OLAP & A Show
Designing Highly Effective OLAP Solutions

Norman Comstock

Director – OLAP Solutions

Daman Consulting

June 21, 2001

DAMAN
CONSULTING

Contents

✔ **BI Trends**

✔ **Seven Habits**

✔ **Trivial Pursuit**
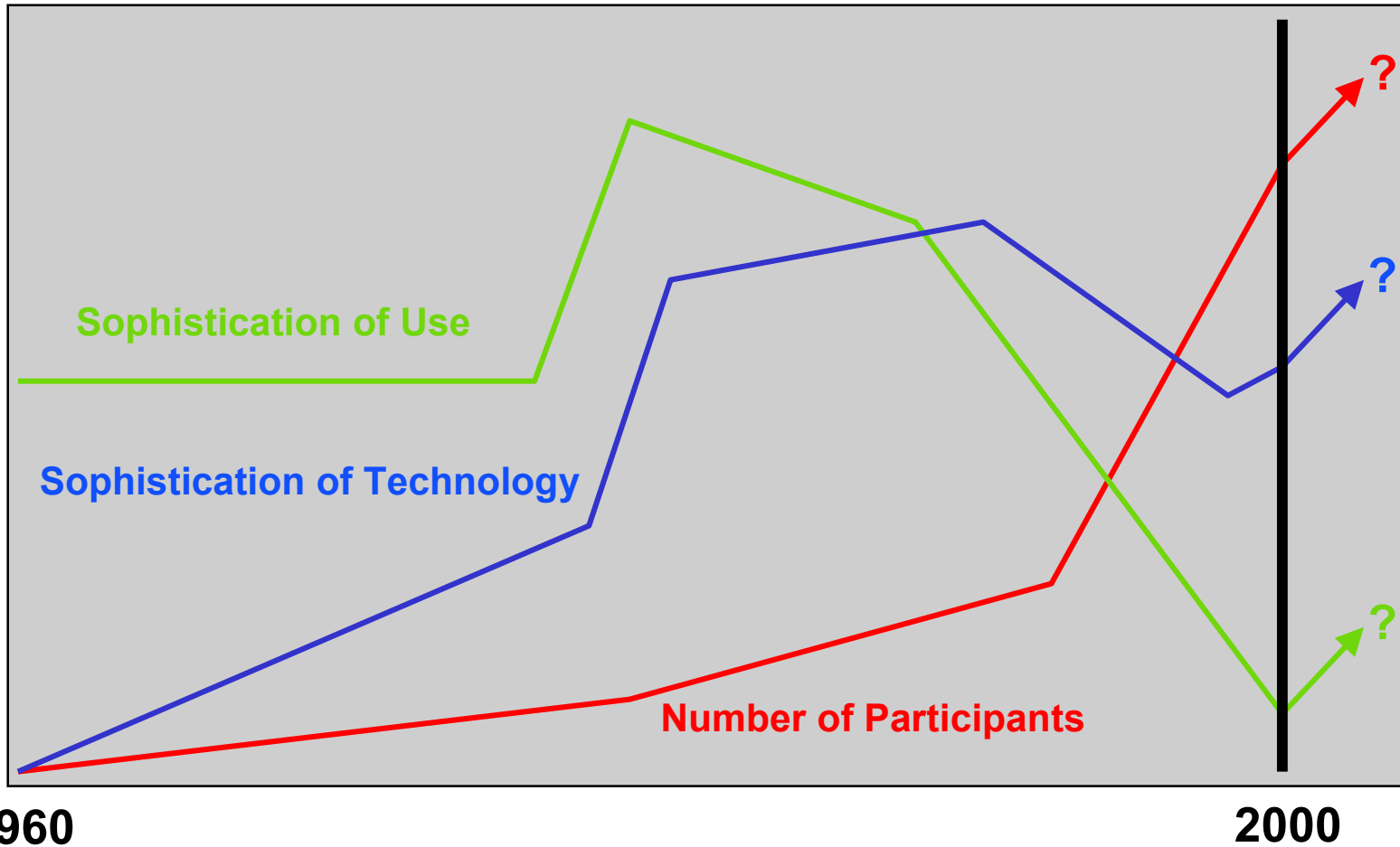
✔ **Characteristics of a Good Show**

✔ **Q&A**

"A new factor, that of rapid change, has come into the world. We have not yet learned how to adjust ourselves to its economic and social consequences."

Harvard Business Review
October 1932

Business Intelligence Trends

Sophistication of Use

Sophistication of Technology

Number of Participants

1960

2000

DAMAN CONSULTING

4

Analytical Application Trends

- **Underlying OLAP engines continue to become more robust in order to meet scalability demands**

- **The cost of OLAP and complementary presentation software continues to slide as the technology improves**

- **Web-based presentation is making analytical applications more ubiquitous**

- **Data mining becoming more mainstream**

- **Ubiquity of Analytics is forcing integration of BI**

Look out Maslow!
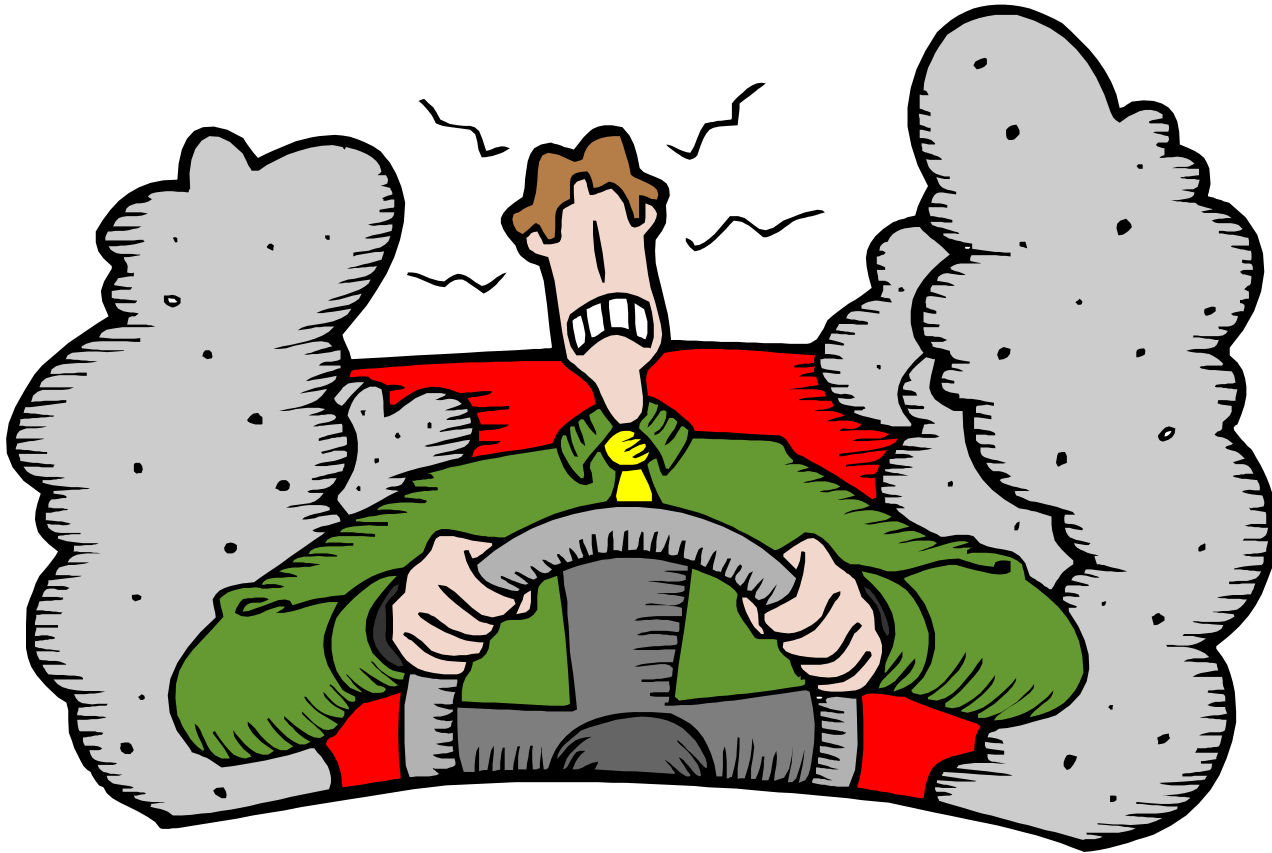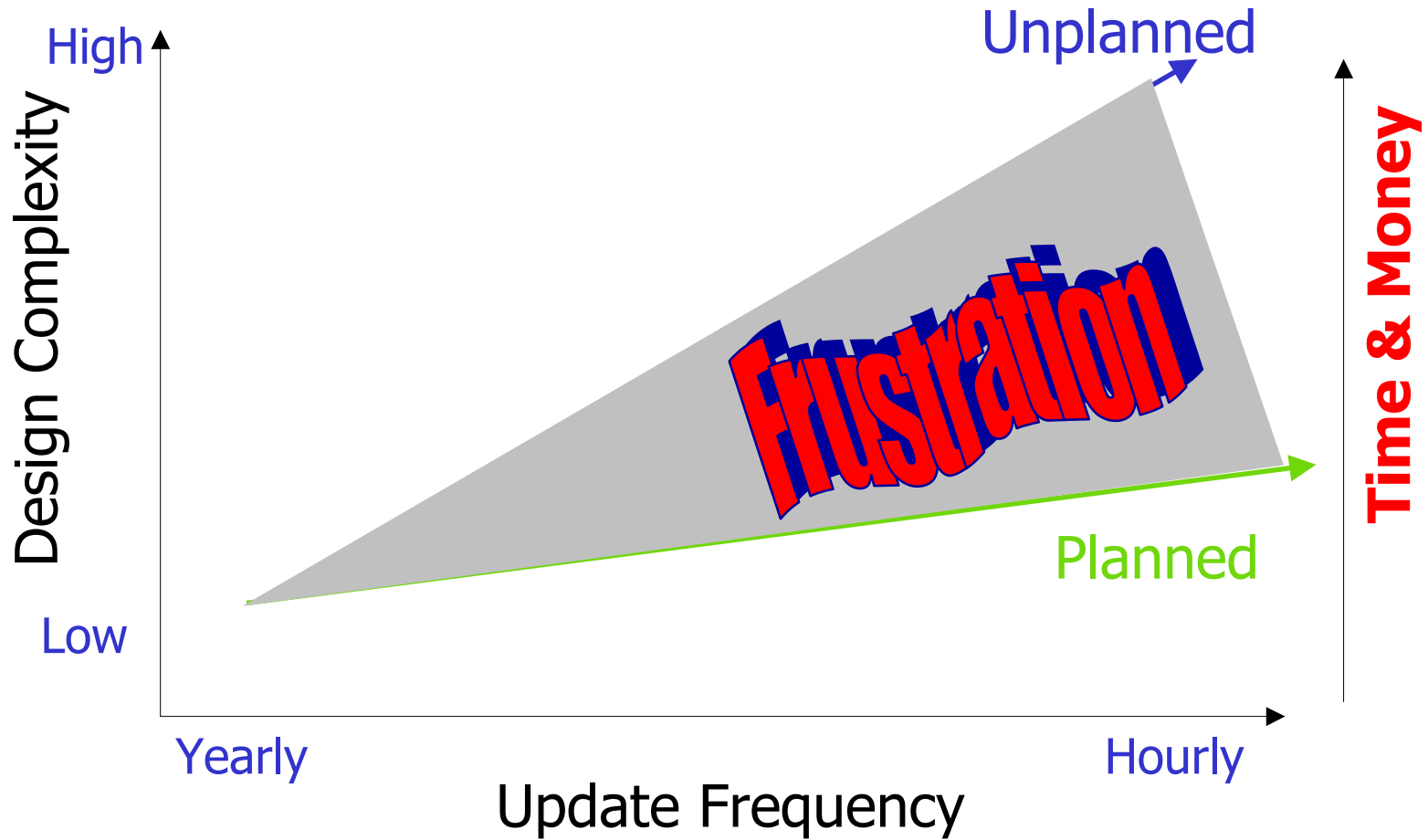
Hierarchy of Information Needs

KNOWLEDGE

ANALYZE

ORGANIZE

TRANSACT

OPERATIONALIZE
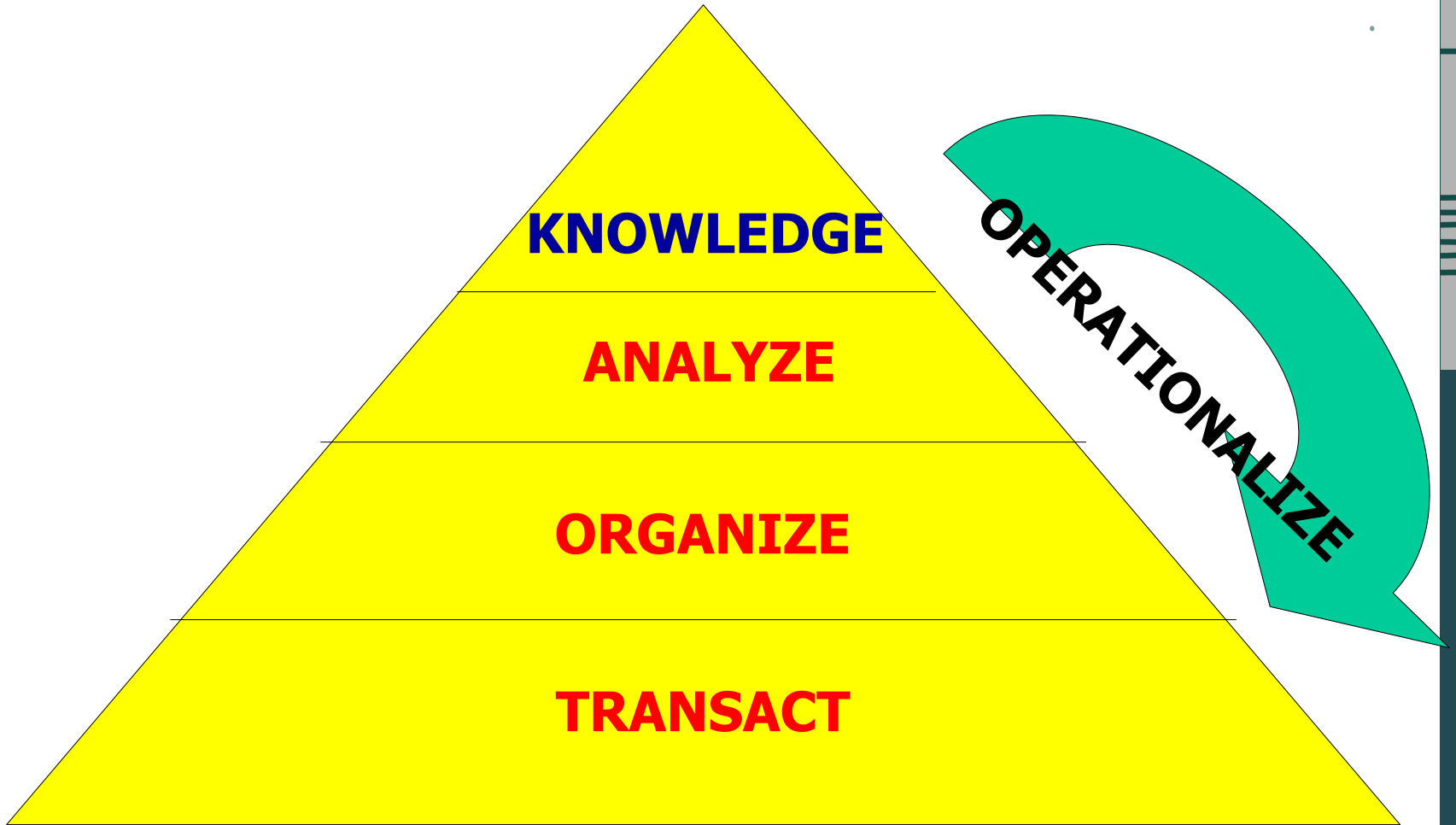
Nature vs. Nurture

- **Having an infrastructure to collect and transact business is natural to IT**

- **Being able to understand and provide a process that allows for aggregation of collected transaction data to facilitate analysis takes the nurture of the business environment**

- **There must be a concerted effort to cultivate the data for a meaningful harvest and "reseeding"**
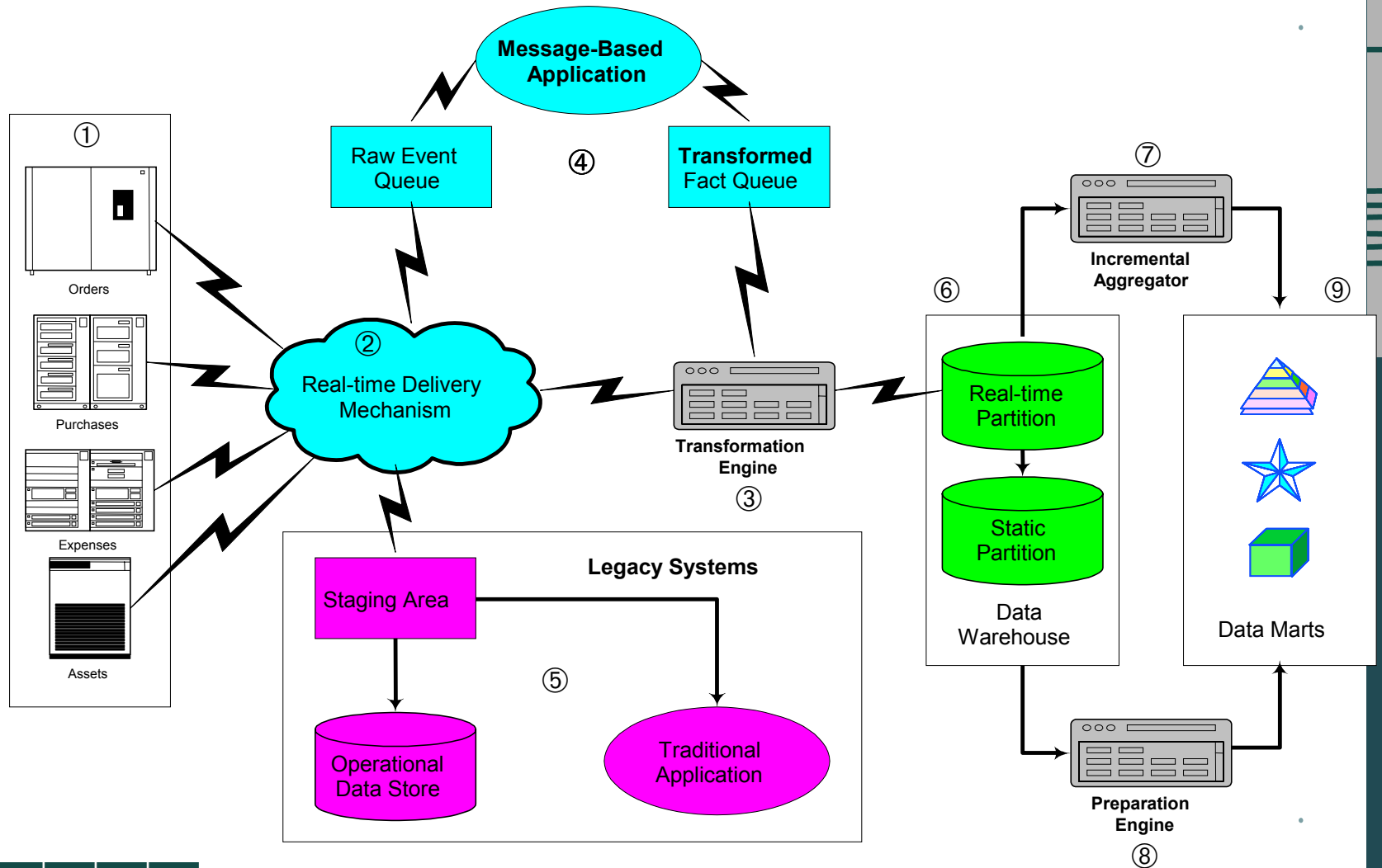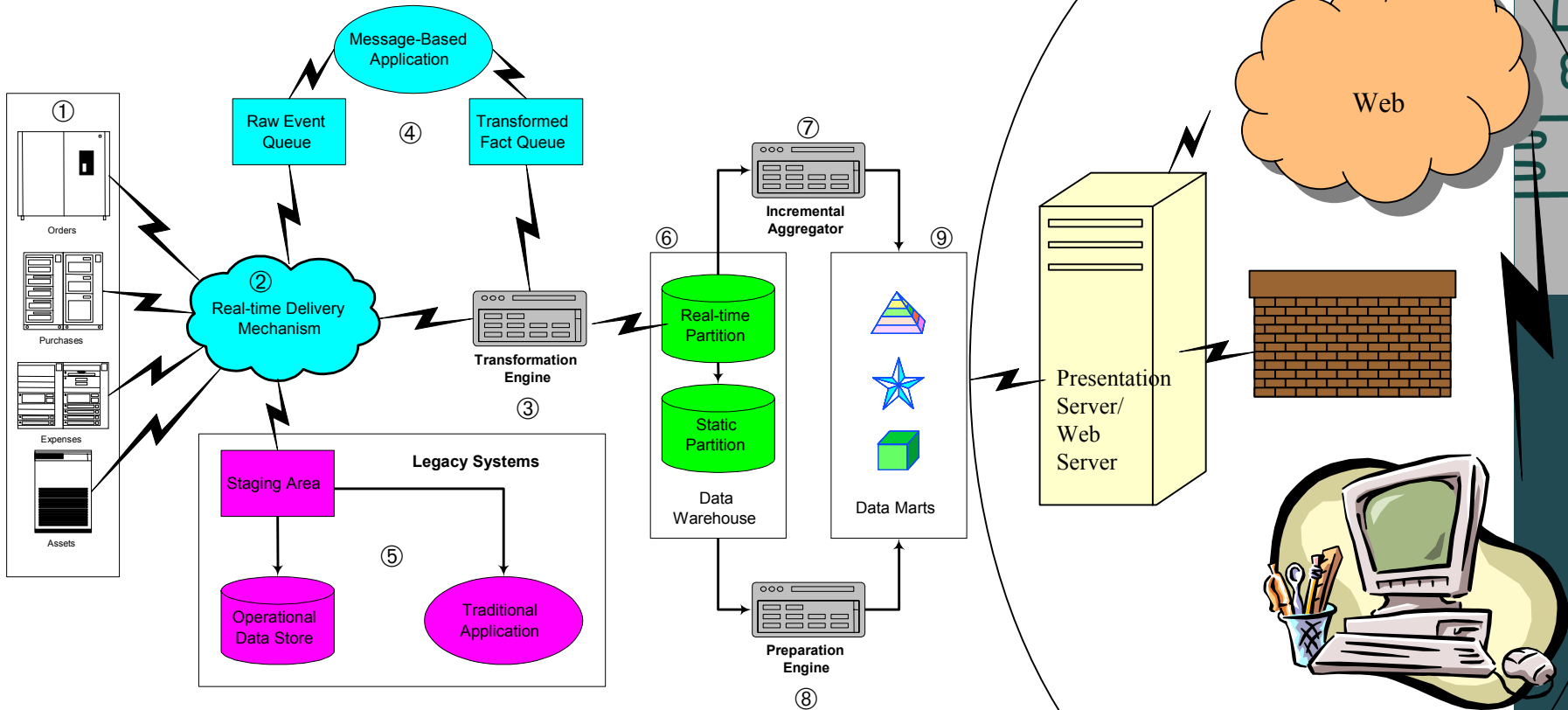
Highly Effective OLAP Solutions

Real-Time Data Warehousing

Real-Time Data Warehousing – Integrated BI

Message-Based Application

Raw Event Queue
④
Transformed Fact Queue

① Orders

Purchases

Expenses

Assets

② Real-time Delivery Mechanism

Transformation Engine
③

⑥ Data Warehouse
- Real-time Partition
- Static Partition

⑦ **Incremental Aggregator**

⑨ Data Marts

Preparation Engine
⑧

Legacy Systems

Staging Area

⑤

Operational Data Store

Traditional Application

Presentation Server/ Web Server

Web

BIXCHANGE

DAMAN CONSULTING

Contents

✔ **BI Trends**

✔ **Seven Habits**

✔ **Trivial Pursuit**

✔ **Characteristics of a Good Show**

✔ **Q&A**

DAMAN
CONSULTING

12

Seven Habits for Designing Highly Effective OLAP Solutions

- **Visualize**

- **Design with the end in mind**

- **First things first**

- **Focus on the Customers**

- **Listen first, then execute**

- **Collaborate**

- **Review, Analyze, Iterate**

Establish the Program	1. Develop the Rationale 2. Target the Opportunities 3. Define the Architecture 4. Create the DW Program
Prepare the Project	5. Plot the Project Tasks 6. Establish the Infrastructure 7. Procure the Tool Kit 8. Assemble the Team
Initiate the Database	9. Investigate Consumer Needs 10. Triage the Source Elements 11. Model States and Dimensions 12. Design the Database 13. Acquire Source Data 14. Populate the Database
Explore the Data	15. Iterate Base Table Design 16. Explore Consumer Usage Interactively 17. Tune Collection Design 18. Plan Cycles and Production Migration
Implement the Deliverables	19. Prepare for Release 20. Train the Consumers 21. Initiate Support Processes 22. Migrate to Production
Expand the Environment	23. Manage the DW Inventory 24. Synchronize with Evolving Business Needs 25. Evangelize Endlessly 26. Do it Again!

14

ACCLIMATE

The OLAP Design Methodology for Effective Solutions

Assemble the Team

Conduct FSR Interview

Conduct IS Analyst Interview

Leverage DW infrastructure

Identify OLAP Engine and Presentation Tools

Model Presentation Modes Collaboratively

Amend Cube Design for Prime Time

Train the Consumers

Exploit the Cube

Contents

✔ **BI Trends**

✔ **Seven Habits**

✔ **Trivial Pursuit**

✔ **Characteristics of a Good Show**

✔ **Q&A**

DAMAN
CONSULTING

DAMAN
CONSULTING

Trivial Pursuit

Millions

RANK	MOVIE TITLES (1900-2001)	DOMESTIC	WORLD	Budget	Return on Investment DOMESTIC	WORLD
1	Titanic (1997)	$600.80	$1,835.40	$200	300%	918%
2	Star Wars: Episode I - The Phantom Menace (1999)	$431.10	$922.60	$115	375%	802%
3	Jurassic Park (1993)	$357.10	$920.10	$63	567%	1,460%
4	Independence Day (1996)	$306.20	$811.20	$75	408%	1,082%
5	Star Wars (1977)	$461.00	$798.00	$11	4,191%	7,255%
124	**Waterworld (1995)**	**$88.20**	**$255.20**	**$175**	**50%**	**146%**
137	**Blair Witch Project, The (1999)**	**$140.50**	**$240.50**	**$0**	**401,428,571%**	**687,142,857%**

Source: IMDB.com & WorldwideBoxOffice.com

D|A|M|A|N **18**
C O N S U L T I N G

Contents

✔ **BI Trends**

✔ **Seven Habits**

✔ **Trivial Pursuit**

✔ **Characteristics of a Good Show**

✔ **Q&A**

19

What defines a good show?

- **Actors?**
- **Directors?**
- **Editors?**
- **Producers?**
- **Story?**
- **Setting?**
- **Special Effects?**
- **Budget?**
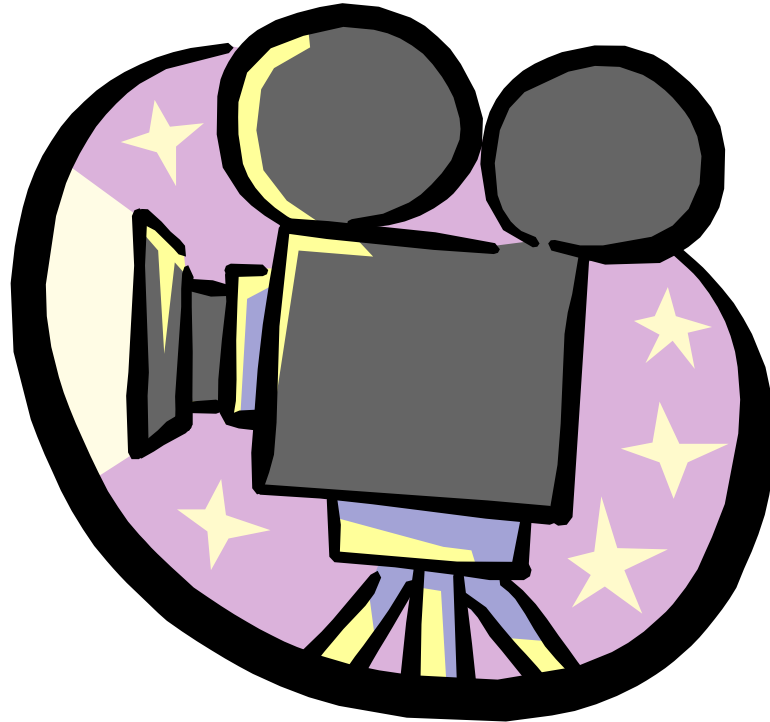
Characteristics of a good OLAP Show

- **PLOT**
- **SETTING**
- **CHARACTERS**
- **POINT OF VIEW**
- **SYMBOLISM**
- **THEME**
- **STYLE/VOICE**

➢ **Financial Operational**

➢ **Expand or Retrench**

➢ **Pres**

DAMAN
CONSULTING

21
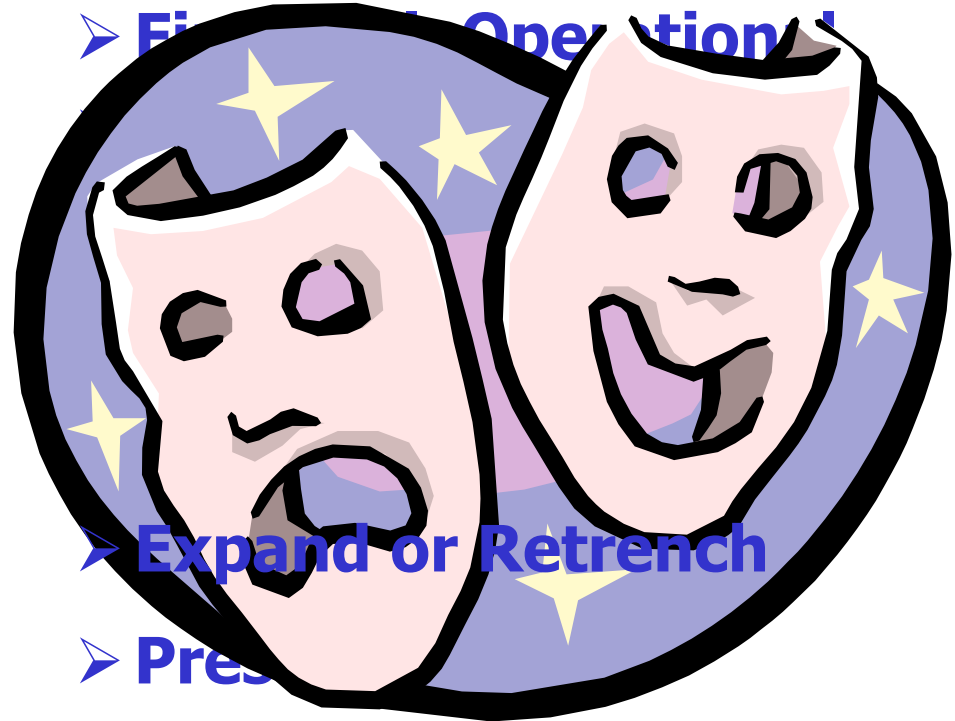
PLOT

- **What *exactly* happens in the presentation?**
- **Is there revelation, resolution, or both?**

If conclusions are drawn, what recommendations made?

SETTING

- **What is the time period of the presentation?**
- **Does the setting make a difference, or could this story take place anytime, anywhere?**
- **How might a different time period affect the story?**
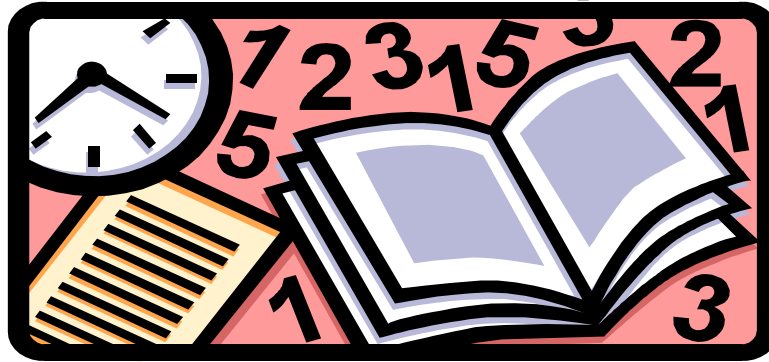
Design around time.

CHARACTERS

- **What characters are multi-dimensional/ dynamic?**

- **What characters are flat/static? Why?**

- **How is their character revealed (hierarchy, comments, member properties, etc.)?**

Understand how your customers look at dimensions.

POINT OF VIEW

- **Who tells the story?**

- **What about the narrator makes a difference in the story (participant/nonparticipant, function, character, limitations, etc.)?**

Is there enough depth to satisfy the info consumer?

SYMBOLISM

- **What are the symbolic elements?**

- **How and why are they used?**
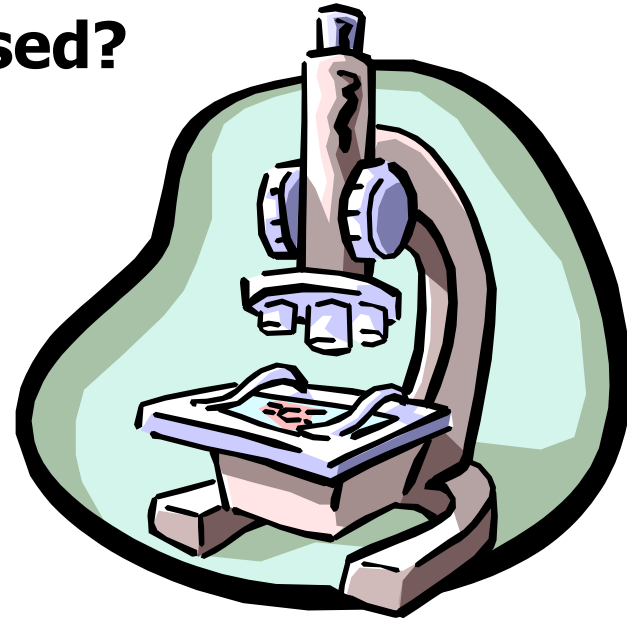
What about icons, color schemes and tag lines?

THEME

- **What repetitions of words or details do you want people to find?**

- **What does the story say about the business? How loudly? How well?**
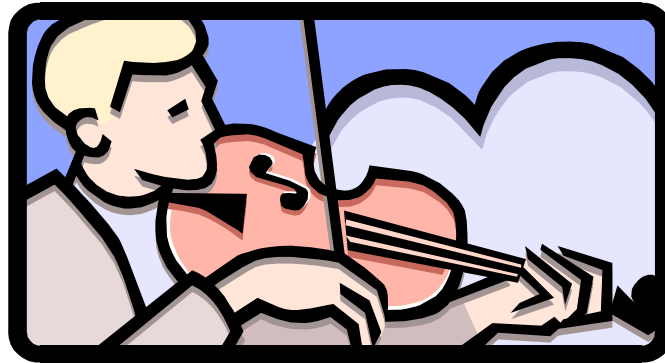
To be or not to be subtle???

STYLE/VOICE

- **What presentation tools are you using?**

- **How does it impact the story?**
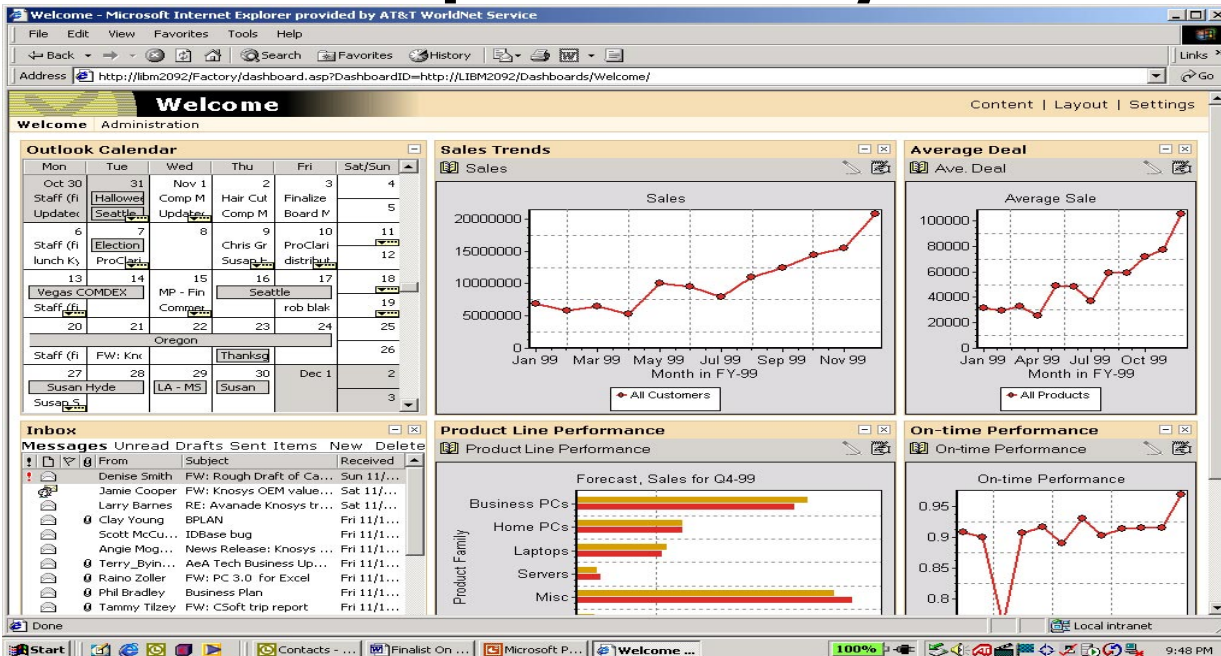
One size does not fit all!!!

It's not Magic!

Visually Compelling

- **Graphical display**
- **Graphical augmentation**
- **High synthesis**
- **Intuitive Drill down**

Reporting, Charting & Graphing

3D Visualization

Geographic Spatial Mapping
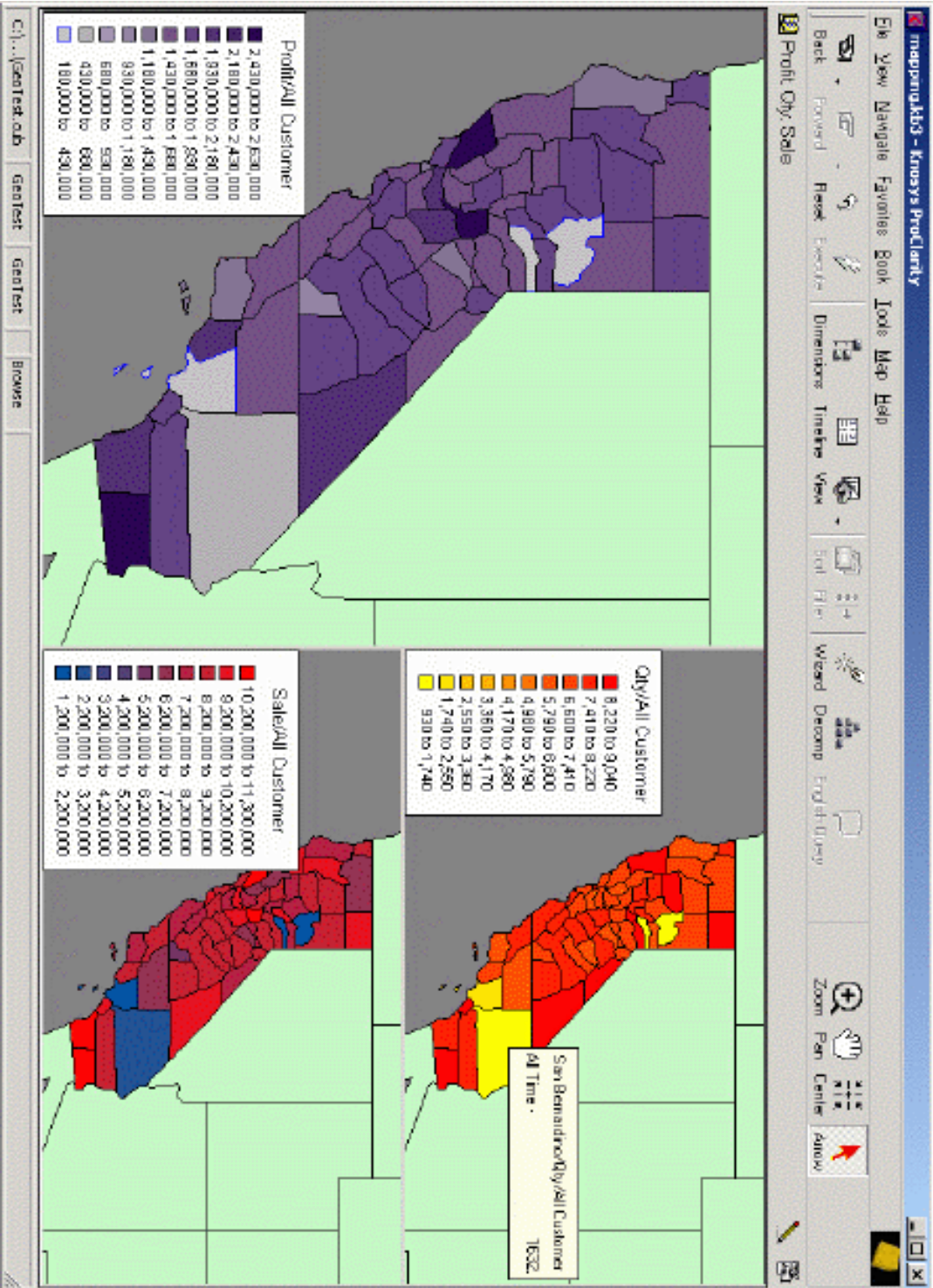
Geographic Data Presentation

Animation over Time
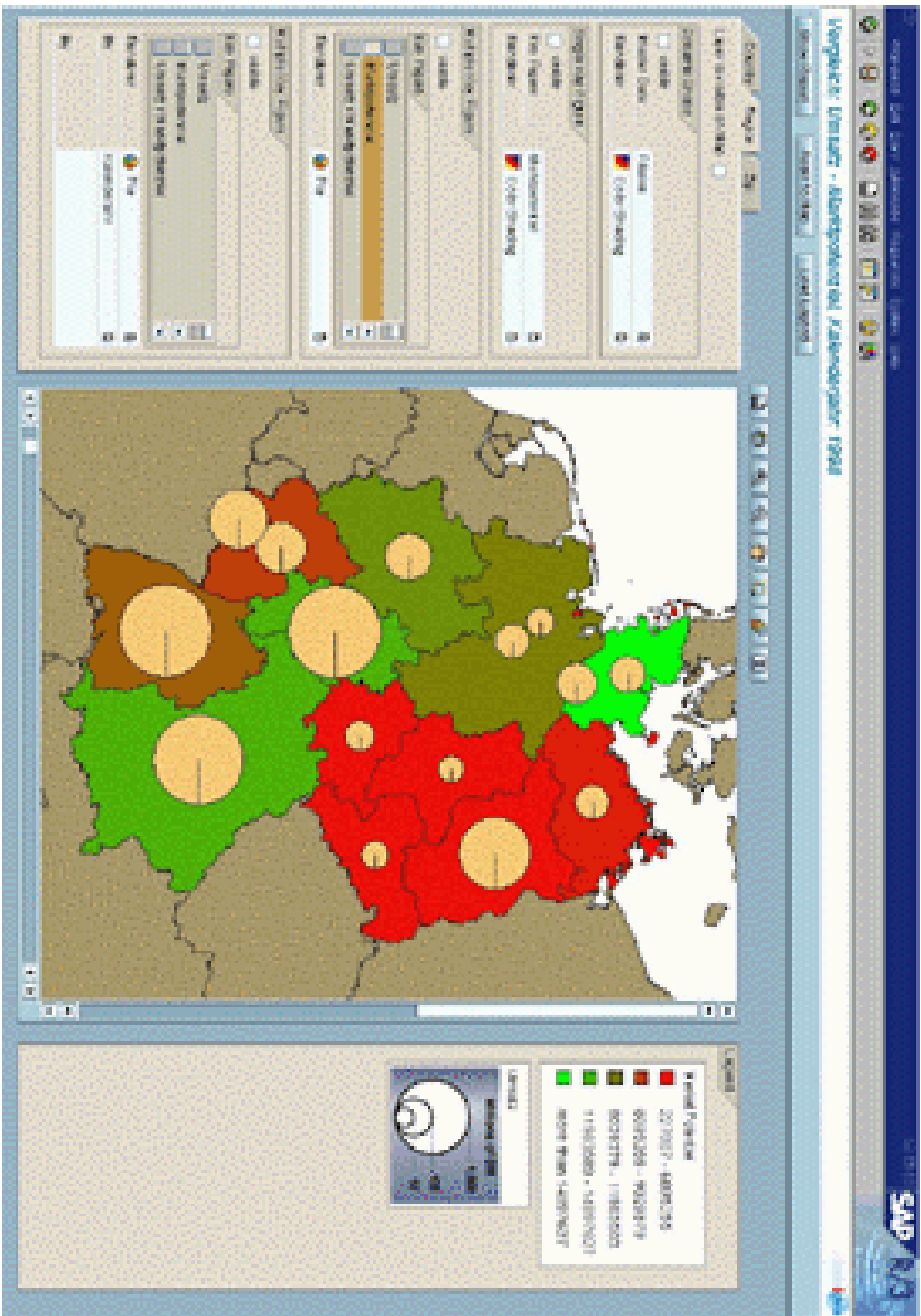
SAP Business Information Warehouse Data Visualization Prototype
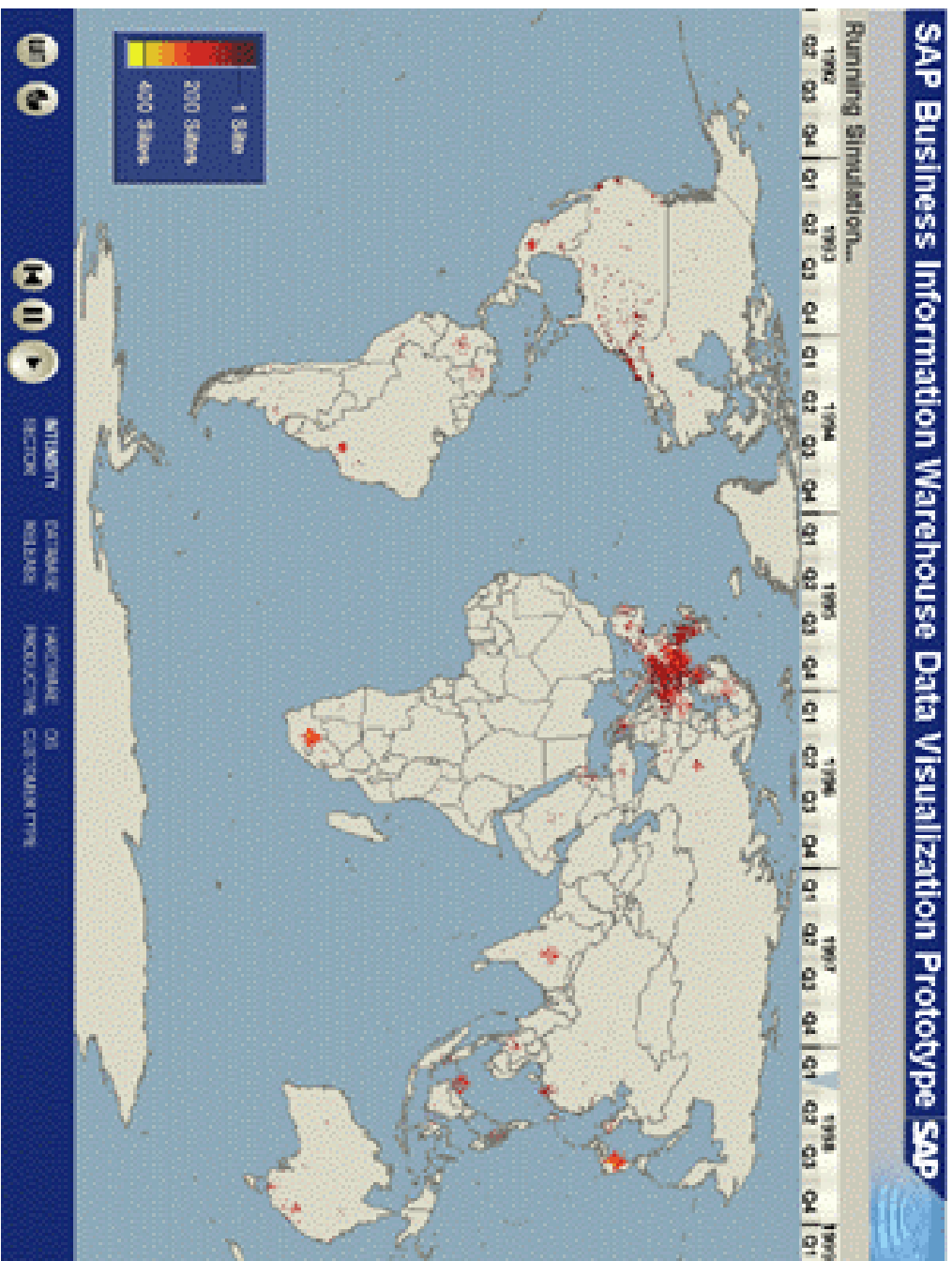
Split Pie/
Combination Visualization
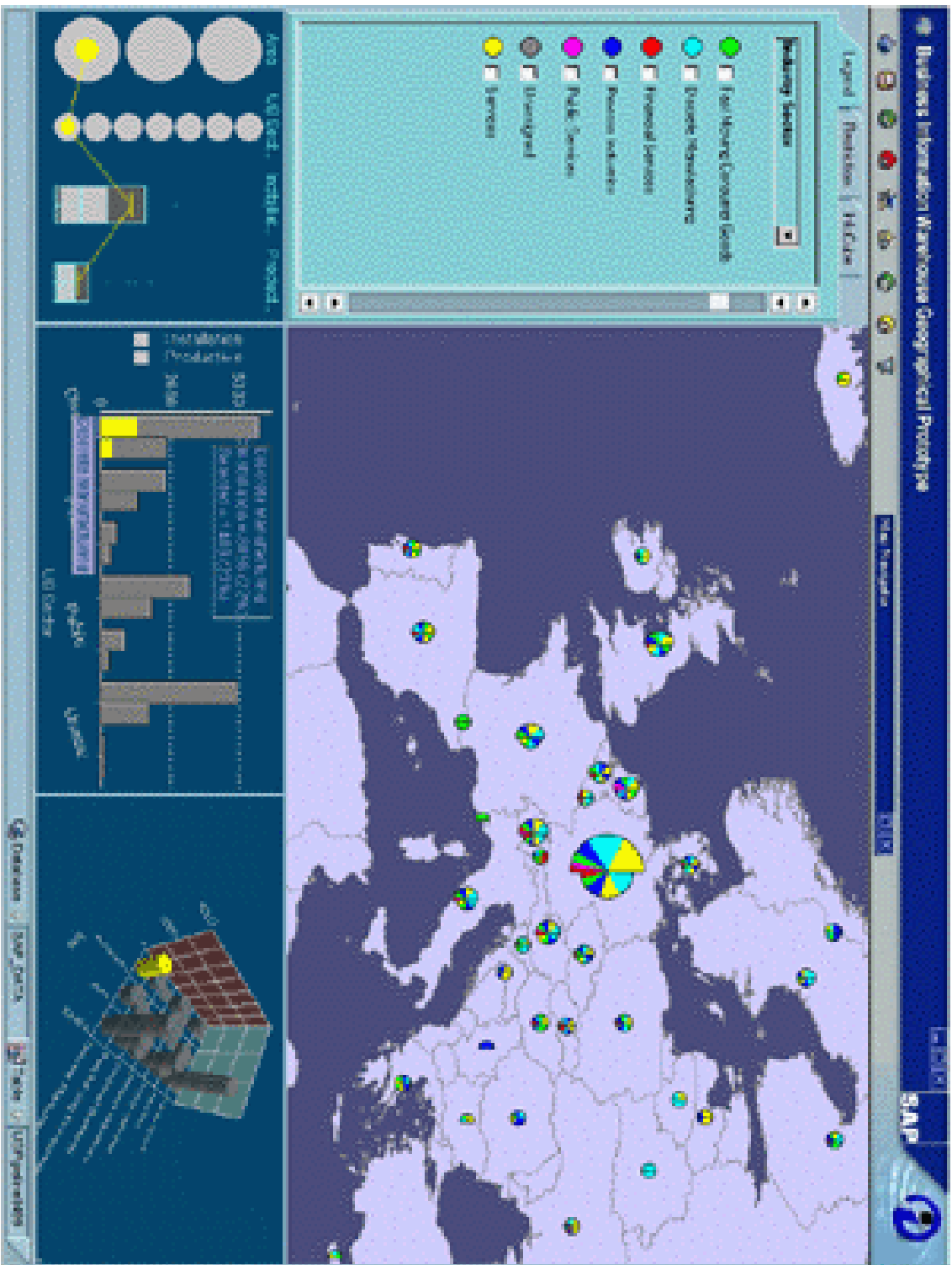
2D/3D Visualization & Animation

Data Mining

Back End vs. Front End

Highly Effective OLAP Solutions
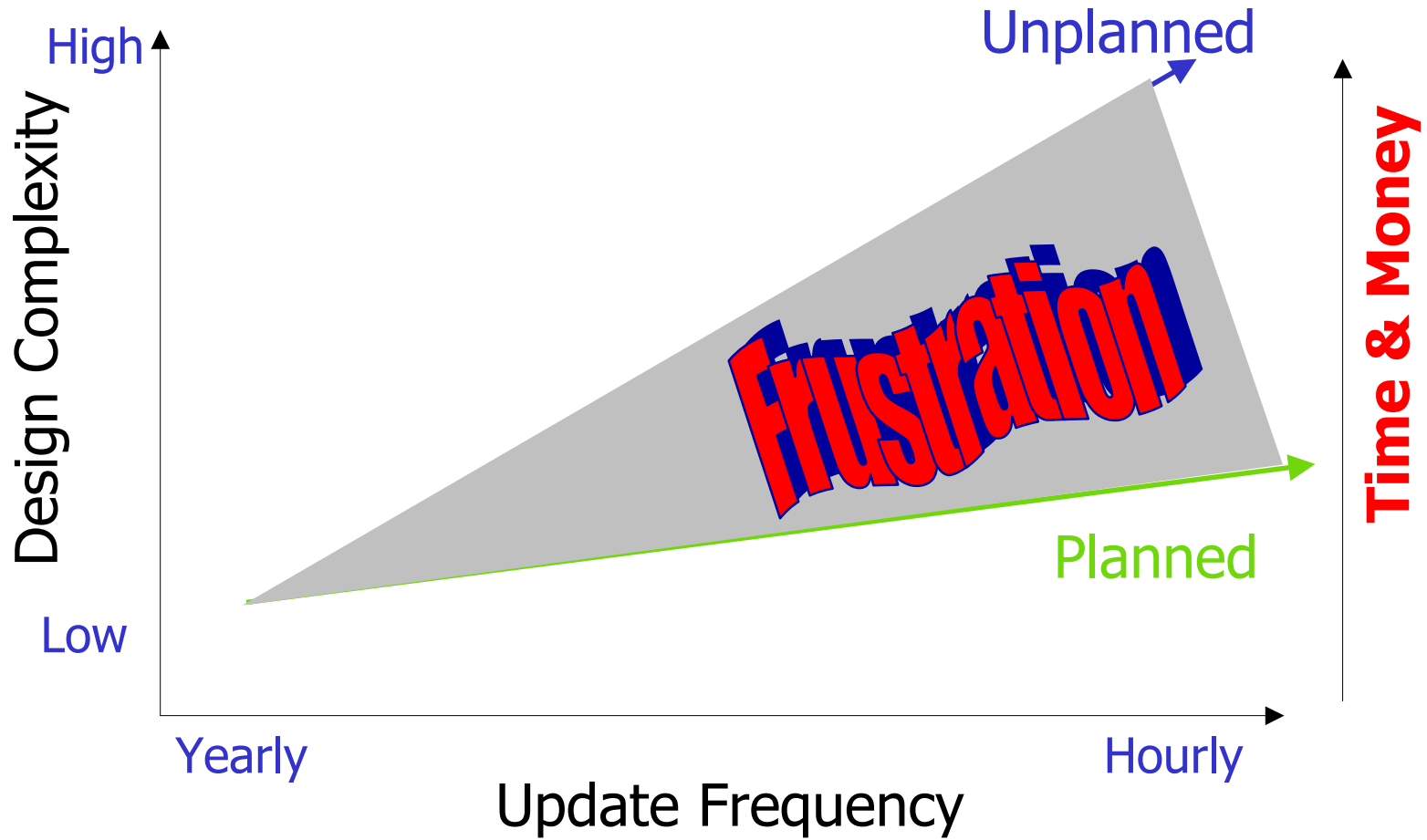
Contents

✔ **BI Trends**

✔ **Seven Habits**

✔ **Trivial Pursuit**

✔ **Characteristics of a Good Show**

✔ **Q&A**

Norman Comstock

Director – OLAP Solutions

ncomstock@damanconsulting.com

"Avoid DRIP through SIT"

Break Time!