Overview of CAFCR and Threads of Reasoning

by Gerrit Muller       Buskerud University College
                      e-mail: gaudisite@gmail.com
                      www.gaudisite.nl

Abstract
The described architecting method uses the CAFCR model as starting point. Qualities are used as orthogonal dimension to integrate the CAFCR views. Story telling is used to add specifics. Threads of reasoning combine all the information into a coherent overview.
From vague notions to articulate and structured architecture description:

- articulated
- structured

Problem and solution know-how

Architecting vague notion of the problem

Vague notion of potential solutions

Architecting method:
- framework
- submethods
- integration methods

Architecture description:
- articulated
- structured

Report
Spec
Design
Overview of architecting method

**method outline**

**framework**

- **Customer objectives**
  - key drivers
  - value chain
  - business models
  - supplier map

- **Application**
  - stakeholders
  - context diagram
  - entity relationship models
  - dynamic models

- **Functional**
  - use case
  - commercial, logistics decompositions
  - mapping technical functions
  - and several more

- **Conceptual**
  - construction decomposition
  - functional decomposition
  - information model
  - and many more

- **Realization**
  - budget
  - benchmarking
  - performance analysis
  - safety analysis and many more

**submethods**

- **Customer objectives**
  - key drivers
  - value chain
  - business models
  - supplier map

- **Application**
  - stakeholders
  - context diagram
  - entity relationship models
  - dynamic models

- **Functional**
  - use case
  - commercial, logistics decompositions
  - mapping technical functions
  - and several more

- **Conceptual**
  - construction decomposition
  - functional decomposition
  - information model
  - and many more

- **Realization**
  - budget
  - benchmarking
  - performance analysis
  - safety analysis and many more

**integration via qualities**

- **Customer objectives**
  - key drivers
  - value chain
  - business models
  - supplier map

- **Application**
  - stakeholders
  - context diagram
  - entity relationship models
  - dynamic models

- **Functional**
  - use case
  - commercial, logistics decompositions
  - mapping technical functions
  - and several more

- **Conceptual**
  - construction decomposition
  - functional decomposition
  - information model
  - and many more

- **Realization**
  - budget
  - benchmarking
  - performance analysis
  - safety analysis and many more

**explore specific details**

- **method visualization**

  - **Customer objectives**
    - key drivers
    - value chain
    - business models
    - supplier map

  - **Application**
    - stakeholders
    - context diagram
    - entity relationship models
    - dynamic models

  - **Functional**
    - use case
    - commercial, logistics decompositions
    - mapping technical functions
    - and several more

  - **Conceptual**
    - construction decomposition
    - functional decomposition
    - information model
    - and many more

  - **Realization**
    - budget
    - benchmarking
    - performance analysis
    - safety analysis and many more

**reasoning**

- **Customer objectives**
  - key drivers
  - value chain
  - business models
  - supplier map

- **Application**
  - stakeholders
  - context diagram
  - entity relationship models
  - dynamic models

- **Functional**
  - use case
  - commercial, logistics decompositions
  - mapping technical functions
  - and several more

- **Conceptual**
  - construction decomposition
  - functional decomposition
  - information model
  - and many more

- **Realization**
  - budget
  - benchmarking
  - performance analysis
  - safety analysis and many more

**method outline**

**framework**

- **Customer objectives**
  - key drivers
  - value chain
  - business models
  - supplier map

- **Application**
  - stakeholders
  - context diagram
  - entity relationship models
  - dynamic models

- **Functional**
  - use case
  - commercial, logistics decompositions
  - mapping technical functions
  - and several more

- **Conceptual**
  - construction decomposition
  - functional decomposition
  - information model
  - and many more

- **Realization**
  - budget
  - benchmarking
  - performance analysis
  - safety analysis and many more
The “CAFCR” model

Overview of CAFCR and Threads of Reasoning

version: 1.5
March 6, 2013
CAFCRannotated

Gerrit Muller
Customer objectives

Application

Functional

Conceptual

Realization

Five viewpoints for an architecture

What does Customer need in Product and Why?

Customer What

Customer How

Product What

Product How

context understanding

intention

objective driven

opportunities

constraint awareness

know how based

Overview of CAFCR and Threads of Reasoning

version: 1.5
March 6, 2013
AMOintegratingCAFCR