Politechnico di Torino

aMaDEUS

List of subjects for internships in Global Core Introduction

1.1. Intended readership

Audience is everyone involved in the organization of internships in Amadeus, especially in GC divisions.

1.2. Purpose

This document presents the proposed subjects for internships in Global Core team. The interns below are a mixture of Development Intern subjects and Business Analysis intern subjects.

2.40. UML Compatible Java State Machine

2.40.1. Summary of responsibilities

Study current offer of products to generate Java code from state machine UML design and use most appropriate one in context of an Amadeus product.

2.40.2 . Responsibilities

Background

Amadeus is currently developing an engine to print airport boarding passes, bag tags and interacting with magnetic strip readers and boarding pass readers. This engine makes extensive use of state machines. Those state machines have been designed in UML using advanced concepts as composite states and state history.

Objective of the training

The objective is to study current solutions to generate java code from state machine UML design (a promising project is Unimod: http://unimod.sourceforge.net), select most appropriate one if any and use it in context of Amadeus device manager. If no appropriate solution is found, the trainee could have to design and implement a home-made solution. Amadeus state machines are currently designed under Rationale Rose and implementing a link between Rational Rose and the identified solution would be seen as a big plus.

Required skills

Good programming skills in Java.
Good knowledge of UML (especially state machine model).
Knowledge of XML would be a plus.

2.40.3. Technologies

Java, UML, XML.

2.40.4. Responsible entity

DEV-GCO-GCB-AMD-JAP

2.40.5. Duration

4 to 6 months, depending on the scope.