## Do You See What I See? Presented by Bill Bellows

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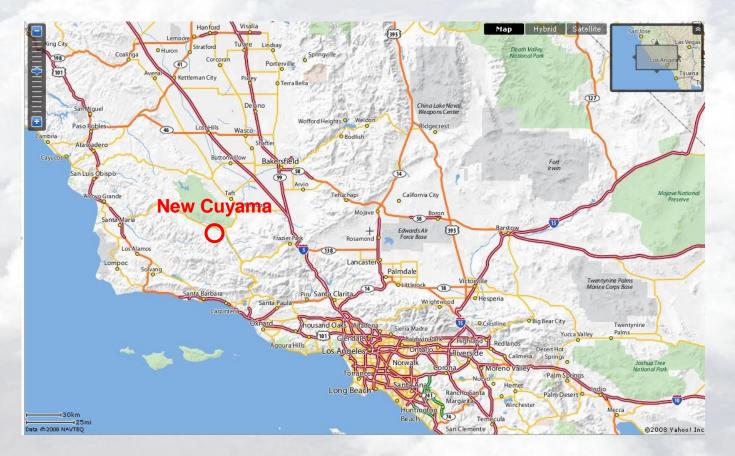
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W. Edwards Deming Institute Conference October 6, 2012

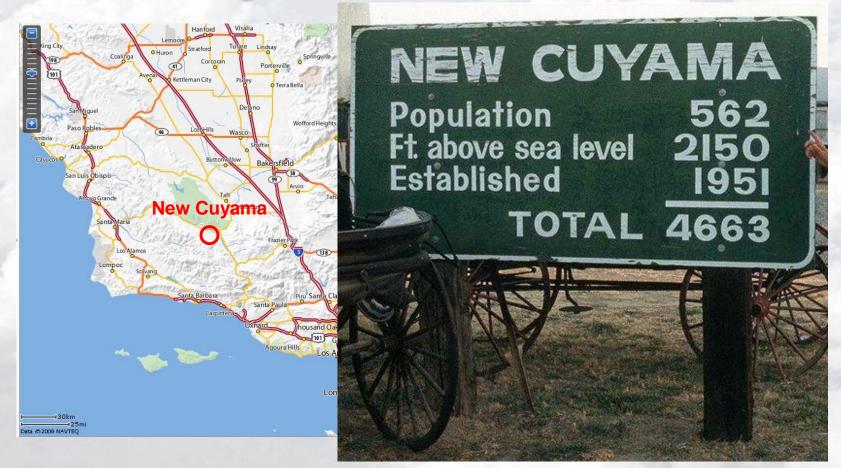
### Abstract

The aim of this session is to present a proposal for "better thinking about thinking" as it applies to how resources are managed, both individually and collectively. Beginning with a series of seemingly simple questions, the answers to which reveal assumptions made in how we allocate resources, this session offer insights into how Genichi Taguchi's ideas on "Quality Loss" have been integrated with W. Edwards Deming's "New Economics" to establish a new approach to resource management, termed "Purposeful Resource Management." The foundation of a radical departure from "Reflexive Resource Management" lies in a transformation of the way we think about our thinking.

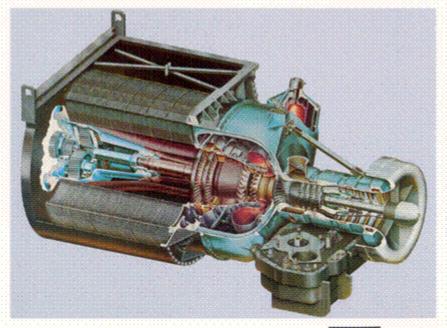
### New Cuyama, California



### New Cuyama, California



### Tank Engines and Rocket Engines



AGT 1500 GAS TURBINE ENGINE

Stratford, Connecticut

#### AGT1500



**RS68** 

#### **Perception & Thinking**

"What we see depends on what we thought before we looked."

**Myron Tribus** 

### **Alligator Management**

What is the leading use of alligator skin in the United States today?

#### **Automobile Tires**

Who makes the best automobile tires in the world today?

### **Automobile Tires**





### **Time Management**

How much time is spent discussing parts which are good and arrive on time?

#### **Time Management**

How much time is spent discussing parts which are good and arrive on time?

How much time is spent studying for the final exam, questions from weekly quizzes and the mid-term which were correct?

### **Time Management**



#### Grades

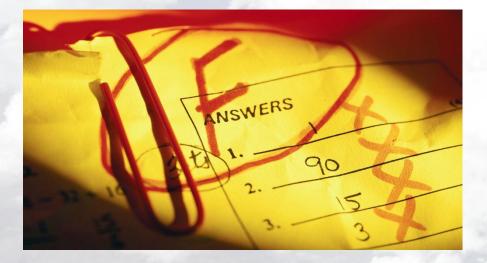
# What letter grade is required for all parts purchased?





### Grades

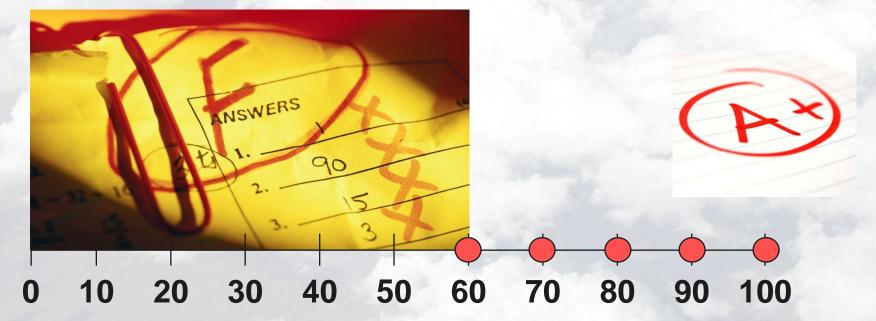




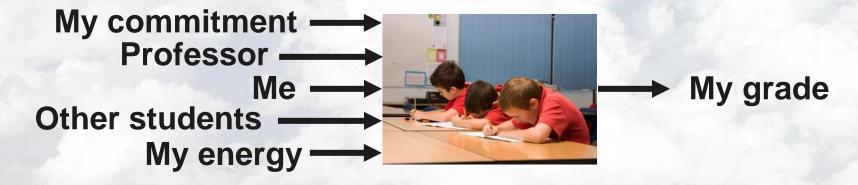


#### Grades





#### How did you do on the test?



#### How did we do on the test?

My commitment Professor Me Other students My energy



Our grade

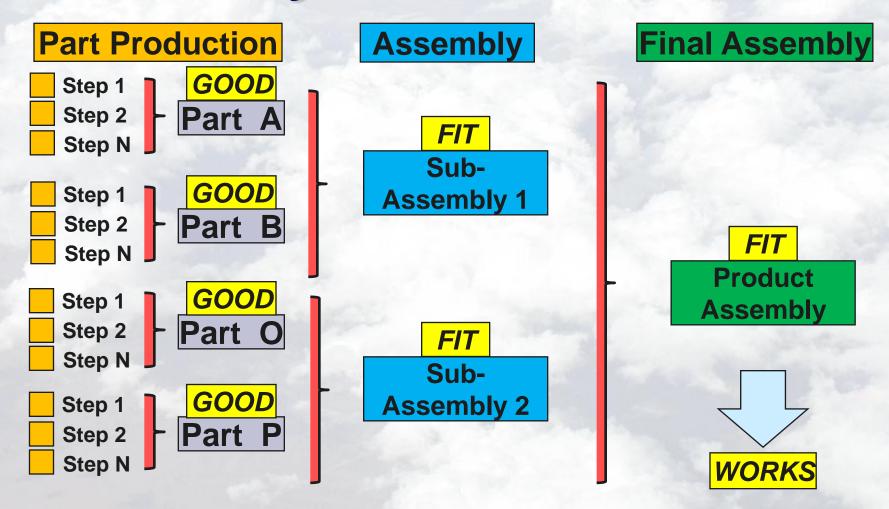
#### **Awareness Questions**

How did you do on the test? How did I do on the test? How did we do on the test?

#### **Awareness Questions**

How did we do on the design? How did we do on the proposal? How did we do on the contract?

#### **Macro System Model**



### **Cutting Wood**

Given a piece of wood that will be cut into 2 pieces, how many lines will be drawn across the top face before the cut is made?



### **Cutting Wood**

#### 1 line /(target)

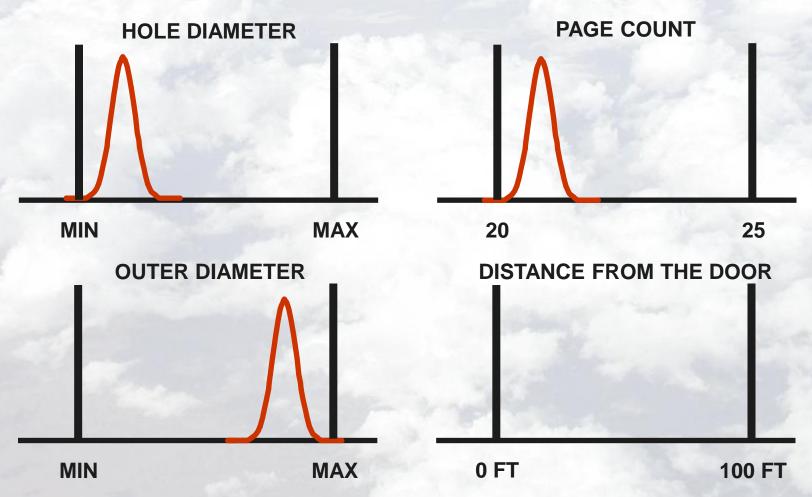


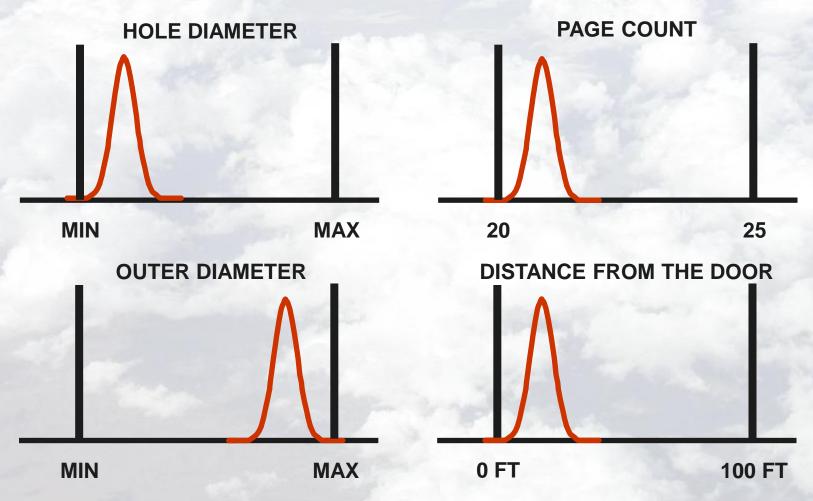
### **Cutting Wood**











OUTER DIAMETER

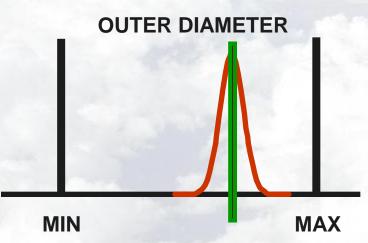
MIN

MAX

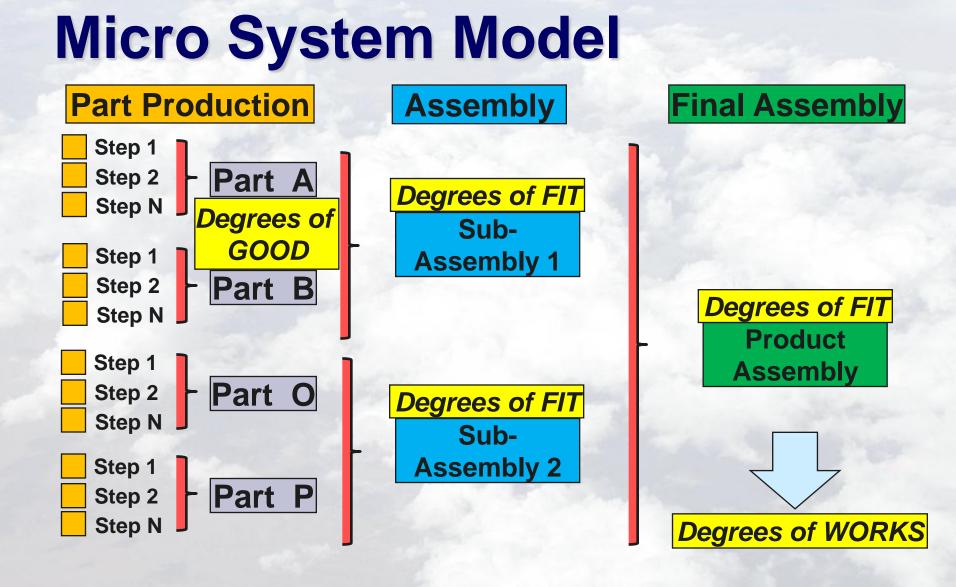








#### 1 line /(target)



#### **Modes of Thinking**

There are 10 kinds of people in the world.

Those that understand binary and those who don't

### **Modes of Thinking**

 Categories
 Absolutes
 Discrete / Digital
 Those who understand binary / those who don't



- Continuum
  Relative
  Wholeness / Analog
  - > Better/Faster

### **Modes of Thinking**

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### Philip Crosby on Quality



"Zero defects is another way of saying 'do it right the first time"
 Quality is defined as conformance to requirements

Source: Let's Talk Quality, Philip Crosby, 1989

### W. Edwards Deming on Quality



"A product or a service possesses *quality* if it helps somebody and enjoys a good and sustainable market"

### Genichi Taguchi on Quality



"*Quality* is the minimum of loss imparted to the Society by a product after its shipment to a customer"

Source: Introduction to Quality Engineering, Genichi Taguchi, 1983

### Taguchi's Quality Loss Function

"Loss to Society"

> Lower Specification Limit

TARGET (desired value of parameter) Upper Specification Limit

#### **A Better View**

### "The Taguchi Loss Function is a better view of the world."

#### W. Edwards Deming

Source: Out of the Crisis, W. Edwards Deming, 1986

#### **Perception & Thinking**

"How the world we perceive works depends on how we think.

The world we perceive is a world we bring forth through our thinking."

H. Thomas Johnson

Source: (article) A Different Perspective on Quality, Johnson, 1997

### **Thinking Together**

Increase individual awareness on thinking (InThinking)

Evolve the way we work together

Evolve the way we learn together

Evolve the way we run our organizations



### A Map of Theory

Aim of this chapter. The prevailing style of management must undergo transformation. A system can not understand itself. The transformation requires a view from outside. The aim of this chapter is to provide an outside view - a lens - that I call a system of profound knowledge. The system of profound knowledge provides a lens. It provides a map of theory by which to understand the organizations that we work in.

### **New Meaning**

The first step. The first step is transformation of the individual. This transformation is discontinuous. It comes from understanding of the system of profound knowledge. The individual, transformed, will perceive new meaning to his life, to events, to numbers, to interactions between people.

#### Transformation

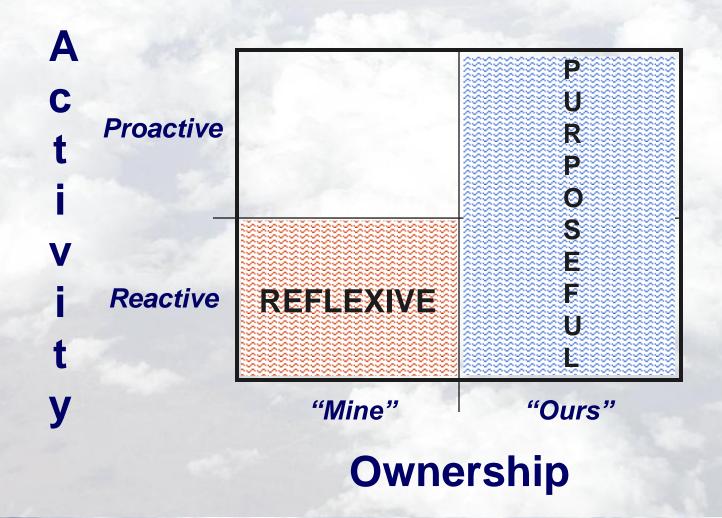
Once the individual understands the system of profound knowledge, he will apply its principles in every kind of relationship with other people. He will have a basis for judgment of his own decisions and for transformation of the organizations that he belongs to.

#### Transformation

The outside view. The layout of profound knowledge appears here in four parts, all related to each other:

Appreciation for a system Knowledge about variation Theory of knowledge Psychology

#### **Resource Management**



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