

# A thirty seven year journey in software engineering with Vic Basili



By Marvin  
Zelkowitz

I've known Vic a long time



Well, maybe not that long!



Vic joined the  
Computer  
Science Center  
of the University  
of Maryland in  
August of 1970

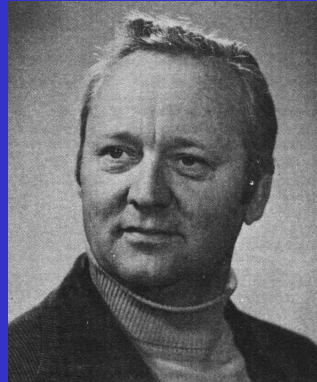
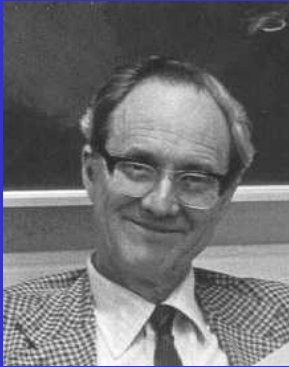
# Important individuals in his career



Professor Bill  
Atchison  
hired Vic into  
the Computer  
Science  
Center in  
1970

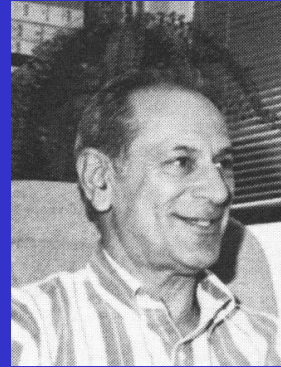
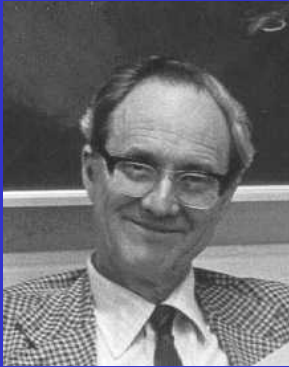


# Important individuals in his career



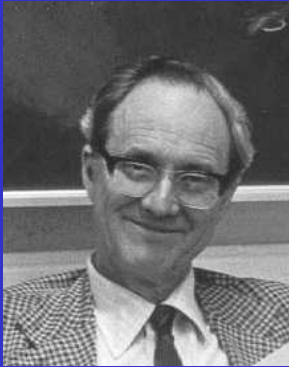
Professor  
Werner  
Rheinboldt was an  
early mentor in  
programming  
language research  
in the early  
1970s

# Important individuals in his career



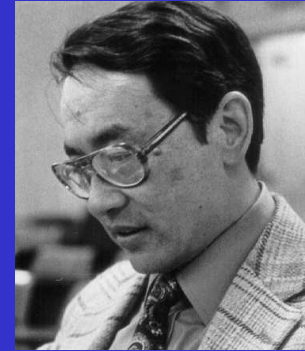
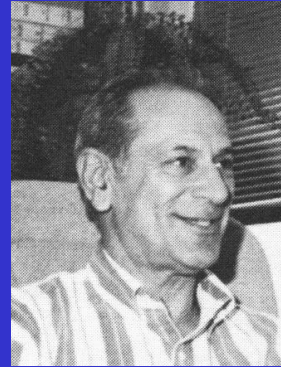
Professor  
Jack Minker  
was first  
chairman of  
the Computer  
Science  
Department  
in 1973

# Important individuals in his career



Professor Ray  
Yeh knew Vic as  
a graduate  
student at the  
University of  
Texas and came  
to Maryland as  
Chairman in  
1979

# Important individuals in his career

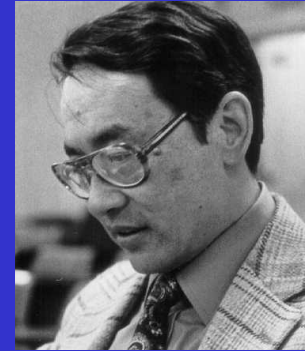
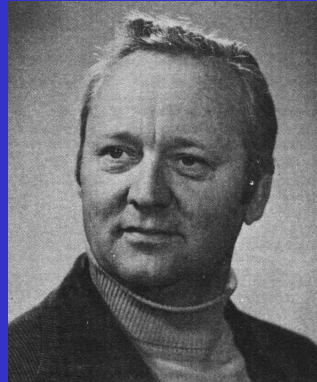
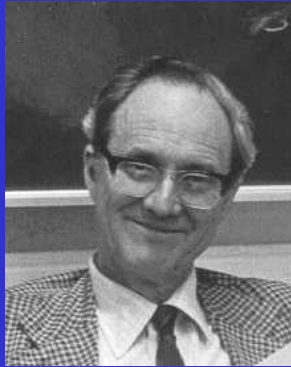


Dr. Harlan Mills shaped  
many of Vic's ideas in  
formal methods in the  
early 1980s

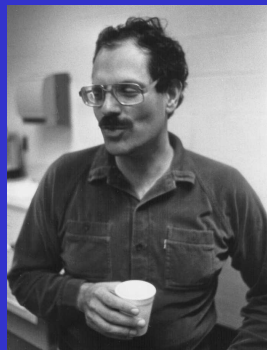




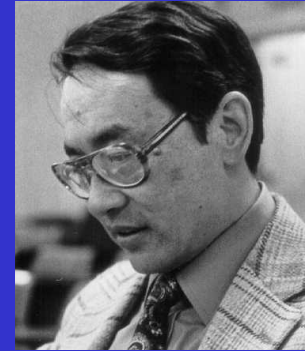
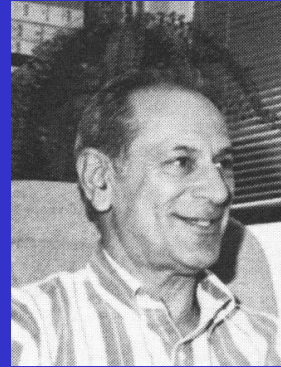
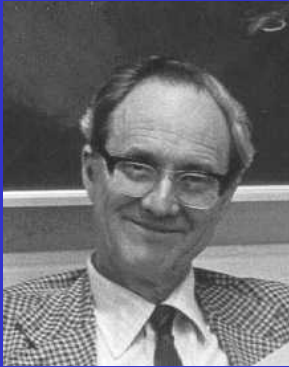
# Important individuals in his career



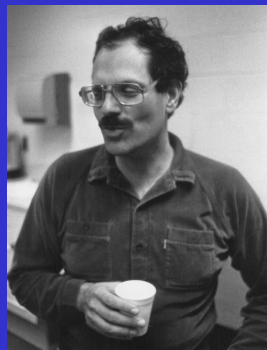
I worked with him on  
empirical research for  
the past 32 years



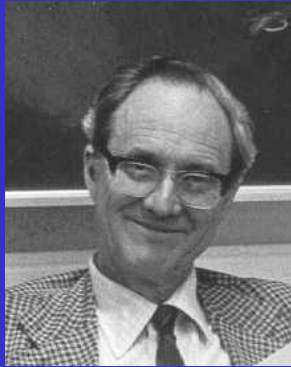
# Important individuals in his career



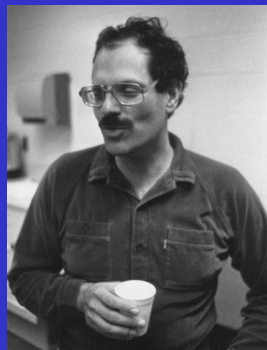
Professor Dieter Rombach  
worked with him for 10 years  
at Maryland and was later his  
"boss" at Fraunhofer



# Important individuals in his career



Professor Pat Basili  
has been his lifelong  
companion on his  
journeys





Early software engineering collaboration  
between us in 1970s.

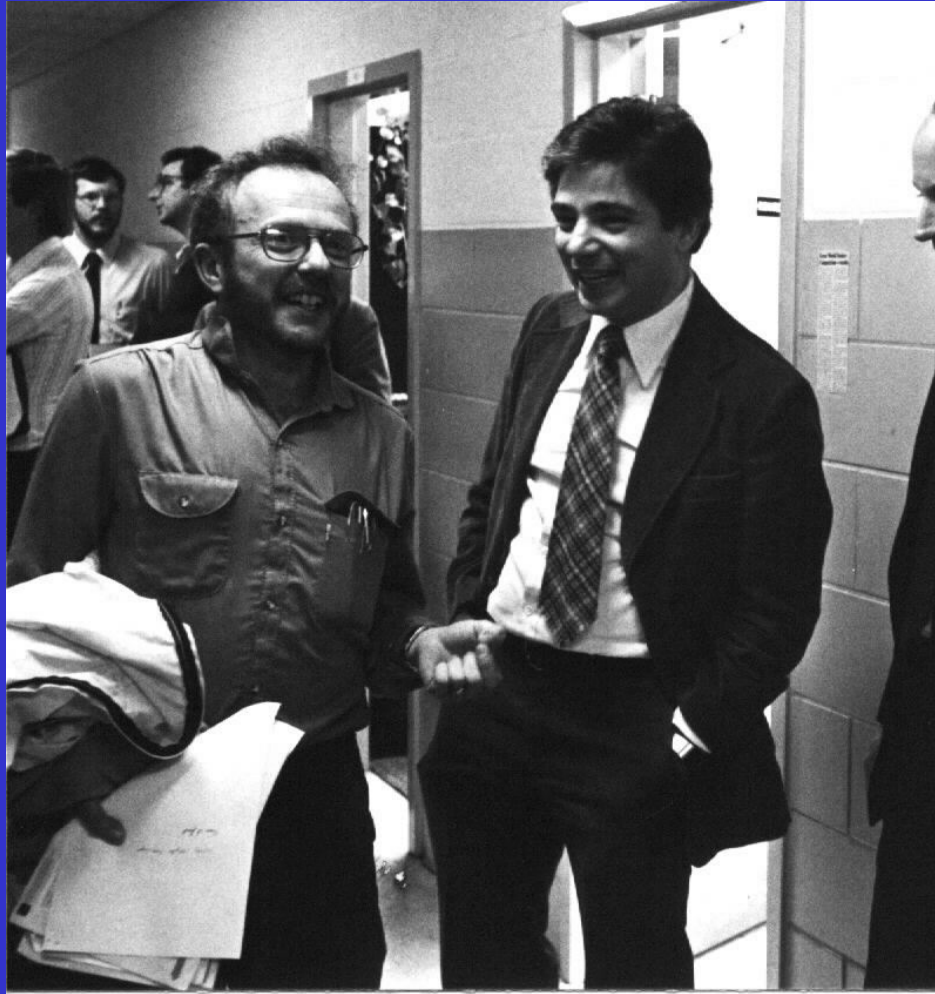




Many of Vic's ideas grew out of our research at  
the NASA Software Engineering Laboratory -  
1976-2002



SEL directors: Jerry Page, Frank McGarry,  
Marv, Rose Pajerski, Vic, Sharon Waligora



With Dave Parnas in 1981 – a frequent collaborator during late 1970s



# Software engineering faculty from mid-1970s to late 1980s



Professors MarkWeiser, Vic Basili, John Gannon, Marv Zelkowitz.



For most of the 1980s, Vic and Professor Amrit Goel of Syracuse University organized the Software Performance Workshop at SU's Minnowbrook Lodge in New York State.





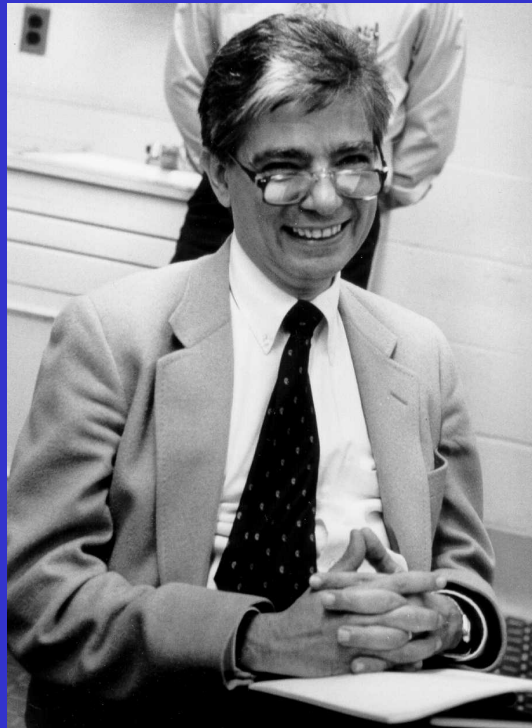
It was here that Vic said his most quotable line: "It is not the university's role to be a leader in education."

Explanation □

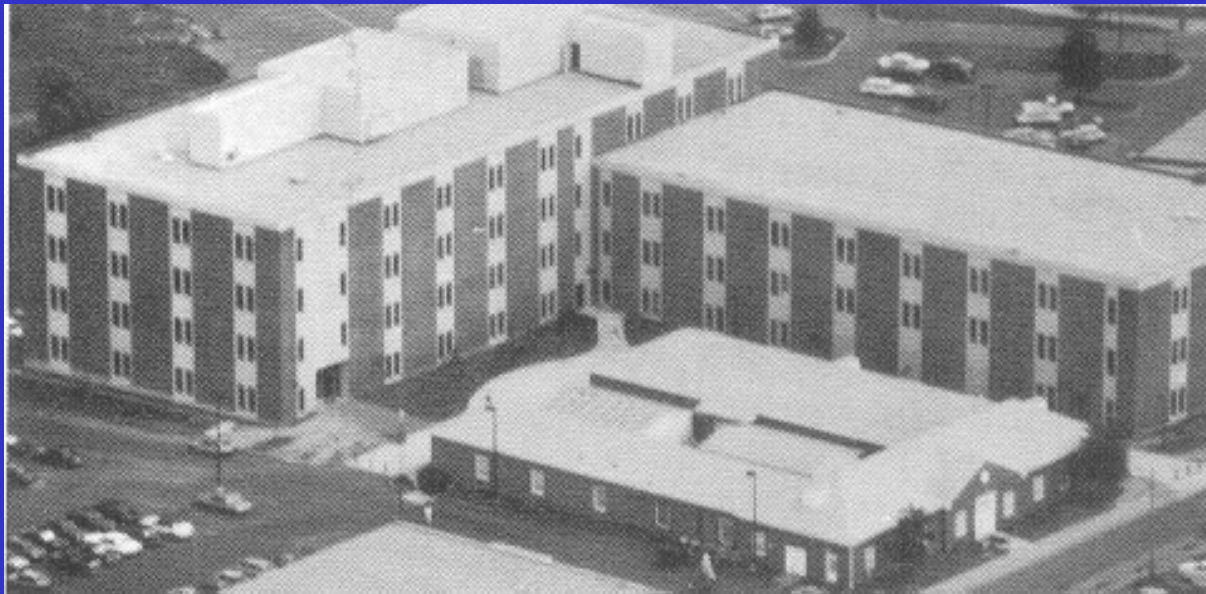


1. It was after dinner after many bottles of wine had been drunk.
2. The topic was the role of the university to train programmers for industry.
3. What Vic meant was: "It is not the university's role to be a leader in [vocational] education [and training]."

Vic Basili was Chairman from 1982 to 1988 when the Department underwent a rapid growth in students, faculty, and research funding.



Vic was instrumental in getting the Computer Science Department into its new home in the AV Williams Building in 1986

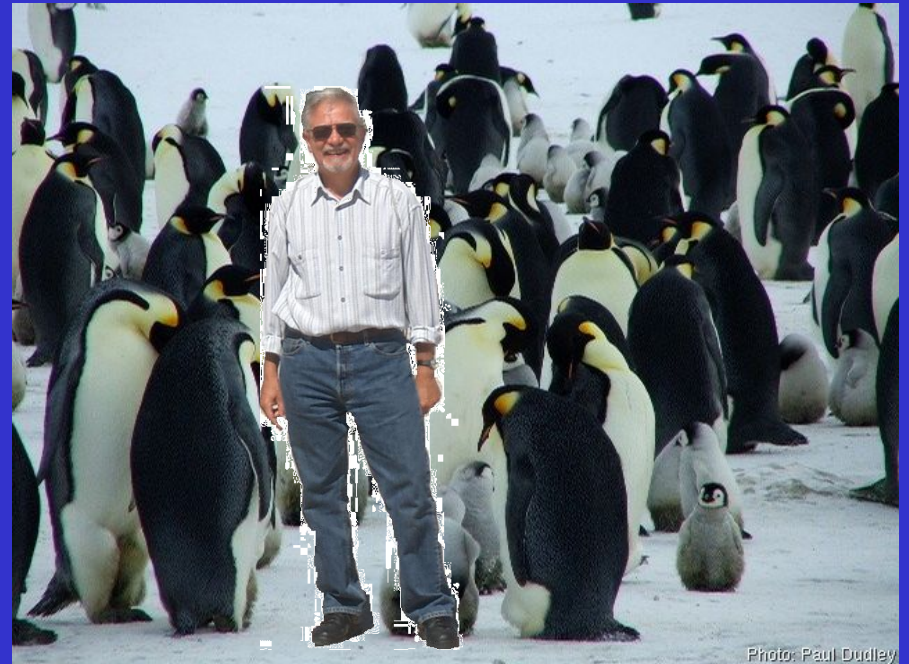




Vic's Research has had an impact on university and industrial research. He is credited with being the major developer of a science of empirical software engineering

He has given talks in over 30 countries and 6 continents.

He is still waiting for his invitation from Antarctica





Vic with Dick Fairley and Les Belady at the 1988 ICSE in Singapore.

Working hard with John Gannon in Hawaii in 1987





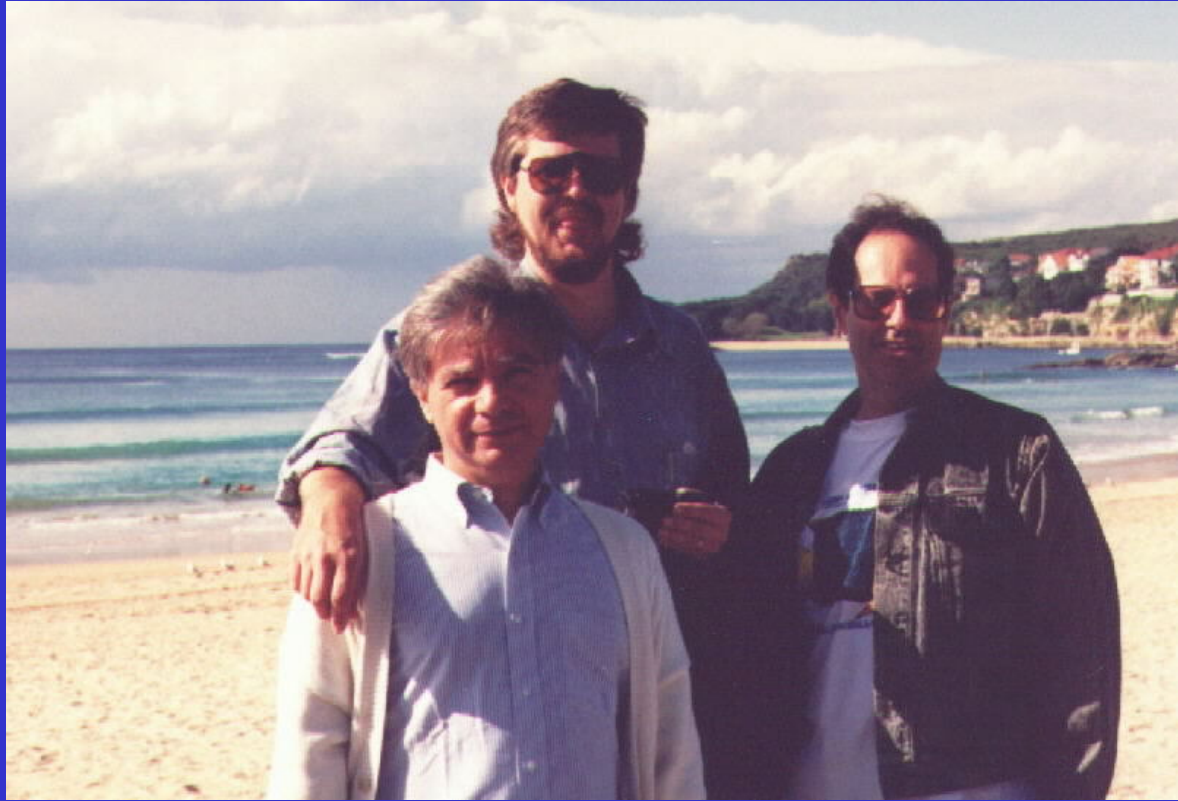
Vic gets his  
"chair" at the  
1988  
Singapore  
ICSE.



Vic lectures at  
Fudan University,  
Shanghai, China,  
February, 1989.







Vic with Professor Rombach and me  
after the 1992 ICSE in Australia

Much of the Worldwide Empirical Software Engineering community meets at Dagstuhl, Germany, 1992.

Vic





Much of the Worldwide Empirical Software Engineering community meets at Dagstuhl, Germany, 2006 (again).

Vic

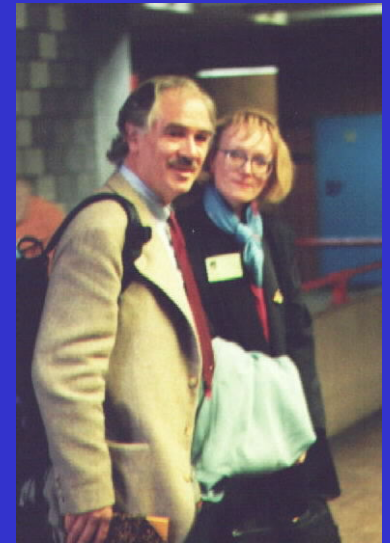


# 1994 ICSE in Sorrento, Italy



Vic with Giovanni Cantone, Christiane Rombach and Cas Jeffery





Vic gives keynote at  
1996 Berlin ICSE





# Kyoto ICSE in 1998

with Frank McGarry,  
and Christiane and  
Dieter Rombach





By 1997 change was apparent at NASA. How to continue the research of the SEL at other organizations?



Opening the Fraunhofer Center in Maryland, January 1998.



Mikael Lindvall, Ioana Rus,  
Rose Pajerski, Vic and me



Working hard at the  
first Fraunhofer  
Center Maryland  
Retreat, 1999



Ioana Rus  
and Cheryl  
Wall





Vic and friend  
at ICSE 2000 in  
Ireland

Receiving the  
ACM SIGSOFT  
Outstanding  
Research Award  
at ICSE 2000



# Three "old timers" honored for 30 years at the University of Maryland - 2001

Ashok Agrawala

Vic Basili

Marv Zelkowitz



Vic was one of the original organizers of ISERN in 1993



Giving a toast to ISERN host Professor Koji Torii in 2002 in Nara Japan





Vic with Forrest  
Shull, Natalia  
Juristo, Sira Vegas  
and Marcus  
Ciolkowski

First ISESE  
conference in  
Nara Japan,  
2002





Since 2000, we have  
been cooperating  
extensively with  
Professor Barry Boehm  
of USC

2000-2003: NSF ITR:  
Center for Empirically-  
Based Software  
Engineering (CeBASE)



2003 - NASA High Dependability Computer Program. Here we are looking to make USC's robot highly dependable

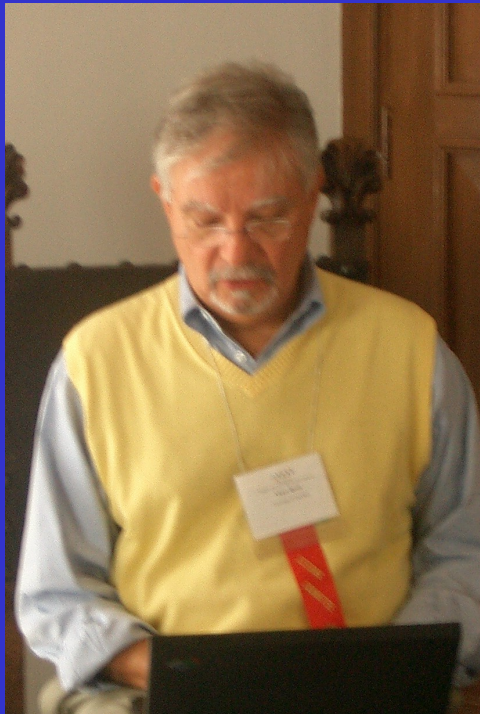
USC's SCRover



Vic with Ioana Rus and Forrest Shull



# ISESE and ISERN 2003 - Rome



Vic with Dave Parnas



Vic with Lionel Briand and  
Walter Tichy





# Hardship lunch during power blackout in Italy

Vic with Barry Boehm,  
Jeff Carver and  
Laurie Williams



# ISERN, October 2003 - Rome

## Past and current University of Maryland researchers at ISERN



Vic with  
Ross Jeffery

Filippo  
Lanubile  
Jyrki  
Kontio  
Giovanni  
Cantone  
Marv  
Zelkowitz  
Sira  
Vegas  
Forrest  
Shull  
Guilherme  
Travassos  
Jeff Carver



In 2004 we got involved in the DARPA high performance computing domain

How to evaluate programmer productivity on such machines?

-- HPCS meeting in Denver in 2006



Sorry! Only picture I had of Vic was him walking away from camera.



As an active member of the  
UMD faculty, Vic attends  
Alumni Day, October 2003



Vic with Professor  
Nick Roussopoulos  
and graduate Bill  
Bail.



Vic receives  
honorary  
Laurea  
Honoris  
Causa  
degree,  
Italy, April  
2004.





Fraunhofer Center directors - Frank Herman with Vic. Vic stepped down from that role in 2004.





Demonstrating  
Fraunhofer  
"core values" at  
Fraunhofer  
retreat - 2004

Vic with Michele  
Shaw, Kathleen  
Dangle, Mikael  
Lindvall, Maggie Jo  
Brown and Raimund  
Feldmann







Edinburgh Castle, ICSE 2004



Vic's first - and  
last - use of an  
ATM machine  
(2004 ICSE in  
Edinburgh)





next  
Vic's ~~first - and~~  
~~last -~~ use of an  
ATM machine  
(2007, Madrid)

# 2004 was also a very sad year for software engineering

Frank Anger of NSF, a supporter of software engineering and a great help to us, was tragically killed on July 8 in an automobile accident.



At 2005 ICSE in St. Louis, a symposium  
was held in honor of Vic's career  
achievements

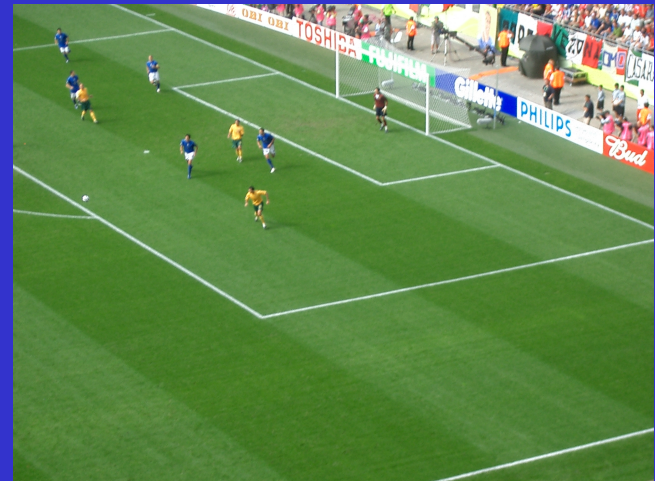
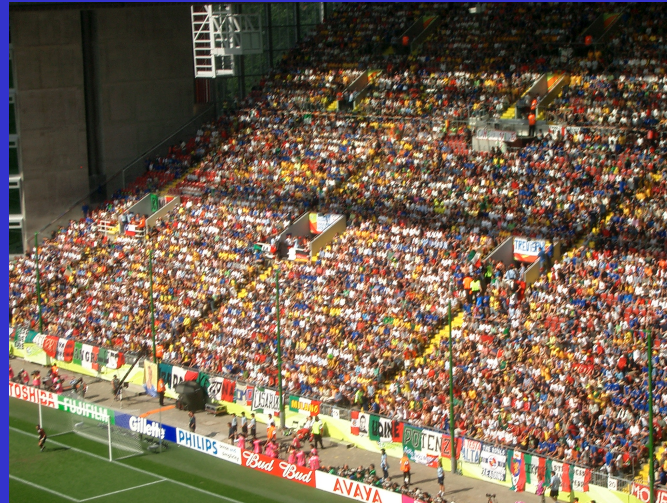




# Vic's honorary doctorate from University of Kaiserslautern, 2005



As part of 2006 Dagstuhl trip, taking in a Worldcup game was a nice bonus





It's been a very enjoyable and worthwhile journey with you these past 37 years. I hope we continue to have many more in the future.



1994





ISERN meeting, Madrid Spain, September 2007