Fear & Loathing In Automation-Land

Capacity and Performance in the 21st Century

Session # 12286

SHARE 2013

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Abstract

Remember when you only had a handful of servers or a single mainframe to manage? Back in those days, we also had teams of experts working on capacity and performance management. Now, one person is managing 1000's of servers, at least one private cloud, virtualization and more with changes being applied to the system every day, if not every hour. It isn't possible to manage as you have in the past – you need to change the game, eliminating manual processes wherever possible. Learn how to work smarter and have more fun on the job by letting go of the past and venturing boldly into the future of capacity planning. Build a vision and the management skills to create it.

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"Some people will tell you that slow is good – but I'm here to tell you that fast is better. I've always believed this, in spite of the trouble it's caused me. Being shot out of a cannon will always be better than being squeezed out of a tube. That is why God made fast motorcycles, Bubba..."

— Hunter S. Thompson, Kingdom of Fear: Loathsome Secrets of a Star-crossed Child in the Final Days of the American Century

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The Rise of the Machines

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The Olden Days

- 20 years
- RTFM
- Hands-on
- Career capacity/performance people

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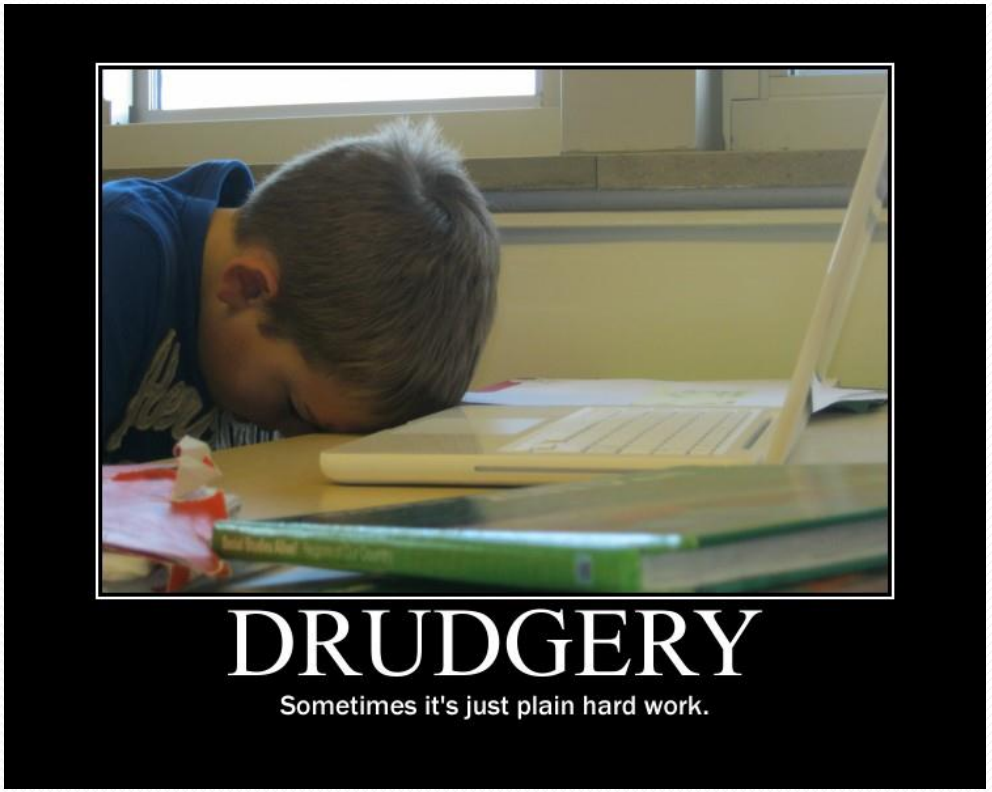
Personal Admissions

- Harvard Graphics
- Shell scripts
- Maestro



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Scope Change

- Server Farms
- Downsizing
- Variety
- SOA
- SaaS
- Cloud
- New People

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“Yesterday's weirdness is tomorrow's reason why.”

— Hunter S. Thompson, The Curse of Lono

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The Nay-Sayers

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DIYers

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Command-Line Junkies

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Fearful Pre-Retirees

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Vendor Haters

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The Old-Timer

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“You can't miss what you never had.”

— Hunter S. Thompson, Polo Is My Life

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OR

"I have a theory that the truth is never told during the nine-to-five hours."

— Hunter S. Thompson

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Automation

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"On some days you get what you want, and on others, you get what you need."

— Hunter S. Thompson, Kingdom of Fear: Loathsome Secrets of a Star-crossed Child in the Final Days of the American Century

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The Essential Questions

What are you doing today that you don't need to be doing?

What could you be doing if it weren't so hard to do it?

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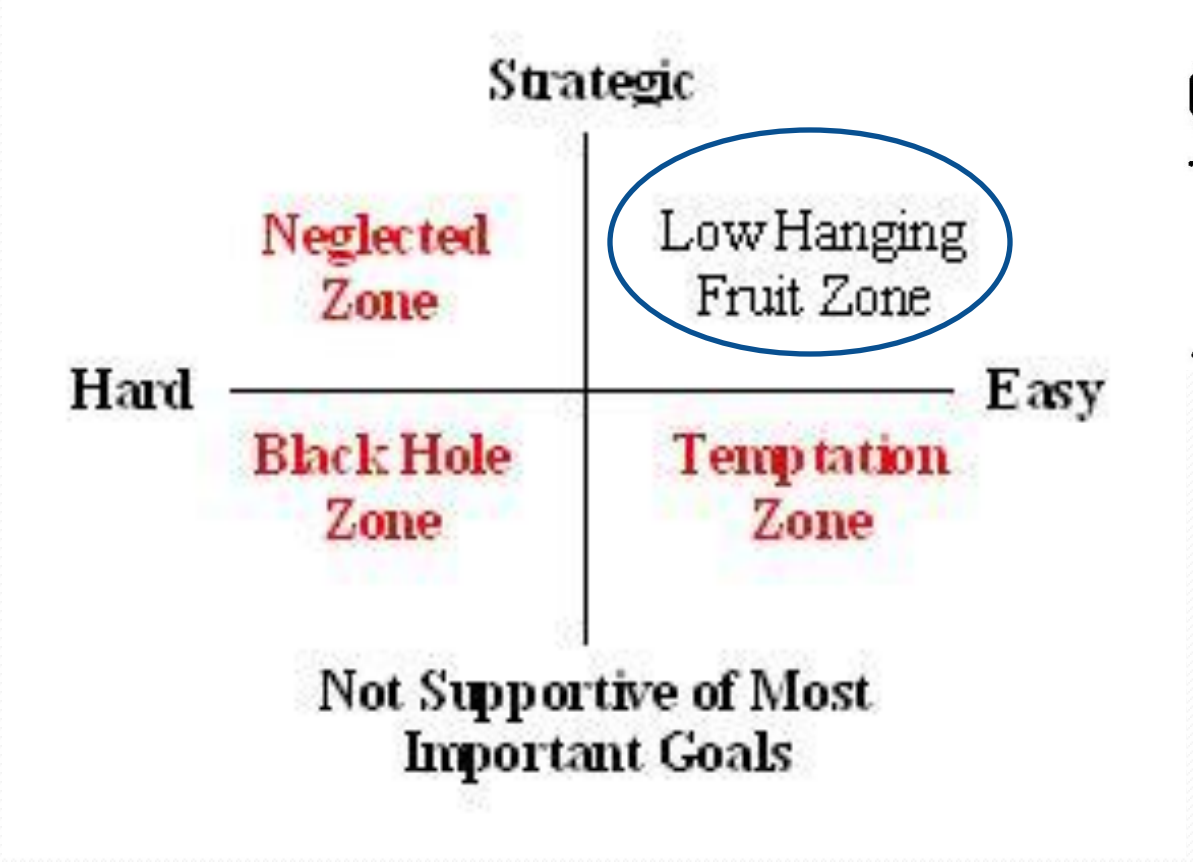
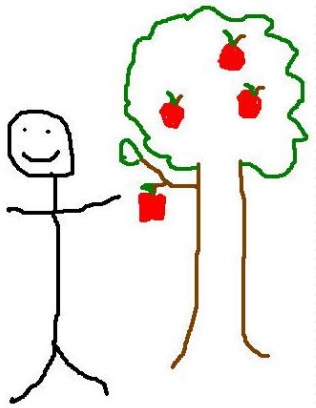
Outsourcing to Software





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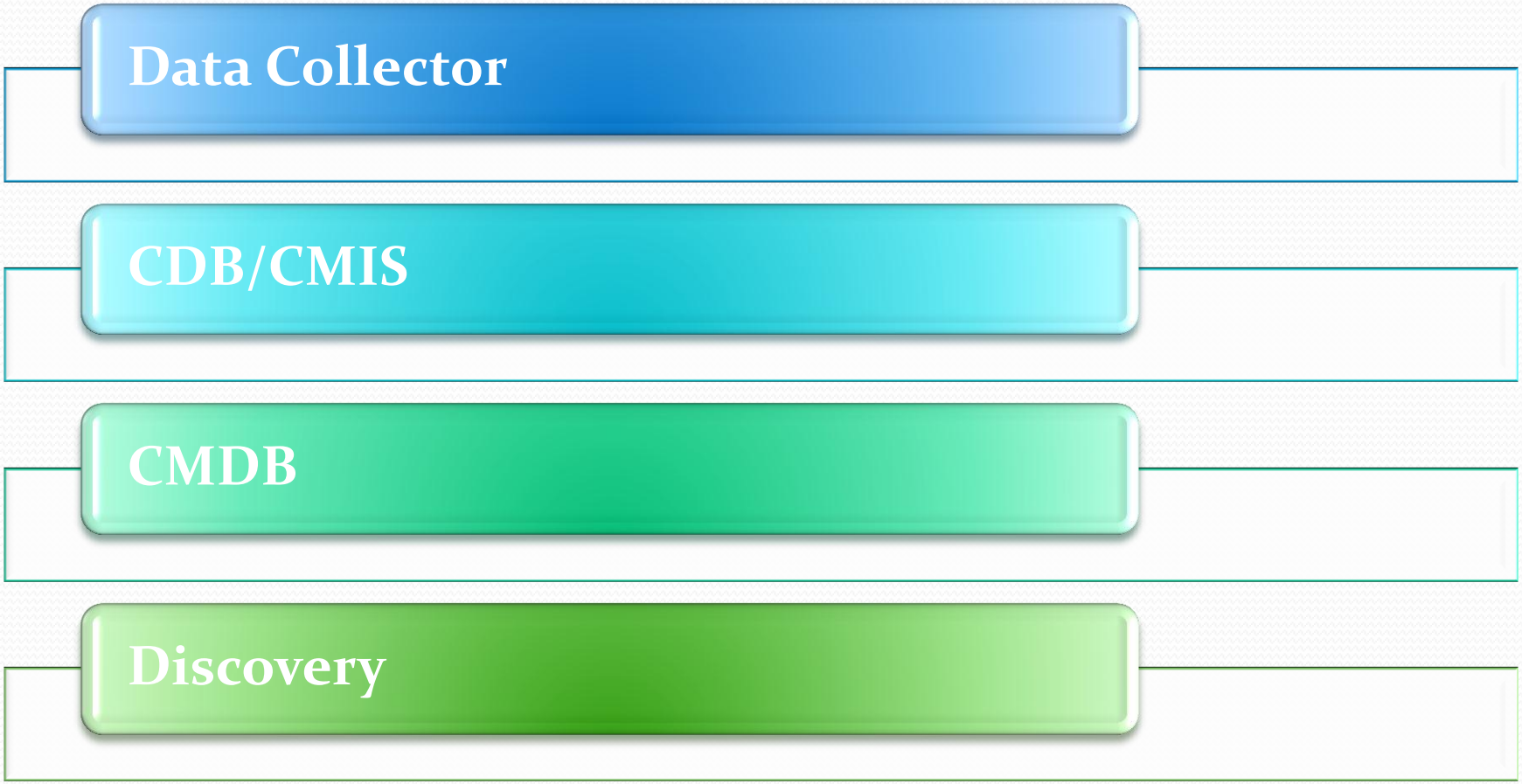
Data Management



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Monitoring

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End User Experience Monitoring

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"A man who procrastinates in his choosing will inevitably have his choice made for him by circumstance."

— Hunter S. Thompson, The Proud Highway: Saga of a Desperate Southern Gentleman, 1955-1967

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Alerting & Remediation

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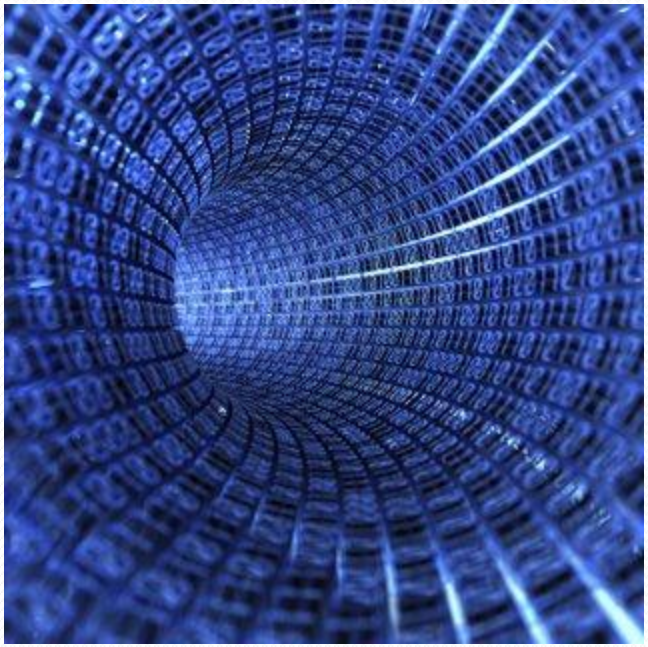
Optimization



The cost of I/O

L1-cache	3 cycles
L2-cache	14 cycles
RAM	250 cycles
Disk	41 000 000 cycles
Network	240 000 000 cycles

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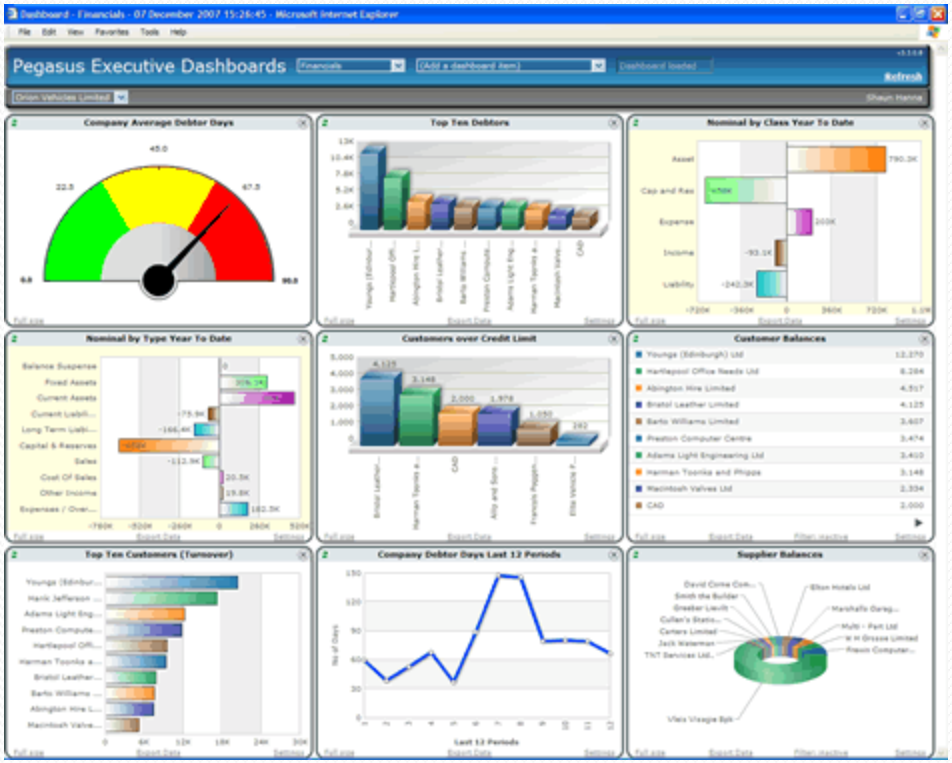
Dashboards & Reporting



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Modeling

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Arguments

Against

- Hardware is cheap
- Modeling takes too long
- Modeling takes an expert
- Produces poor results

Pro

- Software licenses cost $$$
- Modern modeling is quick
- And easy
- Check other people's results

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Linear Progression?

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Resource Management

- Consolidated Data Collection
- Chargeback Data
- Automated Reporting
- Alerting
- Resource Modeling
- Dynamic workload balancing

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Workload Automation/Job Scheduling

1. Batch Window
2. Business Priority
3. SLAs in Batch
4. Critical Path Analysis
5. Event-Triggering
6. Automated Restart/Rerun
7. Automated Tuning
8. Modernization

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What's In It For You?

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"When the going gets weird, the weird turn professional."

— Hunter S. Thompson, Fear and Loathing: On the Campaign Trail '72

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“If you're going to be crazy, you have to get paid for it or else you're going to be locked up.”

— Hunter S. Thompson

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Summary

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“A word to the wise is infuriating.”
— Hunter S. Thompson

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"THE EDGE, there is no honest way to explain it because the only people who really know where it is are the ones who have gone over."

— Hunter S. Thompson

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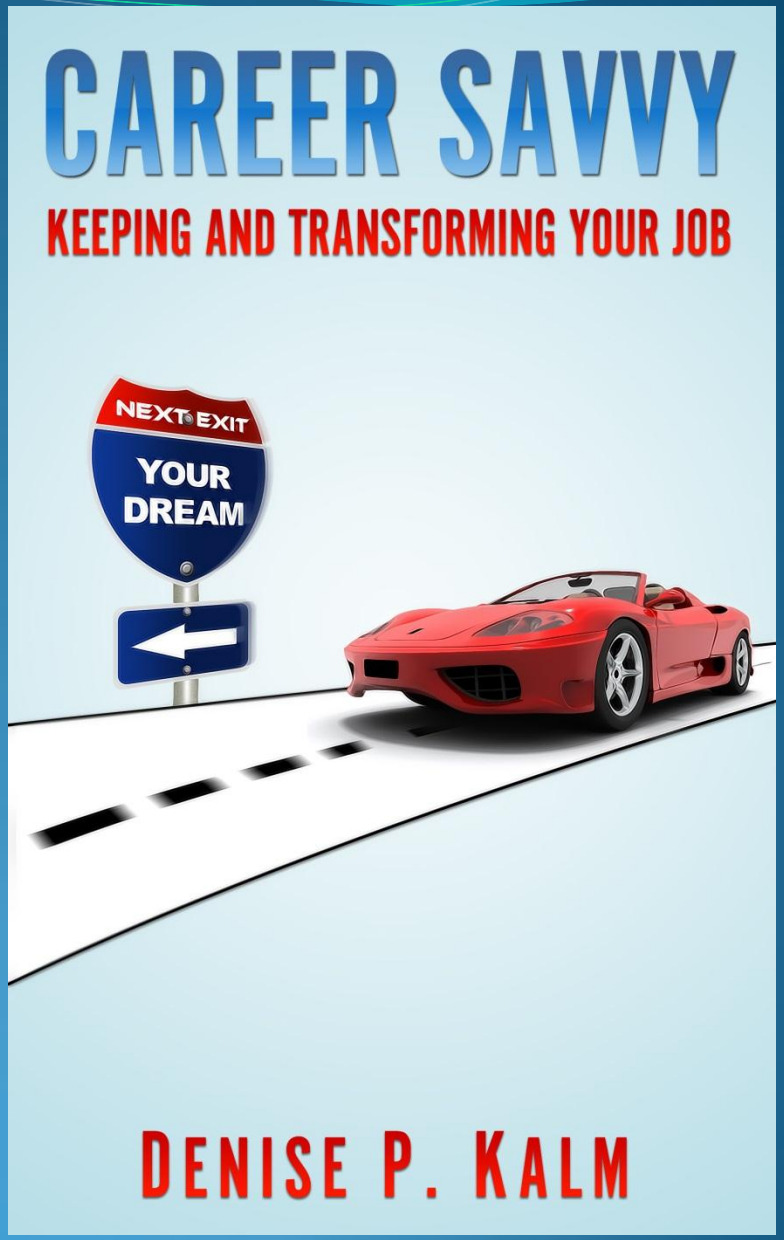

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