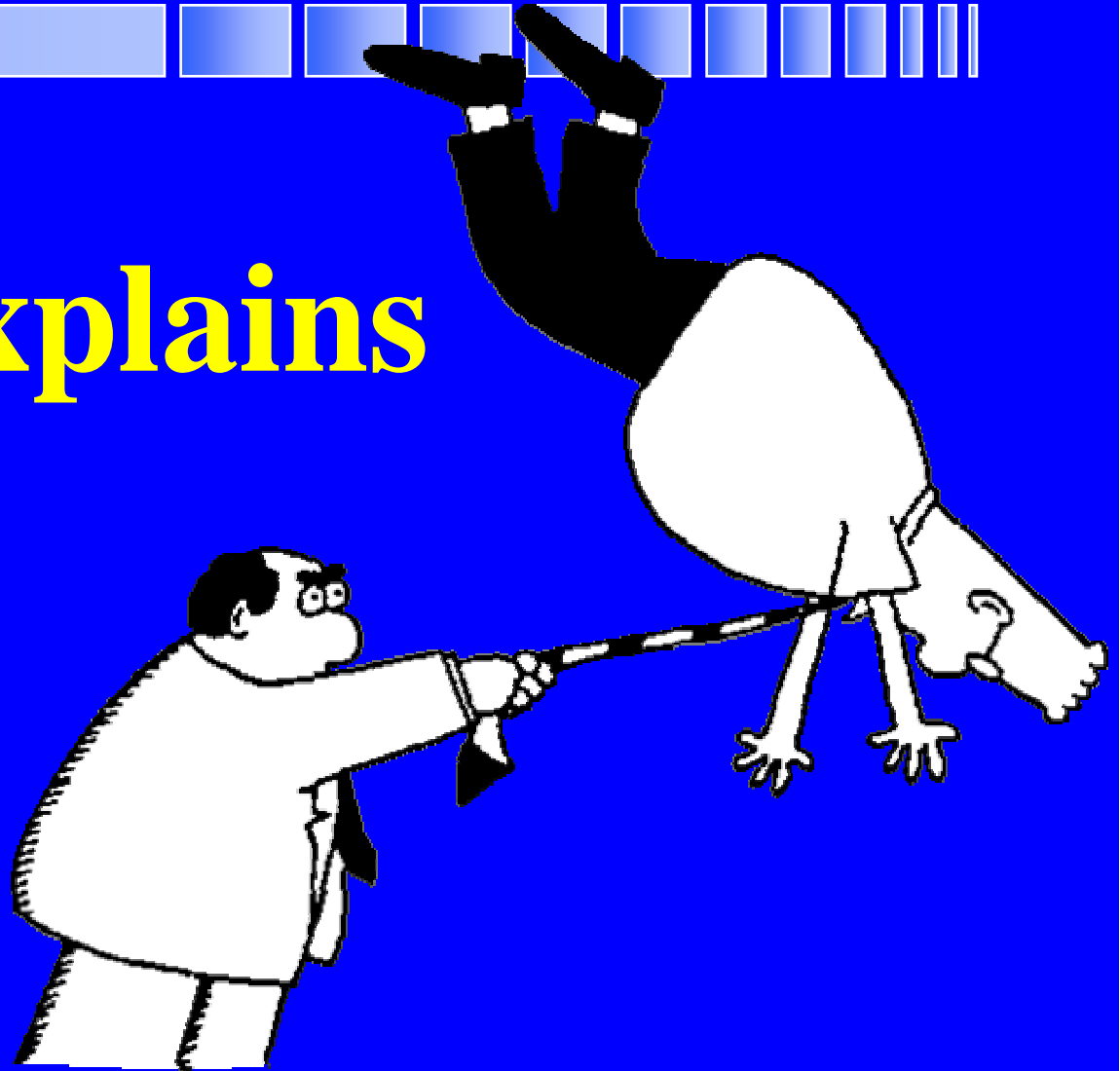




Sun
microsystems

Sun Java Seminar '98
Presenter: Yogi Schulz

Dilbert™ Explains Java to Developers



Yogi Schulz



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File: SUNJAVA98A.PPT

1

Presentation Outline

Dilbert on Java

☐ Java

- description
- benefits
- language direction



☐ Java Developer Issues:

- scope
- cost
- schedule
- quality

Haven't we seen these issues before?

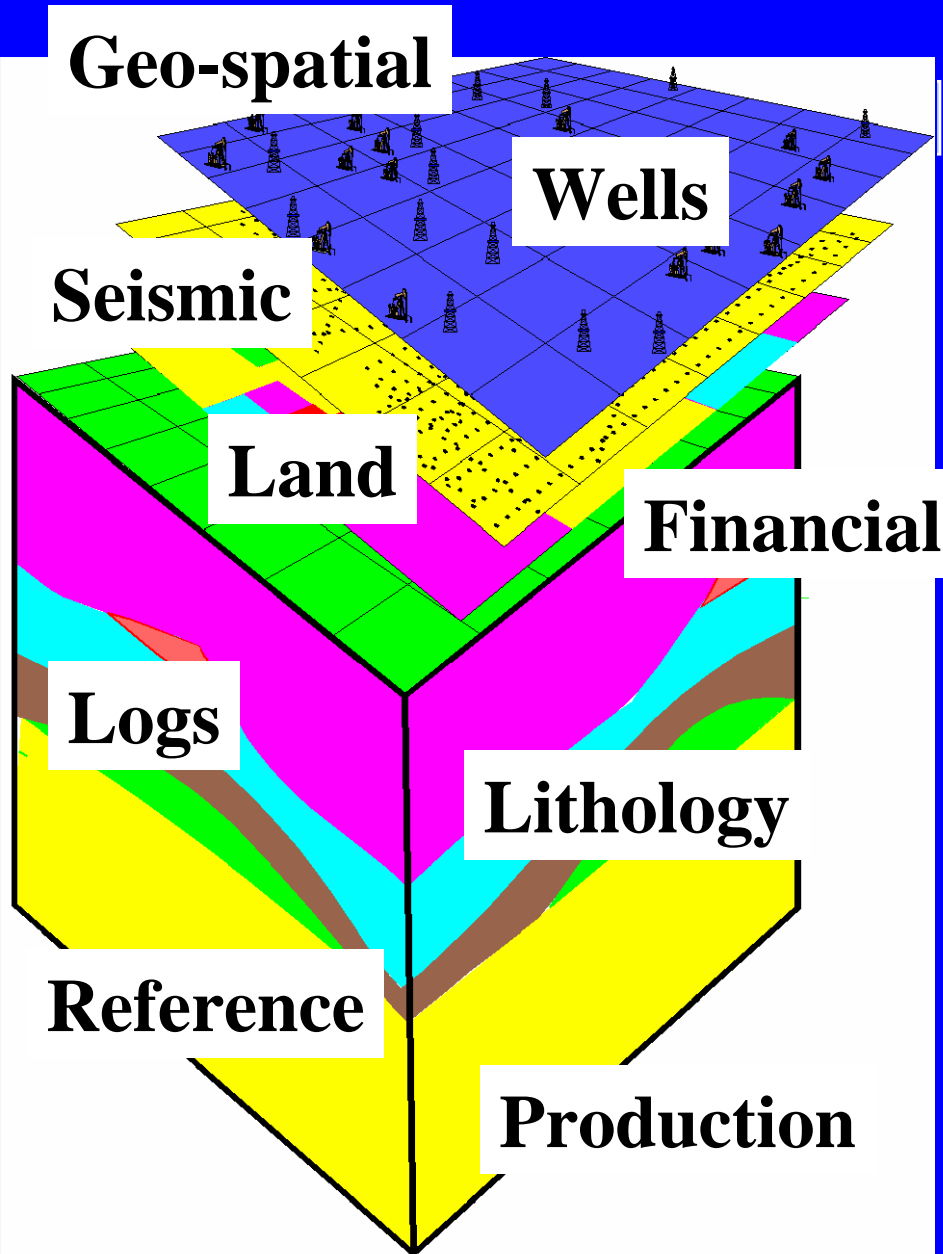
☐ Conclusions

☐ Recommendations

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Oil & Gas Industry Context



- Complex data/data types**
- Large data volumes**
- Valuable data**
- Distributed access**
- Complex calculations**
- Security expectations**

Made for Java

Java Sparks

Dilbert on Java



Sun

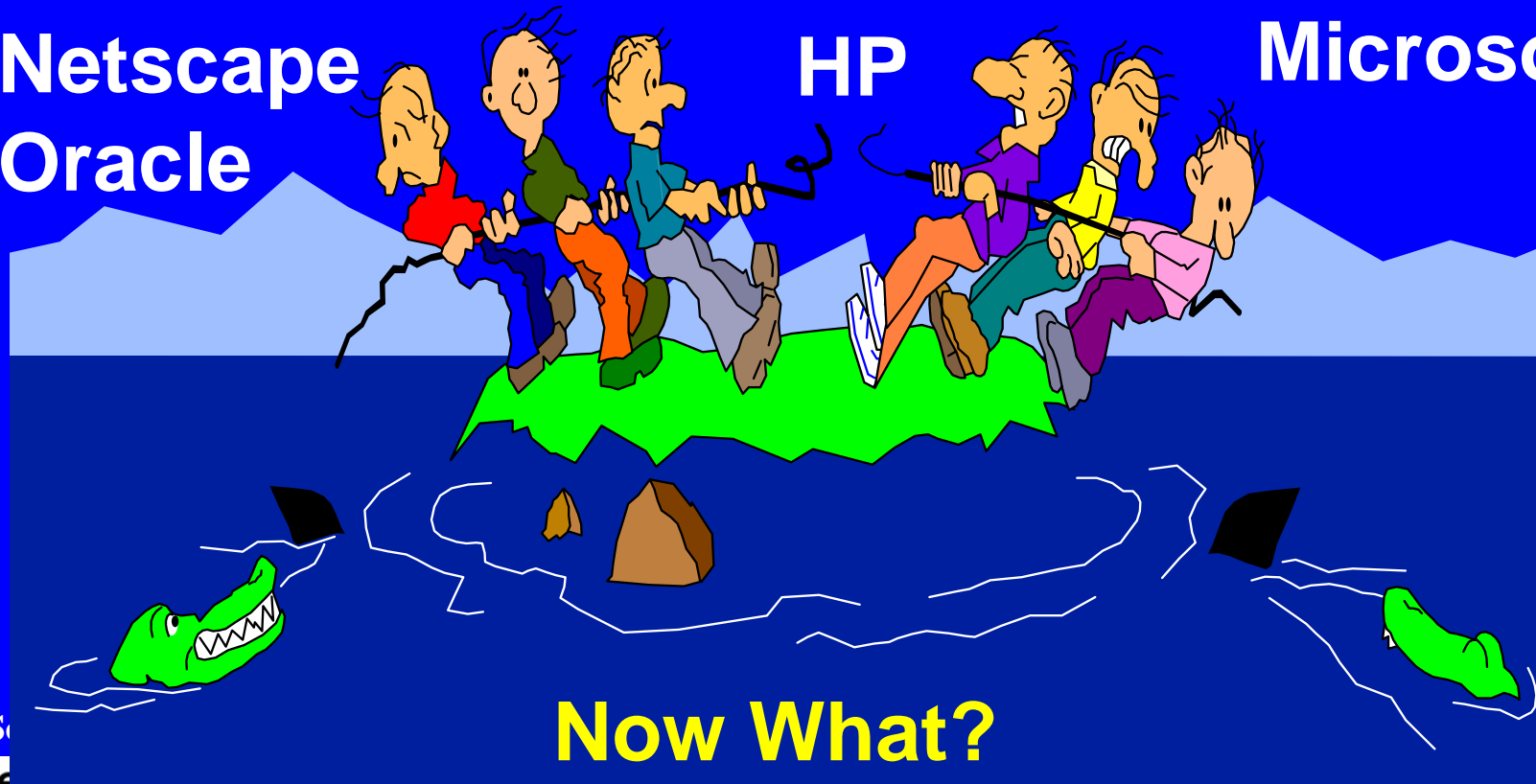
IBM

Netscape

Oracle

HP

Microsoft



Now What?

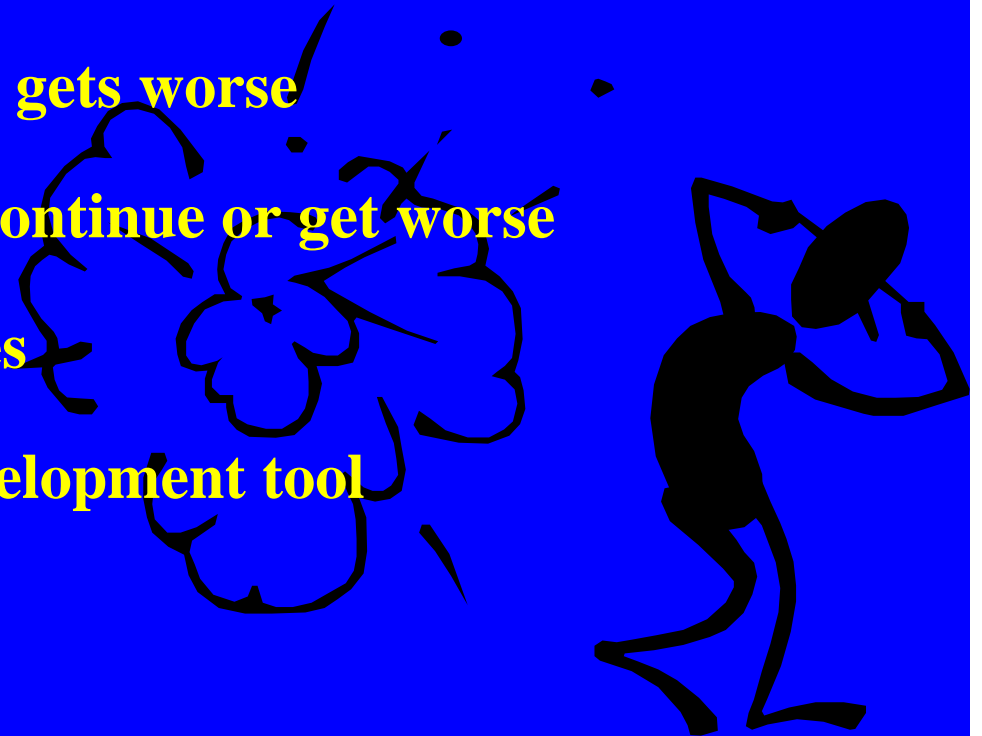
Yogi S
Corve

Bill Wins

Dilbert on Java



- Infighting continues or gets worse**
- Disparaging remarks continue or get worse**
- Java standard fractures**
- Java language and development tool investment remain low**



**Unfortunate outcome for Java promoters,
developers, Microsoft, the world**

Java Wins

Dilbert on Java

- ❑ **Commit to developing/strengthening the standard**
- ❑ **Enhance development tools**
- ❑ **Improve performance**
- ❑ **Increase partner investment**



**Exciting outcome for Java promoters,
developers, Microsoft, the world**

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Source: Java Can be a Contender - If Sun Lets it
Business Week, April 6, 1998, p. 42

Can I influence these forces for my benefit?

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- ❑ **Vote with your dollars:**
 - buy hardware from Java-committed vendors
 - license development software from Java-committed vendors
- ❑ **Vote with your resources:**
 - participate in Java-related events
 - participate in vendor's partner programs
- ❑ **Vote with your development direction**
- ❑ **Vote with your development resources**
- ❑ **Lobby the Java consortium partners**



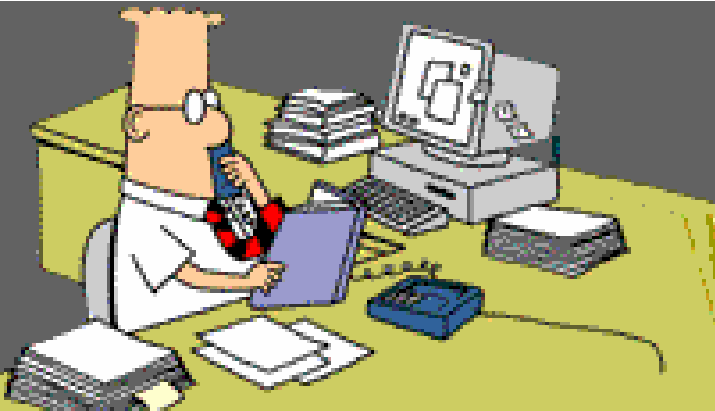
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Facet GIS

The screenshot displays the Facet GIS software interface, which is a Java Applet window. The interface is divided into several panels:

- Channels Panel (Left):** Contains a list of map layers. The 'Contours' layer is currently selected and highlighted in blue. Other layers include '1:20K Telus', 'ATS Grid', 'Air Transport', 'Hydrology', 'Municipal Boundary', 'Natural Features', 'Oil and Gas Wells', 'Parks and Rec.', 'Pipelines', 'Rail Way', 'Roads', 'Subsurface Activity', 'Utilities', '1:5K Cadastral', and 'Energy'. The 'Energy' layer is expanded to show a sub-panel.
- Point of View: MD131 Panel (Top Right):** Displays the current view of the map. The map shows a network of red lines (pipelines) overlaid on a grayscale aerial photograph. A data popup is visible, displaying the following information:
 - 04-TI-080-08 W5
 - AMOCO NIPISI
 - SOL GAS
 - CAPACITY 1240 E3 m
 - UTILIZATION 0%
- Map Panel (Center):** The main map area showing the pipeline network and the data popup. The map is bounded by a coordinate system with values 617000.0 and 618000.0 on the x-axis, and 6197 and 6198 on the y-axis.
- Navigation Panel (Bottom):** Includes a 'Pan' button and a 'Pan' label, along with icons for zooming and other navigation functions.



Java Description - 1

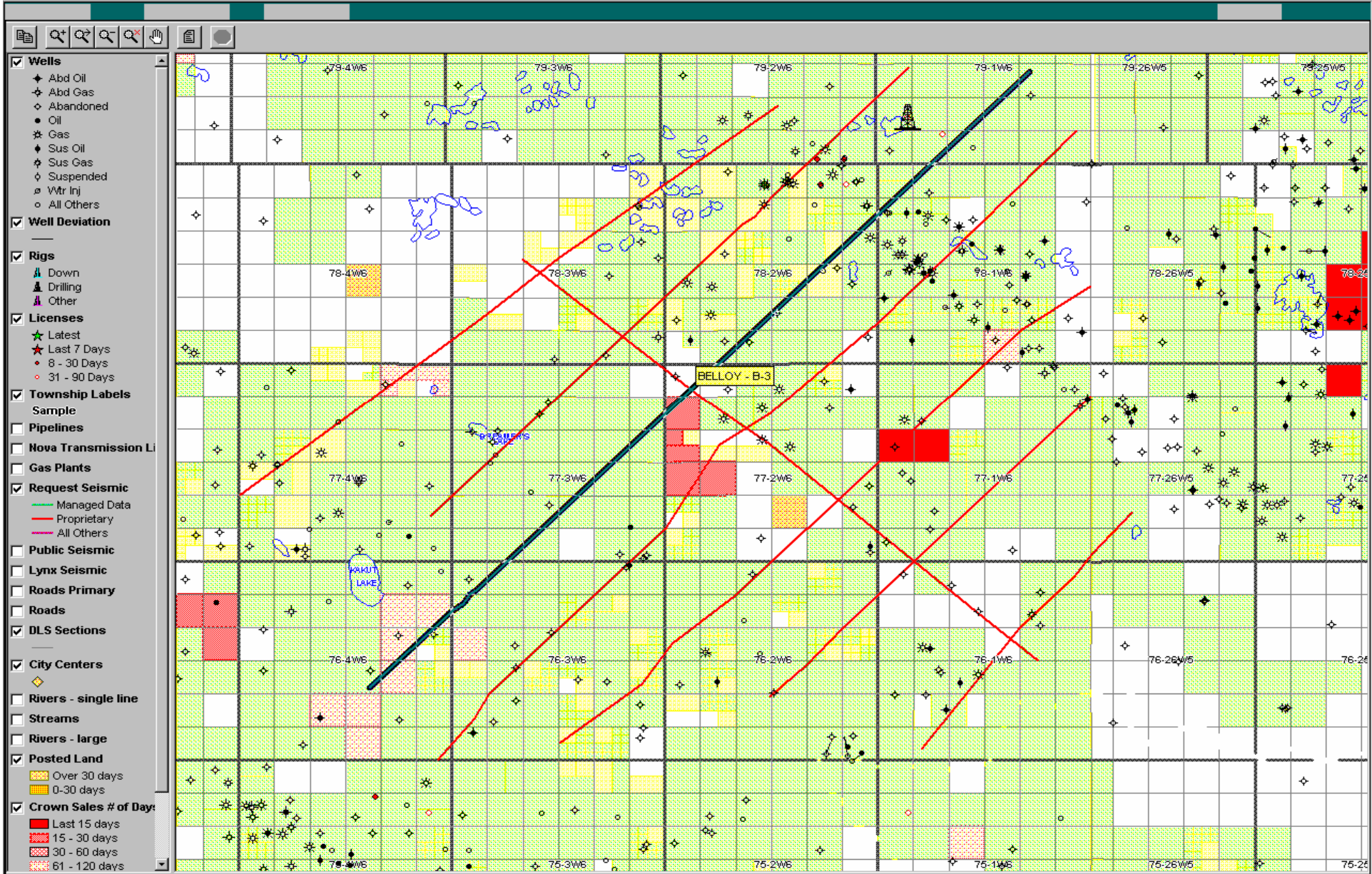


- Simple** **most needed subset of C++**
- Object-oriented** **not procedural**
- Network-savvy** **not desktop focused**
- Robust** **not just scripting**
- Secure** **not prone to virus damage**
- Architecture neutral** **not OS-bound**

Java Description - 2

Dilbert on Java

- Portable** **no OS/CPU dependent aspects**
- Interpreted** **no ponderous development**
- High performance** **no interpretation overhead**
- Multi-threaded** **no added complexity**
- Dynamic** **fewer module interconnections**
- Low cost** **free on the Net**



Request Seismic : BELLOY - B-3

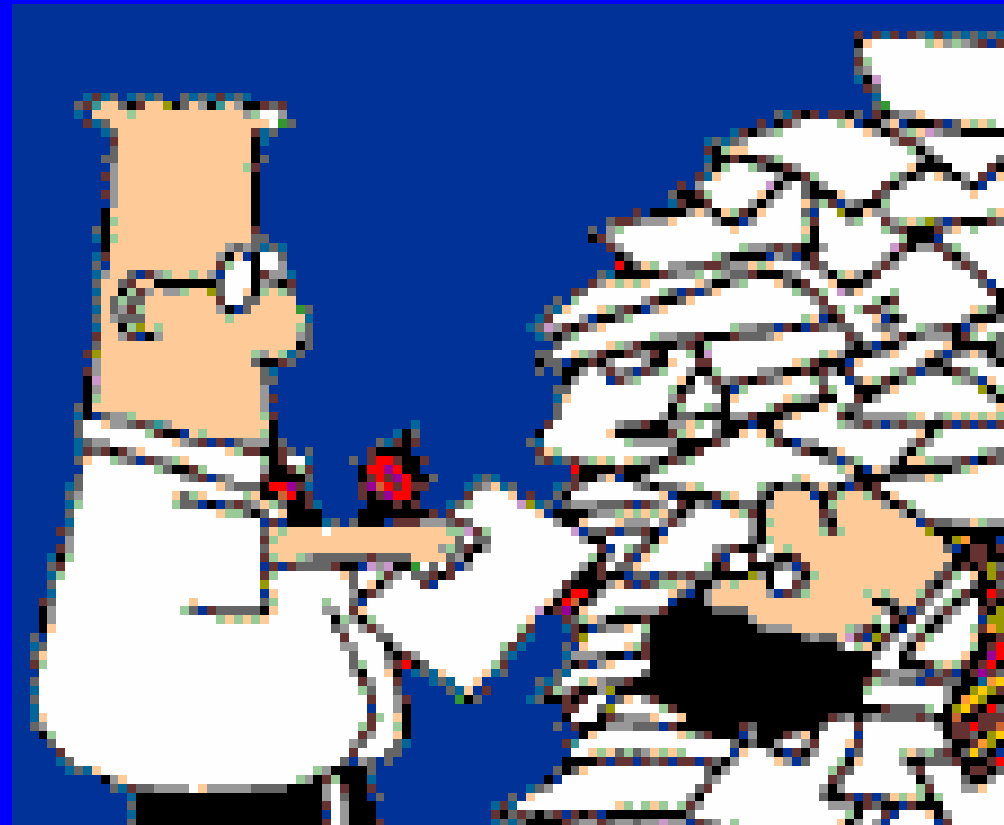
1 'Request Seismic' selected

60.0 x 43.9 (mi)

Dilbert Addresses Java Developer Issues

Dilbert on Java

- ❑ **Scope**
- ❑ **Cost**
- ❑ **Schedule**
- ❑ **Quality**



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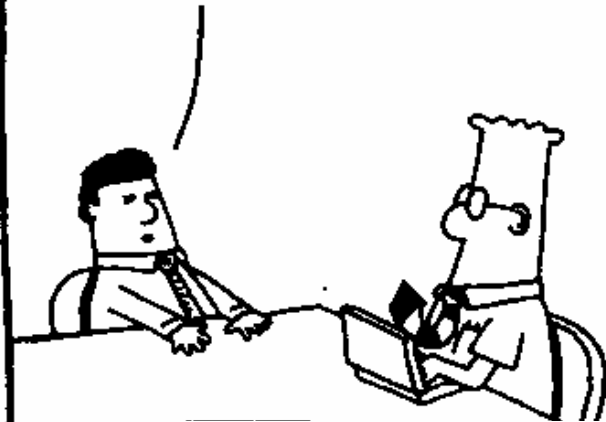
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Challenges in Managing Scope

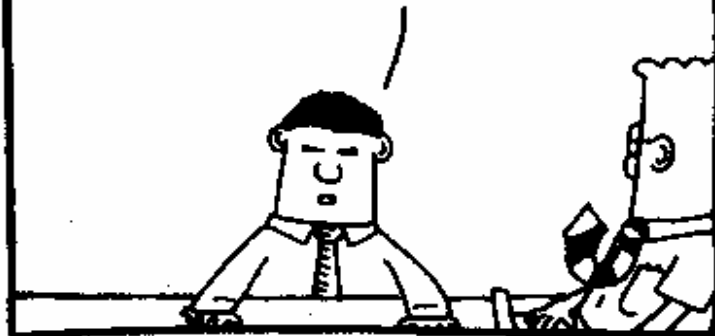


- ❑ “Everyone knows the project requirements”
- ❑ Requirements changes in response to rapidly evolving business trends
- ❑ “I’ll let you know when I see something I like”
- ❑ “There’s no time to write things down”

THE PROJECT REQUIREMENTS ARE FORMING IN MY MIND.

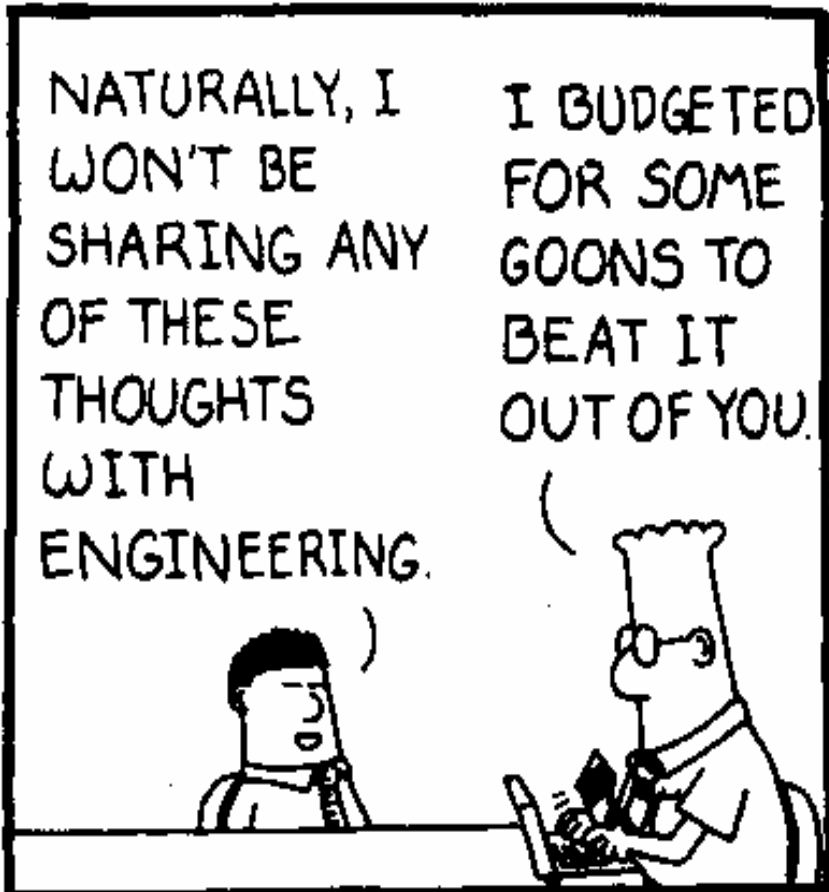


NOW THEY'RE CHANGING...
CHANGING... CHANGING...
CHANGING... OKAY. NO,
WAIT... CHANGING...
CHANGING... DONE.



Java Responds to Managing Scope

Dilbert on Java



Enables RAD techniques

- ❑ simple syntax enables quick prototyping cycles
- ❑ network-savvy features enable focus on functionality
- ❑ built-in security avoids building these features
- ❑ dynamic language which responds to change easily

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Challenges in Cost Pressures

- ❑ “Why is the training only offered in California?”
- ❑ “Do we really need to add a QA person to the team?”
- ❑ “Can we skip a release of the development environment?”
- ❑ “Aren’t there any cheaper contract programmers?”
- ❑ New workstations? Again! Already!

Java Responds to Cost Pressures

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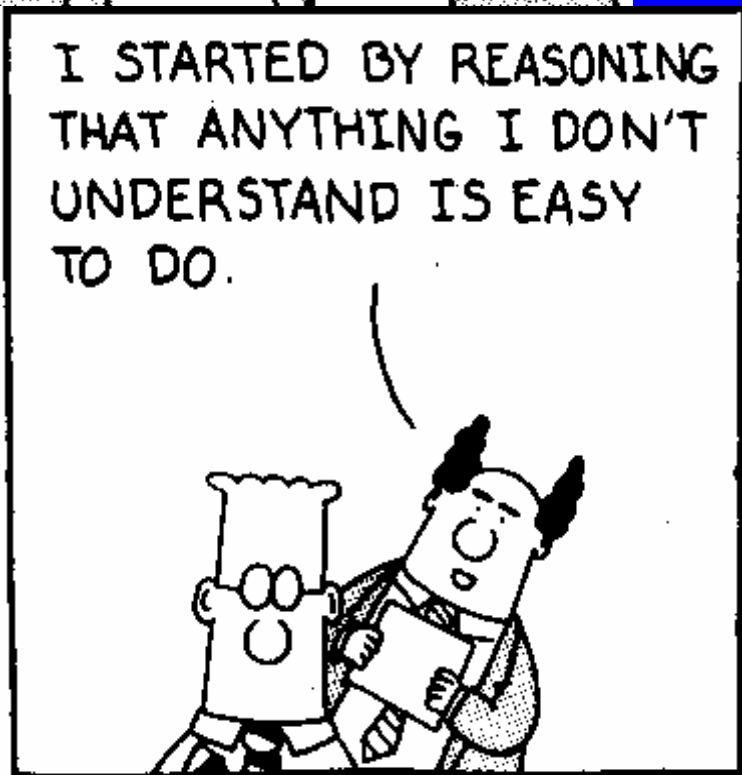
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- ❑ **Simplicity improves development productivity**
- ❑ **Object-orientation controls maintenance costs**
- ❑ **High performance controls computing costs**
- ❑ **Portability reduces development costs**
- ❑ **License cost is low**

Challenges in Schedule Expectations



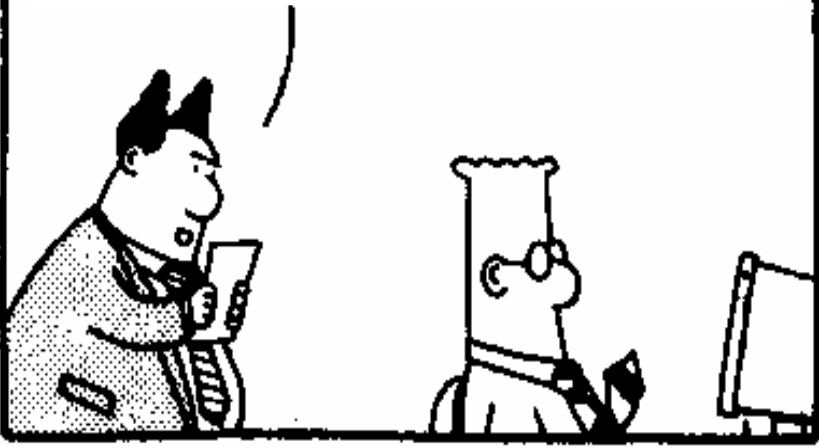
- ❑ Time line precedes a detailed project plan
- ❑ “You’ll like my estimate”
- ❑ “We’re not sure what this task really is”
- ❑ “Give me a gut-feel estimate”
- ❑ “You’re toast, if you don’t finish by Tuesday”



Java Responds to Schedule Expectations

Dilbert on Java

Phase One: Design a Java-based architecture for our world-wide operations. Time: 6 minutes.



- ❑ **Simple language enables fast learning**
- ❑ **Object-orientation shortens development schedule**
- ❑ **Robustness reduces testing schedule**
- ❑ **Portability eliminates time for multiple developments**

OUR GOAL IS TO WRITE
BUG-FREE SOFTWARE.
I'LL PAY A TEN-DOLLAR
BONUS FOR EVERY BUG
YOU FIND AND FIX.



Challenges in Achieving Quality

- ❑ “Why can’t you get it right the first time?”
- ❑ “Joanne does a much better job than you”
- ❑ “How do you spell regression testing?”
- ❑ “My son is a better programmer”
- ❑ “Does automated testing improve your golf score?”

Java Responds to Achieving Quality

Dilbert on Java



- ❑ **Tight language definition enables high quality code**
- ❑ **Robustness:**
 - increases coding consistency
 - reduces execution side-effects
- ❑ **Multi-threaded capability achieves quality software even in difficult tasks**
- ❑ **Dynamic language structure creates consistent module interaction**

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[Contacting Us](#)
[CaptureOnline](#)

Mapping

[Return to Map](#)

Printing

[Printout Map](#)

Searches

[By UWI \(DLS\)](#)

[Small Map](#) [Large Map](#)

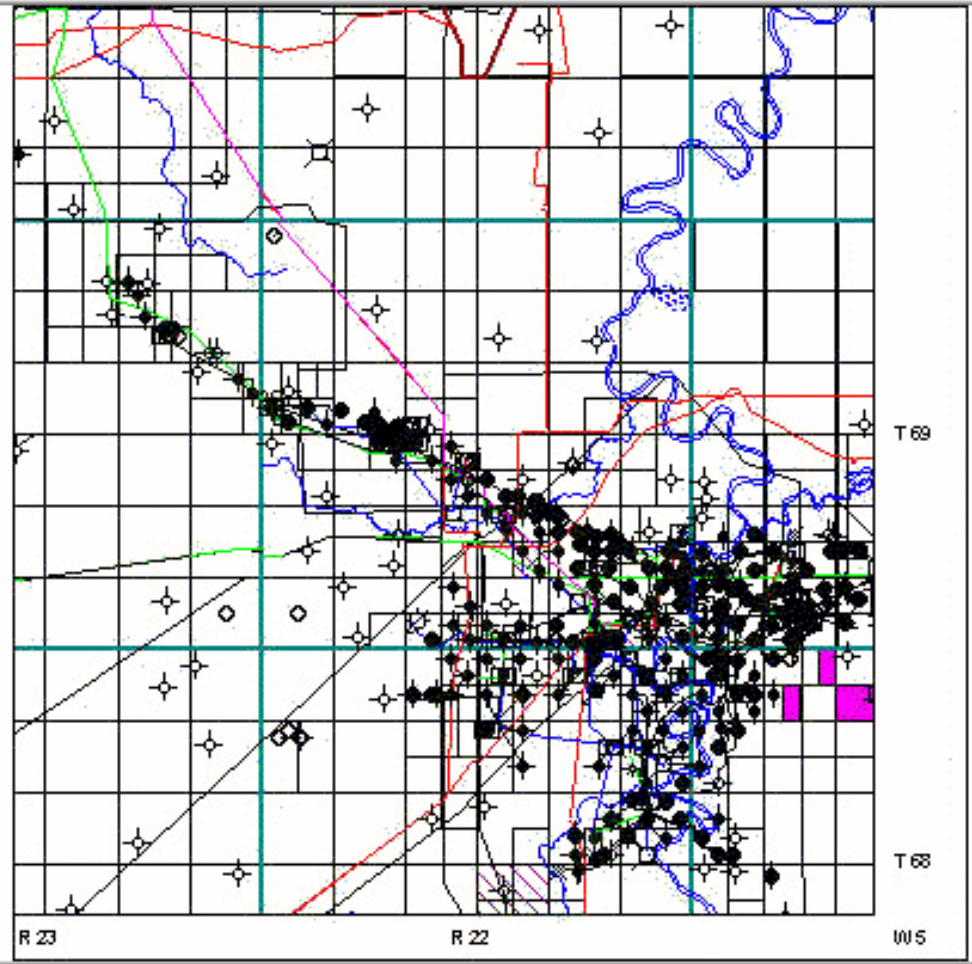
Enter your Area of Interest
in TTT-RR-wM Format

NW
SE

Display
[New Area](#) [Alberta](#)

Visible Map Type Report

- Wells
- Pipelines
- Facilities
- Seismic
- Crown Land
- Freehold Land
- Suncor Land
- Culture



[Click here to edit comment block](#)

- | | | | |
|----------------|-----------------|-------------------|------------|
| Oil | Dry & Abandoned | Oil | Crown Land |
| Oil, Heavy | Injection | Gas | Freehold |
| Oil, Suspended | Oil & Gas | Water | Suncor |
| Oil, Abandoned | Location | Other, Eff | |
| Gas | Suspended | Gas Plant | |
| Gas, Suspended | Gas, Abandoned | Battery, Facility | |

Conclusions

Dilbert on Java

- ❑ **Java can't be all things to all people**
- ❑ **Java won't displace Windows**
- ❑ **Java addresses software developer issues**
- ❑ **Java supports software business objectives**

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Take the
Corporate
Survival Test
& Qualify to
WIN



Recommendations leading to Java-based Products

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- Investigate
- Evaluate
- Lobby
- Architect
- Pilot
- Implement

Java potential for products

Java tools and technology

Java vendors for compliance

Java opportunities for products

Java features for one product

Java as development tool



Yogi Schulz



Current Date March 24, 1998



New Query

Territory/Product Major Group- Margin Analysis

Get Data	Baseline	Begin	End	Compare	Begin	End
		Jan 1998	Mar 1998		Dec 1996	Apr 1997

Territory	Product Major Group	Total Gallons	Revenue \$ / gal	TPC Margin Total \$	TPC Margin \$ / gal	Total Gallons	Revenue \$ / gal	TPC Margin Total \$	TPC Margin \$ / gal	Percent Change
Top Sales Person	HDMO	2,664	\$3.19	\$985	.37	0	\$0.00	\$1,605	.00	.00
Top Sales Person	INDUSTRIAL	185	\$10.11	\$166	.90	129,059	\$2.12	\$-4,483	-.35	354.59
Top Sales Person	COMPONENT	0	\$0.00	\$2,340	.00	4,059	\$5.01	\$2,901	.71	.00
Top Sales Person	FUEL ADD	38	\$34.55	\$775	20.64	182,188	\$1.47	\$-1,213	-.73	2,923.25
Top Sales Person	PCMO	72,245	\$1.59	\$-1,611	(.16)	174,173	\$2.53	\$6,595	.39	-141.41
	Total	183,108	\$2.00	\$2,151	.14	834,608	\$2.03	\$-1,632	-.12	185.26

Dilbert Explains Java to Developers

Dilbert on



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- **Project management and systems development**
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- **Computing Canada columnist**

Yogi Schulz



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– <http://java.sun.com>

Java Compatibility Description

Dilbert on Java

- ❑ Write once, run anywhere TM
- ❑ Write once, run everywhere safely
- ❑ Write once, test everywhere



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Java Compatibility Software Scope

Dilbert on Java



Release No.	Ship Date	Number of Tests
JDK™ 1.0	January 1996	approx. 300
JDK™ 1.1	February 1997	8,000
JCK 1.2	1998	approx. 11,000

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Source: Java One Presentation - Java™ Platform Compatibility Testing,
Carla Schroer, Senior Engineering Manager Sun Microsystems, Inc.

Java Advantages in a Web Context

Dilbert on Java

- ❑ **Enables delivery of applications; not just information**
 - make web much more useful
- ❑ **Eliminates ports for each OS**
 - reduces software development and maintenance costs
- ❑ **Eliminates end-user installation**
 - reduces system administration costs
- ❑ **Slashes software distribution complexity and costs**
 - improves application availability; reduces roll-out costs

Java Creates Benefits Business Perspective

Dilbert on Java



- Reduces time to market**
- Enhances customer service**
- Improves information sharing**
- Enables electronic commerce**

Java Reduces Costs Business Perspective

Dilbert on Java

- ❑ **Enables faster, cheaper, better application development**
- ❑ **Simplifies deployment of applications**
- ❑ **Protects platform investments**
- ❑ **Takes advantage of cheaper Internet telecommunications**
- ❑ **Facilitates central application management**
- ❑ **Reduces security administration effort**

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Java Advantages for I. S. Departments

Dilbert on Java

- ❑ **Cross-platform application access**
 - eliminates multiple application versions
- ❑ **Reduced software distribution complexities**
 - improves availability and contains costs
- ❑ **Simplified remote access**
 - enables work from anywhere
- ❑ **Secure application distribution**
 - maintains security even for remote access
- ❑ **Reduced PC administration effort**
 - improves availability and contains costs

Getting to Quality Software

Sun IR Webtop Certification Process

Dilbert on Java

- GUI style guide
- Application architecture compliance
- Security compliance
- Code re-use
- Year 2000 compliance
- Server loading
- Network bandwidth usage
- 100% Pure Java
- Supportability
- Solaris ABI