ATC Class Diagram

Fri Oct 12 2012
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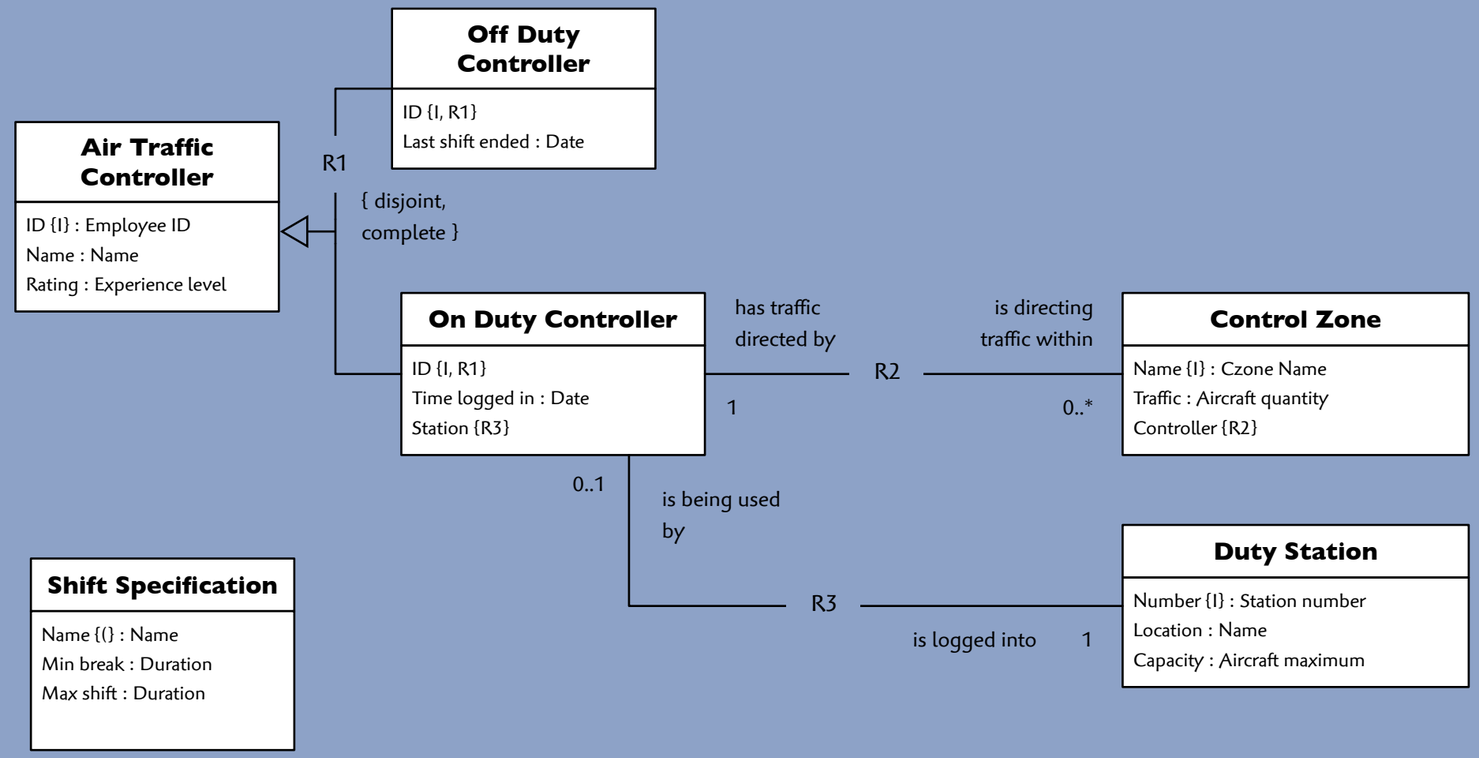

Air Traffic Controller (ATC)
Lifecycle

Air Traffic Controller (ATC)
Methods

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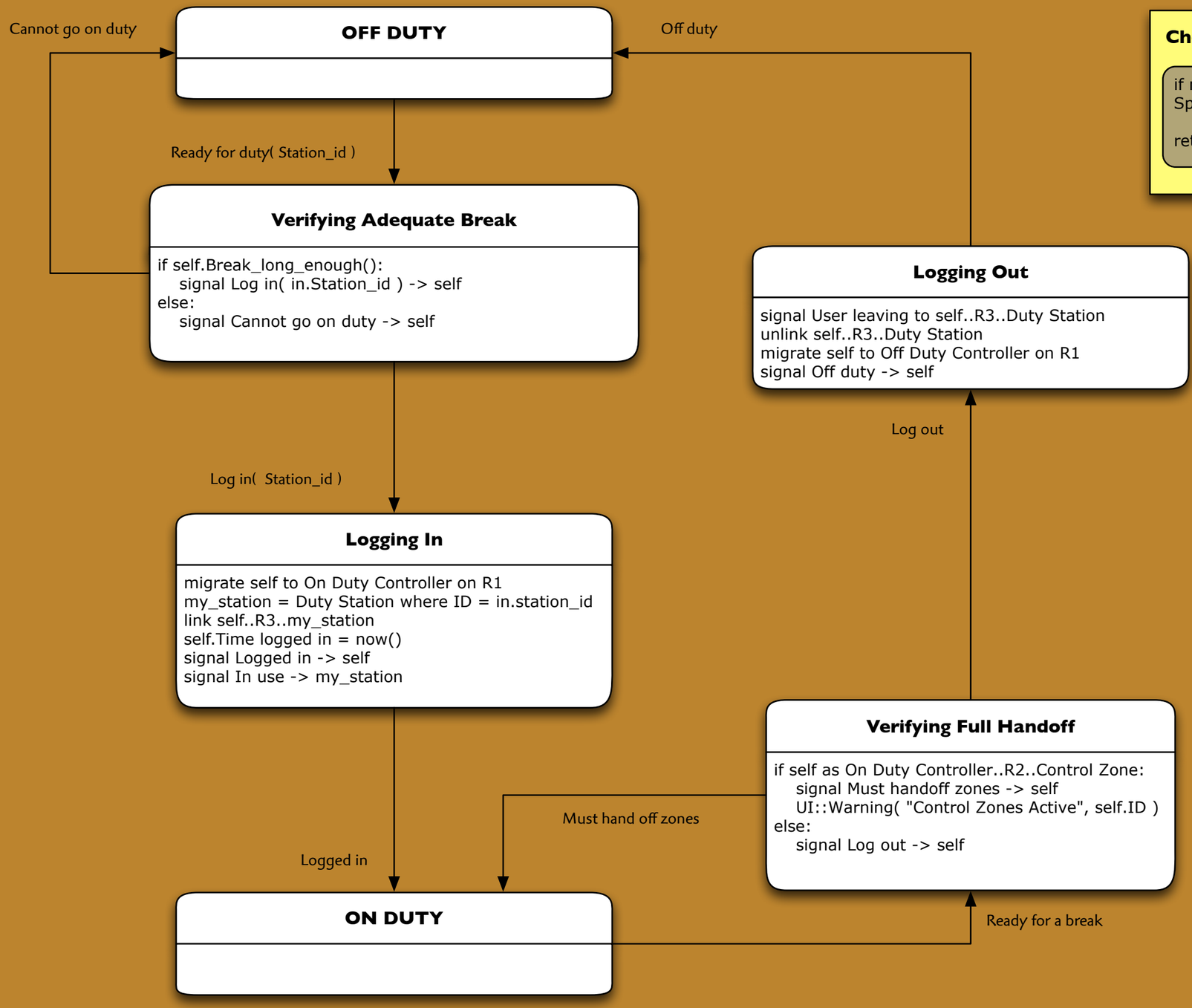

Check break long enough()

```
if now() - self.Last shift ended < Shift \
Specification.Min break where name = singleton:
    return true
return false
```

Duty Station
Lifecycle

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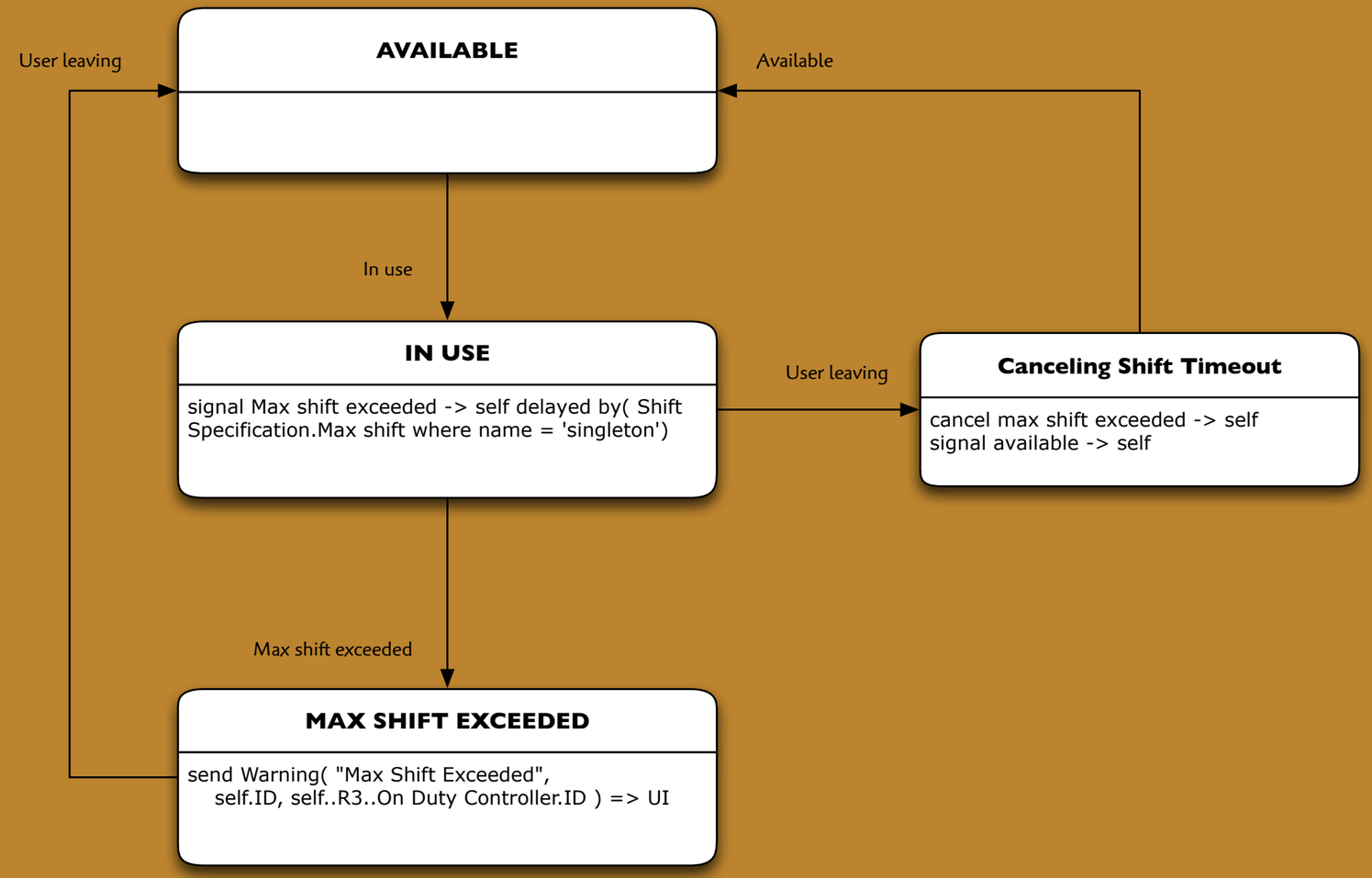

Hand off(controller_id)

```
my_new_controller = On Duty Controller where id = in.controller_id
if not my_new_controller:
    return false
unlink self..R2..On Duty Controller
link self..R2..my_new_controller
return true
```

Symbols

->	signal destination (object)
=>	external domain destination (external entity / domain)
..	relationship hop (in relationship navigation)

Pseudo-Action Language Assumptions

The goal is to make the action language highly readable from a system specification perspective, clearing out all the tedium and making the language a bit sexier for our audience. In that spirit...

Variable names require underscores

Class, function and signal names may have whitespace

self.attribute will access subclass or superclass attributes
(so there is no need to first select the superclass or subclass to get to an attribute, navigation is implied)

select is implied by where keyword and attribute comparison on select applies to selected instances, thus:
where id = in.station id implies:
where selected.id = in.station id

migrate operation creates and deletes subclass instances as required

A function without any domain or instance qualifier is assumed to either be a local domain function or a bridge to an architecture domain function. So if the architecture provides an ARCH::now() function, it can be referred to locally as now(). If the local domain had defined a now() function it would override the corresponding ARCH function.

An empty object handle variable yields false when used in a boolean expression

a where phrase that specifies an identifier match as criteria is understood to return a single instance

navigation along a chain of relationships terminating in 0..1 or 1 multiplicity will be enforced by the architecture, so returning a single instance is implied (no need for select one vs. select many)

A typical (and wrong) UML solution