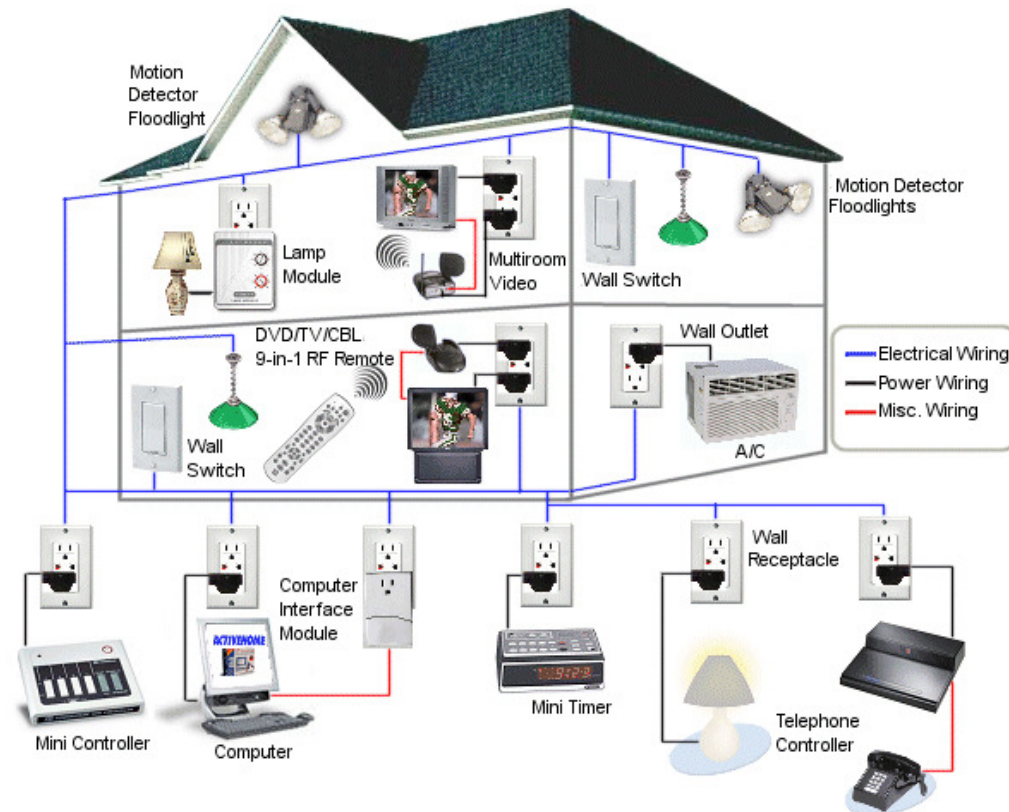


Løsningsvejledning

E2PRJ2 "Home Security System"



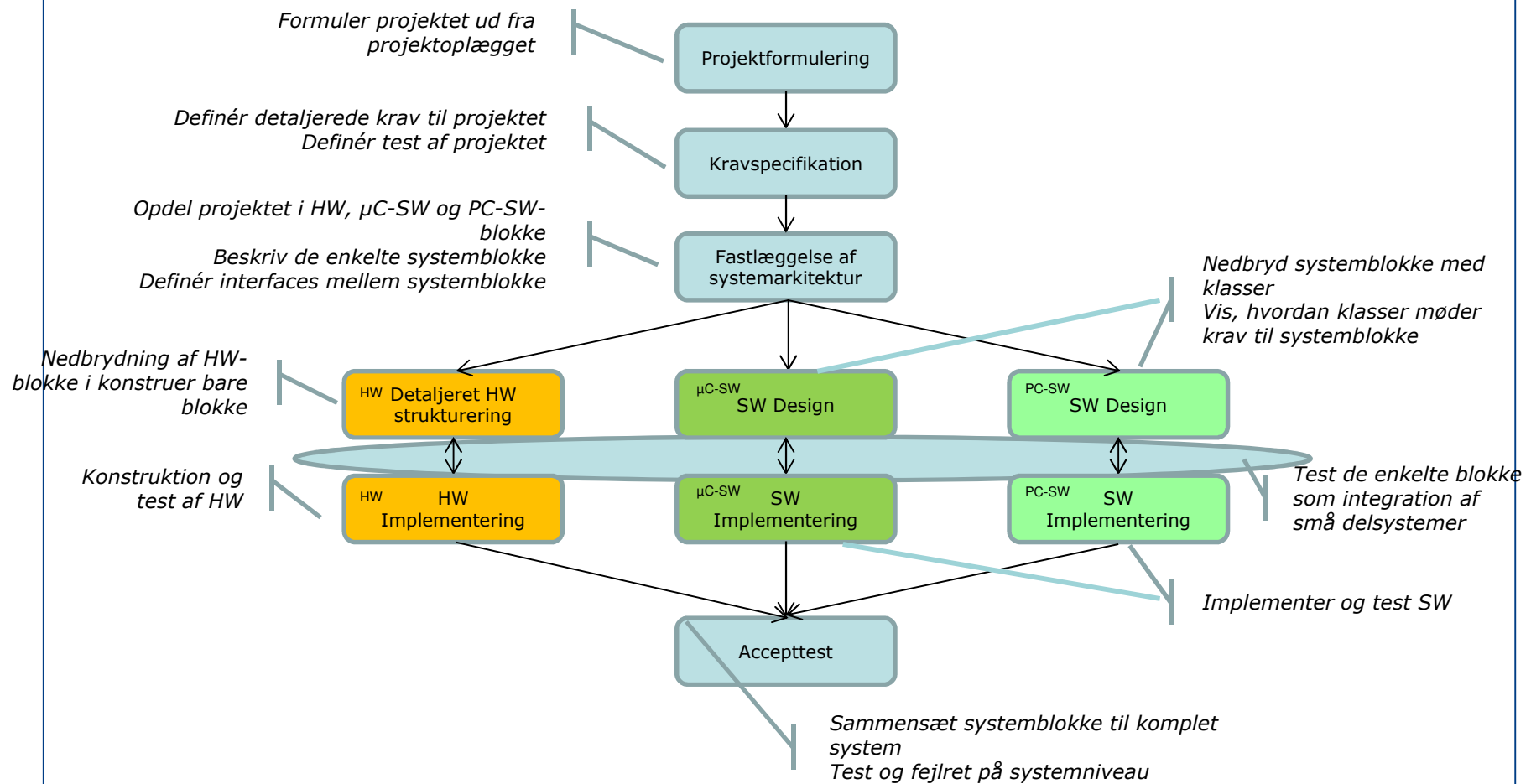
Indhold

Home Security System og Projektforløbet

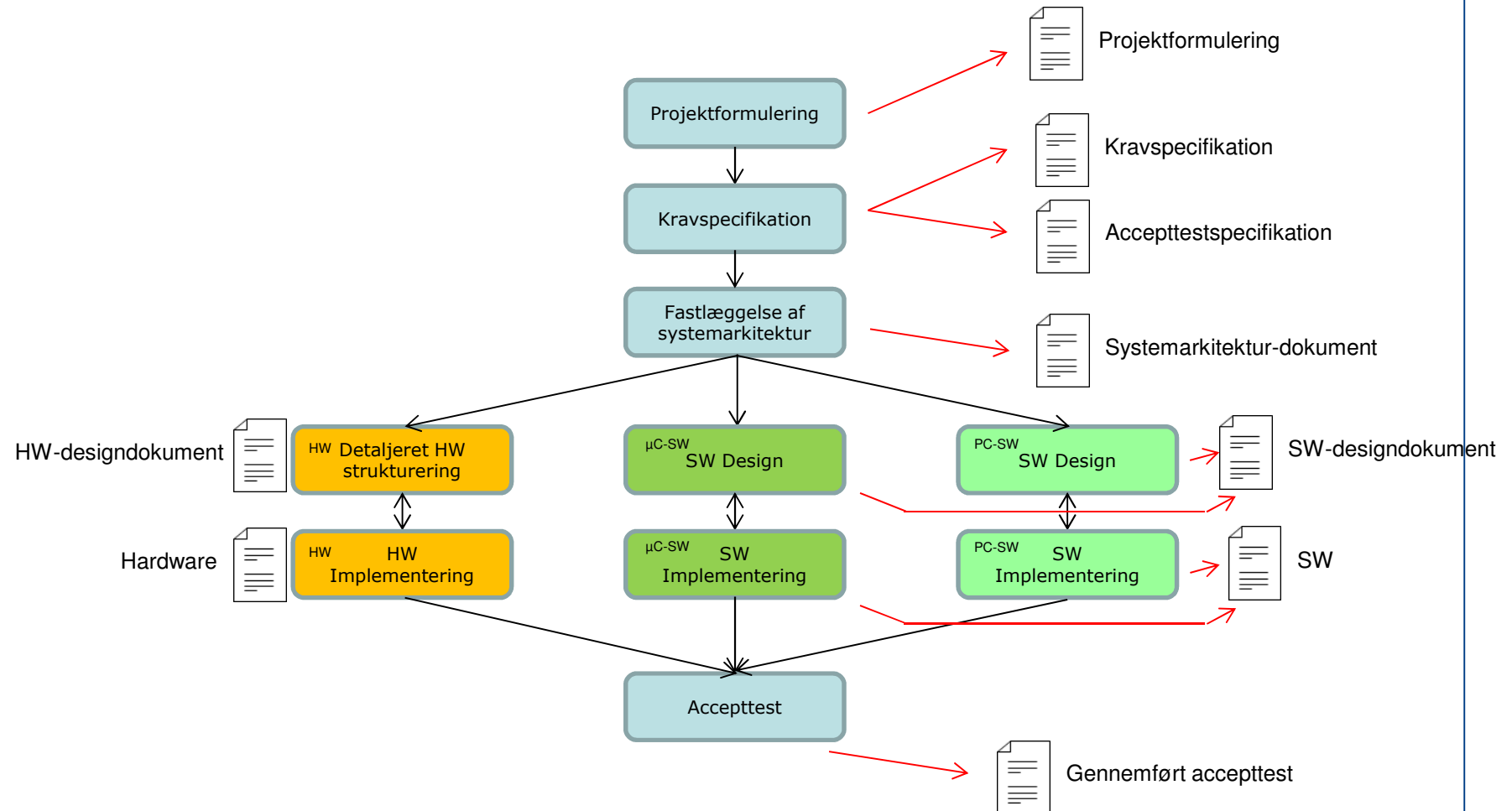
Specifikation, Analyse, Design, Implementering, Test og resultater

- Use Cases
- System Arkitektur (SysML)
- Domæne- og Applikationsmodeller
- Arkitekturdokumentation
- Detaljeret PC Design
- Detaljeret Embedded Design
- Detaljeret HW konstruktion
- Test og resultater

Projektforløbet - opgaver



Projektforløbet - artefakter



Leverancer og milestone reviews

- **Dokumenter**
 - Kravspecifikation (Use Case)
 - Accepttestspecifikation
 - Systemarkitektur-dokument
 - HW-SW designdokument
- **Produkt**
 - Prototyper af fungerende HW og SW
- **Milestone reviews (RUP)**
 - Review af Inception og Elaboration faserne
 - Peer review mellem grupperne
 - Eksamen – Projektrapport

Architecture documentation

- Use same naming conventions through documents (Components and Classes)
- Describe the diagrams shortly
- Describe the function and purpose of architectural components and classes
- Specify requirements to components
- Describe protocols and interfaces
- Provide sufficient information to perform detailed design and implementation
- The architecture documentation is input for the integration test

Interface Specification and Design

Serial protocol interface:

- Based on X.10 device addressing
- Configuration to be transmitted
- Must contain time and command to control X.10 devices

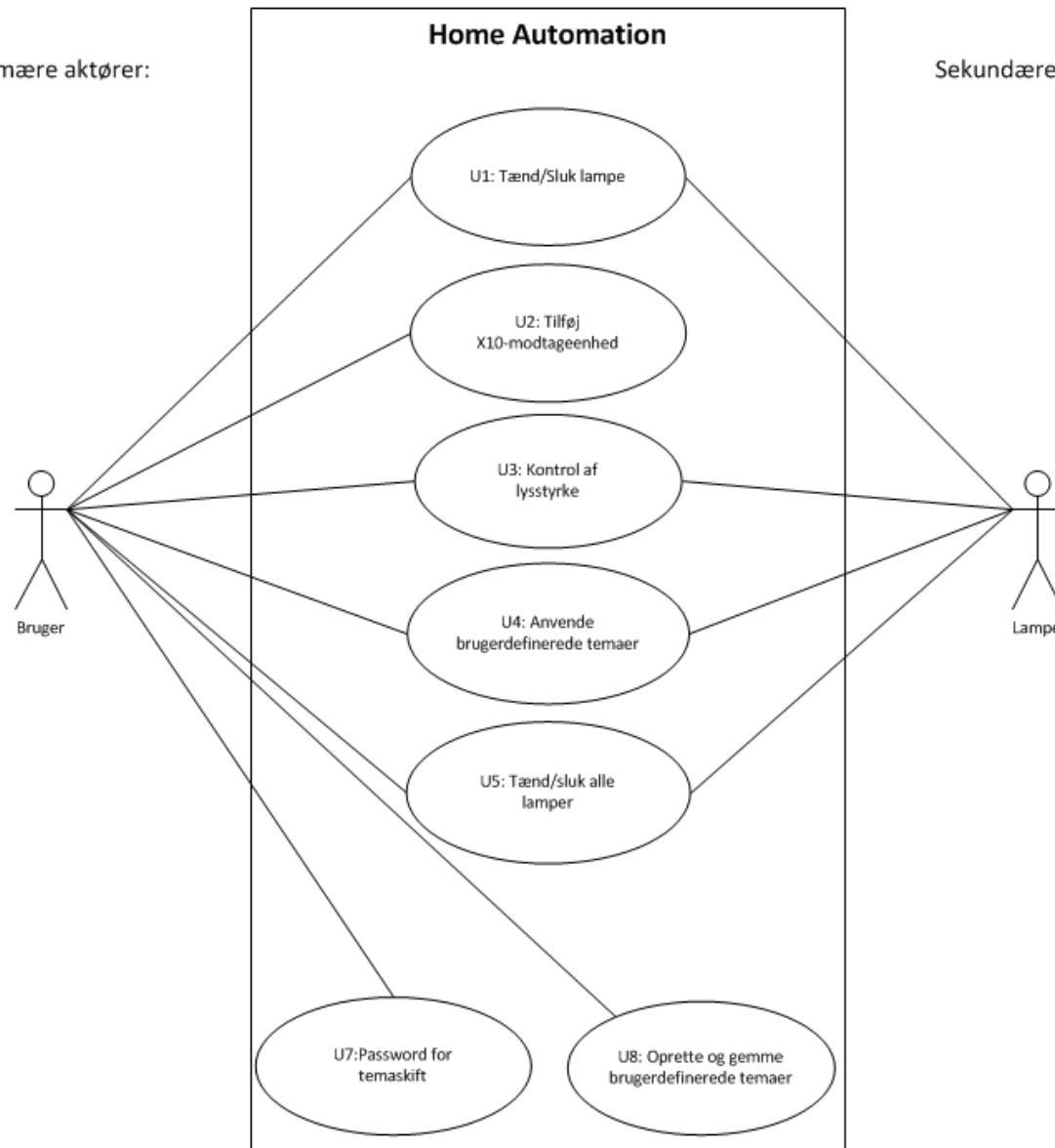
X.10 protocol commands:

- X.10 addressing
- X.10 commands to be handled by devices

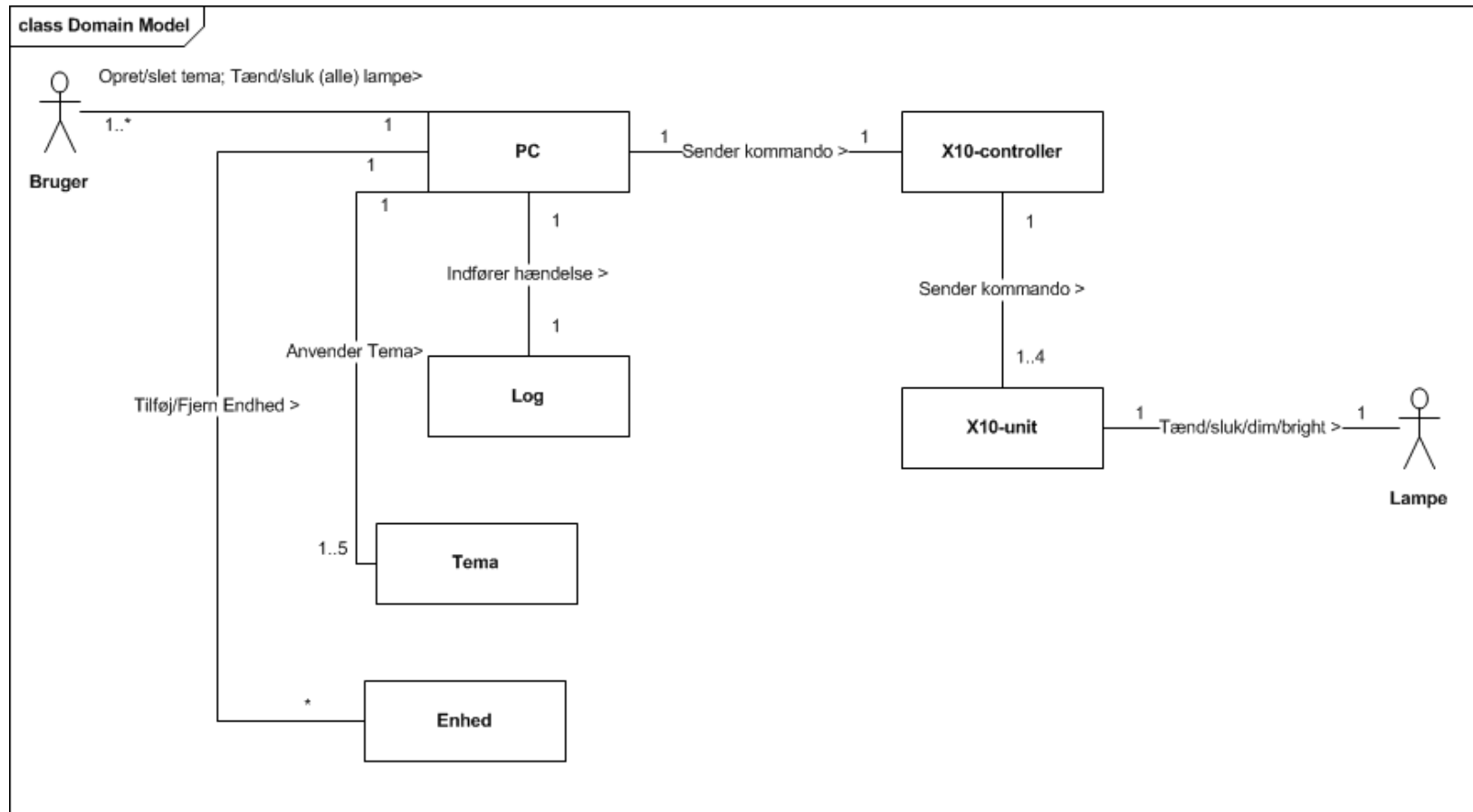
Software Domain and Application Model

Primære aktører:

Sekundære aktører:



Domain Model for entire system

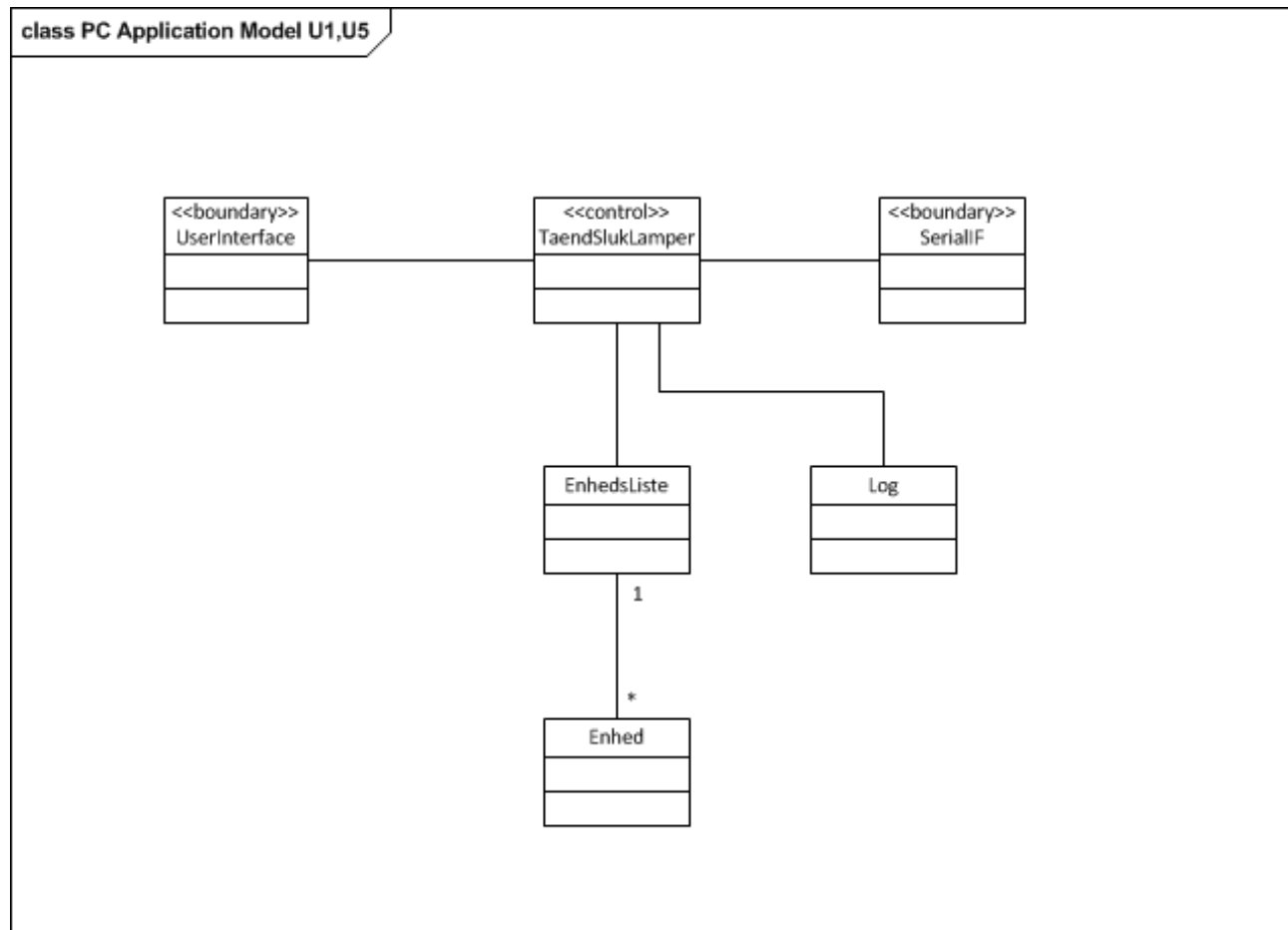


Application Models for each subsystem

- PC
- X10-controller
- X10-unit

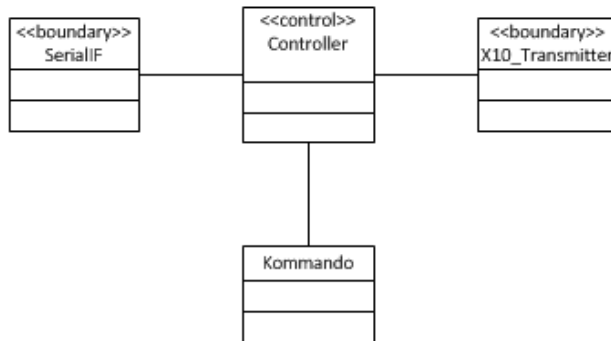
Add interface classes on each subsystem and analyses the use case for which a subsystem is involved

PC Application Model for U1, U5

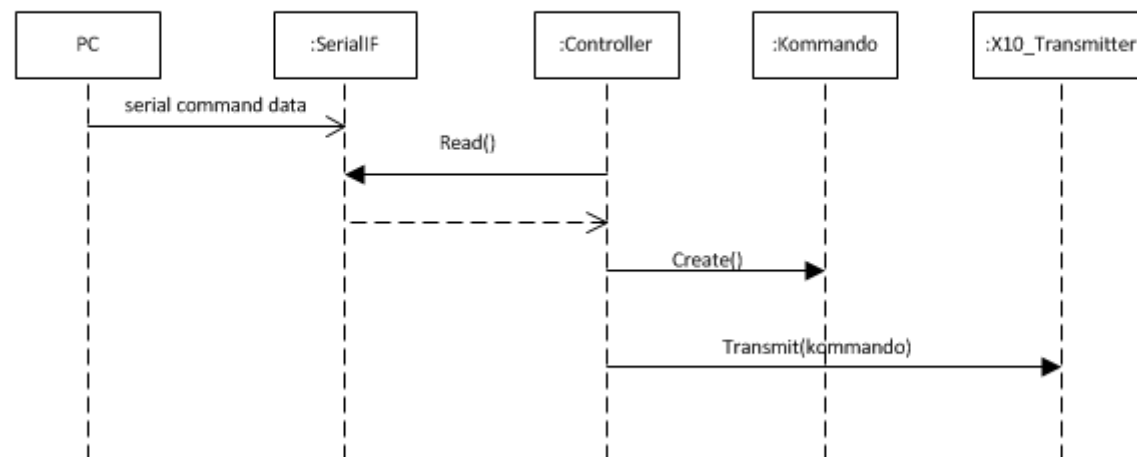


X10 Controller Application Model

class X10 Controller Application Model U1, U3, U4, U5, U7



class X10 Controller Sequence U1, U3, U4, U5, U7



X10 Unit Application Model

