FEABHAS
EMBEDDING SOFTWARE COMPETENCE

PRAGMATIC UML

A Model Overview

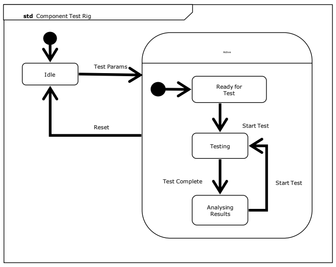
Glennan Carnie, Technical Consultant

EMBEDDING SOFTWARE COMPETENCE

Requirements Model

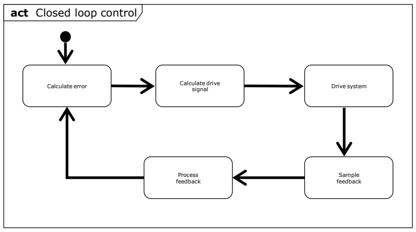
System modes

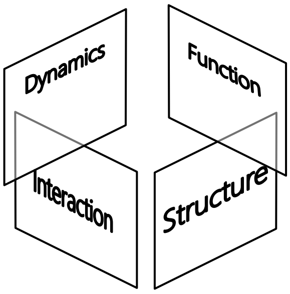
Captures system operating states



Activity

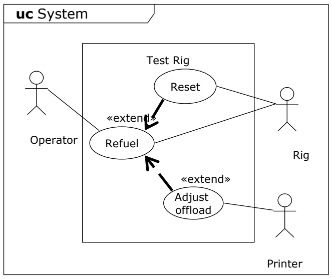
Capture flow-of-materials processing, algorithms, etc.





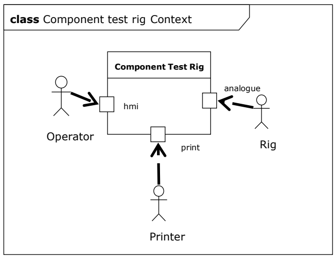
Use cases

Analyse system functional behaviour



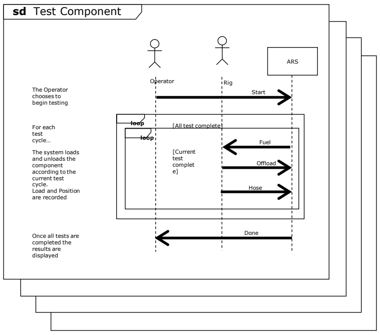
Context

Define system scope and interfaces



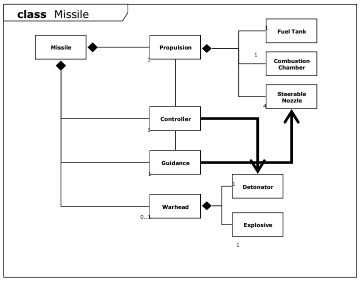
Use case interactions

Significant operational scenarios


sd Test Component
Operator
Rig
ARS
The Operator chooses to begin testing
Start
loop
[All test complete]
loop
For each test cycle...
The system loads and unloads the component according to the current test cycle. Load and Position are recorded
[Current test complet e]
Fuel
Offload
Hose
Once all tests are completed the results are displayed
Done

Data model

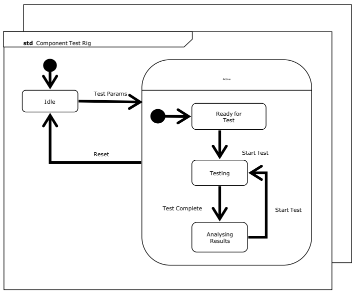
Problem domain information and relationships

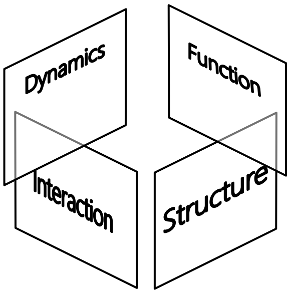


Ideal Object Model

Object state behaviour

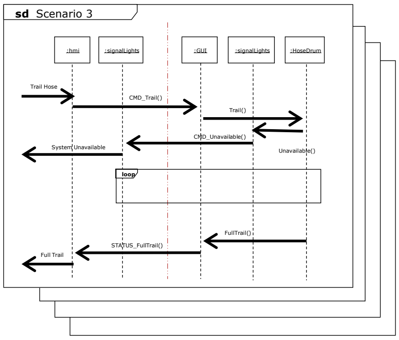
(optional)
Capture reactive object behaviour;
refine scenarios





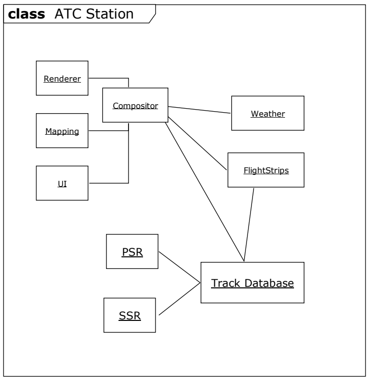
Ideal object interactions

Verify system design. Derived from Use Case interactions



Ideal object model

Capture system design

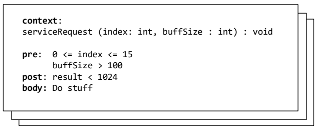


FEABHAS
EMBEDDING SOFTWARE COMPETENCE

Specification Model

Operation specifications

Specifying operation behaviour, pre- and post-conditions

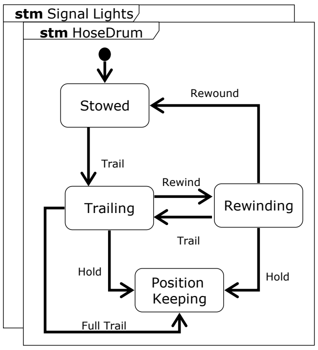


```
context:
serviceRequest (index: int, buffSize : int) : void

pre:  0 <= index <= 15
      buffSize > 100
post: result < 1024
body: Do stuff
```

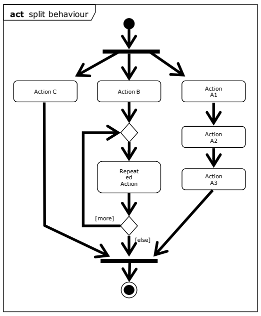
State behaviour

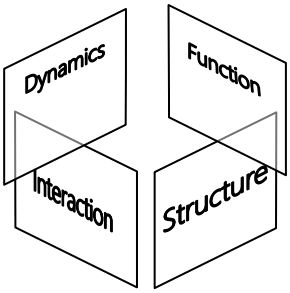
Refining reactive object behaviour



Activities

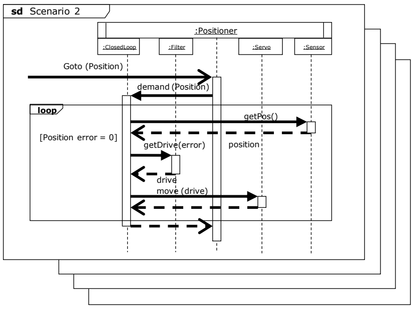
Defining complex algorithms





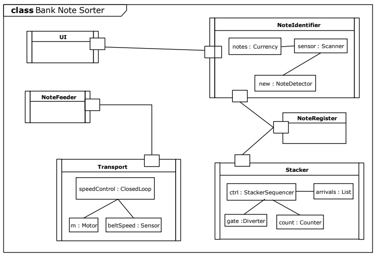
Ideal object interactions

Verify system design. Modified by concurrency decisions in design



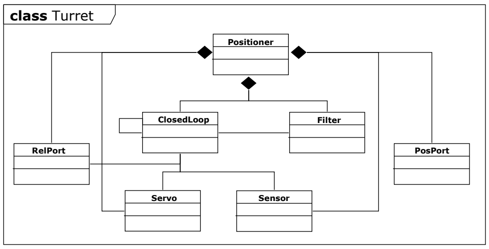
Composite structure

Capturing system architecture



Classes

Type information - operations, attributes and associations



FEABHAS

EMBEDDING SOFTWARE COMPETENCE

Contact Us

Feabhas Limited
15-17 Lotmead Business Park,
Wanborough,
Swindon,
SN4 0UY
UK

www.feabhas.com

info@feabhas.com

+44 (0) 1793 792909