

Understanding the Client

•The hard part!

- Non-technical user
  - But should know more about needs
- Communication difficulty

Gause, Donald C. and Weinberg, Gerald M.  
*Exploring Requirements: Quality Before Design.*  
 Dorset House Publishing, 1989.

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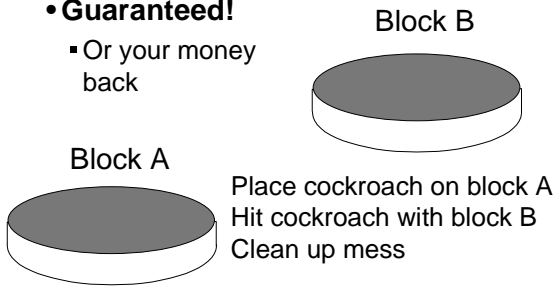
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Cockroach Killer

•Guaranteed!

- Or your money back




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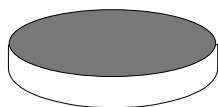
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CASE Tools

•Guaranteed!

Specification capture tools  
 Repositories to manage specification information

Automatic generation of code/documentation




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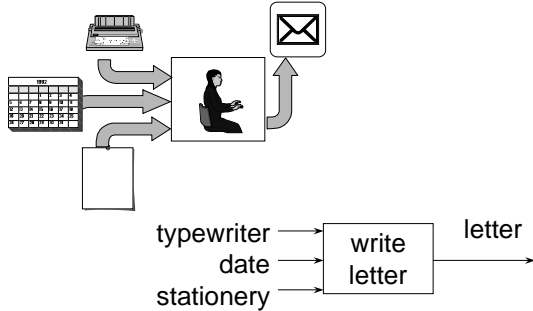
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Maps & Notation




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Maps

- Can everyone read map?
- Maps are not requirements
  - When map and territory don't agree, always believe the territory!
- Communicate, not divide
- Be willing to revise the map

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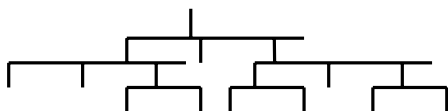
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Direct Questions

- Decision trees
  - From vague statement to specific solution, by asking questions




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Design a Transportation Device

When is solution needed? : 18 months
What is to be transported? : people
How many people at a time? : one
Device power? : person + natural forces
Surface or terrain? : very hard, flat surface
How far is person transported? : < 2 km
How fast? : at least one mile in four hours
How reliable? : 1 failure 600km, not dangerous
Cost limitations? : < Sfr300 per use

Horizontal lines for notes

Direct Question Process

- Initial estimates
- \$10 to \$15 billion
After direct questions
- \$20 to \$10,000
- Clusters: \$40-100, \$700-\$1,200
- Skateboards, bicycles

Horizontal lines for notes

The Solution

- Compact folding bicycle
- Sell for \$49.95, high volume
- Wonderful solution!
Client feedback
- Swiss village mayors
- Portability great, but what about ...?

Horizontal lines for notes

Hints

- **Give clients what they want**
  - Not what they “need”
  - They may know more than you do!
- **Tree shows consequences**
  - “Is this what you mean?”
- **Skeptics: direct question limits**

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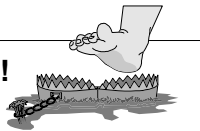
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Hints

- **Expect to be surprised!**
- **If not . . .**
  - Either you knew it all already
    - Unlikely
  - Or you missed something important!




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Starting Points

- **Solution idea**
- **Technology idea**
- **Simile**
- **Norm**
- **Mockup (prototype)**

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Process Questions

- Who is the client?
- What is a successful solution really worth?
- What is the real reason for solving problem?
- Single design team, or more than one?
- Who should be on the team(s)?
- How much time do we have?
- Trade-off between time and value?
- Where else can solution be obtained?
- Can we copy something that already exists?

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Product Questions

- What problems does the product solve?
- What problems could this problem create?
- What environment will product encounter?
- Desired or required precision?

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Meta Questions

- Am I asking too many questions?
- Do my questions seem relevant?
- Are you the right person to answer? (careful!)
- Are your answers official? (careful here too!)
- May I write down Q&A and give you copy?
- Can we meet face-to-face? (if written so far)
- Anyone else who can give me answers?
- Can I see product environment somewhere?
- Anything else I should be asking you?

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Meta Questions

Anything you would like to ask me?  
May I return/call with more questions later?  
Something else we should know? (hesitation)  
X said Y; any idea why? (conflicting statements)

When interviewing two or more people:  
You don't agree? Tell us why.  
Are you comfortable with process right now?  
Is there any reason you can't answer freely?



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Meta Questions

If practical:

What can you tell me about other people?  
How do you feel about the other people?  
Do we have anyone we don't need?  
Do we need anyone we don't have?

Otherwise, watch for mentions of other people and note context.



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