

A People-Oriented View

... on Software Development and Process Improvement

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Introduction(1)

What is this?

- This presentation is a sample from a one day workshop.
- It introduces the concepts and
- applies them to software development
- using the generation of documents in the waterfall process as an example.

Introduction(2)

What is this about?

- To introduce, change or enforce a process ultimately means to change the behaviour of individuals.
- Therefore it pays off to know which other factors influence people's behaviour.

Introduction (3)

What are the benefits?

- identify psychological and sociological effects
- which can be barriers to process improvement
- A conscious leader can use the same effects in his favor to make software development easier and more effective.

Real Life

Real life, that is:

- Grown Structures
- Company "Politics"
- Not-so-perfect Individuals
- Not-so-perfect Behavior
- Not-so-perfect Team Leaders
- Not-so-perfect Communication
- ...

Mission

To trigger ideas how we can

- use all that knowledge about
 - psychology and sociology and organizations
 - and methods and processes
- to make life easier
- and improve software development practices
- in "real life" environments

Approach

- collect reasons for malfunctioning of current practices
- make them really clear by satirical exaggeration
- So that you can:
 - make life easier in the current process
 - make sure they are not still there when a new process is introduced

Approach(2)

Let's write a satirical novel!

The Waterfall

A Satirical Novel

by

TorontoSPIN

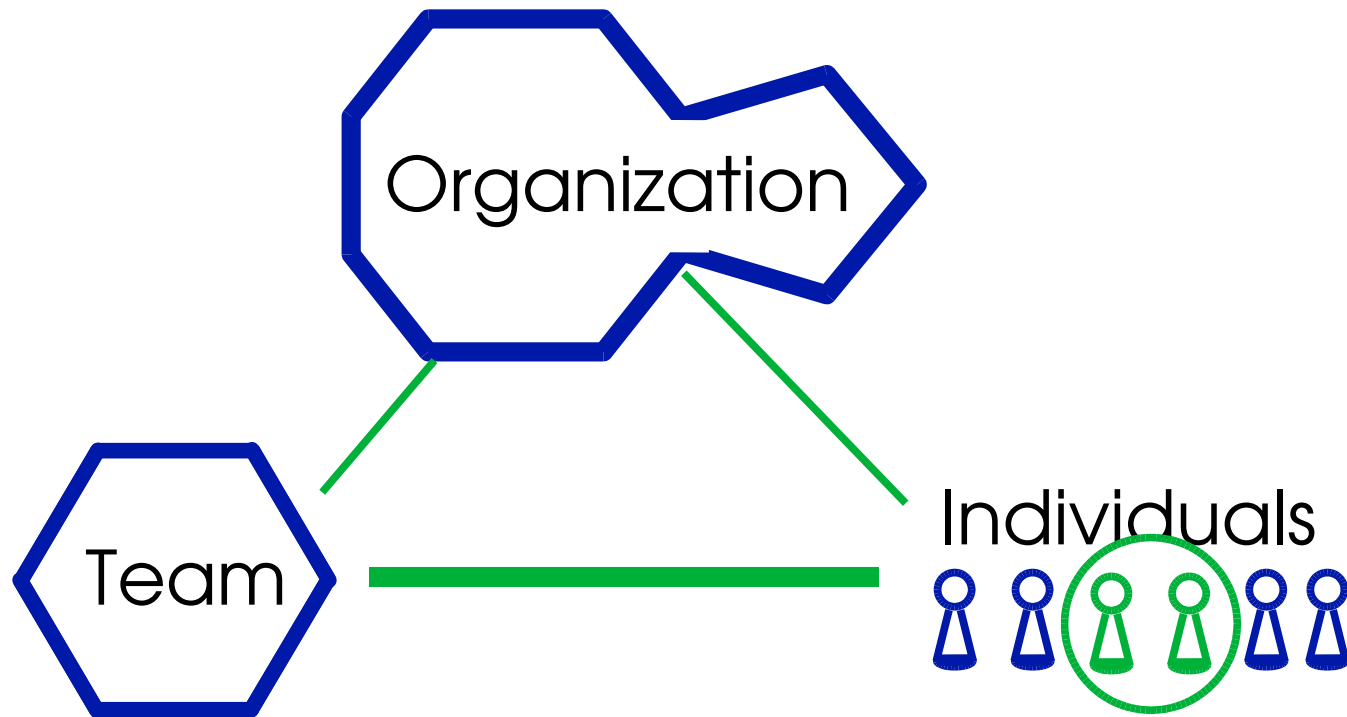
Parts

- Introduction
 - Scope, Characters, Plot
- Part 1: The Waterfall Edge
- Part 2: The Coding Phase
- Part 3: The QA Department
- Part 4: Management
- Part 5: The Organization
- Sequel: The New Process

Introduction (of the Novel)

- Scope
- Plot
- Characters
- Recurring Motifs

Scope



Plot and Characters

The Plot

- Analysis
- Design
- Coding
- Testing

The Characters

- Analyst
- Designer
- Coder
- Tester / QA Dep

The Character

- *Personality:*
- *Wants to be known for:*
- *personal Goals:*
 -
- *Lunch with:*
- *talks about:*

The Characters

The following Character descriptions have been compiled from the audience's input

Charly the Coder

- *Personality*: technical, poor communication skills, "Geek", "Nerd"
- *Wants to be known for*: expertise, fancy code, solving difficult problems, speed, being a genius
- *personal Goals*: learn new things, get a better job
- *Lunch with*: none at all
- *talks about*: Code

Alfred the (Business) Analyst

- *Personality*: gregarious, loves people, loves to ask questions, loves to talk, talks too much, changes his mind
- *Wants to be known for*: subject knowledge, being the good guy
- *personal Goals*: promotion to Project Manager
- *Lunch with*: the Boss, customer, project manager
- *talks about*: ?

Dave the Designer

- *Personality and Wants to be known for:* He was a coder, so the same. But: He now thinks he can communicate. And he thinks he is smarter, more of a genius
- *personal Goals:* become Architect, start his own company, become development manager
- *Lunch with:* other Designers, definitely not with Coders
- *talks about:* ?

Terri the Tester

... never appears as a person

- because we don't have time for testing?
- because, from the point of view of the coders, they deal with the "QA department" instead of personally visible testers.

The QA Department

- *Personality*: Police, nitpicky, demanding, overhead
- *Wants to be known for*: Quality, Excellence, Finding Problems
- *personal Goals*: Influence, Growth (speaker's suggestion)
- *Lunch with*: Among themselves
- *talks about*: Tools, Coders

The QA Department(2)

- To view QA only under the perspective of Testing is unilateral
- but it is a common problem
- we are writing a satire, so we exaggerate this
- Part 3 of the workshop deals with it in more detail.
- Message: Yes, *Quality Assurance* is about defect *Prevention*

More Characters

- Project Manager
- Department Manager
- Customer
- The Boss
- CFO
- Other Department Managers
- The Tooth Fairy

What have we done?

- Roles
- Personalities
- Hierarchy
- Groups

The Personalities Problem

Will they ever be able to work together?

- The readers of our satire will now have an anticipation of upcoming communication problems
- As process improvement agents, we ask ourselves now:
Will we ever be able to improve anything?

People Perspective

Prestige

Analysis

Design

Coding

Test

Tasks

Process Perspective

Status

Personality

Analyst

Designer

Coder

Tester

Roles

Groups

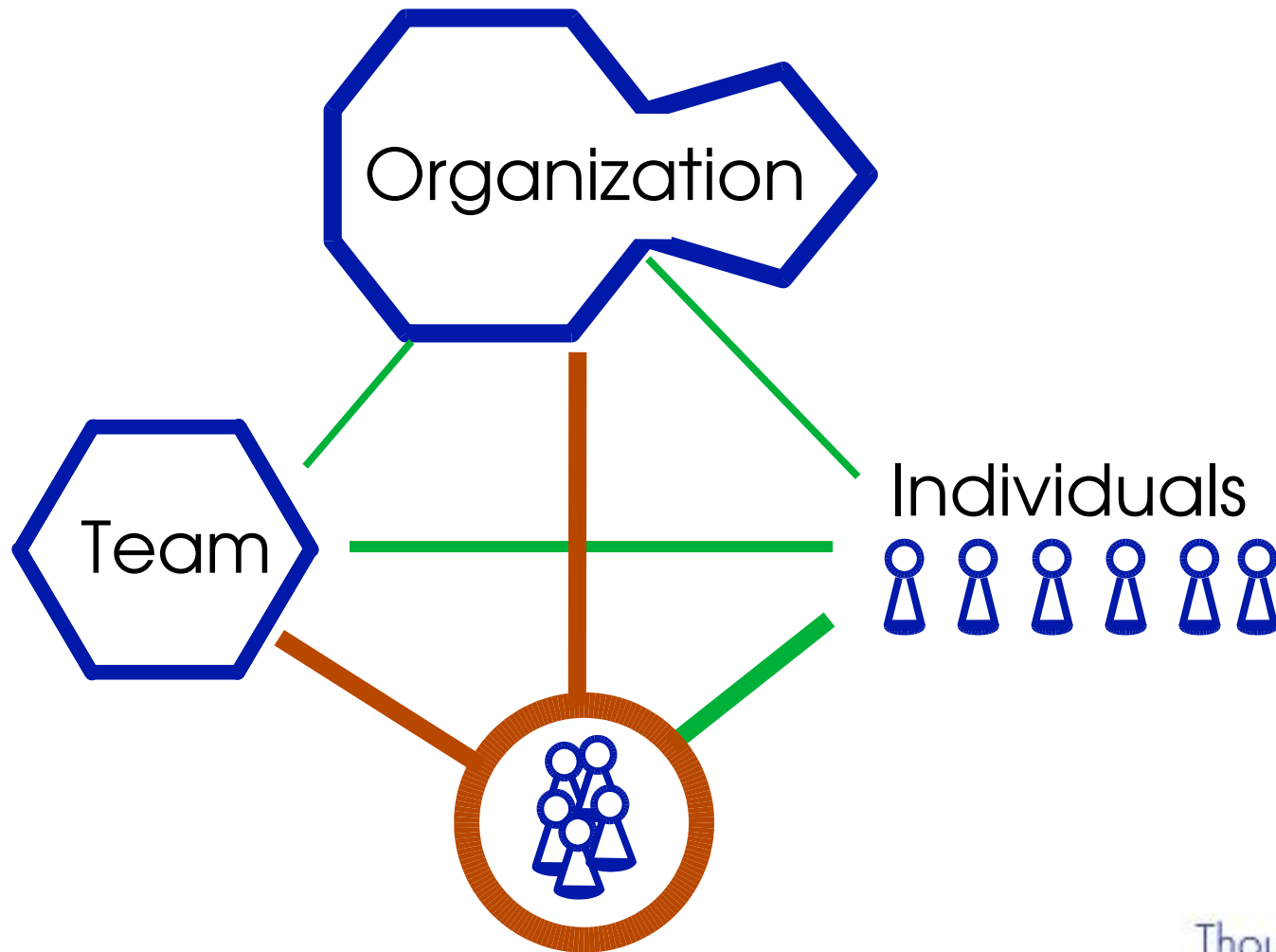
The Analysts

The Designers

The Coders

The QA Dep

Scope: Groups!

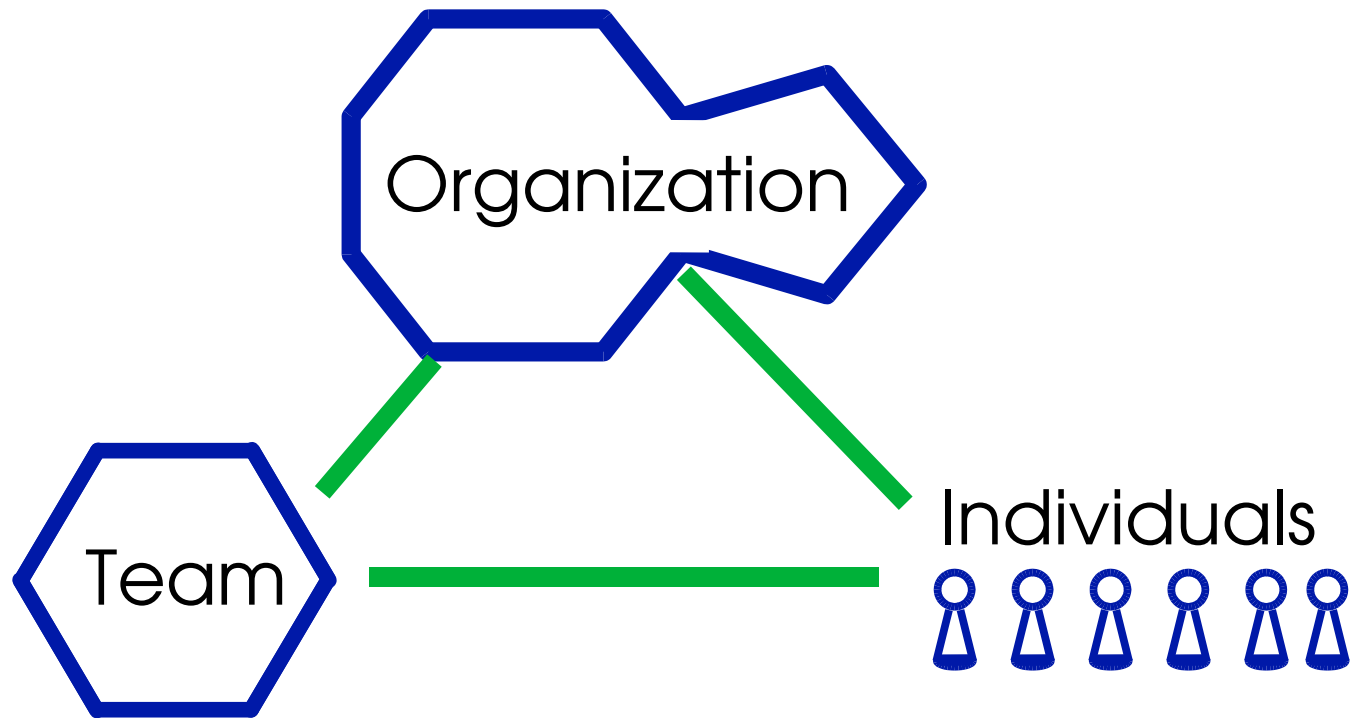


Lunch Conversations

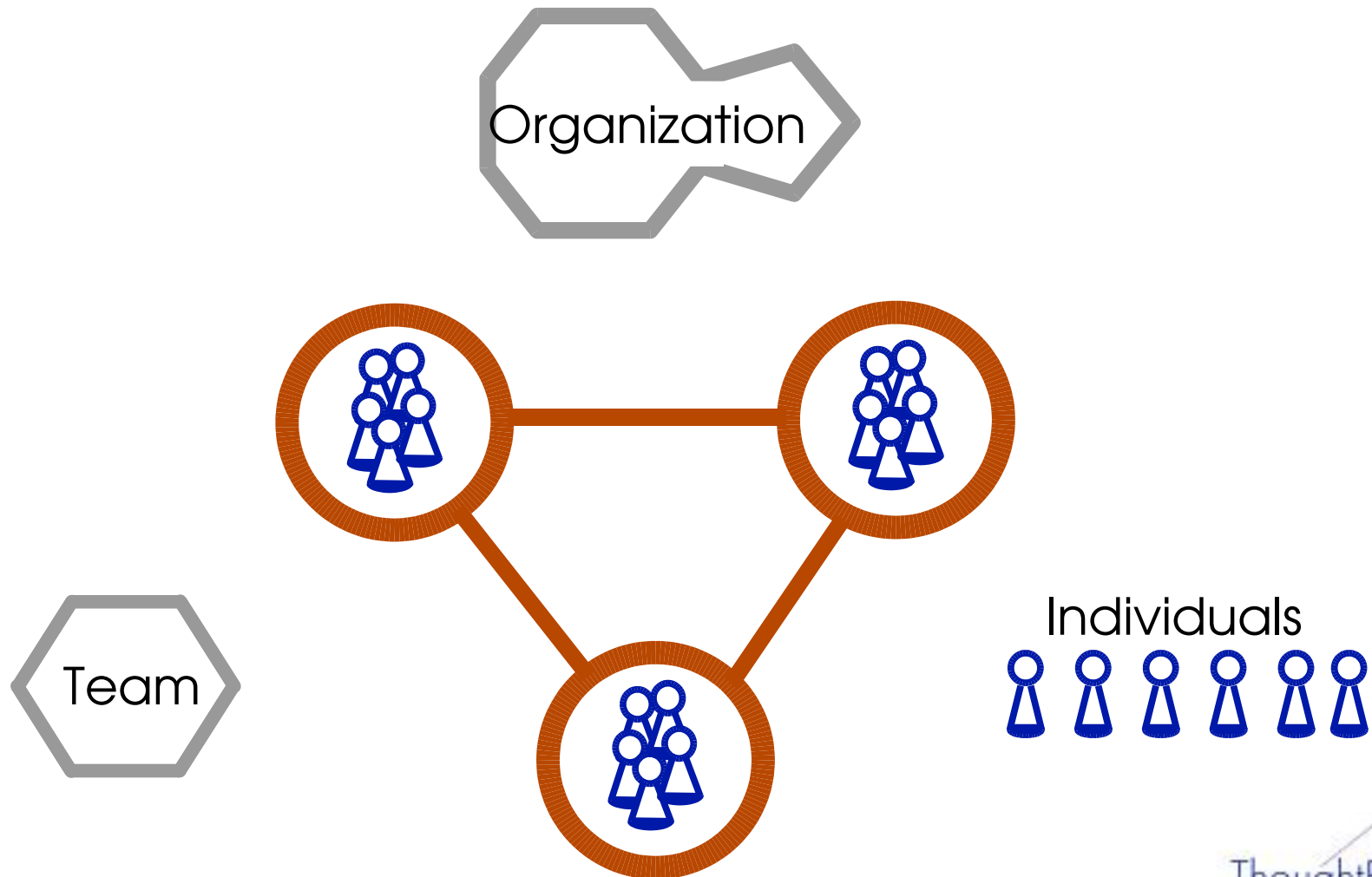
What do they say about each other?

- Analysts about "Developers"
- Designers about Coders
- Coders about Testers
- Testers about Analysts
- ...(16 Pairs)
- all about the Managers

Ideal



Worst Outcome: Groups!



The End(1)

- Doom
 - a drama has only then been thought through, when it has the worst possible outcome.
F. Dürrenmatt
- Rescue
 - We need a Hero!
 - Some problems have to stay
 - we want a sequel

The End (2)

2 participants vote for Doom

- What would be the worst possible outcome?
SPINs vote:
 - project failure
 - bankruptcy
 - you might get promoted

The End (2)

- Worst possible outcome? Speaker's vote:
 - the company is swallowed by a bigger one and the groups continue their game there. And so on.

The End (3)

The majority votes for Rescue.

- Who is the hero? SPINs vote:
 - Coder
 - Project Manager
 - Consultant
- My comment:
 - What about the CEO, or QA?

The Start of the Story

- Everything looks just great
 - (or so the status meeting minutes read...)
- ... but we know our Characters
- ... and we get into the first little trouble

Recurring Problems

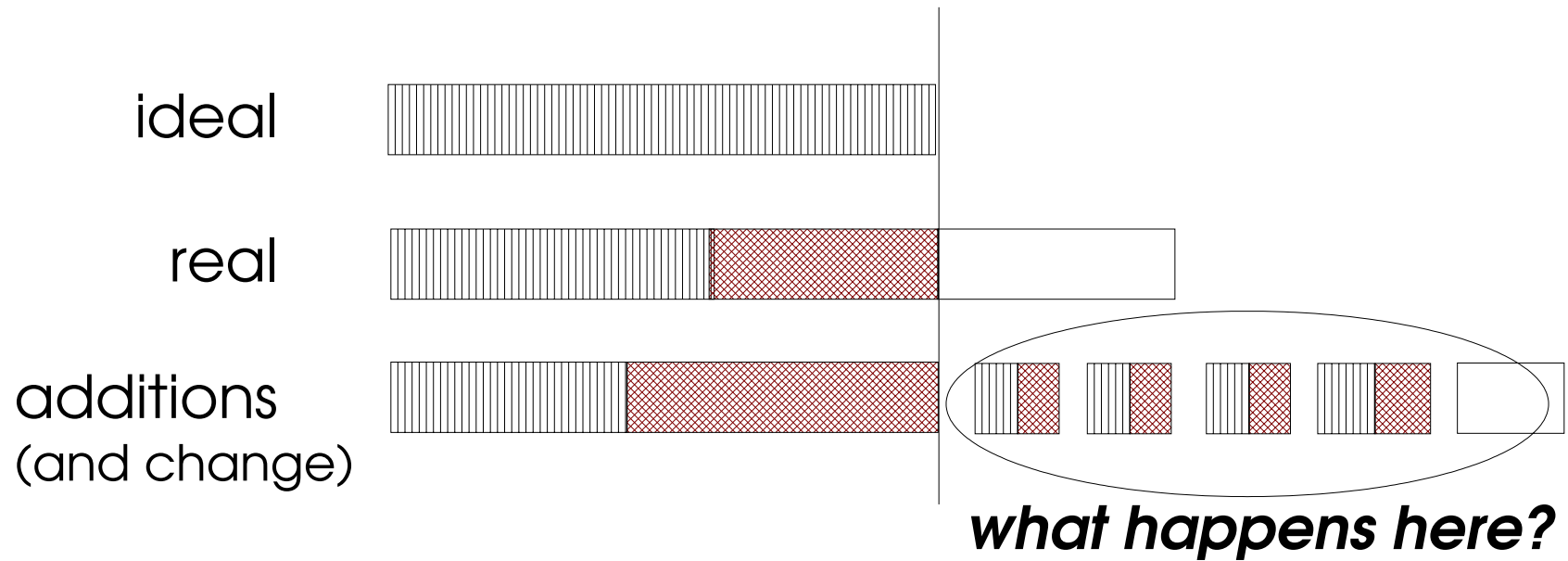
Not that again!

- On the Waterfall Edge
- In the Coding Phase

Part 1

The Waterfall Edge

The Document



useful  waste  gap 

Documents and Hierarchy

- Inefficient Documents support self-esteem and hierarchical behaviour
- If you want to show your superiority, write incomprehensible documents
- Everybody wants to show his superiority
- **Hierarchical attitude**
→ **inefficient documents**

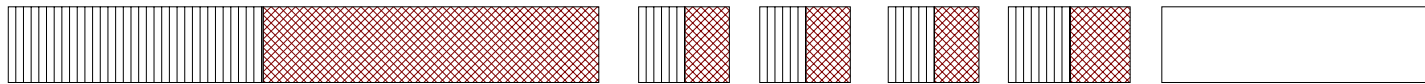
Reviews

- We want to make the documents better!
- Let's have reviews!
- Reviewers are experts!
- That means, they know less about the readers' needs than the author
- Reviews fix contradictions, but they don't effectively address waste and gap.

Reviews and Blame

- The document has passed the review.
- Therefore it is perfect.
- If you don't understand it
- *you are not smart enough*
- Blame flows down the waterfall

How many documents?



How many documents do you have?

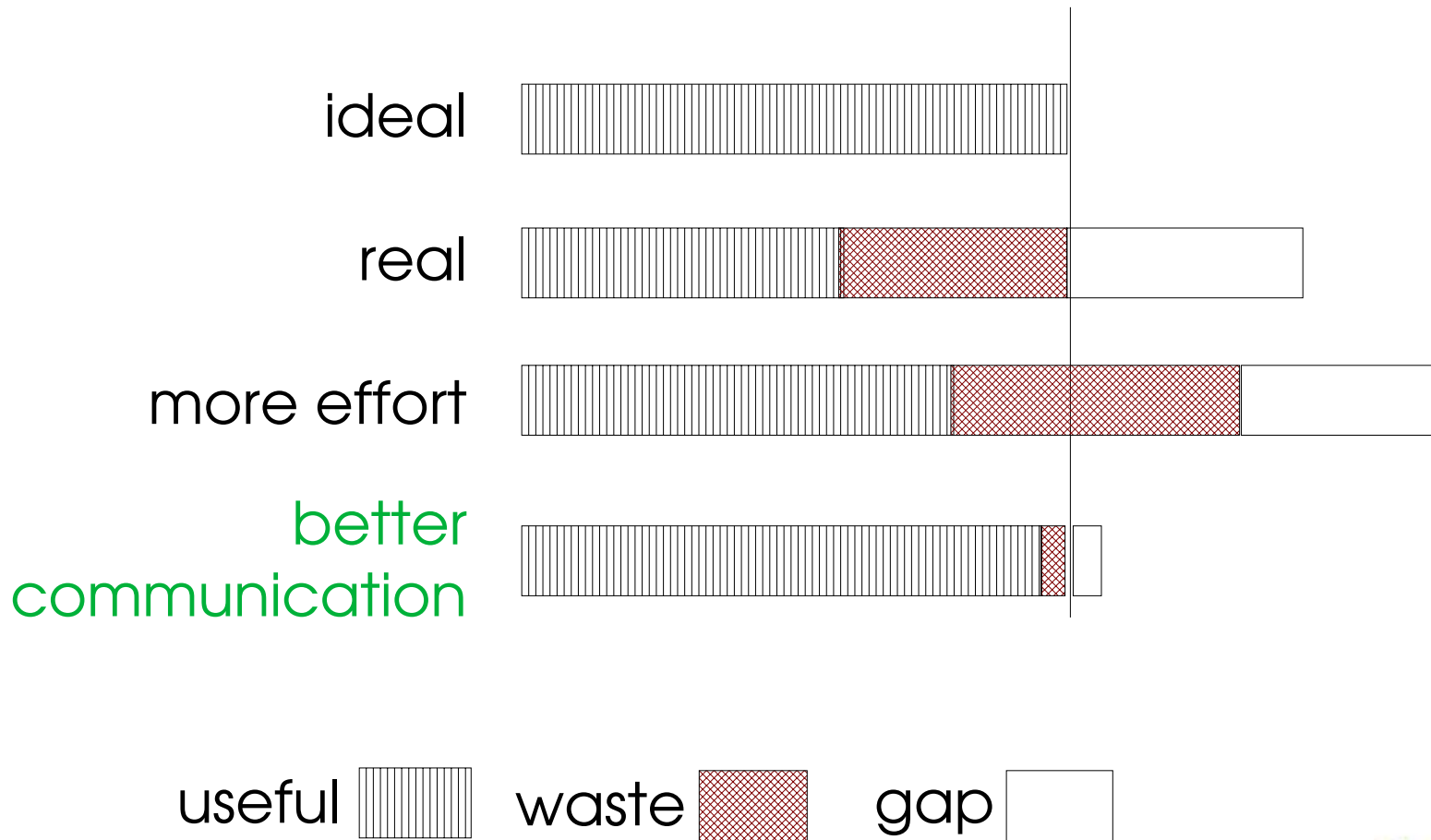
RUP knows 42 document templates!

There is Hope

If only you could **improve communication**,
you could

- turn the water-**fall** into a water-**flow**
- **make software development easier**
regardless of the process used

The Document 2



Shouldn't the Designer Know?

Shouldn't the Designer know what the Coder needs, as he has been one before?

- What does he take for granted but the Coder doesn't know it?
- Technology Change: He might know less than the Coder about new technologies introduced since his promotion

Process

Who
Roles

What
Tasks - Artifacts

When
Workflow

Process

Who
Roles

What
Tasks - Artifacts

When
Workflow

For Whom
= Against Whom

Process

Who
Roles

What
Tasks - Artifacts

When
Workflow

For Whom

= With Whom

Communication

What can we do

What can we do in these areas:

- Characters
- Hierarchies
- Group Effects

What can we do (2)

Answers from the Audience:

- Collaborative Teamwork
- Recognition for all tasks
- 360 degree reviews, salary tied to outcome of those
- Change career models

What can we do (3)

A specific example shared by a participant:

- Changed Workplace
- Arranged "Group Areas"
- Encouraged social communication
- Took a lot of time and effort but was successful
- Keywords (from me):
"Social Engineering", *Leadership*

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The Sequel

The New Process

A good FORTRAN programmer

... can program FORTRAN in any language

A "good" Waterfall Team ...

... can make a Waterfall out of any Process

Leadership

Help Them out of their "Waterfall Mode"

Lead Them into Collaboration

Questions ?

Books

- Tom DeMarco: The Deadline
*A Satirical Novel on Project Management
... and all his other works*
- David Keirsey: Please Understand Me II
Jung/ Myers-Briggs Character Types
- D. Richard Riso: Understanding the
Enneagram: The Practical Guide to
Personality Types
another Personality Type System

Books

- Gunter Dueck: Wild Duck
*Keirse Personality Types applied to Management
(German only)*
- Douglas Stone: Difficult Conversations
The Doom Loop and how to get out
- Watts S. Humphrey: Managing Technical
People *Management and Leadership*
- Geert Hofstede: Cultures and Organizations
How we fail to think as members of groups

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