

23rd International Conference on Software Engineering

Westin Harbour Castle Hotel
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Toronto, Ontario, Canada

ICSE 2001 Window on the World

<http://www.csr.uvic.ca/icse2001/wow/>

Welcome to the Window-On-the-World^(ME) Newsletter, eh!

Following the tradition of WOW, we will do our best to provide you with a mixed salad of fresh news, snappy reports, crunchy opinions, and wonderful pictures garnished with some spicy cartoons. WOW has always been produced by volunteers only – most of them being students. The core of this year's WOW team consists of nine members. This group is part of over 40 students coming from eight countries who volunteered to help with the organization of ICSE 2001. We have had the chance of working with this group for three days now, and we are delighted to have such an able, enthusiastic, and

resourceful team. Unique experiences and stories grow like vines through each of the past WOW volumes. WOW alumni will confirm that being on the team was one of the most fun and intense experiences in their lives as graduate students. Another important ingredient of WOW has been contributions from other conference attendees; we've received several already and we look forward to many more. Just remember, keep it fresh, snappy, and crunchy.

— Anke, Jens, and Mike

So long, and thanks for all the fun

Douglas Adams, the British author of "The Hitchhiker's Guide to the Galaxy" science-fiction series, died Friday of an apparent heart attack while working out at a gym. He was 49, seven years past the meaning of life.

What accounts for his popularity among computer scientists and software engineers? Attendees at the ICSE 2001 conference in Toronto offered their insights.

According to Jef Raskin, "He was off the wall; anyone who would answer the question, 'How does it feel to be drunk?' with 'Ask a glass of water' appeals to the twisted hacker mind." Nick Mitchell adds, "He was a computer geek himself, a Mac fanatic with a big presence on Usenet, and a game programmer. He asks grand questions and leaves the answers to the wind."

"Science fiction deals with technology and the future; his subject matter and sense of humour appeal to us," states Eva van Emden. "Science

fiction becomes reality, and he made fun of the future," asserts Ralph Miarka. Thomas Olsson echoes, "He was a computer scientist himself, so he was making fun of himself."

'How does it feel to be drunk?'
'Ask a glass of water.'

Perhaps the most comprehensive response came from Mike Moshell, a professor of Computer Science at the University of Central Florida in Orlando. "His spirit of whimsy appeals to the Internet culture. In his keynote address at SIGGRAPH '98 he talked about translating his books into games, and said 'The problem with my books is that they have no plot.' Adams believed that the limitations of a medium spur creativity; his aphorism was 'We have to make the most of our limitations while we still have them.'

— John Linebarger

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WOW Wants You!

We want your ideas, opinion, and comments. We're in the beautiful Vice Regal Suite (South Tower, room 3523). Come on in!

WOW! A Contest!

Read all about it on the last page!

WOW Contact

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Weather Forecast

Today

A mix of sun and cloud. High near 17, although it is usually cooler near the lake. Probability of precipitation 10 percent.

Tomorrow

Cloudy with sunny periods. Low near 8. High near 19.

The Streets of Toronto

ICSE 2001 is located at the foot of Yonge St., on the north shore of Lake Ontario. When you step out of the hotel, the entire city of Toronto is before you, with the west side on your left and the east side on your right (east/west street numbers start at Yonge St., which is the longest street in the world). The largest free-standing building in the world, the CN Tower, is less than a mile away in a north-westerly direction.

Toronto.com lists 77 pubs/bars/restaurants with patios that are within a one-mile radius of the CN Tower — which means that they're all within two miles of where you presently stand. Today we're going to stroll through the entertainment district, where most of these establishments are located.

The intersection to your left is Bay St., and if you pop around the corner (i.e. heading north), you'll see an entrance to the subway. Public transit in Toronto is run by the Toronto Transit Commission (TTC) in a safe, clean, and relatively efficient manner. You

may want to spend the \$2 to take the subway to St. Andrew station on King St. West to avoid walking under the Gardiner Expressway, but I would continue north on foot. The first major street that you'll come to is Front St., and the train station (Union station) is on your left. There are many pubs and restaurants within walking distance both east and west of you, but we're going to head west today because I'm more familiar with that area. A block west of Bay St., you'll find University Ave., and if you head north one more block to King you'll meet up with the people who took the subway to St Andrew station.

Now you're just a few steps east of Roy Thomson Hall, home of the Toronto Symphony Orchestra, which is on the south side of King Street. Just before it, on the north side, is the Royal Alexandra Theatre where the musical "Mama Mia" is currently playing. Now you have a choice: head north on Duncan St., or continue west along King St.. If you keep along King St., you'll pass The Princess of Wales Theatre where "The Lion King" musical is showing, and eventually come to The Mockingbird at #580, which is a renovated warehouse space with billiards and a good selection of single malt scotch. If you head north on Duncan St., you'll soon get to Adelaide and see Dirk Gently's on the north west corner, which is my friend Erik's favourite pub.

Continuing west on Adelaide St., the next street north is John st.. My favourite place, Smokeless Joe's, is in a basement on the east side of the street. Joe, the proprietor, usually introduces himself at the door, and forbids smoking in his cozy establishment. His motto is "drink less, drink better," and his beer menu is a book with over 250 different



selections from around the world. Speaking of smoking, it is entirely legal to purchase Cuban cigars in Canada —interestingly, both

Jimmy Carter and Fidel Castro were honorary pall bearers at our former prime minister Pierre Trudeau's funeral last year.

A block north of Joe's, on the other side of the street, you'll find the Friar & Firkin, which is part of a chain of pubs. They also have a larger location called the Flatiron & Firkin that is closer to the conference hotel, on Wellington St. East. You're now at the corner of Queen St. and John St., in the shadow of the CityTV/MuchMusic building. If you continue north on John St., you'll bump into a park at the south end of the Art Gallery of Ontario, which we'll visit tomorrow. City Hall and the Eaton Centre are east of you, at Yonge St., but we're going to continue west today. Around Peter St. there's a juice bar on the north side called Juice For Life. There are plenty of places to go if you keep walking west on Queen St., including the Cameron House, where the next episode of Michael Hollingsworth's satirical history of Canada is playing.

Turning south on Peter St., you'll find yourself staring at the CN Tower and the SkyDome (the world's first baseball stadium with a retractable roof; Montreal built such a stadium for the 1976 Olympics, but the roof has never worked). En route to these two Freudian engineering feats, you'll pass Fez Batik (a funky bar/restaurant), Wayne Gretzky's massive sports bar, and the Second City comedy club. From the top of the tower you can see the mist of Niagara Falls when looking south across the lake, and a panoramic view of the city in every other direction. On your way back to the hotel, you can stop by the Steam Whistle Brewery at 255 Bremmer Blvd., which is the street on the south side of the tower.

— Derek Rayside

Infos, Contacts, Web

- **The Mockingbird**,
580 King St W, 416-504-3081
- **Dirk Gently's**,
244 Adelaide St W, 416-599-9030
- **Smokeless Joe's**,
125 John St, 416-591-2221
- **Friar & Firkin**,
160 John St, 416-340-9459
- **Flatiron & Firkin**,
49 Wellington St E, 416-362-3444
- **Art Gallery of Ontario**,
317 Dundas St W, 416-979-6648,
www.ago.net
- **Juice For Life**,
336 Queen St W, 416-599-4442
- **Cameron House**,
408 Queen St W, 416-703-1725
- **Fez Batik**, 129 Peter St, 416-204-9660
- **Wayne Gretzky's**, 99 Blue Jays Way
(Peter St), 416-979-PUCK
- **Second City**, 56 Blue Jay's Way (Peter
St), 416-872-1212
- **Niagara Falls**: see the concierge for
information about day tours
- **Steam Whistle Brewery**,
255 Bremmer Blvd, 416-362-2337



Looking down the CN Tower

Friday Night Fight: XP vs. CMM

Product or Process? Extreme or Mature?
Coding or Documentation?

This characterization may be a cartoon—most organizations intentionally fall somewhere in between—but the methodologies of Extreme Programming (XP) and the Capability Maturity Model (CMM) represent one of the Great Debates in the field of Software Engineering. In one corner is Kent Beck, the originator of the Extreme Programming concept and the author of its recent manifesto, *Extreme Programming Explained: Embrace Change*. In the other corner is the Software Engineering Institute (SEI), housed at the august Carnegie-Mellon University in Pittsburgh, PA, USA and sponsored by the US Department of Defense. Its wisdom is distilled into the “little Blue Book,” *The Capability Maturity Model: Guidelines for Improving the Software Process*.

XP proponents often ask the question,

“Do you want to code or do you just want to write about code?” CMM adherents retort, “Get off your horse, software cowboy—without a process your bytes have more bugs than brains.”

Many people view XP as an undisciplined approach to software development. Like other engineering disciplines, CMM devotees claim that the most reliable way to repeat high-quality results is to refine the development process through documentation and quantifiable feedback. Advocates of XP, however, claim that the XP approach is better able to develop products that are primarily driven by customer feedback, which typically have underdefined or rapidly changing requirements.

At ICSE 2001 the CMM is not directly represented, although Workshop W13 on component certification (Monday and Tuesday) is cut from the same SEI cloth.

IWPC 2001



Ric Holt, General Chair IWPC

About 90 people participated in the 9th International Workshop on Program Comprehension (IWPC) on

Saturday and Sunday. IWPC has evolved into a vigorous forum for researchers and practitioners to push forward and coordinate activities in the area of program comprehension and software analysis.

IWPC had 2 keynotes, 28 refereed paper presentations, 3 working sessions on critical topics and trends in program comprehension, as well as a tools demonstration session. Participants came from 15 countries, underscoring the international relevance of the topic and the community. Ric Holt of the University of Waterloo was general chair, while Andrea De Lucia of the University of Sannio and Kostas Kontogiannis of the University of Waterloo were program co-chairs. After pushing the frontiers of knowledge during the day, participants enjoyed a 3-hour harbour cruise and banquet on Saturday evening.

Keynotes by Keith Bennett of the University of Durham and Dewayne Perry of the University of Texas each provided a focus to

the paper session. Keith Bennett argued that program comprehension represents a central activity for software engineering and he outlined the role of program comprehension in the staged model of maintenance that he and Vaclav Rajlich have recently developed. Dewayne Perry focused on how software architecture can be used as a tool for system and component comprehension. These themes served as beacons throughout the paper and working sessions. The paper sessions were organized around the topics of design recovery, program transformation, data flow analysis, software architecture recovery, tools, techniques and experimental studies. The program enabled participants to focus on different aspects of program comprehension and the talks often served as a springboard for extended discussions.

At the conclusion, Francoise Balmas, who is general chair for IWPC 2002, presented a high-level design, as well as a detailed representation of Paris, which will be the venue for next year's workshop, from June 27-29. She also introduced the program co-chairs, Mark Harman of Brunel University, UK and Ettore Merlo of Ecole Polytechnique de Montreal, Canada.

— Dennis Smith

Session S6:

“Practical Software Engineering Education” (Wednesday) also resonates with echoes of CMM. An Extreme Programming Case Study will be presented Session S31: “Applications of New Paradigms in Software Development” (Thursday).

What have been your experiences with Extreme Programming and CMM? Any success stories or horror stories to report? Please buttonhole a member of the WOW Press and give them an earful. We'll be publishing selected responses in a later issue.

—John M. Linebarger and Nigamanth Sridhar

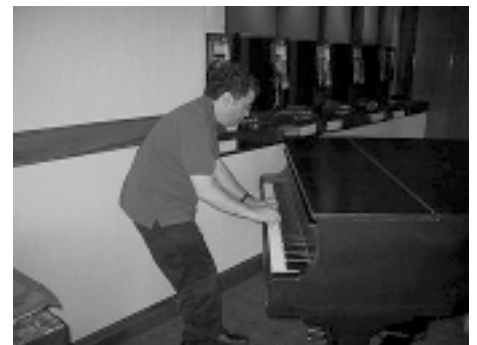
Visit the WOW web page for additional links about Extreme Programming.



Burn Your Muffins I

We all know that traveling can wreak havoc on us physically; this column will suggest some fun activities to stay healthy while at ICSE. In this first installment, we focus on what is available at and around the hotel. Aside from the on-site gym and pool, there is also a great network of trails along the waterfront – heading both east and west. These trails are paved, making them ideal for walking, cycling, or in-line skating. For those more interested in seeing the city, downtown is only a short walk north. There is a lot to see and do in Toronto, and one of the best ways to explore it is also one of the healthiest – walking.

— Ross McKegney



Toronto—An Insider's Guide

Long-time Torontonians (aka Trannonites) can tell you the city is chock full of distinctive locales that only the locals know about. Having lived in Toronto all my life—well, working on this Ph.D. does seem like a lifetime—I'm going to share some of these secrets. First, there's a place called the CN Tower. It's pretty easy to miss, especially if you're not facing the right way. Being the world's tallest free-standing monument to Nortel, you can home in on it using your cell phone or beaver tail. When you get there, take the 2¹⁰ or so stairs to the top. If you're insane, take the high-speed "nose-bleed" Willy Wonka glass elevator. Don't say I didn't warn you when the blubber-gum chewing attendant starts laughing maniacally for the whole ride. At the top, one thing you might just want to do is check out the nice view. The view itself is free (as in liberty, not beer), so you do need to pay \$20 for that right. Toward the lakeshore, you might see the Westin hotel and other software engineering

celebrities and magnates. Wave to them. Look out south, squint, and you just might see Niagara Falls, another hidden marvel of the area. Well, distances in Canada, being metric, always seem farther than they appear. The Falls are maybe only two days away by dogsled. If time is of the essence—and what in the Net Age isn't—I'd suggest a web cam. Otherwise, take (as in drive, not steal) a car. When you get there, you'll notice there are actually two waterfalls. The ten-times more bigger and louder one is on the Canadian side. The other more serene and gentle one next to it is on the American side of the border. Go *figure*. I guess Canada lucked out in the great coin toss that ended the War of 1812. The big falls are called, imaginatively, Niagara Falls, Canadian side. The locals have strangely called it Horse-shoe Falls, but I don't see any falling horseshoes. Well, I'm sure someone's

going to demand a fully independent public inquiry on this one. Typical, eh?

— Stan Disclaimer



EHCI 2001: Pushing the Envelope of Human-Computer Interaction

EHCI (Engineering for Human-Computer Interaction) is the 8th in a series of triennial conferences dating back to 1974 concerned with aspects of software engineering in human-computer interaction. The conference is organized by the members of IFIP WC 2.7 (<http://www.tls.cena.fr/guestroom/ifipwg2.7/>), and ran May 11-13, just before the bulk of ICSE. This year was the first time that the conference has been coupled with ICSE and we are really pleased with the results, the turnout, and the level of enthusiasm! Over the three days we had

three interesting and provocative keynote talks from David Carlan (CMU; "Distraction Free Ubiquitous Computing"), Saul Greenberg (U. of Calgary; "Supporting Casual Interaction Between Intimate Collaborators"), and Jef Raskin (the creator of the Macintosh; "Turning the Art of Interface Design into Engineering").

Our 21 technical presentations centered around mobility, multi-modal interaction, 3D/virtual environments, user interface plasticity, notations for describing interactive systems, toolkits, and evaluation. We ran the

conference "workshop-style", so after each paper we allocated a generous amount of time for discussion, and that really knit the group together.

The conference was so successful that we are considering doing it every two years in the future!

— Rick Kazmann



Grape Expectations: Book I

"It was the best of vines; it was the worst of vines." This Dickensian dictum can be applied to the Ontario wine industry. Ontario produces its share of jug wines, which are best consumed exactly as they are produced—in large quantities. However, Ontario is also gaining recognition on the world stage as a producer of fine varietal wines, particularly the dessert wines known as "ice wines." Most of the fine wines in Ontario are produced in the Niagara region. South of Hamilton, winery signs appear along the QEW (Queen Elizabeth Way) with increasing frequency and mark the Ontario Wine Route. Local wine retailer David Sherwood recommends three wineries for the quality of their tours (Inniskillen, Chateau des Charmes, and Pelee Island) and three wineries for the quality of their tastings (Inniskillen again, Hernder Estate, and Hildebrandt). All are listed on the winery tour map "Wine Regions of Ontario," which is available at the conference hotel concierge desk.

Ontario produces a diverse selection of wines. Some are drinkers, some are thinkers; the fun part is exploring the landscape and enjoying what the region has to offer. In future issues we'll review Ontario's red, white, and dessert wines.

— John M. Linebarger and Nigamanth Sridhar

For more wine advice visit the WOW web page!

Student Volunteers at Work



An Interview with Paul Sorenson, the Tutorial Co-Chair



What does it take to have a tutorial accepted?

The tutorial committee reviews the submissions and generally looks for several things: the overall quality of what's been proposed, the parent organization of the submission, the experience of the presenter. There is also our perception of what is "going to sell" at the conference, and we have to avoid having too many in any one area. We want a

good coverage of what we believe are current, interesting topics.

Do you know how many people attended the tutorials?

No, I don't have the final total. Generally, we've done well. The break-even point is somewhere between ten and fifteen attendees per tutorial, and most of our tutorials are a bit over fifteen.

Do you know what was the most popular tutorial?

"Describing Software Architecture with UML," by Kruchten, Selic, and Kozaczynsky of Rational, with I think 52 attendees.

Any final comments or secrets you would like to share with the next year's chairs to make the tutorials run as smoothly as they did this year?

Well, overall I think it's been quite a bit of fun, particularly when we got here, because I think the overall organizing committee has done such a good job. I should also mention and thank the student volunteers. Having the whole thing set up and staying on top of what's required when you arrive is, I think, the key to having it run smoothly.

— Davor Cubranic

4th Workshop on SE over the Internet

The workshop brought together researchers and practitioners to debate the challenges faced by the increasing number of organizations that develop software in distributed environments. The Internet is seen as instrumental in enabling such enterprises. As one of the organizers, Frank Maurer, noted: "You need the Internet or you cannot do distributed software development". Presentations and lively discussions at the workshop focused on distributed inspections of software, requirements negotiations, process models and architectures for collaborations in distributed development environments.

The evolution of Internet-based technologies is impressive. Previous workshops featured emerging technologies still under research and development. Now, four years later, some are being used by industry. Technology transfer, however, remains a challenge. Process tools are being developed but we are still to see their adaptation

and integration in industry practices.

In fact, the issue of technology *exchange* is particularly critical. Researchers need to understand industry's key problems and identify not only technology solutions, but also their potential business value. Thus, the next challenge is the use of empirical research (e.g. field studies) to identify the *needs* and to gather evidence of what works and what does not work in virtual development enterprises.

— Daniela Daiman



Things Your Advisor Never Told You

Ten doctoral students from universities in several different countries (including Austria, Germany, Spain, the U.K., Canada and the United States) gathered Monday for the doctoral symposium at ICSE. They were chosen from a number of applicants. Armed with a research proposal and some initial results each had the opportunity to present the problems they are working on and their plan for tackling them to a distinguished panel of six professors (chaired by Mary Lou Soffa) who scrutinized their research and their presentation skills. But an inquisition it was not. There was a higher purpose to it all. The students benefited from the insights and experience of the panel. Interesting directions, applications of the work, or potential pitfalls of the research came out in the comments. Interspersed within the presentations were general discussions on important topics such as publishing papers, relations with faculty advisors, and the – sometimes dreaded – strategies for finishing, along with any other questions the students may have had.

— Garry Froehlich

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WOW! A Contest!

Software Engineers love creating and recreating acronyms. For example, the received view is that the Ada language is named after Lady Ada Lovelace, but those of us in the loop know that it really stands for Another Damn Acronym!

We want to keep you “acronyming” while you are away from work at ICSE. So here’s the challenge:

Come up with a software-engineering expansion for TORONTO

And win a bottle of Ontario wine suggested by WOW's resident wine experts, and a cool ICSE T-shirt

Be courageous! Be creative! Submit early, and submit often! Contest entries can be dropped off in the WOW contest drop-boxes at the registration, with the WOW reporters during the receptions, or come by the WOW pressroom in the Vice Regal Suite (3523, South Tower).



The Doctoral Symposium at a view



Don't Miss the New SE Faculty Symposium

To not come would be a career faux pas of monumental proportions!



Social events this evening

Exhibits open at 5:45 pm @Pier 2 & 3
Reception at 7:00 pm @Harbour Ballroom

The evening program today starts off with the closing session of the David L. Parnas Symposium and the opening of the exhibits. A reception, sponsored by ACD Systems, follows. All conference attendees have received one complimentary drink ticket in their registration package. Food served will be Mexican tapas-style items, while entertainment for the evening will be provided by a magician performing his tricks among the attendees.

—Davor Cubranic

