

Management Reporting Systems

1. Formulate the objective

- 1.1. For each performance variable/characteristic to be monitored, formulate *a specific way of measuring it such that a numeric value can be meaningfully assigned to it* (= key performance indicator/KPI; metric)

[sample KPI from Cognos sales analysis](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-Cognos-Sales-Analysis.pdf)
<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-Cognos-Sales-Analysis.pdf>

[4 scales of measurement](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-Measurement-Scales.pdf)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-Measurement-Scales.pdf>

- 1.2. For each KPI, define *the numeric level above/below which performance will be considered acceptable* (= standard)

[benchmarking](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-Benchmarking.pdf)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-Benchmarking.pdf>

2. Communicate the objective to all those concerned

- 2.1. while guarding against behavioral anomalies

[the Hawthorne Effect](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-Hawthorne-Effect.pdf)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-Hawthorne-Effect.pdf>

3. Produce the information

- 3.1. Assure the transaction processing system collects/stores the required source data

- 3.2. Extract the relevant data into *an isolated, integrated, stable storage facility*

(= data warehouse)

[Data Warehousing at Clovis Unified](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/Data%20Warehousing%20at%20Clovis%20Unified%20-%20%20highlights.pdf)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/Data%20Warehousing%20at%20Clovis%20Unified%20-%20%20highlights.pdf>

- 3.3. Specify the required format for presenting the information

- 3.3.A. Specify the visual format (numeric, graphic)

[dashboards at Verizon](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/dashboards-at-verizon.pdf)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/dashboards-at-verizon.pdf>

- 3.3.B. Specify the time format

[using salesforce.com to build a reporting system](http://www.youtube.com/watch?v=IEBw6SF7PR4)

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- periodic (annual, quarterly, monthly, weekly, daily, hourly)
- ad hoc (as needed)

- 3.4. Delegate the task of producing the report to those not impacted by it [teachers cheating?!](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-SAT-9-Cheating.pdf)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS-SAT-9-Cheating.pdf>

4. Analyze the information to identify possible ...

- *Abnormal/unacceptable deviations from the standard* (= symptoms)

→ Reactive Management

- *Abnormal/suspicious trends* (= presymptoms)

→ Proactive Management

[a short, scientific discussion of symptoms/presymptoms](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/symptom-presymptom.pdf)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/symptom-presymptom.pdf>

A “fork in the road”:



IF there are no symptoms/presymptoms THEN

5. Maintain the current operational system → It's working, don't rock the boat!

ELSE

IF standard is set unreasonably high THEN

5. Revise the standard; go back to step 1

ELSE <there are symptoms/presymptoms and the standard is to be maintained>

Proceed to step 6

6. Understand the problem by locating its source

Develop user-driven software systems that allow decision makers to

6.1. *Break down the problem in terms of variables hypothesized to correlate with it (= drill down)*

[drill down at resort management](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/sample-reports-resort-management.pdf)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/sample-reports-resort-management.pdf>

6.2. *Show the results in a multi-dimensional format, such as a cube (OLAP = Online Analytical Processing)*

[OLAP](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/olap.pdf)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/olap.pdf>

[Oracle's Express Web Analyzer](http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS%20-%20Oracle%20Express%20Web%20Analyzer.exe)

<http://zimmer.csufresno.edu/~sasanr/Teaching-Material/MIS/MRS/MRS%20-%20Oracle%20Express%20Web%20Analyzer.exe>

7. Revise the operational system accordingly → Decision Making