

**“Why do Chopsticks Still Exist?  
Trying to Calibrate the Value of  
Software Intensive Systems”**

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IFPUG Fall Conference 2000

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**An Observation:**

**We seem fixated on  
productivity and quality.**

**Why?**

**Because we believe they are  
within our ability to control  
them.**

**The Truth Will Set You Free...  
But First It Will Make You  
Miserable.**

- ☞ **Customers don't know  
what they want.  
They won't pay the  
price to find out  
(upfront.)**
- ☞ **We don't know what they  
should want.**

**We Need to Find  
Some Degrees of Freedom**

**Note: Time doesn't appear to be  
even a candidate for most  
projects. We'll push, but  
expect little flex.**

- ☞ **What Gives?**
  - ☆ **Capability**
  - ☆ **Capacity**

## Capability

### Capability = Functionality

☞ We often negotiate functionality... when it is the only thing left that can give!

☞ Prioritize capability from the get-go. If they won't play, play on. Consider the customer in default.

(See Extreme Programming & Adaptive System Development)

## More on Capability

☞ Report progress based on capability integrated.

☞ Organize by capability... with some integration bullies (a.k.a. good testers) there from the start.

## Capacity

☞ Think of capacity as throughput limit.

Do we need to handle 10 rush foreign orders per day, or 10,000?

☞ Think about the whole system. Few of us are working on entirely automated solutions.

☞ Consider capacity a form of requirement from the start.

## More or Less Capacity

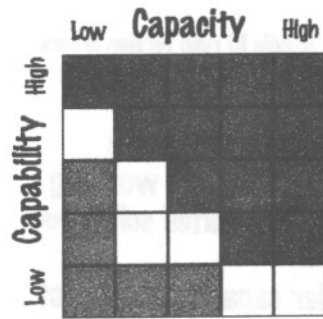
☞ If the customer is adamant on deadline and functionality, capacity is your only decision.

☞ "Application development would really be fun if you didn't have to handle the exceptions."

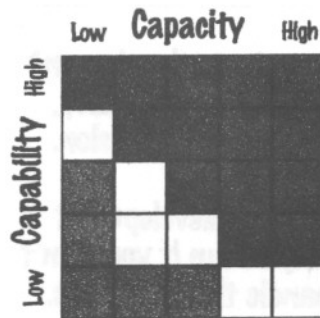
☞ How will you handle error rates?

### Capacity & Capability over Time

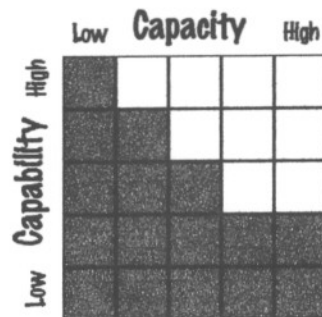
☞ If the customer demands delivery in 10 months...



☞ If the customer demands delivery in 8 months...



☞ If the customer demands delivery in 12 months...



### Netting This Out

☞ We are in the business of delivering value to our customers.

We are not in the "high productivity business, nor are we in the "high quality" business.

☞ We need to find a best fit given the restrictions we face.

☞ We need a process that recognizes that uncertainty and risk are at the heart of what we do.