Threads of Reasoning

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Abstract

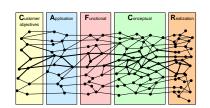
A method of reasoning is described, which addresses cross-cutting issues. The basis is fast iteration in the problem and solution space.

A thread of reasoning is a set of highly relevant related issues, which are addressed by articulating the problem in terms of tension and analyzing it in the CAFCR framework.

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Overview of the reasoning approach

1. select starting point:

! actual dominant need or problem

- 2. create insight:
 - + submethod in one of CAFCR views
 - + qualities checklist
- 3. deepen insight via facts:
 - + via tests, measurements, simulations
 - + story telling
- 4. broaden insight via questions:
 - + why
 - + what
 - + how
- 5. define and extend the thread:
 - ? what is the most important / valuable
 - ? what is the most critical / sensitive
 - ! look for the conflicts and tension

continuously

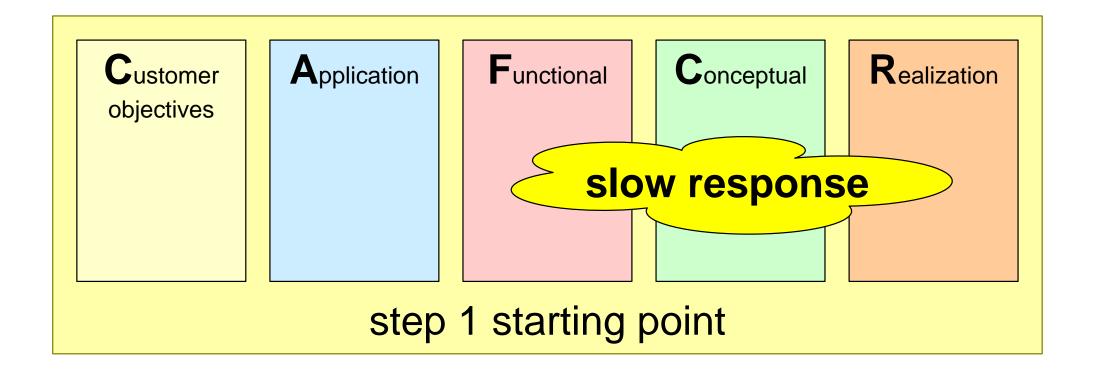
consolidate in simple models

communicate to stakeholders

refactor documentation

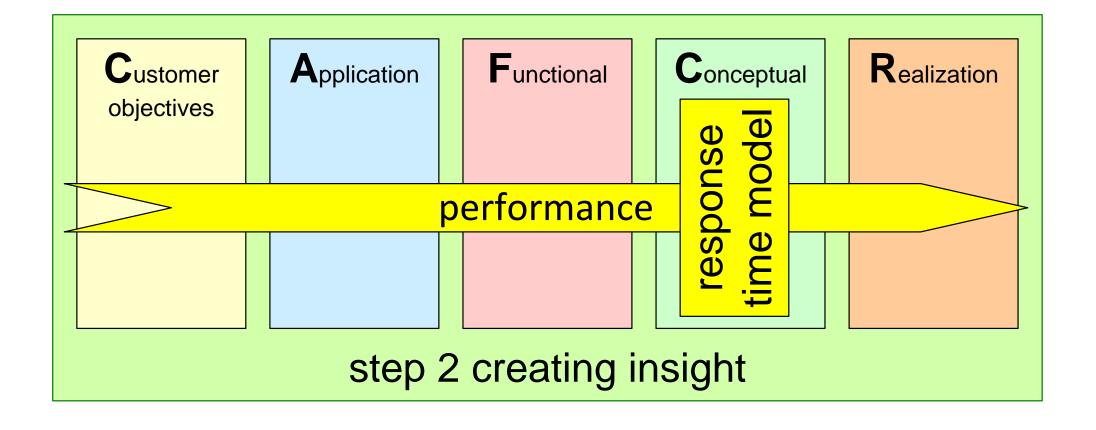


From starting point to insight



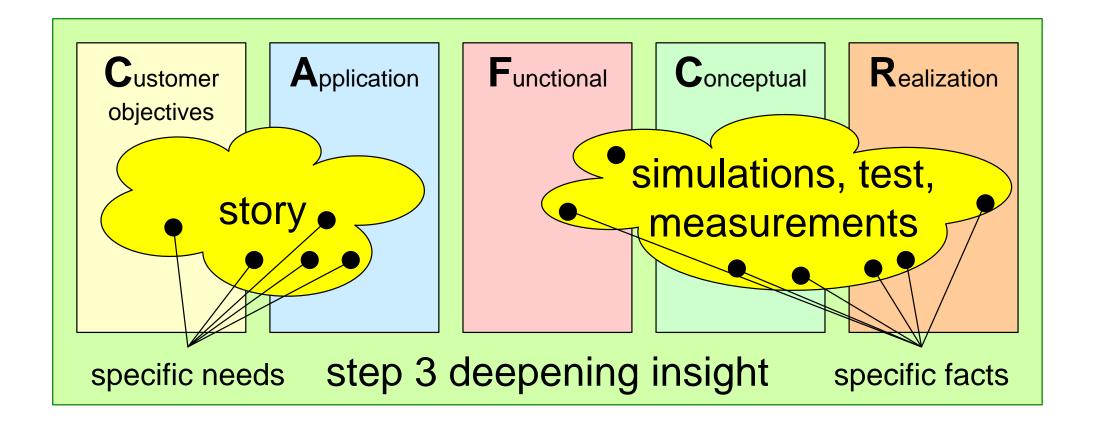


Creating Insight



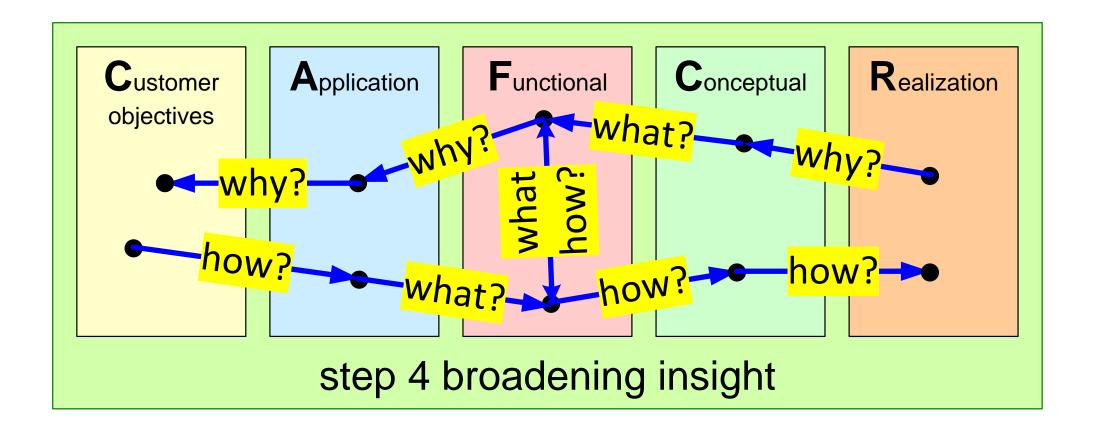


Deepening Insight





Broadening Insight





Problem identification and articulation

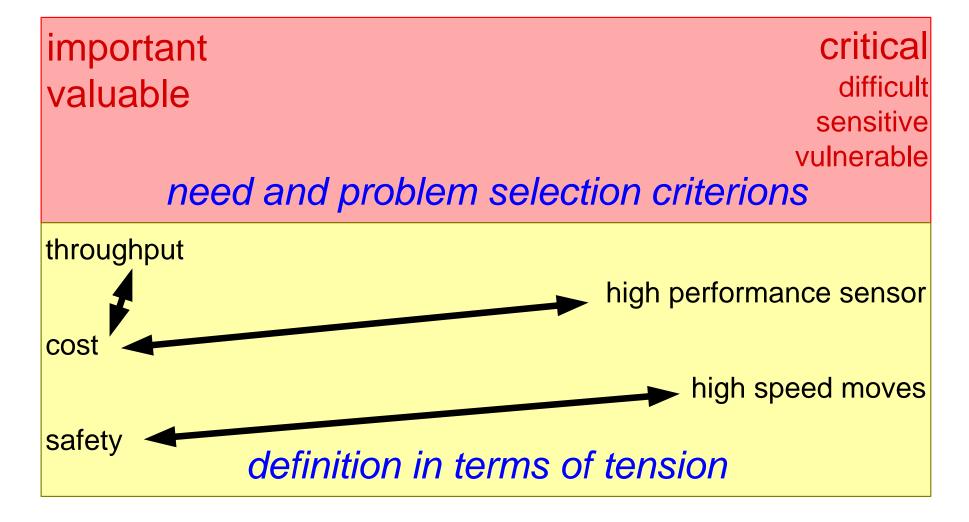
Customer objectives

Application

Functional

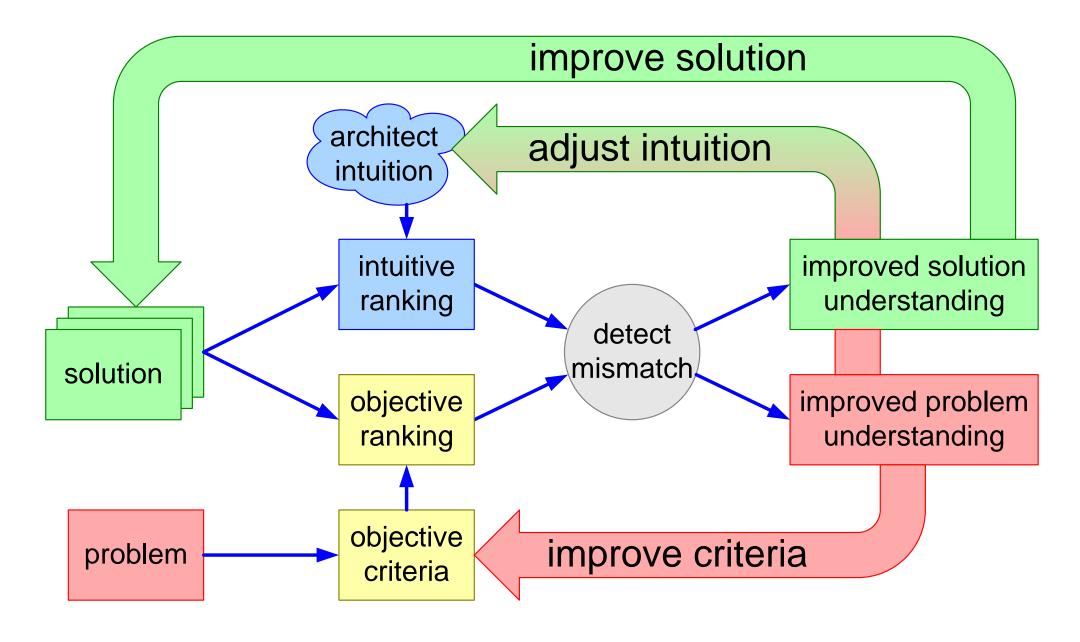
Conceptual

Realization



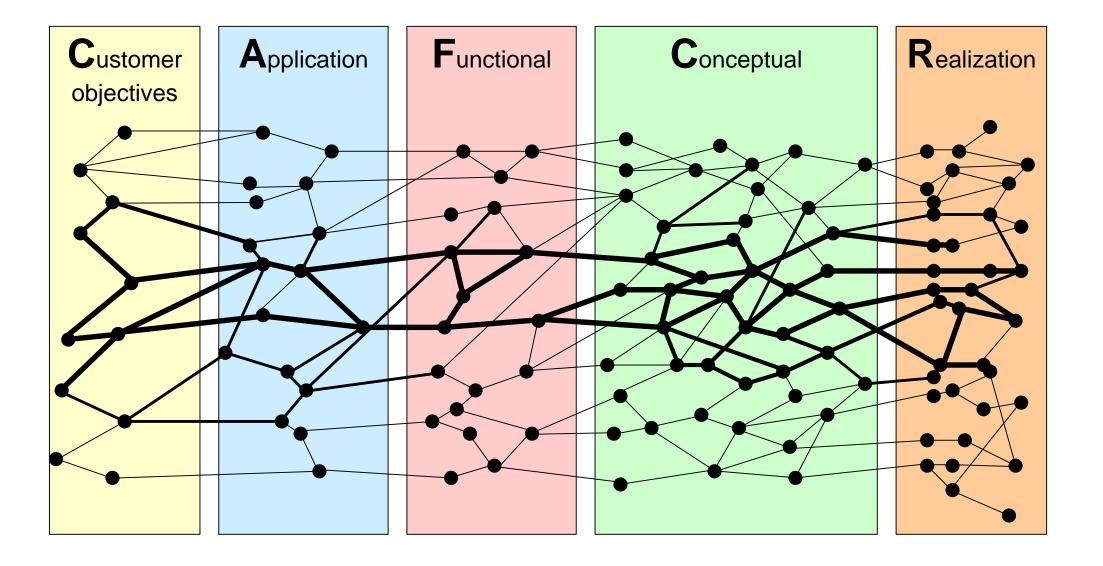


Iteration during the analysis





Thread of related issues





Documentation and communication structure

