



NEWSLETTER INFORMATION

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

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NOTE MEETING INFORMATION

MEETING PLACE:
Holiday Inn – Bloomington
35W at 94th
Phone (612) 884-8211

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

For Reservation Call:

John Belich
by September 14th

and choose: Walleye or
Chicken Kiev

Tel: (651) 634-1440
or e-E-mail:
john.belich@tech-pro.com

\$20 Members
\$25 for non-members

Dinner Meeting NOTICE Tuesday, September 18, 2001

Minnesota Information Professional Society

Speakers Topic:
**“Project Management:
Rapid Deployment
Projects”**

Speaker:
Tim Stenerson

Topic Information

The revolution of the IT industry, brought on by the rapid change of technologies, changing consumer expectations, and changing business strategies is challenging the tried and true methods of delivering results. How we manage projects in today’s environment has changed dramatically, and must continue to evolve for the IT divisions of companies to remain successful. Even the very measures of success, applied to projects in the past, are changing.

The toolkits used by Project Managers; Methodologies, Project Plans, Communication Plans, Risk Mitigation, Budget Controls, etc. are evolving as well. This discussion will look at what has worked in rapid deployment projects, what changes need to be

made in order to be successful, and what the future may hold for Project Management.

Speaker Profile

Tim Stenerson is the Practice Leader for the Management Consulting Practice of Harbinger Partners, a Twin Cities based, employee owned, consulting firm specializing in Project Management, Enterprise Application Development, Business Intelligence and Data Warehousing. Tim has more than 10 years experience in managing projects, both from a Business and IT perspective. This experience includes the industries of Banking, Brokerage, Health Care, Retail and most recently a dot com start-up company. Through these experiences he has learned to adapt formal methodologies into organizations and create successful plans to deliver technical solutions to accomplish business strategies. These experiences have provided the basis for this discussion. Tim has been an active member of the Project Management Institute since 1994 and will be sitting for the PMP exam in 2001.

President’s Letter

September is here and it’s “BACK TO SCHOOL” time

with MnIPS! After a warm summer, we are back in session with monthly seminar meetings (with dinner and networking) from September through May, excluding December. We always meet the 3rd Tuesday during 5-8pm at the Bloomington Holiday Inn (I-35W and 94th Street). Our first meeting this fall is Tuesday, September 18. The MnIPS education committee is hosting an all-day seminar on Wednesday, November 7, called "The Future of CRM". Krisan Partridge and Joe Perzel are coordinating this event, at Metropolitan State University. Please look for their article in this issue or in a separate mailing soon for more information.

Thanks to all of you who golfed in our annual tournament on Monday, 18 June 2001. Jeff Hemauer and his group of MnIPS volunteers did a super job of handling the golf course logistics, dinner and prize allocations for 200 entrants. I hope that most of you can make our tournament next year, most likely on Monday, June 17. Even if you don't golf, feel free to join us for dinner or just to volunteer on the committee.

We hope to finalize our slate of MnIPS board candidates at the September 18th. We will accept nominations for MnIPS' 2001-02 officers (namely President, V.P., Secretary and Treasurer) that will be elected by the October 15 meeting. We are also looking for a regular attendee at our monthly dinner meetings to register people. The time commitment would be 5:00-6:00pm

on the 3rd Tuesday from September to May, except for December. If you want to be an officer or if you can regularly help at the dinner meetings, please call me at 651-707-0523.

We also welcome ideas from you that can improve our organization. If you can assist us this year in any capacity please let me or any board members (that are listed on the back page) know.

I look forward to hearing our September 18th speaker, Tim Stenerson of Harbinger Partners, whose topic will be "E-commerce Project Management". Thanks again to our May 15th guest host, Richard Voyles, from the University of Minnesota, who presented "Nano-Technology Robotics" (or better known as "Cool Robots and What They Do"). For a summary of Richard's talk, please read the regular meeting review column in this newsletter.

I hope to see all of you at the September 18th meeting!

--Dennis Cummings, MnIPS President

These Guys Don't Cost You an Arm and a Leg – They Save Them!

(May 2001 MnIPS meeting review, written by Dennis Cummings)

Dr. Richard Voyles was the featured presenter at the Minnesota Information Professional Society's monthly dinner

meeting held on May 15, 2001. Dr. Richard Voyles received the B.S. in Electrical Engineering from Purdue University in 1983, the M.S. in Manufacturing Systems Engineering from the Department of Mechanical Engineering at Stanford University in 1989, and the Ph.D. in Robotics from the School of Computer Science at Carnegie Mellon University in 1997. He is an Assistant Professor in the Department of Computer Science and Engineering at the University of Minnesota but will be on leave this summer to work at Avanti Optics, a telecommunications manufacturing startup. Dr. Voyles' research interests are in the areas of miniature, constrained robots; microassembly; mobile manipulation; programming by human demonstration; skill-based approaches to robot programming; and haptic sensors and actuators.

Robots have been around for decades but they seem to have faded from our consciousness. Except for the occasional spark-throwing robot in a car commercial, the hype of several years ago has all but disappeared. Have robots reached the limits of technology? This talk provided a broad tour of robots in research, as opposed to robots in industry. From miniature surveillance robots for the military, to child-like humanoid robots that learn, to medical robots that perform surgery on humans, there are a variety of experiments underway in research labs around the world bringing robots in touch with humans. We started by examining the chal-

lenges of robotics and how these advanced applications provide meaningful solutions.

When very young kids think of robots, they recall the Jetsons' maid (Rosie) on the Cartoon Network. Older kids are intrigued by the Battle-Bots on the Comedy Central channel. The movie industry gave us C3PO, R2D2 and Robo-Cop. While this is a nice start, Dr. Voyles is actually interested in real and helpful robots that are used in auto manufacturing, detonating bombs, and salvaging Titanic's treasures from the ocean floor. He began by defining what a robot is. Webster's dictionary initially defines a robot as a mechanism guided by automatic controls. It also defines it as a device that automatically performs complicated, often repetitive, task. Finally, its third lengthy definition shows a machine that looks like a human being and performs various complex acts (such as walking and talking) of a human being. Sometimes, even a fictional machine similar to the earlier wording.

Those lines help us visualize a robot, but what is its "working definition" so that we can keep up after the first hour in Science class? All robots have 3 essential ingredients:

1. Perception – to sense the world around them.
2. Cognition – to react to what was perceived (see #1).
3. Manipulation – using its perception and cognition to affect the world.

That's easy to understand, but how does one put it into practice? As a teaser, Dr. Voyles showed a video of his robotic "Scouts & Rangers" and a "Terminator-Bot" (which actually crawls over things" at the University of Minnesota lab. We must address the following concerns while building each robot:

1. Control – mechanism, sensors and actuators.
2. Kinematics – where do I put in an arm? Do I use....
 - a. Serial Chains – joints in a line (arm).or....
 - b. Parallel Chains – joints everywhere (hand).
3. Dynamics – how will it move if I push it?
4. Programming – how do I make it move and when?
5. Path Planning – how do I have the robot avoid (or "crawl over") objects in its way?

Dr. Voyles' "Terminator-Bot" drew the most attention of the group. Like cartoon watching, everyone marvels at it...but can I build or even program this thing? No problemo, senor! All you need to construct is:

1. Arms for both manipulation and locomotion by dragging itself.
2. Make sure that its two 3-DoF arms that stow inside body.
3. Develop controls for 2-fingered, 6-D manipulation.

4. Create 4 locomotion gait classes:
 - a. "Swimming" gaits (like moving across sandy surfaces).
 - b. Narrow passage gait (or walking in places no wider than body).
 - c. "Bumpy wheel" rolling gait (such as "crawling over" obstacles).
 - d. Dynamic rolling gait (i.e., speeding on the "open road").

So get out there and construct those robots! Have them take out the trash and paint the garage for me when they get done mowing the lawn....right, Toro? Am I asking too much? If you wish to learn more about Dr. Voyles or The University of Minnesota's Robotics Center, please contact him by email at "voyles@cs.umn.edu"

SIG ADA

Twin Cities SIGAda invites you to a meeting on Tuesday, October 2nd, featuring David Hardin, Chief Technology Officer of aJile Systems, Inc.. David is speaking on gaining software reliability through hardware virtual machines for high-level languages such as Java and Ada. We think that this is an excellent opportunity for you to learn more about hardware-software design and implementation.

For information view SIG ADA URL: www.tcsigada.org

MnIPS Officers 2001

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DINNER MEETING

Tuesday, September 18, 2001 – 5-8PM

TOPIC

**“Project Management: Rapid
Deployment Projects”**

NOTE: Meeting Location

Holiday Inn Bloomington
35W & 94th (1201 W. 94th St.)

**“AFTER A VIRUS HIT,
GETTING A PC TO
WORK PROPERLY IS NO
MORE COMPLICATED
THAN BUILDING A
SKYSCRAPER FROM
GARBAGE USING ONLY
A TWEEZER!”**



by Earl C. Joseph