

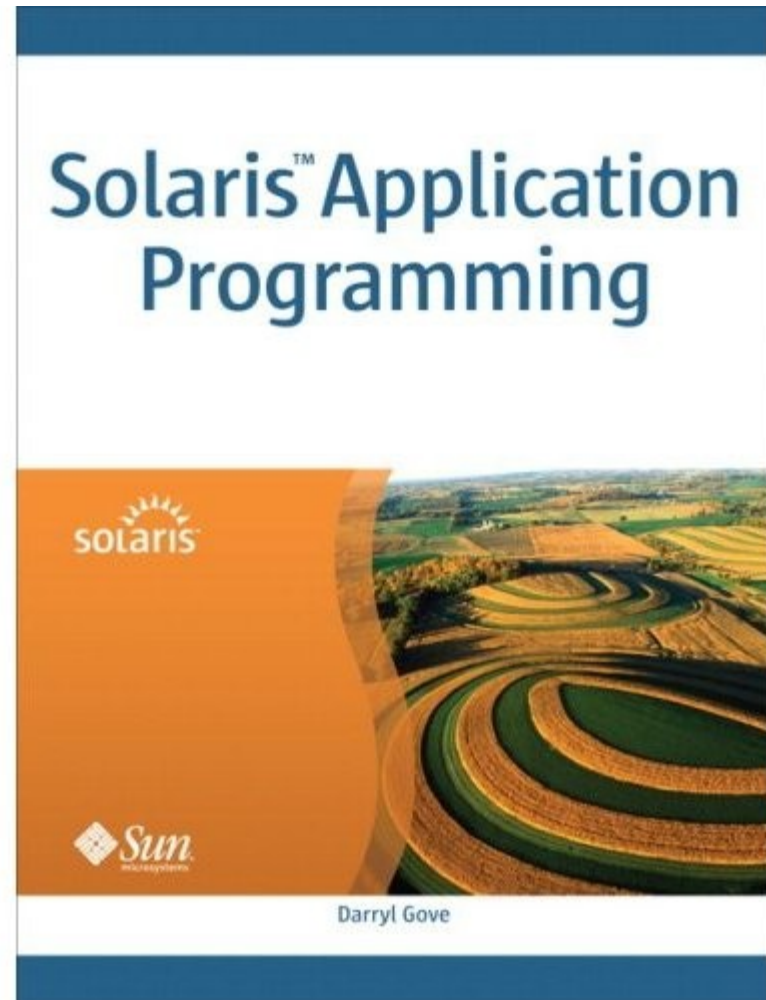


# Solaris Application Programming

Darryl Gove  
Sun Microsystems Inc.

# Outline

- Issues
- Contents of book
- Other resources



# Issues

- Knowledge
  - > *“How do I find out what processes are running?”*
  - > Things that are there, but no-one knows about them.
- Naming
  - > *“Where's top?”*
  - > Things that people expect to be there, but can't find.
- Using
  - > *“How do I only see my processes?”*
- Understanding
  - > *“What does that mean?”*

# Objectives of book

- Reduce barriers to entry
- Capture common tasks
- Explain rare tasks
- Increase awareness of features
- Cover neglected domain

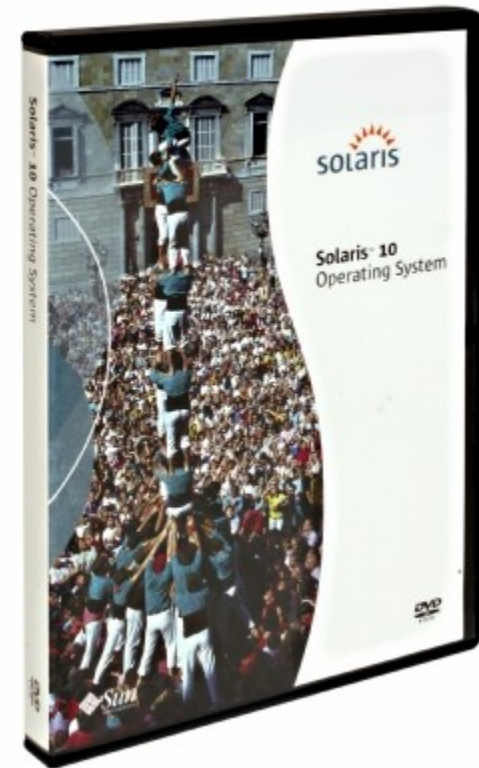
# Hardware



- What difference does the hardware make?
  - > Cores
  - > Instruction set
  - > Chip internals

# Operating System

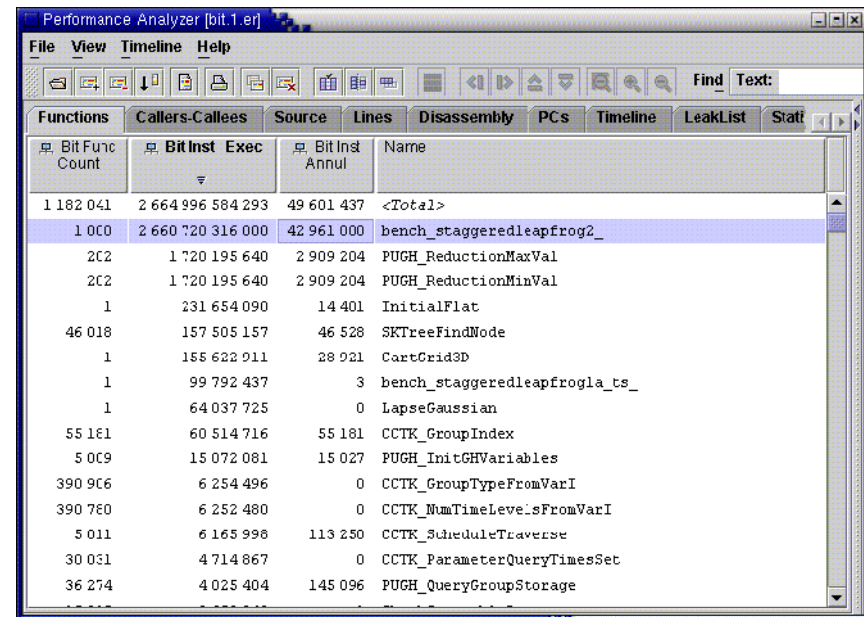
- Tools
  - > Informational
  - > Observational
  - > Frequently used
  - > Useful to know



[http://www.sun.com/books/documents/solaris\\_app\\_programming\\_ch04.pdf](http://www.sun.com/books/documents/solaris_app_programming_ch04.pdf)

# Developer

- Compilers
  - > Usage
  - > Features
- Linker
- Debugger
- Performance Analyzer
- Libraries



The screenshot shows the Performance Analyzer interface with a table of function performance data. The table has columns for Bit Func Count, Bit Inst Exec, Bit Inst Annull, and Name. The 'bench\_staggeredleapfrog2\_' function is highlighted as the most significant.

Bit Func Count	Bit Inst Exec	Bit Inst Annull	Name
1 182 041	2 664 996 584 293	49 601 437	<Total>
1 000	2 660 720 316 000	42 961 000	bench_staggeredleapfrog2_
202	1 720 195 640	2 909 204	PUGH_ReductionMaxVal
202	1 720 195 640	2 909 204	PUGH_ReductionMinVal
1	231 654 090	14 401	InitialFlat
46 018	157 505 157	46 528	SKTreeFindNode
1	155 622 911	28 921	CartGrid3D
1	99 792 437	3	bench_staggeredleapfrogla_ts_
1	64 037 725	0	LapseGaussian
55 181	60 514 716	55 181	CCTK_GroupIndex
5 009	15 072 081	15 027	PUGH_InitGHVariables
390 906	6 254 496	0	CCTK_GroupTypeFromVarI
390 780	6 252 480	0	CCTK_NumTimeLeve_sFromVarI
5 011	6 165 996	113 250	CCTK_ScheduleTraverse
30 031	4 714 867	0	CCTK_ParameterQueryTimesSet
36 274	4 025 404	145 096	PUGH_QueryGroupStorage

<http://developers.sun.com/sunstudio/>

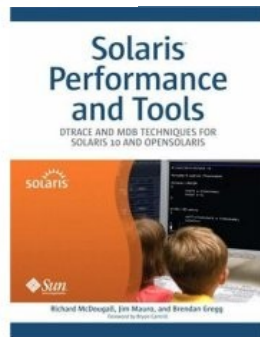
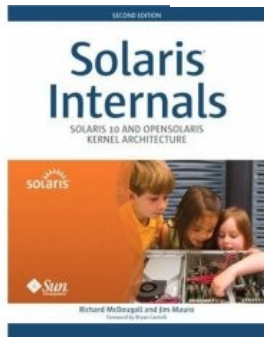
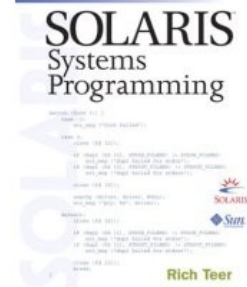
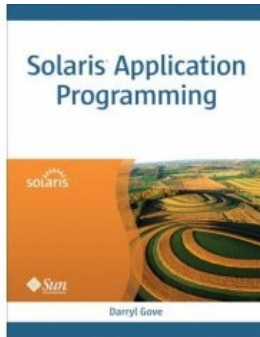
# Multicore/multiprocess/multithread



- Difficult to avoid
- Many options for parallelisation

<http://cooltools.sunsource.net/tha/>

# Where does it fit?



Developer

Interfaces

Solaris



# Solaris Application Programming

Darryl Gove

[darryl.gove@sun.com](mailto:darryl.gove@sun.com)

<http://blogs.sun.com/d/>

