YOU CAN ACCOMPLISH 25% MORE THROUGHOUT THE
SEVENTIES IF YOU LEARN AND USE VALUE ANALYSIS TECHNIQUES.

My son Robert, age 23, while 150 feet up, on the magnificent four mile long "Bay Bridge" at Annapolis, Md., looked down upon two dozen assorted craft in the water below. Some were pile drivers, some cement mixers, some steel handlers, some assorted materials, all working at building a parallel span. A 2 mile gap remained which required construction 200' high. He said, "I can't conceive of men being able to build such a bridge", then added, "And the men who get the job done are no smarter than you and I". Then his next comment struck home to me—"It's the System that does it".

How often do we have exactly the right system—and a complete system—for making all cost related decisions, keeping ALL "customer" quality, and minimizing unnecessary costs? We could correctly say never!

Often have I—when observing the startling results in ending costs which brought no benefits, accomplished by the same people, but who now used the Value Analysis System—thought, "Truly the results from fully using the right system at the right time, almost transcend understanding"!
SYSTEM FOR IDENTIFYING UN-NECESSARY (UN-WORKING) COSTS

Created for one specific purpose—the identification of unnecessary costs, Value Analysis is a system, a complete set of techniques, properly arranged, for the sole purpose of efficiently identifying unnecessary cost, before, during, or after the fact. Some of the techniques are familiar, some modified, some new. The effectiveness in utilizing this system depends upon the understanding, training, and skill of the users, as well as the understanding of all business people in the environment in which it operates.

THINKING IS EXCLUSIVELY IN DISCIPLINED STEPS

It is a disciplined action system, attuned to one specific need,—accomplishing the functions which the customer needs and wants, whether these functions are accomplished by hardware, service, a group of people, professional skills, administrative procedures, or other, at the lowest cost.

In its disciplined thinking, it has specific mind setting, problem setting and problem solving systems. These systems will assist any one who has the task of providing more of what the customer wants, for less cost, to do so.

VALUE ANALYSIS is the name applied to this disciplined, step by step thinking system, with its specific approaches for mind setting, problem setting and problem solving.

VALUE ENGINEERING is often the name correctly used by qualified engineers, in engineering work.
Parts of the system require four separate kinds of thinking.

As the system is illustrated, it will require four separate kinds of thinking, preceded by "Mind Setting", and followed by "Development and Refinement Planning".

--Depth thinking on "What are we (in this specific project) Really Trying to Accomplish"--

1. Exhaustive accumulation of "Information" surrounding it. Identification of assumptions and improvement of assumptions.

2. Penetrating Analysis. What senses of direction does this information provide us? What specific problems will, when solved, bring important cost benefits?

3. Creative mental activity, in which all judgement is temporarily deferred, to form the roots of a variety of different solutions to each of the specific problems developed in the proceeding analysis.

4. "Judgement Type" mental activity, in which the results of Creative thought are searched for "Idea Roots", whose disadvantages can be minimized and advantages maximized sufficiently to meet the need for cost and/or operation improvement.

--Development and Refinement of the improved answers to the established problems--

SYSTEM HAS PROCEDURES TO LOCATE UN-ESTABLISHED PROBLEMS.

The system must have procedures which locate the often unsuspected areas of real cost improvement opportunity.
It must contain techniques which will identify the
"Stoppers", usually un-suspected, in the work toward lower
costs, and deal effectively with them.

ALL COST IS FOR FUNCTION

To help achieve better solutions to problems, sooner, some
different "building blocks" are needed. These must cut to the
heart of the basic problem and keep penetrating thinking in the
heart area. This is vital, or side issues, which are apparent,
will draw action from the main issue.

Customer wants Use Function and Aesthetic Function.

The heart of the situation is "The customer wants a FUNCTION".
He wants something done. He wants someone, perhaps himself, pleased.
He wants something enclosed, held, moved, separated, cleaned, heated,
cooled, or whatever, under certain conditions, and within certain
limits. And/Or he wants a shape, color, an aroma, a texture, a sound,
a "precious" (costly) material, or whatever, to bring pleasure to
himself, or others he wishes to please. That is ALL he wants. That
is ALL he cares about.

So, the language of function is the language of the heart of
the problem.

The customer wants two, and only two, types of function,
in varying degrees in different products or services.

USE function, and Aesthetic function, serve his needs.

USE function performs some "action" that he wants performed.

AESTHETIC function pleases him, or some one he wants to
Many products and services require both Use and Aesthetic Functions. Some require only Use, while some require only Aesthetic Functions. The refrigerator, the automobile, the dress, the shoes, the pine, the flower vase, all require both Use and Aesthetic functions in varying ratios. The nail within the walls of the building, the concealed wire in the motor, the oil in the automobile, require only Use functions. The "Rembrandt", the diamond, the perfume, have only Aesthetic function.

Intense concentration of mental work on these Functions, even what appears to be Over-concentration on them, forms the basis for un-expected steps of advancement of "Value" in the product or service.

Identify, Clarify, Name and Evaluate Functions.

The process includes:

Identifying
Clarifying
Naming
Evaluating (Setting appropriate cost)

What, really is the Function which the customer or user wants?

MIND TUNING EXPANDED

A very clear understanding and "feeling" of "What we are really trying to do" is vital, then later actions and inactions are more readily understood. In effect, this tunes the one or more minds to exactly the task, and perhaps more importantly, to exactly the same task, at the same precise time.
It is often startling how much more effectively to do this work if group mind "tuning" or mind "setting" has been thoroughly accomplished.

"On this project, what are we really trying to do in relation to":

The competitor
Our earnings, long range
Our sales costs
Our product
Our management
Our good technology
Our quality
Our quantities
The service we provide
Those receiving service
The functions of the building
Architectural design practices
Ultimate cost of construction to users
Increased material cost
Increased labor cost

Now with a clear and complete "Feeling" of what it is that is to be done, proceed with the Job plan for problem solving.

PROBLEM IS "SET" IN ANALYSIS STEP

After the Information thinking, in the Analysis thinking, the precise problem or problems to be solved are "Set".

THE VALUE ANALYSIS JOB PLAN

In the Job Plan the problems are recognized and faced with the functions to be accomplished clearly in mind.
For refinement and use are completed. Then plans are chosen and their disadvantages minimized. Alternative lives which meet the needs of the business or service are established. The essential creative work is done. And for "sense of direction", exact problems to be solved are extensively secured. It is thoroughly analyzed for meaning information surrounding the problem area, intensely and
SUMMARY

Value Analysis is a system containing techniques specifically arranged for efficient problem locating, problem setting and problem solving.

Problem solving proceeds by the use of one "Mind tuning, or setting" period, followed by four periods in which totally different types of "Mental Work", are separately accomplished to utter completion, before proceeding to the next type.

In mind tuning the question is asked and discussed "Exactly what are we trying to do"? It usually requires from a half hour to a half day to get all minds involved in the start of a project in good tune, with what, at that stage seems to be exactly the right problem, whose solution will bring real opportunity.

The four different types of thinking in the Value Analysis Job Plan, each of which is exhaustively completed before starting the next are:


2. Analysis thinking in which a belief in the meanings contained in all of the information is developed. Functions are established. "Solvable and comparable groups of functions are established. Functions are evaluated. The exact problems to be solved in succeeding thinking are given precise wording."
plans toward implementation are taken.

This is followed by developmental planning in which definite
the business or service.

which, after minimizing disadvantages will meet the needs of
combined, basically by one man, to provide one or two new approaches
Creativity step is searching, thoughtfulness and creativity

4. Judgmental thinking in which the solutions from the
of possible approaches to the solution are listed.
Step are individually used, and the widest possible range
thinking is deferred, the decision problems set in the organization.

5. Creatively thinking in which all judgmental