Qualities as Integrating Needles

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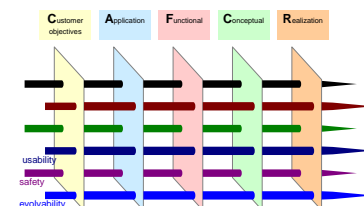`www.gaudisite.nl`

Abstract

Many stakeholder concerns can be specified in terms of qualities. These qualities can be viewed from all 5 "CAFCR" viewpoints. In this way qualities can be used to relate the views to each other.

The meaning of qualities for the different views is described. A checklist of qualities is provided as a means for architecting. All qualities in the checklist are described briefly.
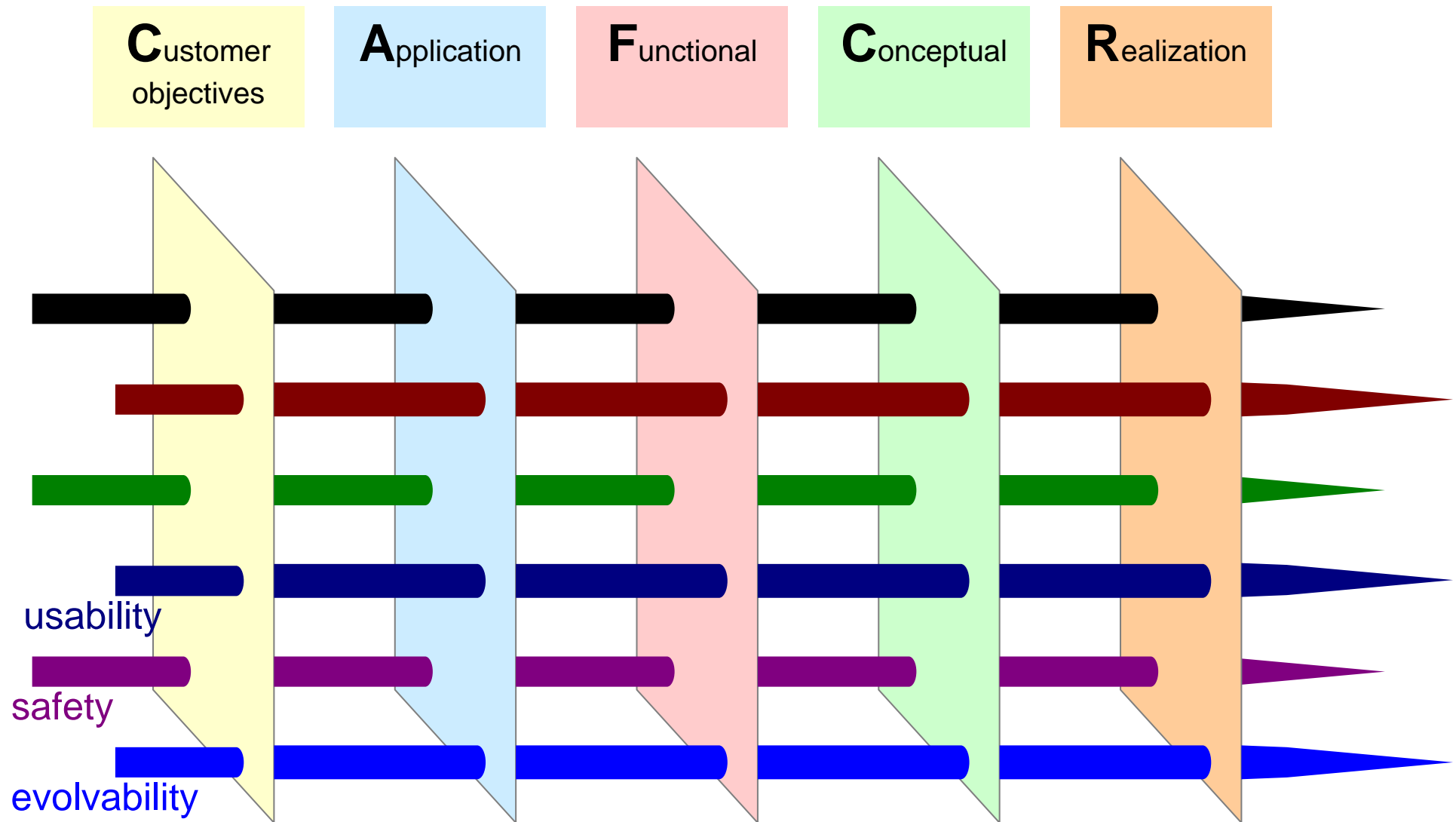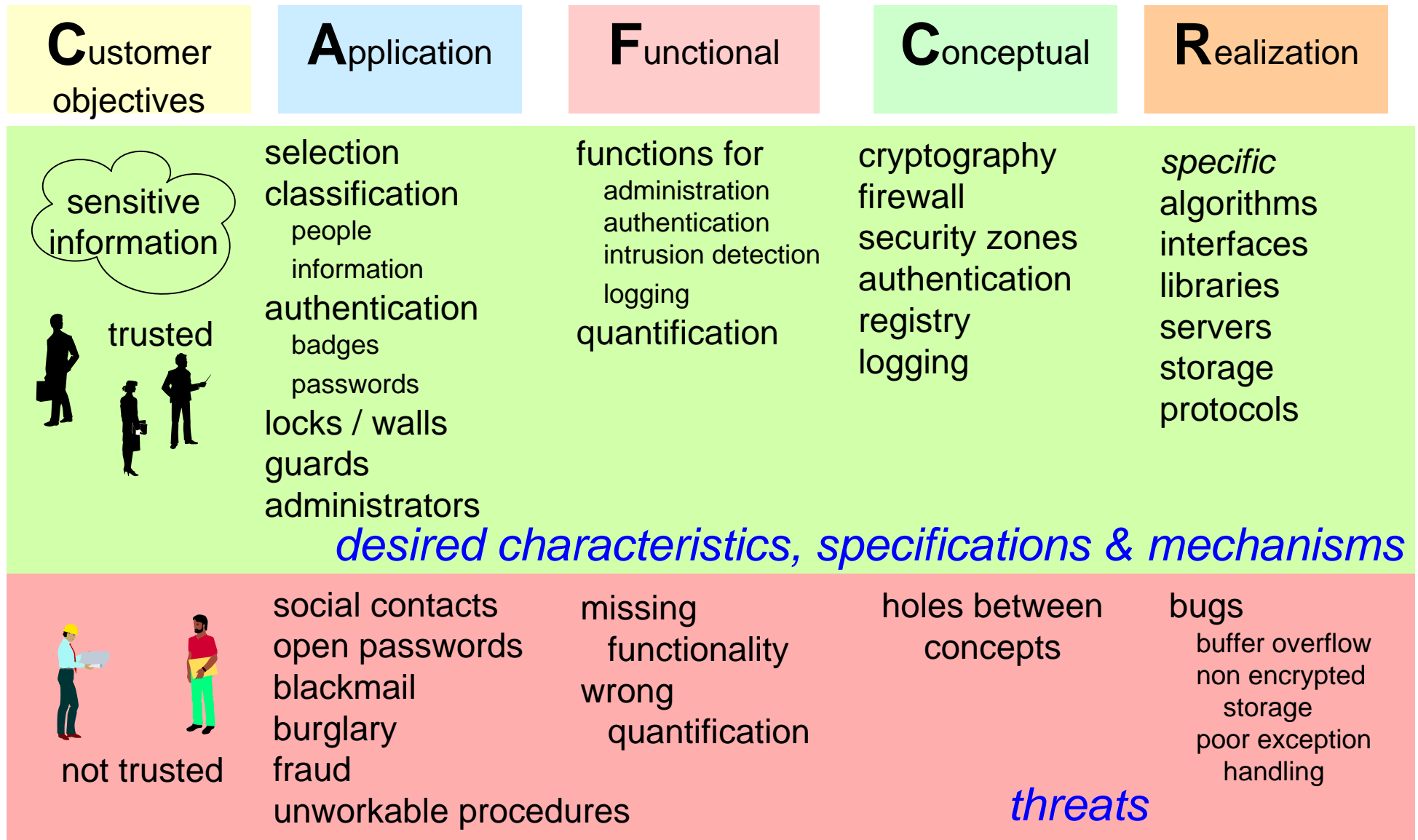
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Quality needles as generic integrating concepts

Security as example through all views

Customer objectives	**A**pplication	**F**unctional	**C**onceptual	**R**ealization

sensitive information
 	
trusted
	selection
	classification
	  people
	  information
	authentication
	  badges
	  passwords
	locks / walls
	guards
	administrators
		functions for
		  administration
		  authentication
		  intrusion detection
		  logging
		quantification
			cryptography
			firewall
			security zones
			authentication
			registry
			logging
				specific
				algorithms
				interfaces
				libraries
				servers
				storage
				protocols

desired characteristics, specifications & mechanisms

not trusted	social contacts
	open passwords
	blackmail
	burglary
	fraud
	unworkable procedures
		missing
		  functionality
		wrong
		  quantification
			holes between
			  concepts
				bugs
				  buffer overflow
				  non encrypted
				    storage
				  poor exception
				    handling

threats

Quality Checklist

usable
- usability
- attractiveness
- responsiveness
- image quality
- wearability
- storability
- transportability

dependable
- safety
- security
- reliability
- robustness
- integrity
- availability

effective
- throughput or productivity

interoperable
- connectivity
- 3rd party extendible

liable
- liability
- testability
- traceability
- standards compliance

efficient
- resource utilization
- cost of ownership

consistent
- reproducibility
- predictability

serviceable
- serviceability
- configurability
- installability

future proof
- evolvability
- portability
- upgradeability
- extendibility
- maintainability

logistics friendly
- manufacturability
- logistics flexibility
- lead time

ecological
- ecological footprint
- contamination
- noise
- disposability

down to earth attributes
- cost price
- power consumption
- consumption rate (water, air, chemicals, et cetera)
- size, weight
- accuracy