



Metrics that Drive Customer Satisfaction.

By
Jeff Fiebrich

30th Annual
Pacific NW Software Quality Conference
October 8 – 10, 2012
Portland, Oregon



Agenda

Introduction
Establishing Metrics
Implementing Metrics
Metrics that Drive Customer Satisfaction
Summary



Introduction



Establishing Metrics

- Establishing Metrics
 - Metrics must have a customer
 - Metrics can support your company's goals
 - The outcome of metrics



Implementing Metrics

- **Implementing Metrics**
 - Define/Standardize how data is collected
 - Meta Definitions
 - Participation
 - Agreement on the metric report format
 - Metrics emotions

META DEFINITION EXAMPLE

Operational Definition	
Metric Name	<i>Metric Name</i>
Metric ID	<i>Metric Unique ID</i>
Goal	<i>Goal derived from management or other information needs, that the current metric contributes.</i>
Purpose	<i>Purpose of the metric being defined, in relationship to the abovementioned goal.</i>
Computation	<i>Formula</i>
Unit of measure	<i>KLOC, %, etc.</i>
Data items	<i>Detail and explain all members of the formula.</i>
Data source	<i>Where to collect from values of the members from the formula .</i>
Tools	<i>Tools, templates, checklists, scripts etc. used to compute metric .</i>
Phase and frequency to collect	<i>Frequency to collect - weekly, monthly, quarterly, yearly, on a need basis - specify what phase of the project when the metric must be collected.</i>
Responsible for measuring	<i>Who is responsible for measuring?</i>
Interpretation/Actions	<i>How to interpret values? What infers a positive status; a negative status? What are the possible actions to be taken each time a positive or negative status is detected? (also see target and threshold section)</i>
Target	<i>How to set target; value of the target if known.</i>
Threshold	<i>How to set threshold; value of the threshold if known.</i>
Reporting to	<i>Where to report the measurement?</i>
Frequency to report	<i>Frequency to report.</i>
Responsible for reporting	<i>Who is responsible for reporting?</i>
Recommended action on deviation	<i>Action recommended when deviation from target occurs.</i>
Methodology to collect	<i>Who is doing what; from where, store where; etc.?</i>
Measurements storage place	<i>Where to store measurements?</i>
Integrity verification	<i>How measurement integrity is verified?</i>
Responsible for integrity verification	<i>Who is responsible for integrity checks?</i>
Reference:	<i>References, standards etc.</i>

META DEFINITION EXAMPLE

Analysis of measurements data	
Analysis spec and procedure	<i>Specify and prioritize the analyses that will be conducted and reports that will be prepared.</i>
Data analysis methods and tools	<i>Visual display, presentation techniques, descriptive statistics (mean, median, mode). Statistical sampling criteria, analysis in presence of missing data elements; analysis tools.</i>
Administrative	<i>Administrative procedures for analyzing data and communicating results. Approach to review and update analyses and reports. Approach to update measures as necessary. Criteria for evaluating: utility of analysis results and for evaluating the conduct of the measurement and analysis activities. For example, results are provided on a timely basis, understandable, and used for decision making.</i>

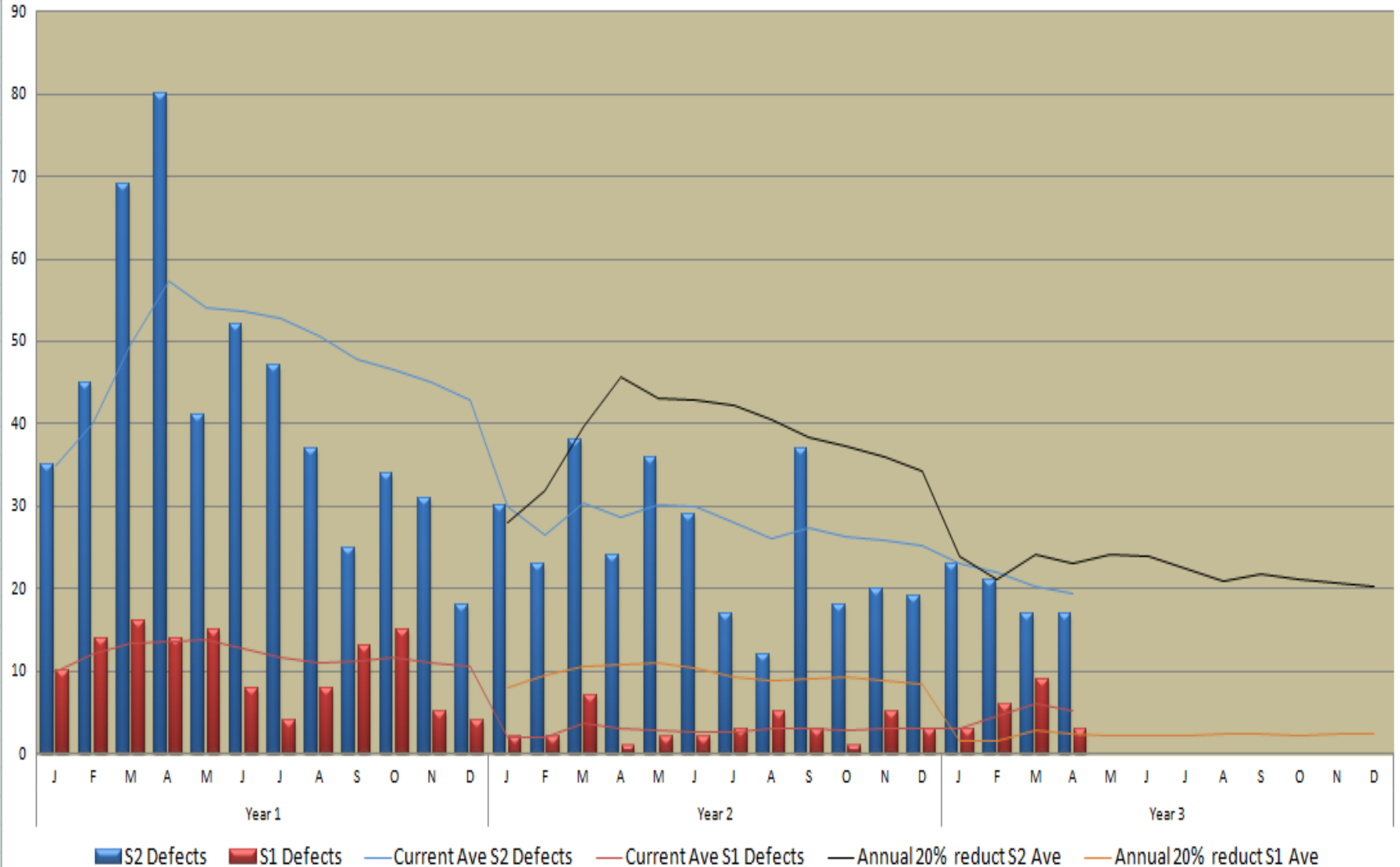


Metrics that Drive Customer Satisfaction

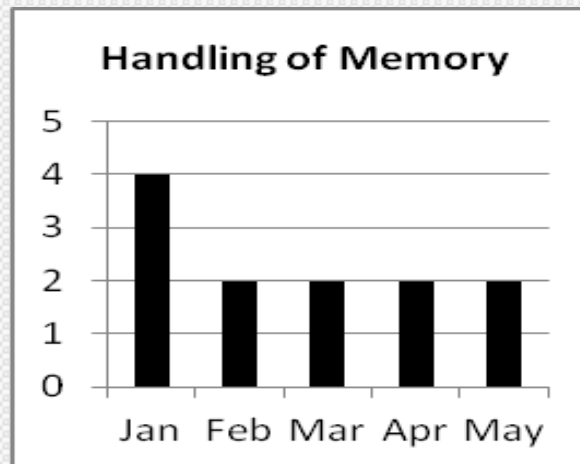
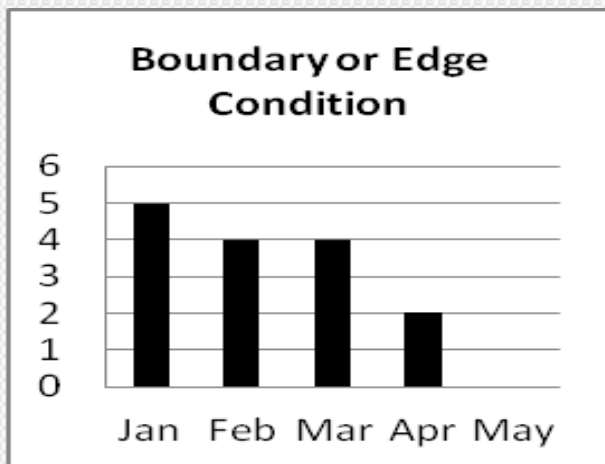
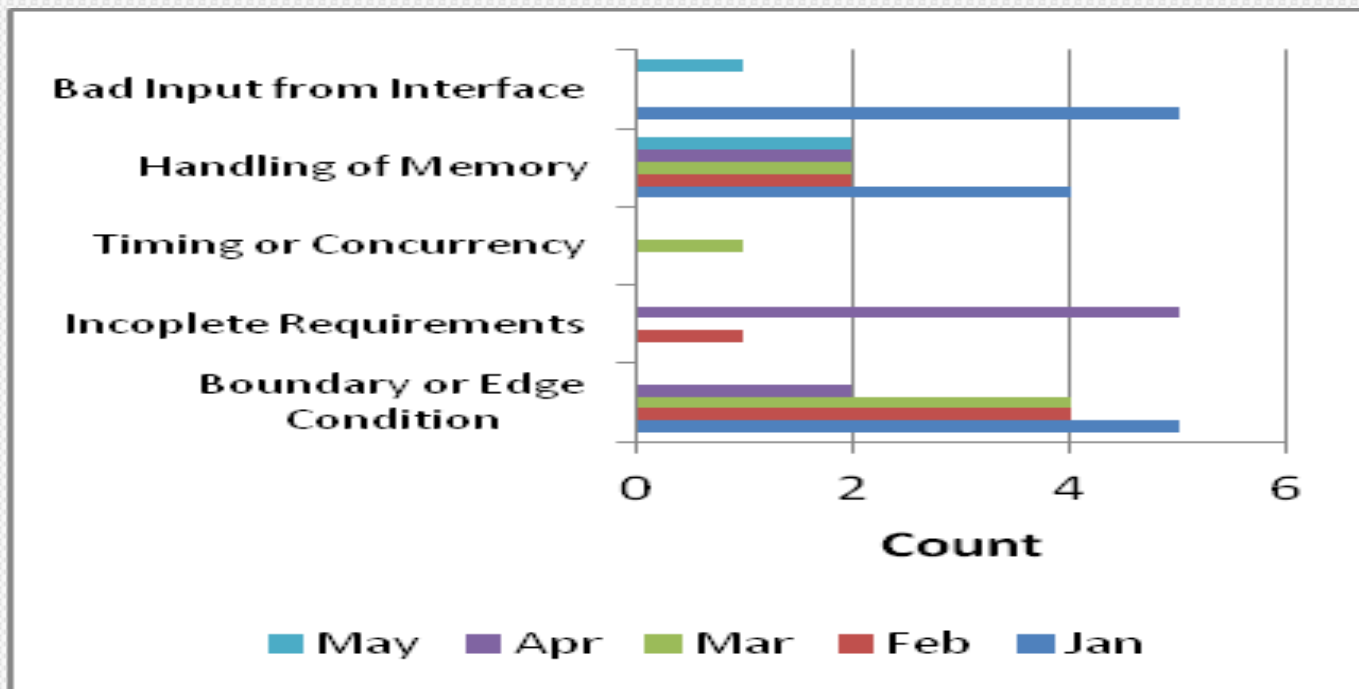
- Metrics that Drive Customer Satisfaction
 - Defect Count
 - Defect Resolution Cycle Time
 - Defect Root Causes
 - Using Multiple Metrics

METRIC EXAMPLES

S1 & S2 Customer Reported Defects

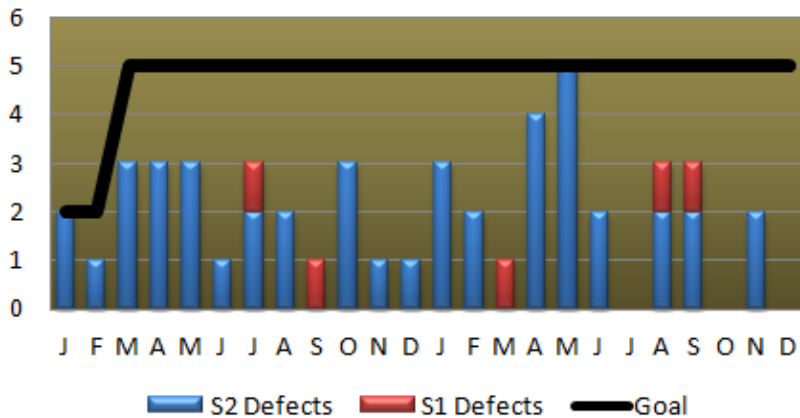


METRIC EXAMPLES

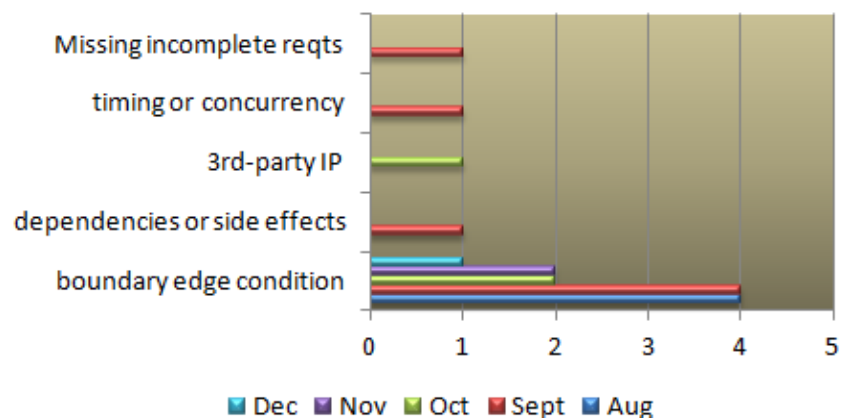


METRIC EXAMPLES

S1 & S2 Customer Defect



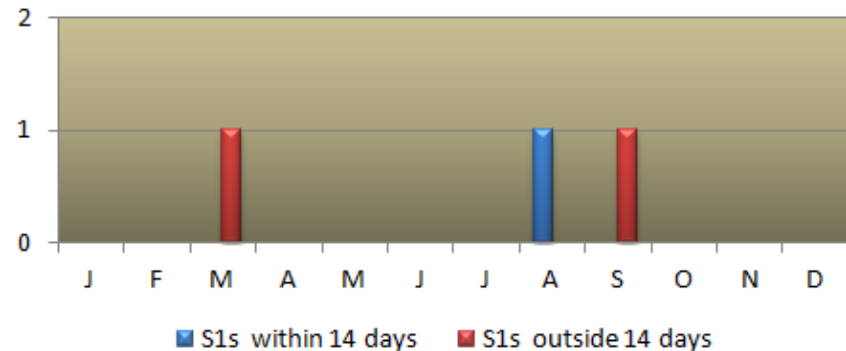
S1 & S2 Defect Root Cause



Biggest Opportunities/Action Plan

- Boundary or edge condition check – Conducting regular monthly quality review w/ managers – Smith & Gupta.

S1 Customer Defect Resolution



METRIC EXAMPLES

Group 1		Last Yr's Exit	This Yr's Target	Current YTD	Comment
Category	KPI				Status Notes
Customer Defects	% of S1 & S2 CRDs vs. Total Defects	12%	10%	4%	(S1 & S2 Customer Reported Defects/ total number of valid defects)
Customer Defects	Reduced % of S1 & S2 CRDs over 2011	15%	20%	32%	S1 & S2 Customer Reported Defects
Customer Responsiveness	% of S1 CRDs resolved within 14 days	86%	100%	92%	S1 Customer Response < 14d



Summary