

Distributed and Outsourced Software Engineering (DOSE)

Assignment 3: Interface Specifications using Contracts

(10 points of 100)

*Deadline: Tuesday, November 8th - 8 am (Zurich time)
Commit the files at*

https://svn.origo.ethz.ch/dose2011/src/group_n/

where n is your group number.

1. Questionnaire

Each team should have collected the time expended in Assignment 2. Christian Estler will contact you indicating where to submit the collected data.

Important: the time expended is collected by teams and calculated in person-hours. For example, if 3 people participated in a meeting for 2 hours, then the expended time is 6 hours.

For assignment 3, you should also collect this information:

1) How many person hours did you dedicate to Assignment3?

a) How many person hours of Assignment 3 did you use for communication? Split the answer in two categories:

I. Communication with members of the same team (located in the same university)

II. Communication with members of other teams (located in other universities)

b) How many person hours of Assignment 3 did you use for development of the assignment result (preparing the documents, answering questions, writing documents, reading documentation, etc)?

2) From question 1.a):

a. How many hours were used for voice communication?

b. How many hours were used for other way of communication such as e-mail, forums,, etc. ?

c. How many hours did you use for face-to-face meetings?

3) How long did you have to wait for a reply from the other team? Indicate best case, worst case and average in hours.

2. Reading Assignment

Read the paper:

Martin Nordio, Roman Mitin, Bertrand Meyer, Carlo Ghezzi, Elisabetta Di Nitto and Giordano Tamburelli: **The Role of Contracts in Distributed Development** in Proceedings of SEAFOD 2009 (Software Engineering Advances for Offshore and Outsourced Development). 2009.

http://se.ethz.ch/~meyer/publications/tools/contracts_seafood.pdf

3. API

Conflicts:

If you get a SVN conflict in the project (source code), you should store the two versions of the file generated by SVN. Christian will tell you where to commit these files.

Before starting the implementation, teams have to define the common API of the system. The API has to be written in Eiffel using design by contract¹. Use contracts to improve interface specifications by providing meaningful pre-, post-conditions and invariants. The API in the form of Eiffel classes has to be added to the project at:

https://svn.origo.ethz.ch/dose2011/src/group_n

where n is your group number.

Make sure that all teams in your group agree on the interfaces defined by the contracts.

¹ See http://en.wikipedia.org/wiki/Design_by_contract
http://www.eiffel.com/developers/design_by_contract.html