

Magazine

Quantifying Management Bullshit: forcing IT Stakeholders to reveal the value they really want from your IT Project.

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About the Author:



Tom is the author of nine books, and hundreds of papers on these and related subjects. His latest book 'Competitive Engineering' is a substantial definition of requirements ideas. His ideas on requirements are the acknowledged basis for CMMI level 4 (quantification, as initially developed at IBM from 1980). Tom has guest lectured at universities all over UK, Europe, China, India, USA, Korea – and has been a keynote speaker at dozens of technical conferences internationally.

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Introduction

We have all seen fuzzy phrases, such as 'Make the organization more agile through lean methods'. It is so common, that we may even think it is normal acceptable behavior. I believe it is destructive and irresponsible behavior, and should never be practiced by consenting adults in public. It is, in my experience, the direct cause of large project failure. It is unnecessary, and is caused by widespread ignorance, not least in our schools of higher learning [1, Hopper]. I guess conservatively that we should be able to easily more than 'double' our productivity for any project, by starting with much clearer and more-relevant ideas of what we value. Right now half our projects and half our time is wasted. Teaching 'clarification of objectives' requires little more than an hour, sometimes up to a day. Making it happen in an organization requires leadership. There are two basic problems: we set objectives at too low a level of concern (means, not ends), and we fail to clarify our most valued aims.

An Introductory True Tale

Decades ago, on an Island near Europe, a 23,000 person computer company was struggling to survive. They were in the red for the last 7 years. The Prime Minister appointed a savior, a bright young engineer, who was a sort of King of his empire. He managed to bring them to break even, by cutting staff from 26,000. But he could not move beyond that. He asked me, "What's my problem?" "I have all power, but they don't do what I say". He gave me his halo for two weeks, so I could gather facts, and I came back to the castle and reported, with documentary proof. "You are all bullshitting each other with unintelligible slogans". "Nobody interprets exactly as you intend them to". "You are the victim of your own lack of clarity. You need to quantify the objectives and to quantify the impacts of strategies on the objectives".

The King, being a brilliant fellow, and a trained engineer (thank God not an MBA!) agreed with the advice, and turned to his twelve courtiers. "Tom is right, and I have been the biggest sinner of all. But things are changing from today. You will all learn to quantify your objectives to me. If they look good, you will get power and budget. If you deliver, you will keep your jobs. I myself will practice this at the Board level with corporate objectives and strategies". And they knew he was a man of his word.

The directors required a half day tutoring, to speak this foreign tongue of quantification of quality and improvement. But they did it, to keep their power at court. They apparently began communicating better. The Corporation went into profit for the next 14 years, unlike any competitor. The bean counter who became CEO ran it down, but cleverly jumped ship to work similar magic on a telecom, before it was known that he could only count money, not generate business.

The Problem: wrong level and unclear objectives

Objectives are too often set at an inappropriate level.

- They are a 'means' to our end
- They are ends, but not for our level of concern (too high or low)

Objectives are undear:

- Many people interpret them in different ways
- People are unsure as to the intended meaning

• It would not hold up as a standard for *contracting* or *testing*.

The Solution: true values and quantified clarity

The first stage of correction is to find the *right level of concern*.

This 'right level' is the one *you* have *power* over, and *responsibility* for. Not your boss' level and not your subordinates' level.

A project will usually address many stakeholders, and will contain objectives and requirements at many different levels of stakeholder concern simultaneously. Live with it! Just be clear about the stakeholder level for each distinct stakeholder need.

There are two distinct problems related to the true values:

- We cite a perceived 'means' (solution, strategy, architecture) together with, or instead of an 'end'. For example 'system flexibility by means of state of the art architecture'.
- We cite an end, not appropriate at our level of concern, or not appropriate at the defined stakeholder level of concern.

'Why?' as a tool

By asking 'why?' about a specified objective, we can move up towards a correct level of concern. In a recent (2011, London) example at a client, Why 'straight through processing? For 'trading error reduction! Why 'trading error reduction? To get 'External IT Auditor Compliance'. As you repeat 'why?' [5], the answers will usually expose a higher level of concern.

You keep this up until people agree you have reached the right level of concern, and that a higher level is outside your stakeholder responsibility.

Link Words: The Give Away Signal of Confusion of Ends and Means

It is common practice to specify both ends and means in the same sentence or bullet point.

• We are going to achieve (laudable aim A) by means of (sexy strategy S)

This is a very bad practice, because it puts a perceived solution directly in the management objectives. Be careful what you ask for! To state any solution or strategy before you have clarified, then agreed on, the objective is logically wrong.

By means of, through, in order to, so that we get, ...

These always separate two levels of concern. You need to push the 'nice idea' strategies to a quite separate bucket labeled 'Some Vague Ideas which Might Be Relevant When We Know what Our Objectives Are'.

Then take the 'perceived' objective, test it by 'Why?', until you reach an appropriate level of stakeholder concern. Then clarify the objective, quantify it!

Clarification Process

An unclear objective is usually of the form:

- (nice adjective) (Nice sounding noun capability), like:
 - Enhanced Organizational Adaptability
 - Radically Improved Responsiveness

The problem, as I am sure you appreciate, is that neither the adjective, nor the noun, are *unambiguous* (one interpretation by all, the one *intended* by the originator) and *clear* (we know how to test it, measure it, decide if we have it, or not).

Almost all top level critical management and project objectives are 'variable'. They are not merely present or absent (legal or illegal). They vary in degree, from 'terrible to wonderful' for our business. The clue is when we use adjectives like *enhanced*, reduced, improved, better, increased, competitive.

The logical consequence of this variability is that we can, and must, use a well known tool to serve many management purposes: *quantification*.

Quantification is not the *only* tool I will recommend. But it is the most critical and unavoidable tool for getting clarity in management objectives.

I do not mean 'financial' quantification. I mean *direct* quantification, as well as we can do in the real world, of the critical concept. I mean a quantification of the *qualitative* nature of concepts, like productivity, adaptability, responsiveness, quality, competitiveness, security, reputation, customer confidence, supplier alignment, and all other such management buzzwords; assuming they are critical to our purpose and relevant to our level of stakeholder responsibilities.

The 'quantification', I call it a 'Scale of measure', will:

- Define the concept in practice
- Set the stage for a variety of useful numeric level quantifications, such as past performance, competitor performance, trends, state of the art, constraint levels, desired target levels, valued levels of performance.
- Allow us to define objectives with great clarity, and contractual validity.

This will not prevent us from simultaneously using a *popular summary* of the objective (Ambition level) but we can drill down to the exact details when we need them.

In practice it might look like this:

External IT Auditor Compliance:

Ambition: to have an agreed effective pathway to compliance

Scale: number of non compliance points against us at a defined [Time]

Past [2011] around 3 **Wish** [By end 2011] 0

Finding a Scale of Measure

A key question is usually, 'How do we define a scale of measure, especially when the concept seems soft and unquantifiable?'

Here are some practical answers:

- 1. If you have domain knowledge, I find that people can usually figure out pretty good initial *scale* definitions and then refine them by analysis and by trying to use them. You just have to ask them to quantify, and to insist they find a reasonable way. Experts can always do it. Others have difficulty!
- 2. I have defined a *general* process for finding scales of measure, in my book [4]. The key tool there is that sometimes the concept you are dealing with is *complex* (consists of many scales of measure). So you have to break down the complex concept into constituent parts, define a scale for each part. Then your first concept is defined by the *set* of scales! This is extensively illustrated in [4] for concepts such as *Maintainability* and *Usability* for example. The classical example is the concept of *Love*, as decomposed in the Bible (Corinthians 1 1) [7, 8]

3. Google It!

Take any critical concept you like and Google it, adding something like 'metrics'. You will get a lot of advice from people who have solved the quantification problem in reasonable ways. At random now, I tried 'organizational adaptability metrics', and as usual the first page alone had quite a lot of good ideas.

Background Clarity

In addition to the core quantified objective (above example), we can add a number of additional related specifications, for a variety of purposes, such as managing change, risk analysis and prioritization. For example:

External IT Auditor Compliance:

Owner: Pxxx Exxx

Version: 18 3 2011 13:14

Type: Top Level Project Critical Objective.

Stakeholders: Regulator, Internal Audit, Trading Management **Ambition**: to have an agreed effective pathway to compliance

Scale: number of non compliance points against us at a defined [Time]

Past [2011] around 3 **Wish** [By end 2011] 0

Dependencies:

D1: product Sxxxx version 3.8 is no longer supported officially by the vendor Mxxxx

- **D2**: the software runs on old hardware, so we cannot buy hardware increase volume in order to satisfy new business.
- A2: the bank policy will not allow us to buy old hardware to increase capacity. Issue **I1**: can we hijack old kit? Dxxxx P.
- D3: we have increased vendor support costs by using legacy version (D1)

Note. This is one of the top critical applications so it gets picked up by senior management annually.

Assumption A1: we are expecting more trade volume to come in the client clearing domain. We don't want new trades to be booked on the old software (D1).

Risks:

- **R1**: vendor might not give us future bug fixes at reduced cost.
- **R2**: some things cannot be fixed on legacy stack, like downgrading patches, without rewriting it <- Dxxxx P.
- **R3**: some enhancements cannot be downgraded to legacy version, we have to do it and it increases our costs <- Mxxx

This background information is not the objective *itself*. But, it will help us keep track of important considerations, as we review the objectives. For example the strategies, the risks, the costs, and our priorities. It helps a team, which is often split in different locations, to remember essential information relating to the objective. Information that is in the mind of one person, might not otherwise be known by others, and might not be remembered or considered later, otherwise.

This may seem like a lot more specification data than we are used to, but if it is one of ten major objectives for a \$100,000,000 project, then it is a very small price to pay to avoid project failure or problems. Do what clearly pays off. Don't introduce non value bureaucracy. Make up your own mind on this.

The Leadership Option: changing to a 'clear values' organization

It may seem strange that most of our management objectives are still not quantified, and are not at the right level of consideration. The simple truth is that few planners get trained to specify objectives better than the poor practice I see today. They do not learn at business school, in their company training, or by good example in their working culture.

I recently talked to a UK Business School professor of strategic planning, who patiently explained to me why they happily accepted dumbing down of their syllabus content to avoid problems with less qualified students! There was no concept of finding and teaching powerful methods of business decision making. Just a concept of getting through the day, not losing business, not rocking the boat. I suspect this is the rule I have been unable to find an exception to.

I have seen several senior managers, my dients, who have decided to lead their corporation, or their division, by example, and by insisting that their subordinates had much better objectives for all projects, and for planning organizational improvement. Some have even been courageous enough to challenge their management peers and more-senior managers. They told other managers that they were all bullshitting each other about the objectives of serious projects, and that there was a smarter way. Things changed then. And I have seen such action completely turn losers into long term winners. Clear thinking at the top is critical to business success.

There are two simple ideas here:

- Make sure your objectives are aligned to real and critical values of the business and its stakeholders: the right level.
- Make sure your value objectives are crystal clear, cannot be misunderstood, can be measured in practice, and can be used in outsourcing contacts. Make them quantified, at least!

The IT Option: dealing with the ignorant input before management has got its act straight

One fundamental problem you are bound to incur, unless you are the CEO, is that *you* believe in clear project objectives, but your boss, and upwards, is not interested or motivated to have clear objectives. After all, they got there without such tools.

With some luck your good example will spread upwards. But in the meantime, you have to protect your area of responsibility by making sure your staff and contractors have clear and relevant objectives. You cannot responsibly turn garbage in, into garbage out. Let's just say, politely, you need to help interpret the intentions of responsible managers and other stakeholders, in the most fruitful way you can.

Vision: extreme clarity of central values

Here is an example of one way to set the vision: Value Clarity.

"All top level project objectives will focus on business critical values, and be unambiguously clear, sufficiently detailed for purpose, and quantified".

Policy: always clear, and always at right level of concern

Project Objectives Policy (example):

- 1. Projects will focus their attention on no more than ten of the most critical improvement objectives.
- 2. Each top objective will be defined numerically, with a defined scale of measure.

- 3. Each objective will define benchmarks, constraints and objectives numerically on the defined scale.
- 4. Each objective will contain a rich set of background information, to help us manage dependencies, uncertainties, risks and priorities.
- 5. Any strategy (or means, design, architecture, tactics etc.) for meeting one or more objectives will be estimated, and later measured and judged in terms of its ability to meet the targets set for our objectives.

Quality Assurance and Quality Control: the watchdog at the gates to disaster or success

Objectives should, before being seriously considered for relevance to business concerns, be quality controlled as meeting the above policy. If they do not meet the demands of clarity, then it is logically impossible to assert or know that they are relevant to the business. If this seems obvious, remember that it is probably regularly violated in your business today. Take an honest look!

Let me summarize some of the points in this paper in the form of principles.

The Value Clarity Principles: © Tom Gilb 2011

- 1. Objectives should be explicitly related to specific stakeholders, and to real stakeholder values.
- 2. Objectives should not contain any hint of 'perceived means' to reach them.
- 3. Objectives should be quantified, no excuses.
- 4. Don't define objectives which are 'apparently easy to measure'. Define them because they are *critical* to your purposes, even if they *seem* difficult to measure. Control the right stuff, not the easy stuff!
- 5. It is natural to have a hierarchy of objectives, the lower levels supporting the ones above: the presumed connection should be both estimated and measured numerically.
- 6. Rewards should be given for measured delivery of specified value, not for effort.
- 7. Sales proposals should be made in terms of potential and promised satisfaction of your quantified objectives.
- 8. Managers who deliver stakeholder value should be given more power and budget.
- 9. The delivery of stakeholder value should begin early in the project (second week, in my practice!) and form a continuous flow of results, on a value-to-cost prioritized basis.
- 10. Sub-optimization, caused by narrow focus on a few short term objectives, must be counteracted by having focus on a balanced *set* of objectives, some dealing with longer term results.

Summary

- Shift your focus to real stakeholder value
- Make qualitative values measurable
- Deliver value early, continuously, measurably
- Evaluate all proposals in terms of value for your value objectives
- Lead the value-culture revolution from your current position

Permission to Go Viral:

- You have the explicit permission to share this paper and these ideas with your manager, and your organization
- You have my permission to plan value in *your* projects
- You have my permission to make a difference, to challenge the bad habits of setting unclear and irrelevant objectives
- Of course, you don't need my permission at all; but if it helps you have it!
- Just Do It, and share your results with others

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