Architecture Evaluation

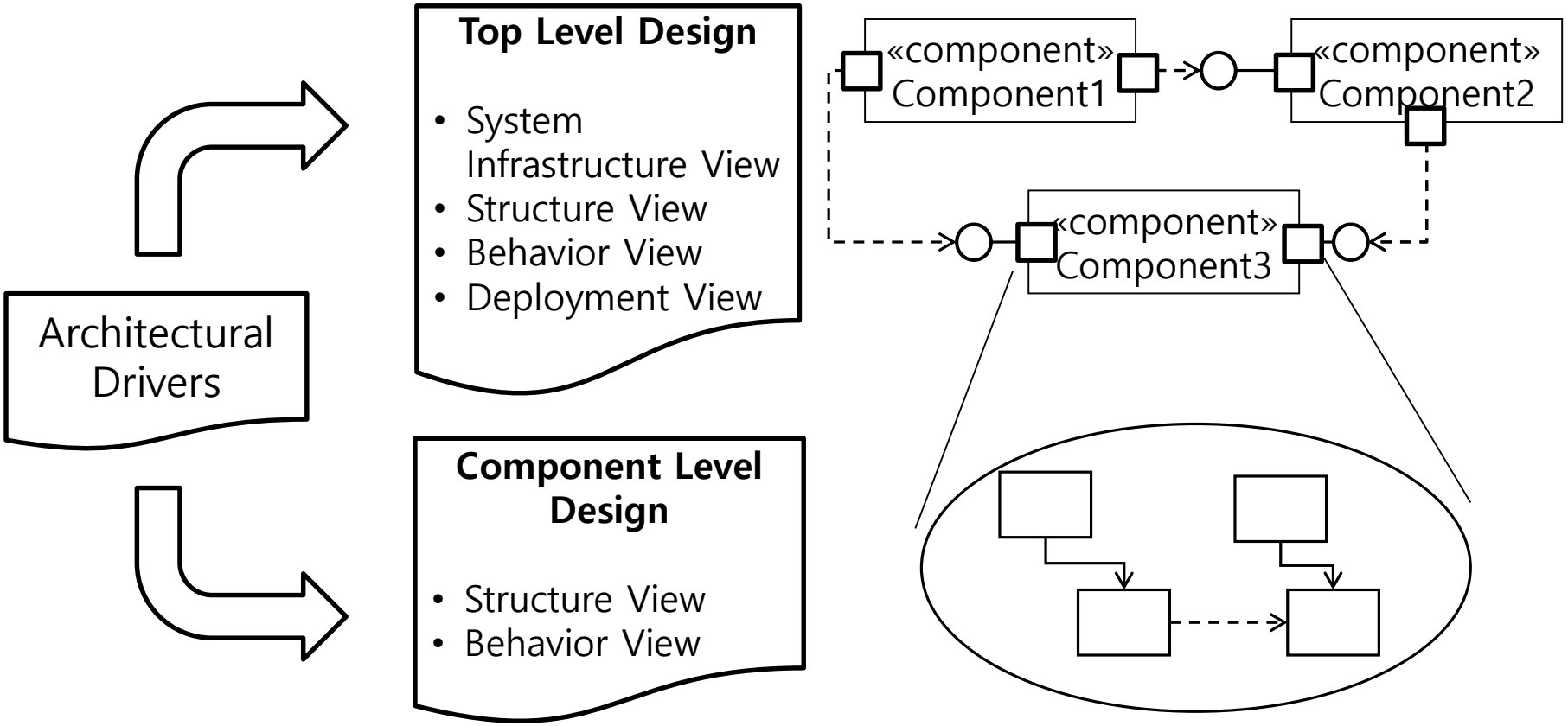
목차

- ❖ 아키텍처 평가 개념
- ❖ 아키텍처 평가 산출물

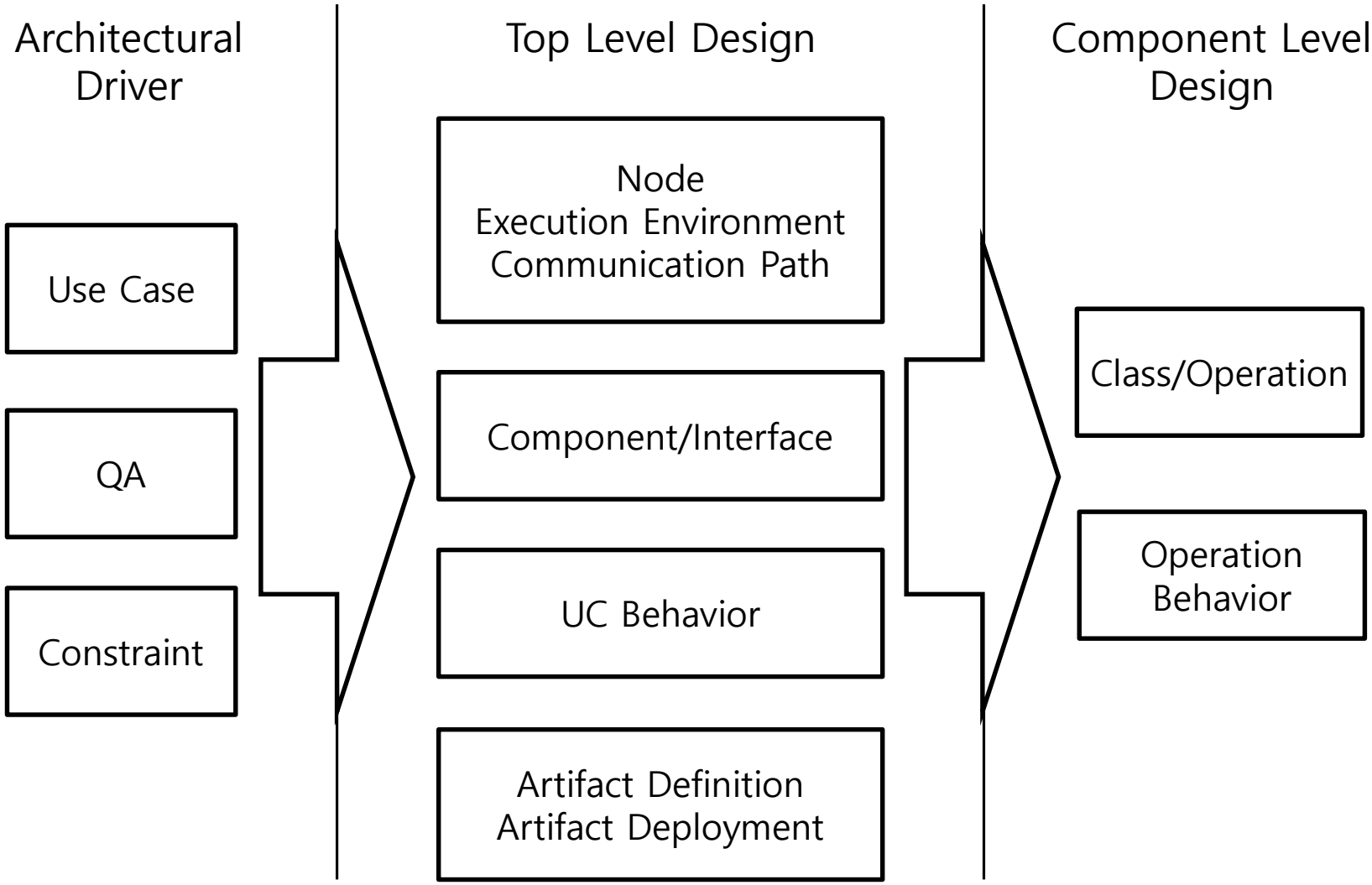
- ❖ Use Case Traceability
- ❖ Quality Attribute Traceability

Architecture Evaluation

- Make sure that the architecture you've designed can provide all that's expected of it: that is, architectural drivers



Traceability



아키텍처 평가 산출물

Chapter	Section
2. Project Overview	
3. System Overview	
4. Architectural Drivers	
5. Top Level Design Description	
6. Component Design Description	
7. Architecture Evaluation	7.1 Traceability Summary
	7.2 Use Case Traceability
	7.3 QA Traceability
	7.4 Constraint Traceability

7.1 Traceability Summary

❖ Summarize the traceability for each architectural driver

Architecture Driver		Design Elements
ID	Title	
UC-01		
UC-02		
…		
QA-01		
QA-02		
…		
BC-01		
…		
TC-01		
…		

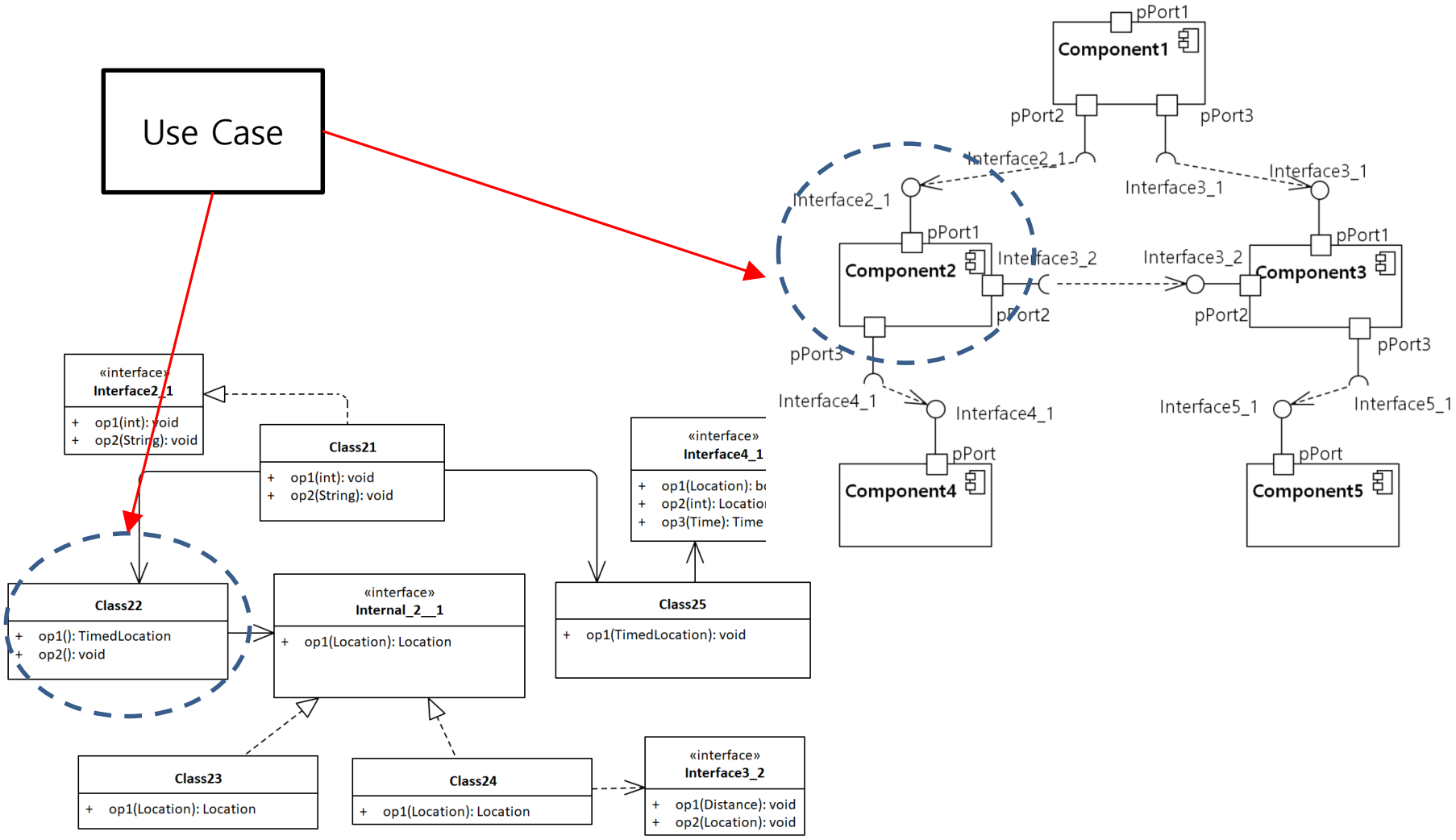
Use Case Traceability

- Use cases are first analyzed to ensure that the design will meet the required functionality.
- Functionality has little influence on structure, but in evaluating the system with respect to the key functional use cases, is a critical aspect of system design.

- How to trace a use case
  - Identify the design elements relevant to the use case
  - Show how the preconditions are true at the beginning of the use case
  - Trace through each step of the use case.
    - ✓ Show how control, data, events, and so forth move through the system, and
    - ✓ how elements interact to satisfy the use case
  - Explain how the postconditions are true after the end of the use case

Architecting software intensive systems: A practitioner's guide(2008)

Use Case Traceability



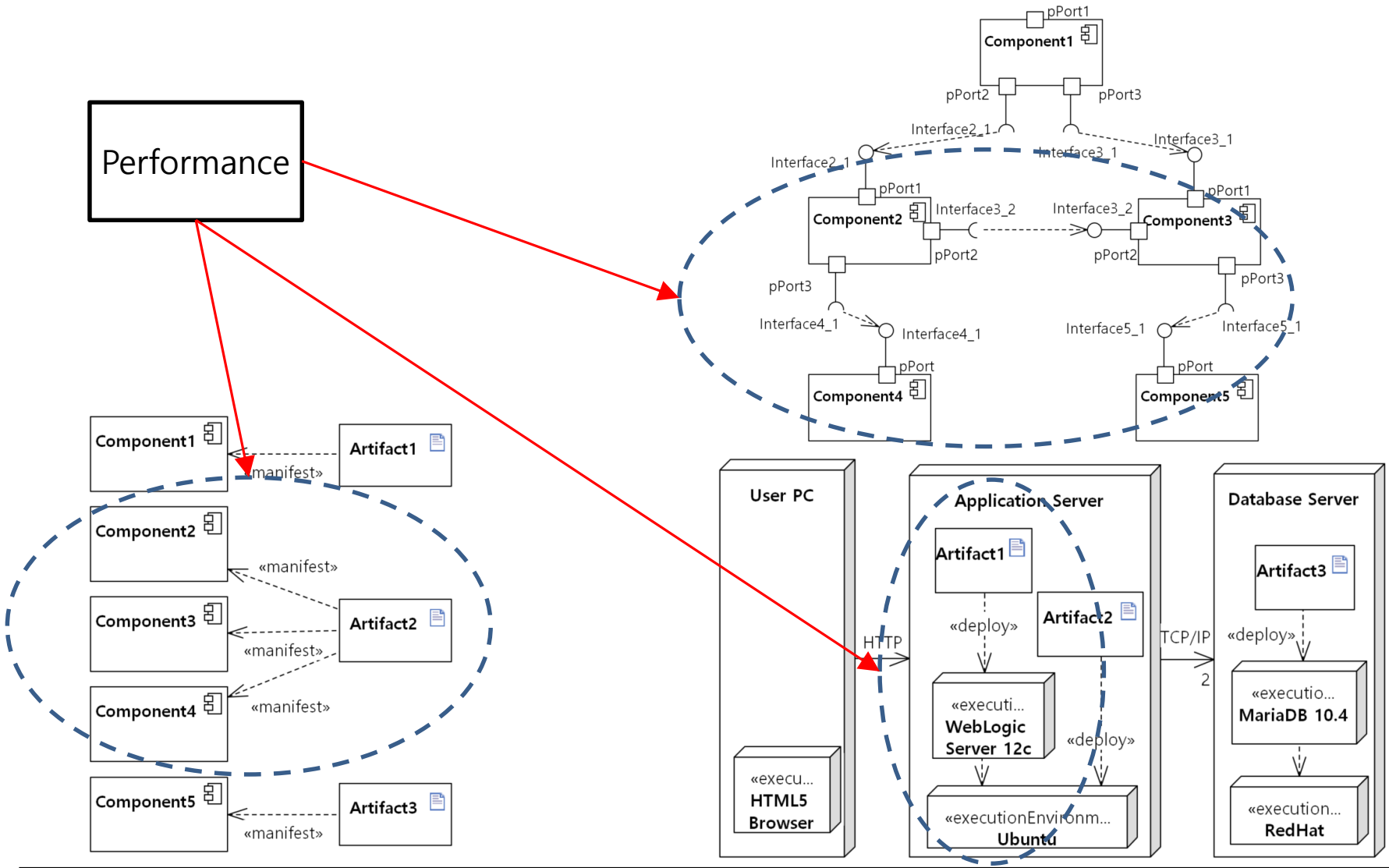
Quality Attribute Traceability

- The architecture is evaluated with respect to how well the design satisfies the quality attribute

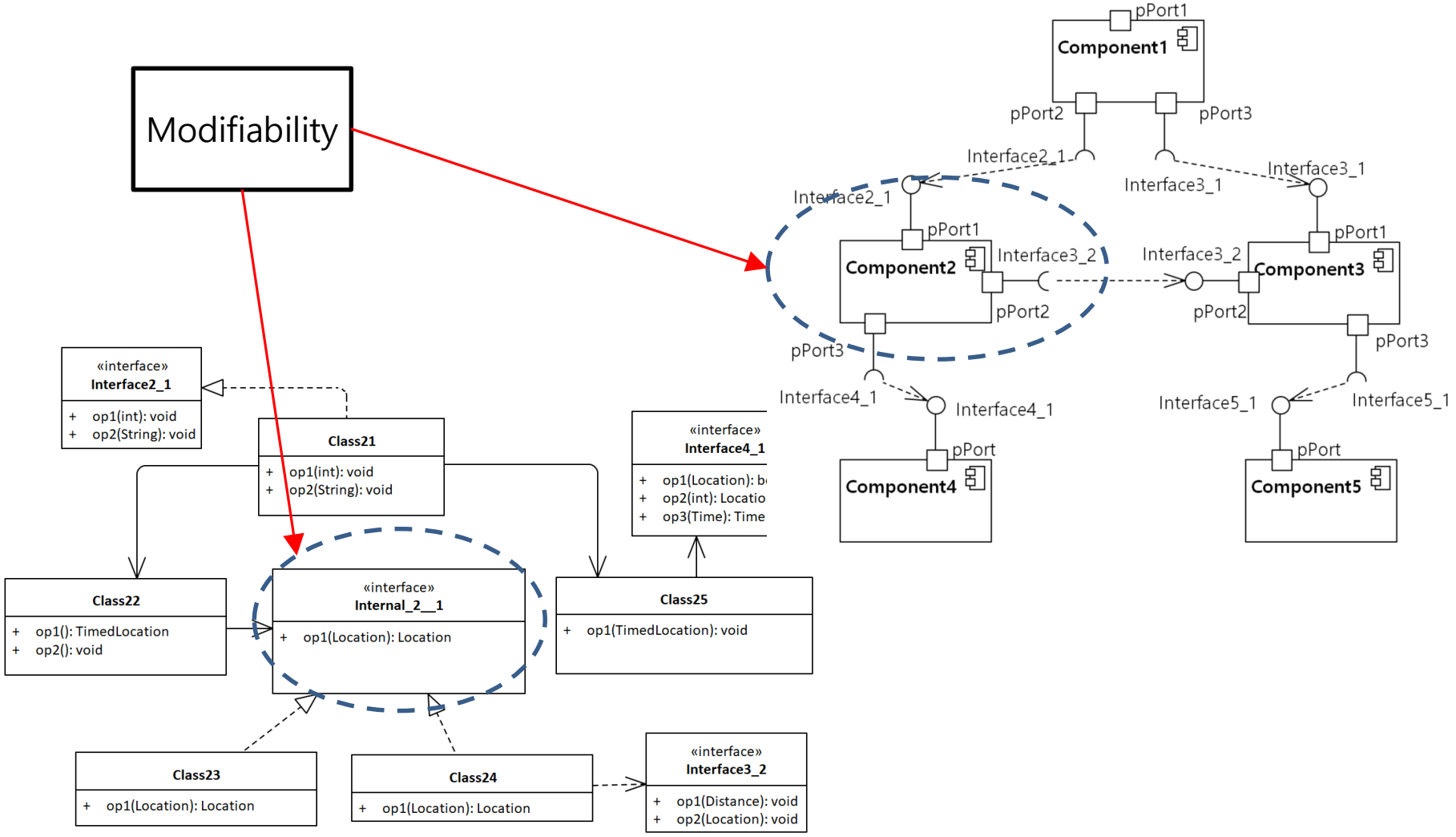
- How to trace a quality attribute
  - Identify the view(s) to best explain how the design responds to the stimulus described in the quality attribute scenario
  - Identify the source of the stimuli relative to the architecture design
  - Identify and explain the specific artifact(s) described in the quality attribute scenario and show its position in the design.
  - Describe how the system will respond by using the design to guide the analysis
    - ✓ Performance-oriented scenario: show how data moves through the system and the anticipated timing of the data movement
    - ✓ Modifiability-oriented scenario: show what structures will change due to the stimulus and the relative ease and cost of those changes

Architecting software intensive systems: A practitioner's guide(2008)

Quality Attribute Traceability



Quality Attribute Traceability



Q & A