

# Bruce K. Daniels

University of California, Santa Cruz  
Earth and Planetary Sciences Department  
1156 High Street  
Santa Cruz, CA 95064

[BDaniels@EarthSci.UCSC.edu](mailto:BDaniels@EarthSci.UCSC.edu)  
(831) 462-4803 [work]  
(831) 459-3074 [fax]  
<http://EarthSci.UCSC.edu/~bdaniels>

- Education:** **Ph.D., Earth Sciences, University of California, Santa Cruz, 2012** (expected), thesis on "Quantitative Impact of Climate Precipitation Change On Water Resources", Advisors: Lisa Sloan and Andrew Fisher.  
**M.S., Computer Science, Massachusetts Institute of Technology, 1974**, thesis on "Architecture of a Compiler for a LISP-like Language with Optional Data Typing".  
**B.S., Computer Science, Massachusetts Institute of Technology, 1971**, thesis on "Methods for the Detection of Parallelism in Conventional Programming Languages".
- Honors:** **Benjamin and Ruth Hammett Award for Research on Climate Change (UCSC), 2009.**  
**Eugene & Margaret McDermott Scholarship Award** for students of "high character, sound personality, and academic promise" (M.I.T.), 1967-1971.  
**Award of Grants for Nine U.S. Patents (Sun Microsystems), 2004-2008.**
- Research Interests:** Hydroclimatology, i.e. relationship of climatology with hydrology and hydrogeology: connections between climate and the terrestrial water cycle, quantitative impacts of climate changes on water resources and systems, precipitation patterns, timing, and intensity.
- Professional Memberships:** **Association of California Water Agencies (ACWA), 2000-present** including a position on its **Climate Change Subcommittee.**  
**Association of Ground Water Scientists and Engineers (AGWSE), 2000-present** within the **National Groundwater Association (NGWA).**  
**Groundwater Resources Association of California (GRAC), 2004-present** including service on its **Awards Committee.**  
**International Association of Hydrogeologists (IAH), 2004-present.**  
**American Water Resources Association (AWRA), 2009-present.**  
**American Geophysical Union (AGU), 2008-present.**  
**Save Our Shores, 2005-present** including service on its **Science Advisory Committee.**
- Relevant Experience:** **Soquel Creek Water District, 2000 – present**  
*President, Vice-President, & Director*  
Three-time voter elected Director of California special district governmental agency that provides drinking water to 55,000 residents in mid-Santa Cruz County.  
**California Regional Water Quality Control Board - Central Coast, 1999 – 2005**  
*Chair, Vice-Chair, & Board Member*  
Appointed twice by the Governor to the state's Regional Water Quality Control Board for Central Coast responsible for south Santa Clara County down the coast to Santa Barbara County.
- Presentations:** "Quantitative Impact of Climate Change On Water Resources", Oct. 2009, invited talk, National Groundwater Association & AGWSE conference on "Ground Water and Climate Change".  
"The Macintosh Computer and Personal Computing", keynote speech, 1984, Annual Conference of Computer Society of the Institute of Electrical and Electronics Engineers.

**Work History:**

**Sun Microsystems**, Menlo Park, CA, 1992 - 2009

*Application Programmer, SunGrid Product Group*

Developed business logic code, database schemas, and web pages for Sun's network cloud computing and distributed grid product.

*Principal Investigator, SunLabs & Professional Services*

Led DASL project for simplified and highly accelerated development of business applications.

*Principal Investigator, Sun Laboratories*

Created project for enterprise application development through business process modelling.

*Application Development Architect, Sun IT Enterprise Architecture Group*

Served as the architect for all application development and user interface standards in Sun's Information Technology Division.

**Oracle**, Redwood Shores, CA, 1987 - 1992

*Principal Architect, Tools Division*

Formed, led group, and created the architectural design for a user interface toolkit that provided application GUI portability.

**Sun Microsystems & UniSun**, Mountain View, CA, 1987

*Software Manager & co-Founder*

Managed all initial software development for Sun SparcStation 1 computer.

**Singular Software**, San Jose, CA, 1984 - 1986

*President & co-Founder*

Created and marketed the Interlace™ product (renamed Reflex for the Mac), one of the first relational databases for the Macintosh. Conducted all public relations leading to many analyst and press articles, favourable reviews, and user presentations.

**Apple Computer**, Cupertino, CA, 1979 - 1984

*Principal Engineer & Chief Programmer, Lisa Division*

Led launch teams. Performed public relations including interviews, demos, speeches, and papers for the Macintosh and the Lisa computer product launches.

*Software Designer, Macintosh Division*

Contributed the user interface software architecture that is the basis for all Macintosh system software, i.e. overlapping windows, menus, desktop, scroll bars, etc. and created the prototype implementation for the first Macintosh word processor.

*Software Manager, Lisa Division*

Managed all software for the Lisa graphical user interface (GUI) computer (35 people) including development tools, operating system, windowing & graphics, and 7 application programs. Personally created the visual Text Editor, the first GUI program for Lisa and Apple.

**Publications:**

“Lisa's Alternative Operating System”, Computer Design Journal, August 1983, vol 22, no. 9, pp.159-166.

“The Architecture of the Lisa Personal Computer”, chapter 14 of textbook “*Insights into Personal Computers*”, Amar Gupta and Hoo-Min Toong (eds), IEEE Press 1985, pp 266-281.