, Spain

[More information](#)

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### **1st International Workshop on Reuse in Business Process Management (rBPM 2010)**

September 13, 2010, Hoboken, New Jersey – USA

[More information](#)

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### **Modeling Business Information Systems (MoBIS 2010)**

September 15-17, 2010, Dresden, Germany

[More information](#)

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### **7th International Conference on Quantitative Evaluation of SysTems (QEST) 2010**

September 15 - 18, 2010, Williamsburg, Virginia, USA at the College of William & Mary, Computer Science Department,

[More information](#)

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### **First International Workshop on Evolution Support for Model-Based Development and Testing (EMDT2010)**

Co-located with the International Scientific Colloquium (IWK2010)

September 16, 2010, Ilmenau, Germany

[More information](#)

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### **15th International Workshop on Formal Methods for Industrial Critical Systems (FMICS 2010)**

September 20-21, 2010, Antwerp, Belgium

[More information](#)

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### **8th International Symposium on Automated Technology for Verification and Analysis (ATVA 2010)**

21-24 September 2010, Singapore

[More information](#)

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### **EPEW 2010: 7th European Performance Engineering Workshop**

University Residential Center of Bertinoro, Italy

23-24 September 2010

[More information](#)

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### **Challenges of Systems Engineering - International Workshop (RuSEC2010)**

September 23-24, 2010, Moscow, Russia

[More information](#)

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### **ACM International Conference on Design of Communication (SIGDOC'10)**

September 26-29, 2010, São Carlos - São Paulo - Brazil

[More information](#)

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### **Fourth IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2010)**



September 27-October 1, 2010, Budapest, Hungary

[More information](#)

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### **Workshop on Socio-Economics Inspiring Self-Managed Systems and Concepts (SEISMYC 2010)**



Located at SASO 2010

September 27th, 2010, Budapest, Hungary

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### **Doctoral Symposium @ RE2010**



September 27, 2010, Sydney, Australia

[More information](#)

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### **Third International Workshop on Managing Requirements Knowledge (MaRK'10)**



September 27, 2010, Sydney, Australia

[More information](#)

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## 54th Annual Meeting of the Human Factors and Ergonomics Society

September 27-October 1, 2010, San Francisco

[More information](#)

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## The 18th International Requirements Engineering Conference (RE 2010)

Sep 27, 2010 - Oct 1, 2010, Sydney, Australia

[More information](#)

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## Fourth IEEE International Conference on Self-Adaptive and Self-Organizing Systems (SASO 2010)

September 27-October 1, 2010, Budapest, Hungary

[More information](#)

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## Model-based Testing and Test Automation - From Research into Practice (MoTes2010)

September 27 – October 2, Leipzig, Germany

[More information](#)

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## Fifth International Conference on Graph Transformation

27 September - 2 October, 2010. University Of Twente, Enschede, The Netherlands

[More information](#)

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## 1st Workshop on The Web and Requirements Engineering (WeRE'10)

To be held in conjunction with the RE 2010 Joint Conference

September 28, 2010, Sydney, Australia

[More information](#)

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## 4th International Workshop on Graph Based Tools

A satellite event of ICGT'10

September 28th 2010, University of Twente, Enschede, The Netherlands

[More information](#)

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## PDMC 2010

### 9th International Workshop on Parallel and Distributed Methods in verifiCation

Joint with 2nd International Workshop on High Performance Computational Systems Biology (HiBi 2010)

September 30 - October 1, 2010, Twente, The Netherlands

Co-locating with

5th International Conference on Graph Transformation (ICGT 2010) , 29 September - 1 October, 2010

17th Annual workshop on Software Model Checking (SPIN 2010), 27 September - 29 September, 2010

[More information](#)

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## ACM/IEEE 13th International Conference on Model Driven Engineering Languages and Systems

October 3-8, 2010, Oslo, Norway

[More information](#)

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## Fourth Asia-Pacific Conference on Systems Engineering (APCOSE 2010)

4 - 6 October, 2010. Keelung, Taiwan.

[More information](#) | [Brochure](#)

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## 2010 izee User Conference

October 4-6, 2010, The Westin Providence, Providence, Rhode Island, USA

[More information](#)

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## IFM 2010: Integrated Formal Methods 8th International Conference

October 11 – 14, 2010, Nancy, France

[More information](#)

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## Sixth Nordic Conference on Human-Computer Interaction (NordiCHI 2010)

October 16 – 20, Reykjavik Iceland

[More information](#)

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## Dynamic Languages Symposium 2010

Co-located with SPLASH 2010

In cooperation with ACM SIGPLAN (PENDING)

October 18, 2010, Reno, Nevada, USA

[More information](#)

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## FMCAD 2010 - Formal Methods in Computer Aided Design

October 20 – 23, 2010, Lugano, Switzerland

[More information](#)

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## NDIA 13th Annual Systems Engineering Conference

October 25-28, 2010, Hyatt Regency Mission Bay, San Diego, CA, USA

[More information](#)

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## Requirements Days 2010

October 26 – 28, 2010, München, Germany

[More information](#)

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## 5th International Workshop on Enterprise Integration, Interoperability and Networking (EI2N'2010)



October 27-28, 2010, Hersonissou, Crete, Greece

[More information](#)

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## Complex Systems Design & Management 2010

October 27-29, 2010, Paris, France

[More Information](#)

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## 29th International Conference on Conceptual Modeling

1-4 November 2010, Vancouver, BC, Canada

[More information](#)

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## Seventh International Workshop on Web Information Systems Modeling (WISM 2010) NEW

(Held in conjunction with ER 2010)

November 1-4, 2010, Vancouver, BC, Canada

[More information](#)

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## 2010 IITA International Conference on Control, Automation and Systems Engineering (CASE 2010)

Nov 7, 2010 - Nov 8, 2010. Taipei, Taiwan

[More information](#)

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## Annual Systems Engineering Conference 2010 (ASEC10)

November 8-10, 2010, Heythrop Park Hotel, Chipping Norton, Oxfordshire, UK

[More information](#)

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## SEPG Latin America 2010

November 10-12, 2010, Medellín, Colombia

[More information](#)

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## 5th Trends in Enterprise Architecture Research (TEAR2010) workshop NEW

November 12, 2010 as part of the Enterprise Engineering Week at the Delft University of Technology, Delft, The Netherlands from the 9th of November to the 12th of November

[More information](#)

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## CMMI 10th Annual Technology Conference and User Group

November 15-18, 2010

Hyatt Regency Tech Center – Denver, Colorado, USA

[More information](#)

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## 22nd International Conference Software & Systems Engineering and their Applications (ICSSEA 2010) NEW

December 7-9, 2010, Paris, France

[More information](#)

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## ICISE 2010: International Conference on Intelligent Systems Engineering NEW

December 18, 2010, Bangkok, Thailand

[More information](#)

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## ICECSE 2011 "International Conference on Electrical, Computer and Systems Engineering"

January 25-27, 2011, Dubai, United Arab Emirates

[More information](#)



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## Education & Academia

### Studentship in Systems Engineering

Loughborough University - Optimised Selection of Aircrew Training Media for Future Operations

Loughborough University invites applications for a 3.5 year research studentship in the Department of Electronic and Electrical Engineering at Loughborough University, leading to the award of a PhD degree.

[More information](#)

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### Body of Knowledge and Curriculum to Advance Systems Engineering

BKCASE (pronounced "Bookcase") is the acronym for the Body of Knowledge and Curriculum to Advance Systems Engineering. The BKCASE project is led by a university partnership between the Stevens Institute of Technology and the Naval Postgraduate School. The project scope is to define a Systems Engineering Body of Knowledge (SE BoK) and use the SE BoK to develop an Advanced Graduate Reference Curriculum for Systems Engineering (GRCSE, pronounced "Gracie").

The ideal outcome is that the SE BoK will be supported worldwide by the Systems Engineering community as the authoritative BoK for the SE discipline and that the GRCSE will receive the same global recognition and serve as the authoritative guidance for graduate degree programs in SE. A leading group of systems engineers from across the world will volunteer as authors and reviewers on the project to collaborate over a three year period and deliver two quality products, the SE BoK and GRCSE, to the public in 2012.

[More information](#)

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### Systems Thinking and Organisational Change Research Group (Sytoc)

The University of Derby has recently started a Research group in Systems Thinking and Organisational Change. They are interested in researching the possible impacts of Systems Thinking on Organisational Change and Business Improvement within the public sector and would welcome the opportunity of engaging with practitioners to widen their expertise and knowledge.

[More information](#)

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## Some Systems Engineering-Relevant Websites

<http://www.semanticuniverse.com/group-blog-entry-bringing-together-systems-engineering-and-semantic-web.html>

This webpage makes the point that one area that is clearly missing in the current systems engineering landscape is the means by which information from the variety of tools and applications used in Systems Engineering can be integrated. Due to the distributed nature of Systems Engineering and the large, disparate datasets that SEs create, the use of Semantic Web technology solves many problems that other approaches find challenging. Built-in global identifiers are one example of the advantages that come from using Semantic Web standards. OWL and RDF provide a wide range of capabilities for modeling SE concepts and integrating data based on those concepts.

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<http://www.edevtech.com>

This website describes two SE products. inteGREAT Requirements Studio is an automated requirements developing platform that enables users to define, analyze, simulate and document requirements automatically for all SDLC Roles. inteGREAT Enterprise 2010 is said to be a complete solution to various complexities and hurdles businesses face for executing projects. inteGREAT Enterprise 2010 provides duplex integration with Visual Studio Team System, SharePoint, Word, Excel, Visio, Project and Expression Blend with Sketchflow.

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<http://www.acq.osd.mil/se/index.html>

The Office of the Director, Systems Engineering (DSE) is the focal point for all policy, practice, and procedural matters relating to Department of Defense Systems Engineering and its key elements to include technical risk management, software engineering, manufacturing and production, quality, standardization, and related disciplines.

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<http://www.derby.ac.uk/dbs/research>

Systems Thinking and Organisational Change Research Group (SytoC) - SytoC is a research group focusing on the service sector in both public and private organisations. SytoC conducts national and international research projects in systems thinking and organisational change.

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## Standards and Guides

### ISO 31000 and the Icelandic volcano crisis

The air traffic crisis provoked by the Icelandic volcano eruption, with its accompanying economic and societal effects, is analyzed through the lens of the ISO 31000 risk management standard in a new article just posted on ISO's Website.

[More information](#)

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### ISO/IEC JTC1/SC7 Plenary meeting

23–28, May 2010, Niigata, Japan

#### Host

Information Processing Society of Japan /Information Technology Standards Commission of Japan(IPSJ /ITSCJ)

#### Organizer

IPSJ /ITSCJ

Organizer contact: Jacky Takahashi at: [inq-sc7niigata@itsci.ipsj.or.jp](mailto:inq-sc7niigata@itsci.ipsj.or.jp)

#### Meeting Location

Toki Messe Niigata Convention Center

Address: 6-1, Bandai-jima, Niigata-city, 950-0078, Japan

**Web:** <http://www.tokimesse.com/english/>

[More Information](#)

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## Some Definitions to Close On

### Risk

**Risk:** a possibility of meeting danger or suffering harm

*Source: Oxford English Dictionary*

**Risk:** the product of the probability of a hazard resulting in an adverse event, times the severity of the event

*Source: Occupational Health & Safety Advisory Services (OHSAS) and many others*

**Risk:** Effect of uncertainty on objectives

Source: ISO 31000:2009, "Risk management — Vocabulary"

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## Project Performance International News

### PPI Offers Huge, Expanded Version of its Systems Engineering Goldmine

The Systems Engineering Goldmine (SEG) is a searchable archive of project-related documents – reports, papers standards, models, etc, offered **free** by PPI as a contribution to the projects community. The contains a wealth of reference information relevant primarily to the engineering of systems. The resource is intended for use by clients and friends of Project Performance International (PPI) together with clients and friends of subsidiary company Certification Training International Pty. Ltd. (CTI).

A totally rebuilt, hugely expanded version of the SEG has just gone live. Each document in the SEG now has a corresponding description page, containing metadata about the document. Apart from name and document identifier, this data may include date, source, keywords, abstract or extract, and possibly other data. Site document description page content is searchable overall, and in the sub-categories of systems engineering, software engineering, project management, and acquisition. An extensive library of standards is included within the searchable document set. For clients of PPI, and to some degree other subscribers, many of the documents are downloadable. In a small number of cases, e.g. IEEE standards, ISO standards, recent OMG documents, the metadata is included and a link provided to the relevant webpage of the document owner from which the document may be downloaded or purchased. This is new functionality.

As a service to the projects community, the metadata for documents may be navigated by unregistered visitors to the site.

The SE Goldmine now also provides, for Registered Users, a huge, searchable glossary of systems engineering-relevant definitions, and other definitions relevant to projects work. Other new search categories include Methodologies, Organizations, Publishers, People and Journals. The functionality of the site is now highly integrated, to facilitate research.

We expect the content of the SE Goldmine to continue to increase over time – content is increasing daily as about 2800 additional documents are indexed and abstracted.

More information: <http://segoldmine.ppi-int.com/>

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### PPI Presents at CSIR, South Africa

PPI Managing Director Robert Halligan addressed the Council for Scientific and Industrial Research (CSIR) in South Africa on the subject "The Application of Systems Engineering in a Research Environment", on 20 May 2010. CSIR is one of the leading scientific and technology research, development and implementation organizations in Africa. The organization undertakes directed research and development for socio-economic growth.

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### CTI Launches Website

Certification Training International (CTI) was established in 2008 as a subsidiary of Project Performance International (PPI). CTI's goal is to become the industry leader in providing preparation and certification training to the world's systems engineering and project management professionals, just as our parent company Project Performance International has already achieved in the field of systems engineering. CTI currently offers public certification training in the United States of America, South Africa and The Netherlands. On-Site training is offered worldwide.

CTI offers a CSEP (Certified Systems Engineering Professional) Preparatory 4-Day Course focused on passing the CSEP examination conducted by INCOSE. CSEP based on the Systems Engineering Handbook V3.1 and V3.2 are both accommodated by this course. CTI also expects to offer certification training in the PRINCE2® project management methodology later this year. More about this soon.

More generally, CTI aims to equip you with the knowledge and information to comfortably sit certification examinations. Our training stands out as having been scientifically designed to this end, employing leading edge adult learning principles and techniques to assist delegates to absorb and recall the information needed in the fastest possible way.

CTI has been a member of the Corporate Advisory Board of the International Council on Systems Engineering (INCOSE) since 2008, sitting alongside other industry leaders in influencing the direction of systems engineering.

Visit: <http://www.certificationtraining-int.com>

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## PPI Offers an OCD & CONOPS Course in Bristol, UK

PPI has scheduled it's first OCD & CONOPS in Capability Development 5-Day course and workshop in the United Kingdom.

The course will be held in Bristol over 15 -19 November, 2010 at the Avon Gorge Hotel, Sion Hill, Clifton.

[Course Brochure](#) | [Registration Form](#) | [Register Online](#)

Contact: [registrations@ppi-int.com](mailto:registrations@ppi-int.com)

[More information](#)

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## Project Performance International Events

### Systems Engineering 5-Day Courses

Upcoming locations include:

- Adelaide, Australia
- Wellington, New Zealand
- Melbourne, Australia
- Las Vegas, USA
- São José dos Campos, Brazil
- Rio de Janeiro, Brazil
- Stellenbosch, South Africa
- London, UK

[View 2010/2011 Systems Engineering Course Schedule](#)

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### Requirements Analysis and Specification Writing 5-Day Courses

Upcoming locations include:

- Las Vegas, USA
- Amsterdam, The Netherlands
- Stellenbosch, South Africa
- Adelaide, Australia

[View 2010/2011 RA&SW Course Schedule](#)

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### OCD/CONOPS 5-Day Courses

Upcoming locations include:

- Pretoria, South Africa
- Adelaide, Australia
- Bristol, UK
- Las Vegas, USA

[View 2010/2011 OCD/CONOPS Course Schedule](#)

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### Software Engineering 5-Day Courses

Upcoming locations include:

- Melbourne, Australia
- Pretoria, South Africa
- Las Vegas, USA

[View 2010/2011 Software Engineering Course Schedule](#)

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## Cognitive Systems Engineering 5-Day Courses

Upcoming locations include:

- Melbourne, Australia
- London, UK
- Las Vegas, USA
- Adelaide, Australia

[View 2010/2011 Cognitive Systems Engineering Course Schedule](#)

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## PPI Upcoming Participation in Professional Conferences

- May 23 - 26, 2010 - **EuSEC 2010** - Stockholm, Sweden (Sponsor)
  - July 12 - 15, 2010 - **INCOSE International Symposium 2010 (IS10)** - Chicago, IL, USA (Sponsor/Exhibiting)
  - August 17-19, 2010 - **INCOSE SA Annual Conference 2010** - Pretoria, Gauteng, South Africa (Sponsor/Exhibiting)
  - September 23-24, 2010 - **RuSEC 2010** - Moscow, Russia (Exhibiting)
- 

Kind regards from the SyEN team:

**Robert Halligan**, Managing Editor, email: [rhalligan@ppi-int.com](mailto:rhalligan@ppi-int.com)

**Alwyn Smit**, Editor, email: [asmit@ppi-int.com](mailto:asmit@ppi-int.com)

**Luke Simpson**, Production, email: [lsimpson@ppi-int.com](mailto:lsimpson@ppi-int.com)

Project Performance International  
PO Box 2385, Ringwood, Vic 3134 Australia  
Tel: +61 3 9876 7345  
Fax: +61 3 9876 2664  
Web: [www.ppi-int.com](http://www.ppi-int.com)  
Email: [contact@ppi-int.com](mailto:contact@ppi-int.com)

Tell us what you think of SyEN: email to [contact@ppi-int.com](mailto:contact@ppi-int.com)

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