

COMMUNICATIONS *plus*

Measure for Measure: Using Measurement and Analysis to Improve the Technical Communication Process

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Questions to be answered

- How do I better understand the technical communications process?
- How do I measure it?
- How do I achieve process and product related goals, and how do I prove that I've achieved these goals?

Measurement & Analysis

- Gives us a baseline of where we are
- Reveals strengths or weaknesses in process
- Can be compared with current data to show improvements.

Objectives of presentation

- Review the Capability Maturity Model

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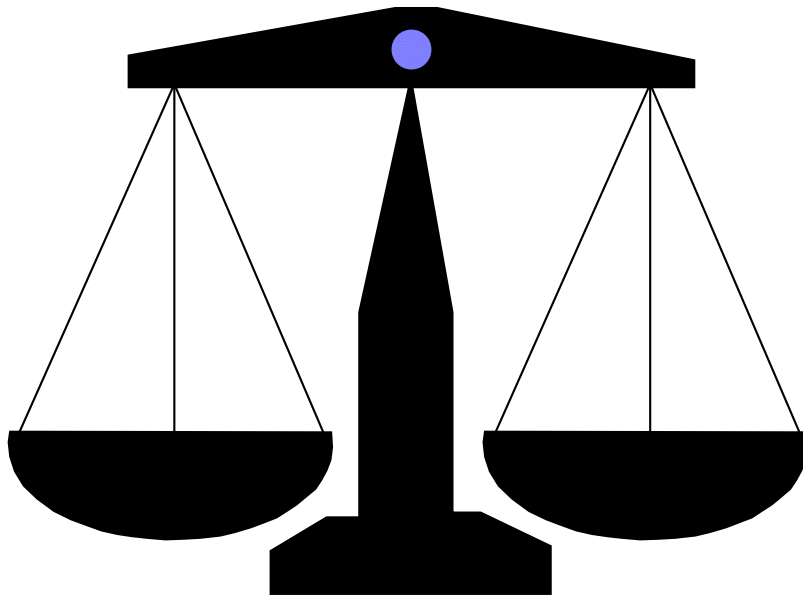
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- Work through a M&A exercise related to Technical Communication

Definition of measurement

Measurement tells us something about an object. A measurement characterizes a particular aspect of an entity.



Platonic definition

“One section will comprise all arts of measuring number, length, depth, breadth, or velocity of objects by relative standards. The other section comprises arts concerned with due occasion, due time, due performance, and all such standards as have removed their abode from the extremes and are now settled about the mean.”

Hamilton and Cairns, Plato: *The Collected Dialogues*, (Princeton University Press: Princeton), p. 1052.

A modern definition

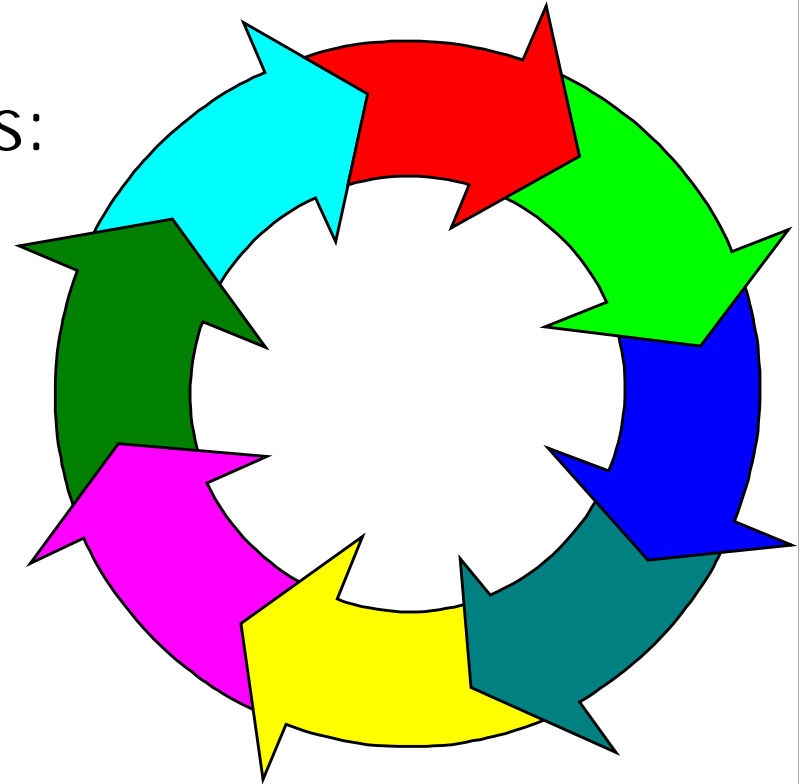
“...the process by which numbers or symbols are assigned to attributes of entities in the real world in such a way as to describe them according to clearly defined rules.”

Fenton and Pfleeger, *Software Metrics: A Rigorous and Practical Approach*, (ITP: Albany, New York), p. 5.

Measurements surround us

Examples of Measurements:

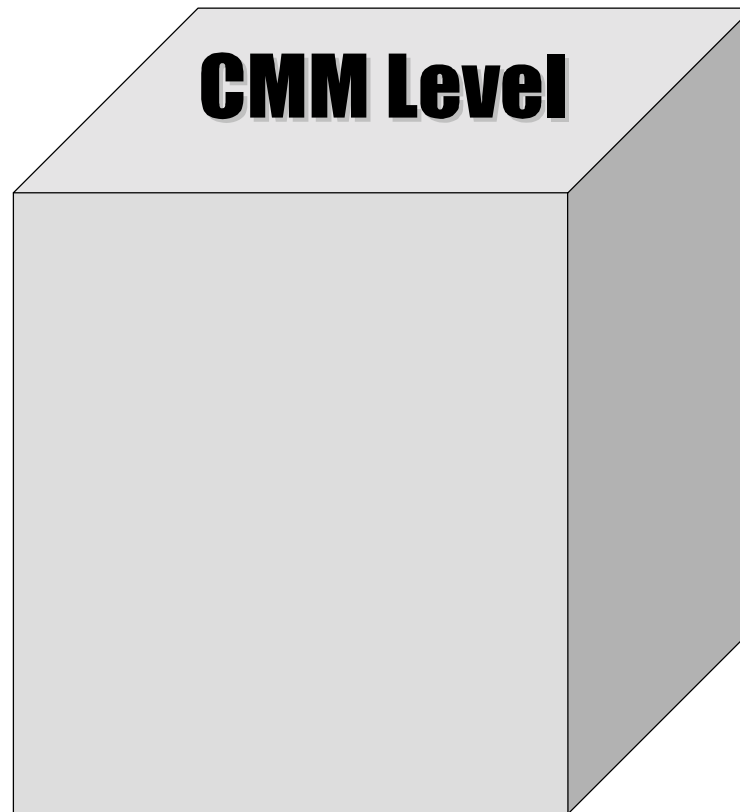
- Gallons of gas
- Price per pound
- Speed limits
- Clothing and shoe size
- Time



Deliverable characteristics & design

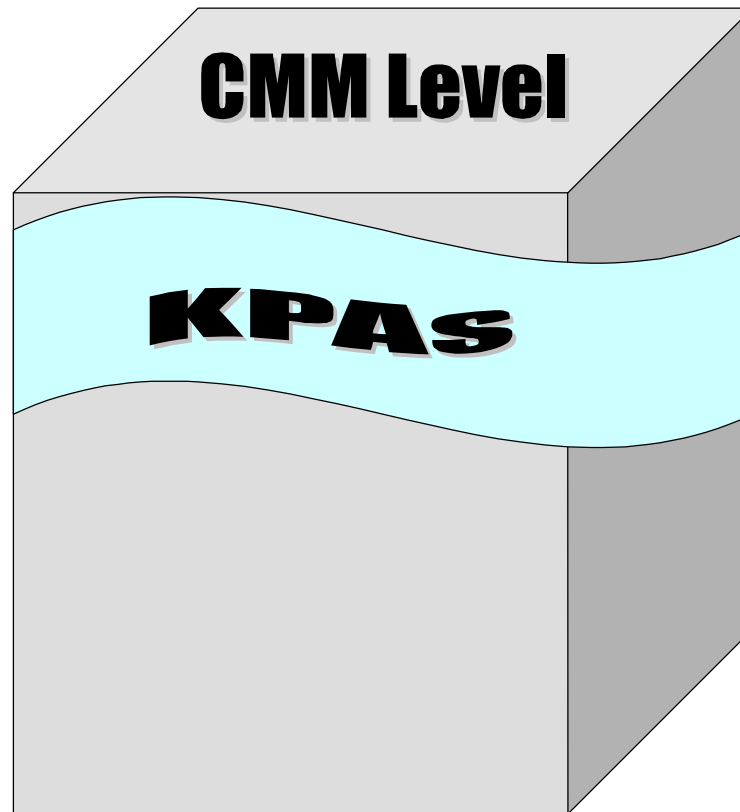
Table 1. Measurements and Possible Connotations		
<i>Measurement Type</i>	<i>Metric</i>	<i>Within Context</i>
Weight	400 lbs.	Bad for an average person Good for a Sumo wrestler
Miles Per Hour	55	Good for an average driver Bad a Daytona 500 contender
Time to run the Boston Marathon	6:23:34	Bad for an marathon runner Good for the author of this paper

The Capability Maturity Model



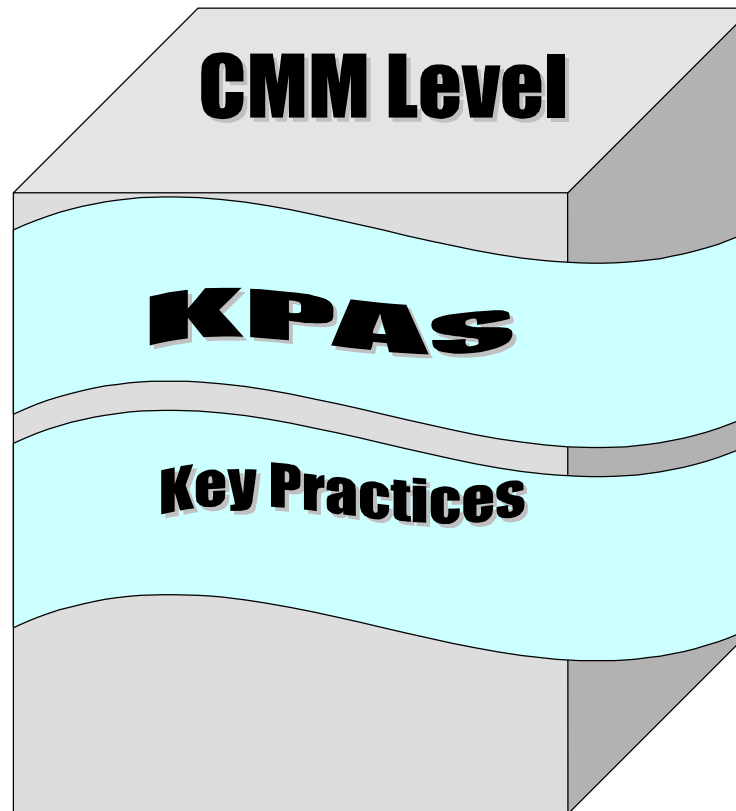
* Source: *The Capability Maturity Model: Guidelines for Improving the Software Process*, Carnegie Mellon University, SEI, Copyright 1994, Addison Wesley Longman, Inc.

The Capability Maturity Model



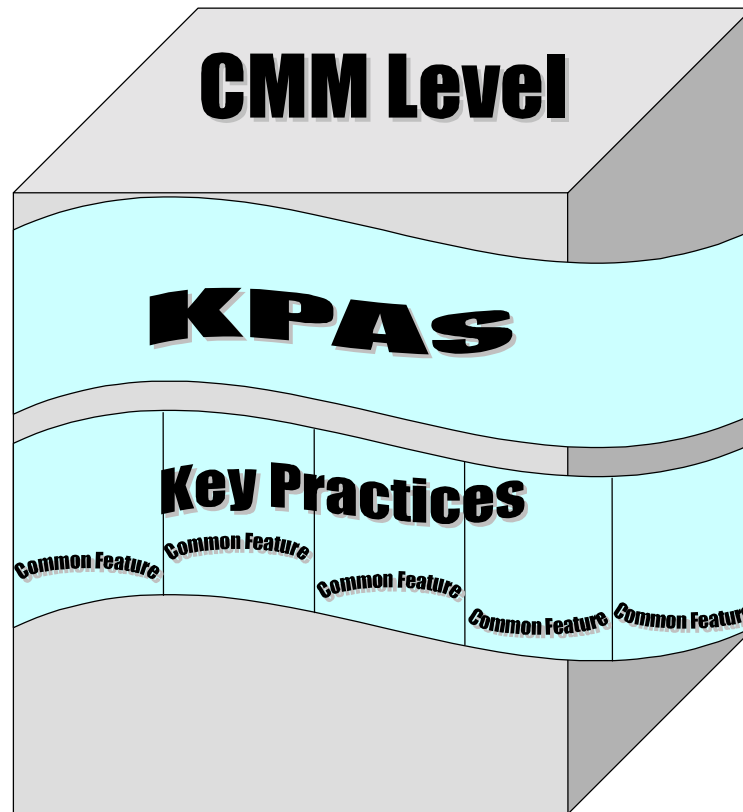
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Why technical communicators should love data

- Brings credibility to the technical communication department
- Increases reliability
- Helps you learn how and where to improve processes and deliverables

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- Brings credibility to the technical communication department
- Increases reliability
- Helps you learn how and where to improve processes and deliverables
- Aligns your efforts with other corporate quality efforts
- Helps you justify what you do and how you do it

What gets measured?

Examples of Measurements:

- Time in terms of efforts hours expended
- Time in terms of duration (calendar)
- Size
- Quality of product/process
- Customer satisfaction

Characterizations in our terms

Measurement Type	Characterization
Time in terms of Effort Hours	The number of hours expended to complete a unit, whether that unit is milestone like the end of phase 1 or a deliverable. Example: The number of hours to complete a draft of chapter 1
Time in terms of duration	The cumulative number of units (minutes, hours, day, weeks, months, etc.) taken from a perceived starting point to a perceived end point. Example: The start and end dates of a technical edit
Size	The extent of an object in quantifiable terms. Example: The number of modules in a training program or the number of pages in a chapter
Quality	The degree of excellence of an object or process. Example: The quantitative and qualitative results of usability test
Customer Satisfaction	The degree or magnitude of pleasure perceived by a customer's of a given product or process. Example: The quantitative and qualitative results of a publication customer survey or the results of a training evaluation

The GQM approach

- Express the overall goals you wish to attain
- Develop questions that, when answered, will tell you if your goals have been met.
- Analyze the questions in terms of measurements. That is, review each question and then develop a set of measurements that will answer the question.

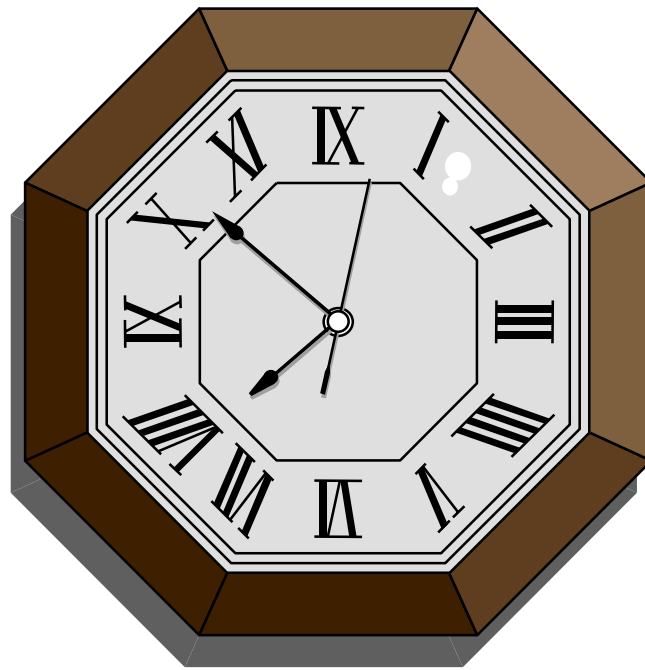
The GQM approach-an example

Table 4. Phases and Goals	
<i>Phase</i>	<i>Goal</i>
Information Planning	Develop a project hours estimate that when completed is within 20% of actual project hours.
Content Specification	Create or update styles and standards that directly address 90% of customer complaints related to style or standard issues.
Implementation	Establish a peer review process that detects 90% of all technical inaccuracies.
Production	Reduce the time to develop and index by 10%.
Evaluation	Determine the current level of customer satisfaction.

The importance of historical data

- Brings reliability to your process
- Helps you repeat success with confidence
- Essential element of successful planning, tracking and oversight of projects
- Basis for improving process
- Basis for improving products

Time for an exercise



Thanks for coming

