Quality Metrics, Scorecards and Dashboards

Presented October 11th, 2008

LOS ANGELES Section
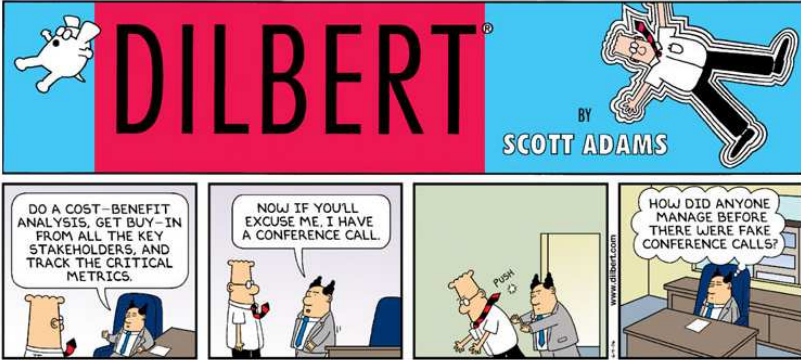ASQ
AMERICAN SOCIETY FOR QUALITY

Presented by
Diane Kulisek

CAPAtrak LLC

www.capatrak.com
805-522-5005 O
805-320-7879 C
dkulisek@capatrak.com
2493 Pinewood Place
Simi Valley, CA 93065

CAPAtrak LLC   Quality Metrics, Scorecards and Dashboards

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 1 of 21

CAPAtrak LLC — Quality Metrics, Scorecards and Dashboards

What will be addressed:

TOPICS

- **Some Definitions**
  - What are Quality Metrics?
  - What are KPI's?
  - What are Dashboards?
  - What are Scorecards?
- **Quality Management System Considerations**
  - What Do Standards and Regulations Require with Regard to Quality Metrics?
  - How do Quality Metrics directly support the Quality Management System?
  - Where in the QMS should Quality Metrics be established?
- **Tips for Selection of Quality Metrics**
- **Scorecards and Dashboards**
  - Elements of an Effective Scorecard
  - Elements of an Effective Dashboard
  - Scorecard and Dashboard Pitfalls to Avoid
- **Quality Metrics References**
- **Some Quality Metrics Tools**

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   3

CAPAtrak LLC — Quality Metrics, Scorecards and Dashboards

Some Definitions

- What are Quality Metrics?
- What are KPI's?
- What are Dashboards?
- What are Scorecards?

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   4

---

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 2 of 21

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Some Definitions

- **What are "Quality Metrics"?**
  - A "metric" is a measure.
  - "Quality" is something a "customer" defines.
  - A "Quality Metric", therefore, is a measure of quality as defined by the customer.
    - NOTE 1: A "customer" might be defined as anybody with an expectation of receiving something of value in exchange for something else of value, either external to or internal to an organization.
    - NOTE 2: Not all "Metrics" are "Quality Metrics"

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   5

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Some Definitions

- **What are KPI's?**
- **KPI = Key Performance Indicator**

  There are MANY definitions:
  - ***Chosen factors*** that directly and indirectly influence the effectiveness of a product or process.
  - A ***significant measure*** used on its own, or in combination with other key performance indicators, to monitor how well a business is achieving its quantifiable objectives.
  - A ***proxy measure of the success*** of part of an organization, or a manager of that part. A type of indicator. The future of the unit or person depends on achieving a satisfactory figure.
  - Also known as Key Success Indicators (KSI). ***Financial or non-financial metrics*** used to reflect the critical success factors of an organization.
- **NOTE 1: All KPI's are also Metrics, but not all Metrics are KPI's.**
- **NOTE 2: Not all KPI Metrics are Quality Metrics.**

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   6

---

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

CAPAtrak LLC — Quality Metrics, Scorecards and Dashboards

Some Definitions

● **What are Dashboards?**

- A dashboard is a dynamic set of indicators about the state of a process, piece of equipment, or business metric _at any specific point in time._
- A Quality Metrics Dashboard is analogous to the dashboard in a car or the cockpit in a plane but, instead of driving a car, the user is "driving" a process.

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   7

CAPAtrak LLC — Quality Metrics, Scorecards and Dashboards

● **Dashboard Example 1**
(http://www.primedonline.com/PulseMonitor.htm)

Some Definitions

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   8

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 4 of 21

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

- **Dashboard Example 2**
  (http://www.enterprise-dashboard.com/sitemap/)

Some Definitions

October 11, 2008

"Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek

9

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

- **Dashboard Example 3**
  (http://dashboardspy.com/templates-wireframe-coolblue.html)

Some Definitions

October 11, 2008

"Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek

10

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 5 of 21

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Some Definitions

- **What are Scorecards?**
  - A scorecard is part of a broader corporate methodology or management discipline and is a report card of how a given person, business unit or entity performed with respect to certain goals *over a previously defined period of time* (such as quarterly or annually).
  - An Executive Scorecard is analogous to a student's Report Card.
  - There are two popular formats for "Balanced Scorecards" (BSC's):
    - 1.) Customer, Employee, Shareholder, Process
    - 2.) Customer, Learning/Growth, Financial, Internal Business Process/Operation

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   11

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

- **What are Scorecards?** (continued)
  - A popular scorecard concept model (http://www.balancedscorecard.org/basics/bsc1.html):

Some Definitions

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   12

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 6 of 21

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Some Definitions

- **What are Scorecards?** (continued)
  - Another scorecard concept model (www.capatrak.com):

	Objectives/ Plans (Strategy) (Tie to Quality Policy)	Metrics (KPIs)	Targets/ Goals	Initiatives/ Actions (Tactics)
Customer Relations	(Customer Satisfaction, Regulatory Compliance)			
Finance	(low risk/continual improvement, growth)			
Operations	(continual improvement, best in field, capable processes)			
Organization Sustainability	(competent personnel, employee satisfaction, world class)			

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   13

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Some Definitions

- **What are Scorecards?** (continued)
  - Another scorecard concept model (detail):

	Objectives/ Plans (Strategy)	Metrics (KPIs)	Targets/Goals	Initiatives/Actions (Tactics)
Customer Relations	Tie to Quality Policy (Customer Satisfaction, Regulatory Compliance)	Examples: • Retained Customers/Qtr • Repeat Orders per Customer/Qtr • Customer Satisfaction/Yr • Complaints/Qtr	Examples: • 30% of Customers place at least one order within prior 3 months • Of Customers that place orders, at least 60% will have Ordered an item at least once before • On a scale of 1 to 10, Average Customer Satisfaction is to improve by at least ½ point in 6 of 7 areas of concern • Reduce Complaints by a minimum of 15% over each prior quarter until complaints are eliminated	Examples: • Launch purchase with purchase promotion targeted toward existing customers. • Offer "customer loyalty" incentives (discounts, buy one get one packages, etc.). • First quarter: Perform Customer Satisfaction phone survey to identify areas of concern. • Second and Third quarters:Develop and Implement improvement strategies. • Fourth quarter: Re-survey in third quarter. • Hold weekly Corrective Action Review Board Meetings with Top Management. • Implement Automated Corrective Action Tracking System. • Add Corrective Action Dashboard to Monthly Operations Review Agenda.
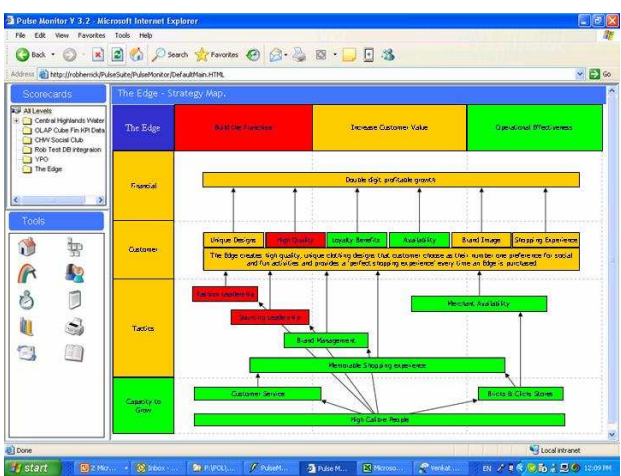
October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   14

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 7 of 21

Quality Metrics, Scorecards and Dashboards

Some Definitions

- **Scorecard Example 1**
  (**http://www.primedonline.com/PulseMonitor.htm**)

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 15
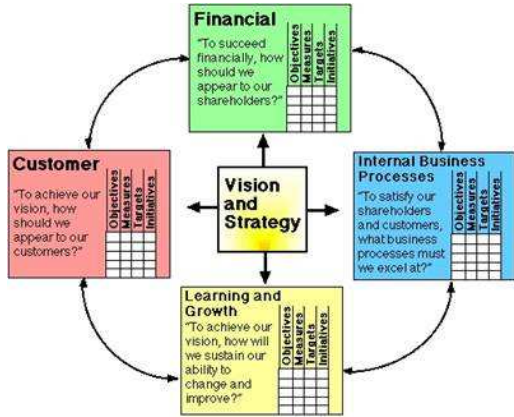

Quality Metrics, Scorecards and Dashboards

Some Definitions

- **Scorecard Example 2**
  (**http://www.hospitalsoup.com/public/scorecardshell.pdf**)

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 16

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 8 of 21

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Quality Management System Considera- tions

- **What Do Standards Require with Regard to Quality Metrics?**
- Compliance with **ISO 9001 and ISO 13485** are addressed in the following sections of the standard:

  - "**5.4.1 Quality objectives**
    Top Management shall ensure that quality objectives, including those needed to meet requirements for product are established at relevant functions and levels within the organization. The *quality objectives shall be measurable and consistent with the quality policy*."

  - "**7.1 Planning of product realization**
    … In planning product realization, the organization shall determine the following, as appropriate:
    a) *quality objectives and requirements* for the product; …
    c) records needed to provide evidence that the realization *processes and resulting product meet requirements*."

October 11, 2008

"Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek

17

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Quality Management System Considera- tions

- **What Do Regulations Require with Regard to Quality Metrics?**
- Compliance with the Code of Federal Regulations governing Quality Systems for Medical Device & Equipment/Software Manufacturers, **21 CFR Part 820**, is addressed in the following subparts and subsections of the Code:

  - "**820.20 Management responsibility**
    (a) Quality policy. Management with executive responsibility *shall establish its policy and objectives for, and commitment to, quality.*

    (b) Organization.(3) Management Representative. … shall have … responsibility for:

    (i) Ensuring that quality system requirements are effectively established and effectively maintained in accordance with this report; and

    (ii) *Reporting on the performance of the quality system* to management with executive responsibility for review.

October 11, 2008

"Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek

18

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 9 of 21

CAPAtrak LLC — Quality Metrics, Scorecards and Dashboards

Quality Management System Considerations

- **What Do Regulations Require with Regard to Quality Metrics? (continued)**
- Compliance with the Code of Federal Regulations governing Quality Systems for Medical Device & Equipment/Software Manufacturers, **21 CFR Part 820**, is addressed in the following subparts and subsections of the Code:

  - "820.20 Management responsibility

    (c) Management Review. … shall review the suitability and effectiveness of the quality system at defined intervals and with sufficient frequency according to established procedures to *ensure that the quality system satisfies* the requirements of this part and the manufacturer's *established quality policy and objectives*."

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 19

CAPAtrak LLC — Quality Metrics, Scorecards and Dashboards

Quality Management System Considerations

- **What Do Regulations Require with Regard to Quality Metrics? (continued)**
- Compliance with the Code of Federal Regulations governing Quality Systems for Medical Device & Equipment/Software Manufacturers, **21 CFR Part 820**, is addressed in the previously noted and following subparts and subsections of the Code:

  - "820.70 Production and process controls.
    - General. Each manufacturer shall develop, conduct, control, and *monitor production processes to ensure that a device conforms to its specifications*.

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 20

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 10 of 21

CAPAtra**k** LLC — Quality Metrics, Scorecards and Dashboards

Quality Management System Considera- tions

- **How do Quality Metrics directly support the Quality Management System?**
  - 1.) Quality Metrics can be flowed down from the Quality Policy of an organization into every major element of the Quality Management System and the Procedures that support them.
  - 2.) Quality Metrics can be flowed from Customer Requirements into Product and Process Specifications.

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 21

CAPAtra**k** LLC — Quality Metrics, Scorecards and Dashboards

Quality Management System Considera- tions

- **Where in the QMS should Quality Metrics be established?**
  - Break the *Quality Policy* into discrete subparts.
  - Establish *Quality Objectives* for each subpart of the Quality Policy.
  - Create Scorecards for Quality Objectives that involve multiple processes. These will be used in *Quality Management Reviews*.
  - Establish Quality Metrics requirements within *Operating Procedures* that support each Quality Objective.
  - When feasible, consider establishing Dashboard requirements within *Production Procedures, Work Instructions, or Process, Material and Product Specifications* for critical Quality Metrics.
  - When products or processes are outsourced, flow requirements for Quality Metrics to Suppliers via their *Contracts or Purchase Orders.*

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 22

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 11 of 21

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Tips for Selection of Quality Metrics

Tips for Selection of Quality Metrics

- **Tips for Selection of Quality Metrics**
  - Use the S.M.A.R.T. criteria:

    S SPECIFIC

    M MEASURABLE

    A ATTAINABLE

    R RELEVANT

    T TIME-CONSTRAINED

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   23

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

- **Tips for Selection of Quality Metrics (continued)**
  - Avoid being UN-S.M.A.R.T. :

Copyright © 1998 United Feature Syndicate, Inc. Redistribution in whole or in part prohibited.

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   24

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Quality Metrics, Scorecards and Dashboards

CAPAtrak LLC

- **Tips for Selection of Quality Metrics (continued)**
  - Other helpful selection criteria
    (http://web.mit.edu/tdqm/www/tdqmpub/PipinoLeeWangCACMApr02.pdf):

Dimensions	Definitions
Accessibility	the extent to which data is available, or easily and quickly retrievable
Appropriate Amount of Data	the extent to which the volume of data is appropriate for the task at hand
Believability	the extent to which data is regarded as true and credible
Completeness	the extent to which data is not missing and is of sufficient breadth and depth for the task at hand
Concise Representation	the extent to which data is compactly represented
Consistent Representation	the extent to which data is presented in the same format
Ease of Manipulation	the extent to which data is easy to manipulate and apply to different tasks
Free-of-Error	the extent to which data is correct and reliable

Dimensions	Definitions
Interpretability	the extent to which data is in appropriate languages, symbols, and units, and the definitions are clear
Objectivity	the extent to which data is unbiased, unprejudiced, and impartial
Relevancy	the extent to which data is applicable and helpful for the task at hand
Reputation	the extent to which data is highly regarded in terms of its source or content
Security	the extent to which access to data is restricted appropriately to maintain its security
Timeliness	the extent to which the data is sufficiently up-to-date for the task at hand
Understandability	the extent to which data is easily comprehended
Value-Added	the extent to which data is beneficial and provides advantages from its use

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   25

Quality Metrics, Scorecards and Dashboards

CAPAtrak LLC

Scorecards and Dashboards

- **Elements of an Effective Scorecard**
  (Ref.: The Certified Manager of Quality/Organizational Excellence Handbook)
  - Tracks total Organizational Performance against a Strategic Plan and is Management-driven
  - Represents longer term intervals (weeks, months, quarters)
  - Includes Goals for every Metric
  - Balances Financial Considerations against all Other Considerations (Quality, Schedule, etc.)
  - Emphasizes Use of Metrics that are Leading Indicators
    - Note:
      - Leading Indicators Predict Future Performance
      - Lagging Indicators Report Past Performance

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   26

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 13 of 21

Quality Metrics, Scorecards and Dashboards

Scorecards and Dashboards

- **Elements of an Effective Dashboard** (http://www.datamanagementgroup.com/Resources/Articles/Articles.asp?offset=50/)
  - Provides Tactical Indicators about the State of a Process, Piece of Equipment or Business Metric and is Worker-driven
  - Represents Near Term Time Intervals (minutes, hours, days)
  - Information is Dynamic and is "Real-time" (or as close to "Real-time" as possible)
  - Information is Very Visible and Is Used "Close" to the Process that Generates it
  - Trend Lines are Used
  - Goals Are Not Necessary but Action Limits Are

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   27

Quality Metrics, Scorecards and Dashboards

Scorecards and Dashboards

- # Scorecard and Dashboard Pitfalls to Avoid
  (http://www.dmreview.com/white_papers/library.html)

  - Measurement Pitfalls
  - Approach Mistakes
  - Technology Red Flags

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   28

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 14 of 21

Quality Metrics, Scorecards and Dashboards

Scorecards and Dashboards

- **Scorecard and Dashboard Pitfalls to Avoid (continued)**
  - <u>Measurement Pitfalls</u>
    - Information Overload (keep it simple)
    - Functional Bias (be crossfunctional)
    - Hindsight (look forward)
    - Limited Perspective (see the forest AND the trees)
    - Inconsistent Definitions (collaborate)
    - Irrelevant Metrics (use metrics that can be controlled by the user or could significantly impact action taken by the user)

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   29

Quality Metrics, Scorecards and Dashboards

Scorecards and Dashboards

- **Scorecard and Dashboard Pitfalls to Avoid (continued)**
  - <u>Approach Mistakes</u>
    - Strategic Confusion (NO Scorecards without Strategic OBJECTIVES)
    - Tactical Confusion (NO Dashboards without Action Limits)
    - Destination Unknown (focus as much upon where to go as to where the organization has been)
    - No Executive Mandate (See Next Slide for Explanation)

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   30

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 15 of 21

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

■ **Scorecard and Dashboard Pitfalls to Avoid (continued)**

● <u>Approach Mistakes (continued)</u>

Scorecards and Dashboards

Dilbert — by Scott Adams

DILBERT ⊃ United Feature Syndicate, Inc.
Redistribution in whole or in part prohibited.

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 31

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

■ **Scorecard and Dashboard Pitfalls to Avoid (continued)**

Scorecards and Dashboards

● <u>Approach Mistakes (continued)</u>

  ■ Misalignment (Prioritize, Harmonize, Integrate, etc.)

  ■ Big BANG (Avoid 'One Hit Wonders', Adopt Metrics as the Way of Doing Business Throughout the Organization)

  ■ Incorrect Results a.k.a. "Solution Suicide" (Use only Validated Data from Qualified Sources)

  ■ Unguided Exploration (Train Everybody and Make How-To Information Readily Available)

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 32

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 16 of 21

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Scorecards and Dashboards

- **Scorecard and Dashboard Pitfalls to Avoid (continued)**
  - Technology Red Flags
    - Complex User Experience (Again, Keep it Simple, Avoid Esoteric Metrics, Unnecessary Barriers to Access, Challenging On-Line Navigation, etc.)
    - Only Used for ad hoc Research (Again, Avoid 'One Hit Wonders', Adopt Metrics as the Way of Doing Business Throughout the Organization)
    - No Knowledge Retention (Collect and Use "Lessons Learned")

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   33

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Scorecards and Dashboards

- **Scorecard and Dashboard Pitfalls to Avoid (continued)**
  - Technology Red Flags (continued)
    - Inflexible (Enable the Metrics to Change as the Organization Changes without Losing Data Integrity or Access to Past Metrics Information)
    - Segregated (No standalone systems like Excel spreadsheets, integrate with other existing systems like MRP and CRM, include financial reporting)

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   34

---

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

CAPAtra**x** LLC

Quality Metrics, Scorecards and Dashboards

Scorecards and Dashboards

- **Scorecard and Dashboard Pitfalls to Avoid (continued)**
  - Technology Red Flags (continued)
    - Dead-end Results (Finish What You Start! Maintain Forward and Backward Traceability for Information Used and Actions Taken)
    - Outdated Information (use near real-time data to support as many metrics as possible, establish alerts for instances where action limits are approached)
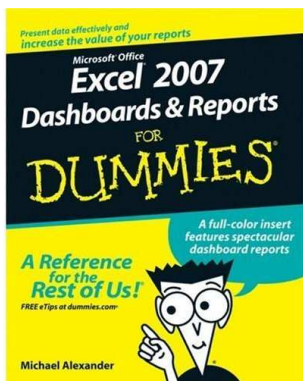
October 11, 2008

"Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek

35

CAPAtra**x** LLC

Quality Metrics, Scorecards and Dashboards

Scorecards and Dashboards

- **Scorecards and Dashboards – When All Else Fails** (http://www.dummies.com/WileyCDA/DummiesTitle/Excel -2007-Dashboards-Reports-For-Dummies.productCd-0470228148.html)

Excel 2007 Dashboards & Reports For Dummies

By Michael Alexander

ISBN: 978-0-470-22814-2
Pages: 336 Pages
Pub. Date: March 2008
Price: $24.99

Present data effectively and increase the value of your reports

Microsoft Office

Excel 2007 Dashboards & Reports FOR DUMMIES

A full-color insert features spectacular dashboard reports

A Reference for the Rest of Us!
FREE eTips at dummies.com

Michael Alexander

October 11, 2008

"Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek

36

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 18 of 21

CAPAtrak LLC   Quality Metrics, Scorecards and Dashboards

Quality Metrics References

- **Quality Metrics References have been cited throughout this presentation but are summarized on the next few pages**
  - Dilbertisms: www.comics.com (paid members can sort comics by key words)
  - Definitions: Do a Google search using "Definition of ____" (www.google.com)

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   37

CAPAtrak LLC   Quality Metrics, Scorecards and Dashboards

Quality Metrics References

- **Quality Metrics References Summary (continued)**
  - Dashboard Examples:
    - http://www.primedonline.com/PulseMonitor.htm
    - http://www.enterprise-dashboard.com/sitemap/
  - Scorecard Models and Examples:
    - http://www.balancedscorecard.org/basics/bsc1.html
    - http://www.capatrak.com http://www.primedonline.com/PulseMonitor.htm
    - http://www.hospitalsoup.com/public/scorecardshell.pdf

October 11, 2008   "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek   38

---

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Quality Metrics References

- **Quality Metrics References Summary (continued)**
  - Tips for Quality Metrics Selection:
    - http://web.mit.edu/tdqm/www/tdqmpub/PipinoLeeWangCACMApr02.pdf
  - Elements of an Effective Scorecard:
    - Ref.: The Certified Manager of Quality/Organizational Excellence Handbook from ASQ's Quality Press
  - Elements of an Effective Dashboard:
    - http://www.datamanagementgroup.com/Resources/Articles/Articles.asp?offset=50/
  - Scorecard and Dashboard Pitfalls to Avoid
    - http://www.dmreview.com/white_papers/library.html
    - http://www.dummies.com/WileyCDA/DummiesTitle/Excel-2007-Dashboards-Reports-For-Dummies.productCd-0470228148.html

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 39

CAPAtrak LLC

Quality Metrics, Scorecards and Dashboards

Quality Metrics Tools You can Put To Use Immediately

- **The following free templates will be provided to you via email upon request (send request to dkulisek@capatrak.com) and are also available from the CAPAtrak Download pages at www.capatrak.com. These include:**

  - Strategic Quality Plan Template
  - Operating Procedure Template for Inclusion of Quality Metrics
  - Scorecard Template
  - Dashboard Template

- **A .pdf version of the handouts for this presentation is also available for download from the CAPAtrak download page.**

October 11, 2008 — "Quality Metrics, Scorecards and Dashboards" presented by Diane Kulisek — 40

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 20 of 21

THANK YOU!
May I answer Your Questions?

**Presented by
Diane Kulisek, President**

CAPAtrak LLC

www.capatrak.com
**805-522-5005 O
805-320-7879 C**
dkulisek@capatrak.com
**2493 Pinewood Place
Simi Valley, CA 93065**

dkulisek@capatrak.com;
www.capatrak.com
(805) 522-5005 W / (805) 320-7879 C

Page 21 of 21