UNIVERSIDAD DE CASTILLA-LA MANCHA

ESCUELA SUPERIOR DE INFORMÁTICA

Software configuration management

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1. Main goal

The main goal of the software configuration management is to control and deal with the elaboration of the source code for several developers and the following of each state of the product and its changes. In addition, it is essential that any kind of change, plan or states of the implementation are communicated to the client.

2. Project organization

Our projects will be developed under the UDP(unified development process). This means that they will be underdone regarding the three main characteristics of the UDP. The projects will be distributed in modules and using UDP, each module will be divided into incremental iterations.

3. Customer reaching

It is decided that any problem found in the product on behalf of the customer, he/she will have a direct communication with our company to report the problem and solve it as soon as possible. This will be carried out only when the product has reached less than a 20% of coverage.

4. Basic foundations

The basic foundations we are going to use for our configuration management are the following:

- Baseline: a baseline will be used in which we will set a version of the project and once it has formally approved, it will be used to serve as a basis for further development.

- Configuration item: configuration items will be added such as requirement documents, software and models and will be treated as individual entities. Any change in any of these items will be critical for the development of the project and need to be controlled.

- Configuration management: configuration items are identified and documented. Any change in these items are controlled. Compliance is verified with the designated requirements and the state of the implementation is reported.

- Configuration management authority: a group of people will be designated for the evaluation of the configuration management and to make sure that everything is fulfilled and carried out.

- Release: a release will be sent out to the customer in which all the configuration items have been tested.

- Versioning: unique version names are assigned to each state of the software configuration items to identify them and so the client can know at every moment any change produced.

5. Semantic versioning

All the projects done under the threshold of our company, will apply some of the semantic versioning specifications:

1. A public API must be declared.

2. Any version of any product will take the X.Y.Z form, where X is the major version, Y is the minor version and Z is the patch version. With each version, there will be an numeric increment, e.g. 2.2.3 < 2.3.4 < 2.5.7. In addition, the numbers must be non-negative numbers and not contain any zero located in the major version(X).

3. In case that a version need any kind of modification, it cannot be modified in that same version number. In that case the modification of the version will be released as a new version.

4. The public API will be defined in the 1.0.0 version

5. The patch version(Z) must be incremented only if backwards compatible bug fixes are introduced

6. The minor version(Y) must be incremented only if new compatible functionalities are introduced into the software.

7. The major version(X) must be incremented only if backwards incompatible changes are introduced into the public API and the minor

and patch versions must be put to zero if the major version is increased.

8. Precedence in the versions for comparing them is essential. Precedence is determined by the comparison of each identifier from the numbers from left to right.

6. Project responsibilities

The responsibilities of the project are the following:

- Lydia Prado Ibañez: head of the project and responsible for analysing the costs of the project, the development of the maturity level of the company, and the management and maintenance of the website.

- Juan Garrido Arcos: responsible for everything related to the implementation of the software and uploads all the material related to the project and its changes to GITHUB.

- Rubén Pérez Rubio: in charge of approving and abstracting the requirements from the customer, creating the use case diagrams and developing and maintaining the configuration management

- Pablo Ruiz Ciudad: in charge of the quality sector, supervising and making sure that all the quality requirements are met in the project.