



Mission Statement: Meeting the array of needs for the established IT professional while seeking to develop the IT profession and provide a service to our community and society.

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NEWSLETTER INFORMATION

Published nine times per year (September – June) by the Minnesota Information Professional Society. We welcome materials for publication (articles, news or letters). Submit materials on disk or via email to:

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NOTE MEETING INFORMATION

MEETING PLACE:
Holiday Inn – Bloomington
35W at 94th St.
Phone (952) 884-8211

Meeting Times:

5:00 PM Social Hour
6:00 PM Buffet Dinner
6:45 PM Meeting & Program
8:00 PM Adjourn

For a Dinner and Program Reservation, send email to: reservations@mnips.org

no later than 5 pm on
Thursday, Nov. 16

\$28 Members
\$33 Non-members

Meeting NOTICE

Tuesday, Nov. 21, 2006

Minnesota Information Professional Society

Note: The MnIPS Networking Event has been indefinitely suspended.

Dinner Topic:
“Web Services Architecture & Testability”
Speaker:
Tom Igielski

SPEAKER TOPIC

This presentation will overview the structure of Web Services, an increasingly popular technology for B2B and B2C implementation that allows businesses to communicate data without detailed knowledge of each others' systems. Tom will give a roadmap to the constituent alphabet soup of XML, SOAP, WSDL, and UDDI. He will then discuss his experiences with the difficult challenge of trying to validate correctness and measure performance for Web Services implementations. When normal operation is multi-server, with asynchronous processing of very high volume bursts of messages and no user interface, how can

you construct a valid system test before you "go live" with your fingers crossed?

SPEAKER PROFILE

Tom Igielski has over 20+ years of experience with all aspects of the software development lifecycle, most of it managing infrastructure and quality assurance for large, multi-divisional companies. Tom has managed enterprise Quality Assurance Program implementations with a special focus on using automated tools to do functional, regression, and load testing. Tom holds a B.S. in Chemistry from Loyola University (Chicago), and an MBA from the University of St. Thomas (St. Paul). He taught at the University of St. Thomas as an Adjunct Professor for 8 years in the Graduate Programs in Software program, in the areas of automated tools, database management systems and software process / quality assurance.

Tom is currently the owner and principal of The Thomas Consulting Group, Inc., a Twin Cities-based company that specializes in Quality Assurance, Automated Testing, Software Development Process and Application Performance Management. He routinely consults with clients in the selection, training

and review of outsourced work activities in the areas of Quality Assurance and Software Testing.

President's Letter

Greetings MnIPS friends!

We who were able to attend last month's dinner meeting enjoyed a presentation from Gary Cagle on Agile software methodologies. I certainly gained information and resource material from his talk on a subject I had little experience with; please refer to the summary elsewhere in the newsletter.

In this seasonal transition time, MnIPS seems to also be experiencing some transition. First, we are looking for an Education Seminar committee chair for next spring's event and additional committee members. We have several returning members and other knowledgeable people to tap for experience and would also like additional people to join in the planning fun. As it turns out, Hamline University is no longer able to provide conference space because of shortage of rooms for teaching, so we will have to find a new site for the event also.

Secondly, in interest of making MnIPS' events the best and most beneficial to the organization that they can be, we are re-evaluating the Golf Outing event. While all attending have enjoyed it in the past, various reasons have prevented it from being the fund-

raiser that it had been and is hoped to be every year. These have included unfortunate weather, possibly the day of the week the event was held and the relationship with the chosen course, plus other issues.

To ensure financial benefit to the organization, the board is creating a list of criteria for holding the event in the future, likely to include financial viability and project management, possibly using a Request For Proposal (RFP) format. We are open to considering coordinating this event with another organizations' golf outing also. For those interested in more information or in sharing their ideas, please contact me.

Next up for MnIPS' events is Tom Igielski speaking on Web Services Architecture and Testability at the November 21 monthly dinner meeting. I look forward to hearing his presentation and seeing many of you there.

– Chris Retkwa,
MnIPS President
president@mnips.org

Agile Methodologies: Solution or Revolution?

(Summary of the Oct. 2006 dinner topic presented and written by Gary Cagle of Simacor)

'Agile', currently the hottest of adjectives for software development methodologies was the topic of the October 2006 MnIPS dinner meeting. Gary Cagle of

Simacor presented an overview of principles behind some of the better-known Agile methodologies.

The fundamental principles shared by agile methodologists are [online](http://agilemanifesto.org/principles.html) (<http://agilemanifesto.org/principles.html>). Some are quoted below but they have a common foundation. Many are deeply rooted in the notion that even other iterative, incremental approaches like RUP have underestimated the unpredictable nature of many aspects of software development, and therefore the risk control options available during the software development process have been misconstrued. Developing software has much in common with driving a car – constant attention by the driver is needed to safely move forward. A favorite agile source, *Process Dynamics, Modeling, and Control*, distinguishes such 'empirical' from 'defined' processes where theory is generally sufficient to keep detailed plans in statistical bounds.

When the nature of the challenge is not understood, resources can be wasted in trying to spend *money-for-information* (MFI) vs *money-for-flexibility* (MFF) according to Allistair Cockburn (<http://www.stsc.hill.af.mil/crosstalk/2002/10/cockburn.html>) in an article on agile methodologies for the Journal of Defense Software Engineering. This aspect of the agile approach gives it an edginess that puts it in opposition to RUP. The heaviness of RUP and most earlier methodologies

can be tracked to: (1) excessive documentation in the front end of development initiatives, (2) unrealistically efforts to get requirements pinned down early, and (3) heavy-handed change-control to try to avoid the cost of rework. This characterizes an MFI approach where many resources are spent trying to define and hold requirements early.

Indeed, a study by Jim Johnson of the Standish Group found that almost 2/3 of the delivered functionality is rarely or never used when a serial approach to requirements elicitation and documentation is taken on ‘successful’ IT projects! This indicates MFI options are taken where MFF may have been better. Money will be spent; however, the nature of many business challenges suggests that investment in downstream flexibility may be the best approach to control risk. One of the landmark agile books, *Extreme Programming Explained, Embrace Change* by Kent Beck stresses the need for a positive, planned approach to change. Developers are well aware that the understanding and articulation of what the client wants improves as the software base expands. But it is nature of a MFI approach to resist change to justify its own cost. Agile methods focus on the notion that MFF investment is sometimes the better risk control option.

When the ‘U’ for ‘unified’ was put in UML and RUP, three gurus exploited their agreement. When the agile manifesto was

signed, 17 experts agreed on a list of principles! Naturally there is even more room for confusion, and it is important to note that there is a legitimate difference in methodologies that call themselves agile. A list of agile methodologies is available at the Agile Alliance website (<http://agilealliance.org/resources/roadmap>). These include XP (extreme programming), Scrum, Feature Driven Development, and Crystal. Details on each are available at their web sites. Here is a closer look at the methodologies and some of agile manifesto principles.

‘Extreme’ comes from the notion of cranking good practices like customer interaction, code review, unit testing, design review, code quality, and frequent builds to the extreme position – on-site customer, pair programming/designing, test-first coding for automated unit testing, ‘continuous’ building – all practices which are characteristic of extreme programming. Its distinctive features are best approached through Beck’s book although the web has several relevant summaries available through the alliance including <http://www.extremeprogramming.org/rules.html>. Agile principles apply to all, but principles especially in tune with this perspective include:

- “Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

- Business people and developers must work together daily throughout the project.
- Working software is the primary measure of progress.
- Continuous attention to technical excellence and good design enhances agility.”

Scrum is the name of simple, streamlined project management for agile development. It features a clear prescription for communication frequency and purpose, and its stress on self-organizing teams keeps its focus above the level of coding methods – this makes it highly compatible with XP or other prescriptions for developers. Additional agile principles often stressed in this perspective include:

- “Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
- The best architectures, requirements, and designs emerge from self-organizing teams.

Scrum is meant to scale unlike XP, which characterized itself as fit for small-medium teams. For more information on Scrum, <http://www.controlchaos.com> and <http://jeffsutherland.org/scrum>

Feature Driven Development is aimed at larger processes and seems less agile as a result. In particular, FDD views an object-oriented model of the business domain as a primary artifact and a major guide and control of the process. Many other agilists

would make the code itself the only continuously changing expression of requirements. In addition, there are role specific responsibilities for areas of code, unlike XP. What makes it agile? Principles everyone can agree on are a basic commitment to frequent visibility of effort through iterations, as expressed in this principle:

- “Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.”

Crystal is a family of agile approaches from Alistair Cockburn

that recognize the variability of projects and people. He is also the source of the MFI/MFF distinction. He stresses the constraints of project size and dimensions of variability. This leads to the need for different process detail— hence the Crystal family. The larger the project and the more risk, the greater the investment in process vs. software. Agile principles that remind me most of Cockburn include:

- “At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.”

- The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

So, agile is not just one thing – it is literally an alliance of different approaches which share many of the same principles. I invite you to check out the web sites above for more information

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