

Let Alerting Lead the Way To Real-Time Decision Processes

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TDWI BI Strategies
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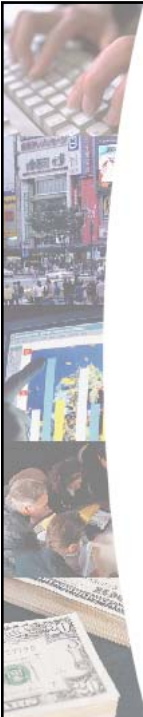
Biography



- **Richard Hackathorn**
Bolder Technology, Inc.
- **President and founder with thirty years of IT experience. Regular columnist for DM Review. Conducted seminars in eighteen countries. Author of three books: Web Farming for the Data Warehouse, Using the Data Warehouse, Enterprise Database Connectivity. Professor at the Wharton School, Univ. of Pennsylvania, and at the Univ. of Colorado. BS from Caltech; MS and Ph.D. from Univ. of California, Irvine.**
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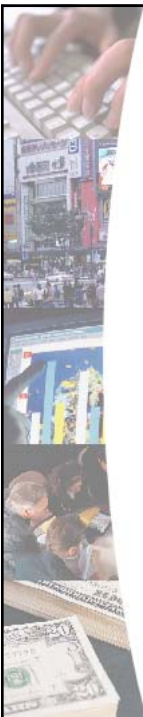

Let Alerting Lead The Way



Abstract

- **The biggest obstacle to evolving to a more real-time data warehousing environment is identifying the business benefits and technology requirements. This presentation describes a low-cost methodology for documenting the business benefits of real-time decision processes by using alerting applications.**
- **This presentation will cover:**
 - The Problem and A Solution
 - What is an Alerting Application?
 - Suggested Steps
 - Some Challenges


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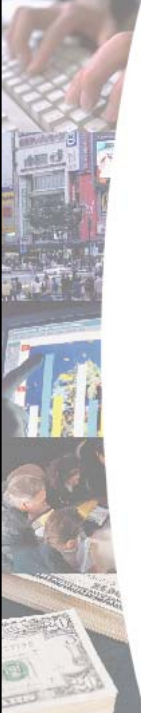


The Problem: Justifying Real-Time BI

- **Gap between traditional BI and R-T BI**
 - Traditional BI is data focused
 - Real-Time BI is process focused
- **Driven by Line-Of-Business groups**
 - Disconnected from IT and DW groups
 - Hinges on key changes to business processes
- **Need to justify prior to implementation**
 - Tangible ROI for new ways of doing business!
 - Document requirements before design
 - Often requires a leap of faith... And some luck!

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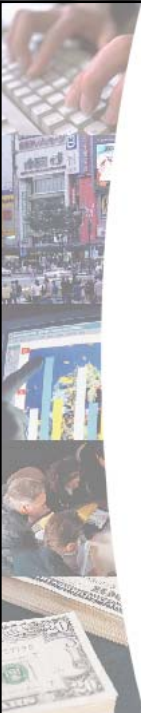





A Solution: Prototyping Alerting App

- **Goal is Information Requirement Analysis**
 - Prototype, not a production application
 - Set expectations properly
- **Needs to be:**
 - Low-cost, simple, quick
 - Surfaces the business pain
 - Should hit where the rubber-meets-the-road
- **Direct interaction with business process**


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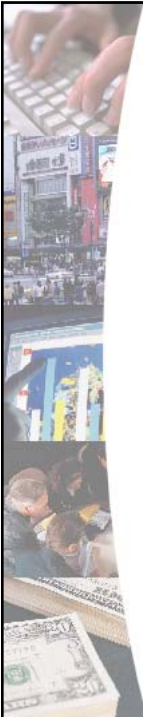


Example: Century Theaters

- **900 screens in 91 theaters over 11 states**
 - 500 employees
- **XML streaming throughout the day**
 - Attendees, movies, etc => daily trends
- **Alerts in inventory levels**
 - Theater mgr notified on low levels
 - Better control over inventory and spoilage
- **Challenges**
 - Need to target the right person to be notified
 - Relying on VP-IS who have much experience
 - Feedback with users every quarter
- **Using MicroStrategy 7.1**
 - Can automatically generate a PO
 - Can use PDS, cell phones, beepers, email...

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What is an Alerting Application?

- **Alert = “to call to a state of readiness”**
- **Condition - Response**
 - If condition X occurs, then do response Y
 - More than exception reporting
- **‘Abnormal’ business condition**
 - Something potentially bad...
 - resource constraint, policy violation, risk-liability limit
 - Something potentially good...
 - business opportunity, customer/product touchpoint
- **Driven by events & interrupts workflow**
 - Both automates and enables new workflow


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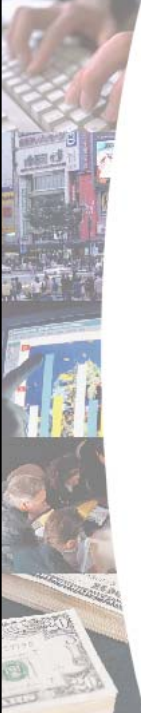
Elements of Alerting Application

- 1. Notify**
 - Person with proper scope & level of responsibility
 - Constructive interruption of normal workflow
- 2. Inform**
 - Explain the ‘abnormal’ business situation
 - Allow for drill-down (seeing the detailed data)
- 3. Guide**
 - Suggest appropriate action plans
 - Allow for flexibility: exceptions and judgment

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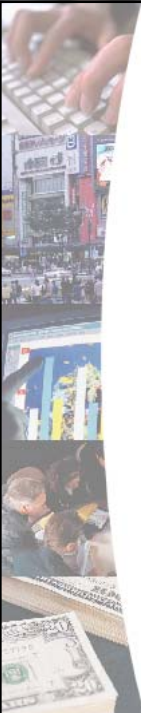

Strategic - Tactical - Operational

- A confusion of terms!
- Classical org theory states...

policy
→ procedure
→ execution

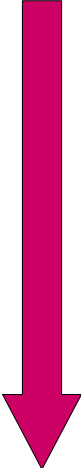


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Strategic - Tactical - Operational

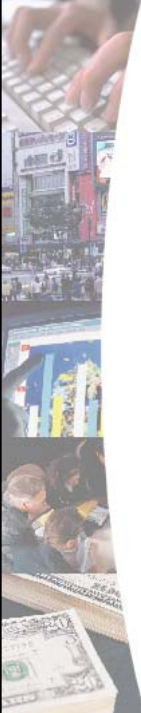
- **Strategic decision support**
 - Goal of better policies
 - Time scale of months to weeks
 - Impacts top management
- **Tactical decision support**
 - Goal of better procedures
 - Time scale of weeks to days
 - Impacts staff & middle-level management
- **Operational decision support**
 - Goal of better execution
 - Time scale of days to minutes → intraday
 - Impacts first-line supervisors



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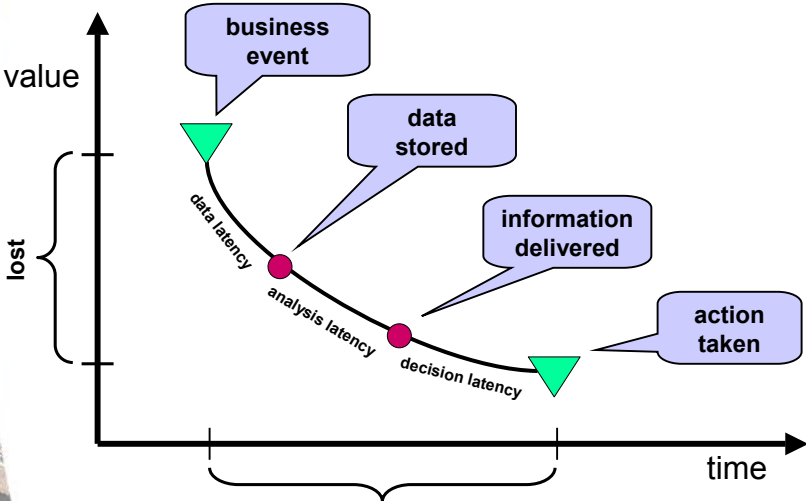
Example: Ford IMAS

- Ford Motor Company needed to improve the flow of parts from suppliers to assembly plants
- Started with a simple alerting tool that notifies them when a truck was running late
- Evolved into the Inventory Management and Alerting System
 - Requirements were extended from alerting to analytic metrics and then to a proactive operational application
 - Currently, IMAS measures the net change in inventory on a nightly basis and then calculates, at the level of individual parts, the days-on-hand inventory based on consumption and demand.
 - Based on the key touchpoints in the supply chain, the flow of material is reprioritized for the next day.

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Real-Time to Right-Time



value

value lost

business event

data latency

data stored

analysis latency

information delivered


decision latency

action taken

time

action distance

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Let Alerting Lead The Way

Real-Time to Right-Time

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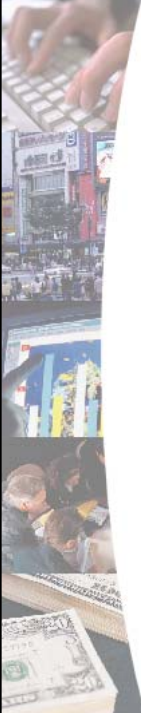
Automate versus Enable

- **Actually, it is both!**
- **Automate the stuff that is routine**
 - Minimize human involvement
- **Enable humans to handle the rest**
 - Leverage human judgment

automation


enablement

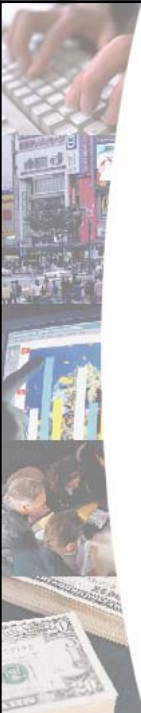
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Example: BizRate Marketplace


- **Web-based comparison shopping**
 - About 10M products from 100K merchants
 - A product is updated at least once per day
 - Users in the couple of million range
 - Surveys per day are 100K per day
- **Event-driven business from website**
 - Collecting 10-100GB per day
 - “Can’t do anything manually. Too much data!”
- **Alerts for...**
 - Systems are up and running properly
 - Numerous data streams of merchant ratings, etc.

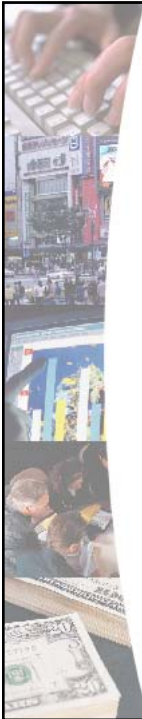
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Suggested Steps

- 1. Identify a critical business process**
 - Covered by current warehouse data
- 2. Identify an abnormal condition**
 - Outside the scope of the transaction system
- 3. Identify a person who cares**
 - Not too high and not too low
- 4. Create a prototype alert**
 - Light desktop tool with email alert
- 5. Observe what happens**
 - Keep a log of alert and responses
- 6. Propose a plan for doing it right**

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Some Challenges

- **Watch scope creep with prototype**
 - Manage expectations!
 - Propose a real project to do it 'right'
- **Develop good case analysis techniques**
- **Perform a 'gap' analysis on the data**
 - *"If the data is not in the DW, you can not perform even a simple alerting application"* - Wanda Black
- **Data may not be refreshed often enough**
 - Is daily sufficient for an alerting prototype
- **Provide for centralized alerting mgt**
 - Goals, responsibilities, administration...

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Contributions from Wanda Black, GoJo

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