Supporting openEHR Java Desktop Developers

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Background

- openEHR
  - Open standard
  - Semantic interoperability
  - Close to CEN/ISO 13606

- Process
  - Archetypes
  - Templates
  - Generation
The Problem

• openEHR templates and generation not fully developed
• Views of a system
  — User’s mental model
  — Implementation model
  — Presented model
• An interface generated from a data model is by definition close to the implementation model
Aims and Tools

• Aim
  – Provide an easy to use framework enabling binding of pre-designed user interfaces to an openEHR backend

• Objectives
  – Investigate existing application frameworks
  – Build a solution on top of this

• Tools
  – Opereffa from UCL
  – XML
  – Designpatterns
    • Facade, Singleton
    • Observer
    • …
Results

- Data-binding layer on top of Opereffa
  - Single entry point
    - Facade
    - Singleton ArchetypeDataHandler
  - Connects Java GUI to archetype enabled backend
  - GUI kept in sync with backend

![Image of Xerostomia Data](image.png)

Facade

opereffa
Usage

- Create/select archetypes
- Design user interface
- Define mapping component-archetype XML

```xml
<component
  component_name="jTextField_CellDifferentiation"
  archetype_path="/data[at0001]/events[at0002]/data[at0003]/items[at0006]/items[at0008]/quantity"
  archetype_name="openEHR-EHR-OBSERVATION.laboratory_result_blood.v1.adl"
/>
```

- Write a few lines of code

```java
Ath = ArchetypeDataHandler.getInstance();
ath.setComponentDescriptor(aFile);
ath.addComponent(component1);
ath.addComponent(component2);
```
Discussion

• Have developed a working solution to the defined problem
  — Provides an alternative development path
  — Better support for User-centred design
  — Basis for an application framework
• Future work
  — More interface components
Thank you for your attention

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