


UNIVERSIDAD DE SEVILLA  
Escuela Técnica Superior  
de Ingeniería Informática  
Departamento de Lenguajes  
y Sistemas Informáticos

# Project management with projETSII and Subversion

*Software Engineering and Databases Group  
Department of Computer Languages and Systems  
University of Seville  
September 2016*

La traducción de este material docente ha sido financiada mediante la convocatoria 1.10B - Ayudas de innovación y mejora docente, convocatoria 2013-2014, modalidad B del II Plan Propio de Docencia de la Universidad de Sevilla. No ha habido financiación alguna para este proyecto de otros soportes.




UNIVERSIDAD DE SEVILLA  
Escuela Técnica Superior  
de Ingeniería Informática  
Departamento de Lenguajes  
y Sistemas Informáticos

## Project Management with projETSII and Subversion

- Learning objectives
  - Know the project management tool **projETSII**.
  - Know the version control tool **Subversion** (SVN).
  - Create a proper **structure** using projETSII for the semester projects:
    - Project creation
    - Versions for deliverables
    - Work breakdown structure

1. Project tasks management
2. Version control management
3. Project creation in projETSII
4. Deliverables in projETSII
5. WBS for deliverables
6. Organized task view in projETSII



September 2016

Requirements Engineering

1

UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior de Ingeniería Informática

Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

• Project task management

– Create the **work breakdown structure (WBS)**, i.e. task hierarchy, for the project development process.


– Each task should include:

• Start and end date\*

• Estimated effort, i.e. time to perform the task

– Observe the Gantt diagram generated by projETSII.

\*The start date should be indicated as soon as the required techniques to perform the task are explained in a lecture.



September 2016

Requirements Engineering

2

UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior de Ingeniería Informática

Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion


• Project task management

– Task effort must be updated to show progress

• Update the number of hours spent

• Update the % of progress (manually)

– Watch the Gantt diagram during project development to detect possible deviations in the project planning.




September 2016

Requirements Engineering

3

RE

2



UNIVERSIDAD DE SEVILLA  
Escuela Técnica Superior  
de Ingeniería Informática  
Departamento de Lenguajes  
y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII


Project Management with projETSII and Subversion

- What is a version control system?
  - Keep track of the versions and changes performed in the files of the project.
  - Enable reverting the changes to a previous version of the documents (time machines).
  - Enable the concurrent and distributed work with the same files.
  - Provide support to resolve conflicts.

September 2016

Requirements Engineering

4



UNIVERSIDAD DE SEVILLA  
Escuela Técnica Superior  
de Ingeniería Informática  
Departamento de Lenguajes  
y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

- Common use scenario
  - An Subversion repository is automatically created from projETSII.
  - Each member of the group creates a local copy under SVN control (**checkout**).
  - Each time that we work in the project:
    - Update local files (**update**)
    - Work locally
    - Update local files (**update**)
    - Resolve conflicts, if any
    - Send changes to the repository (**commit**)\*

September 2016

Requirements Engineering

5

\* Each commit can be associated to a task by including the task number in the commit comments with **refs** task number.

RE

3

Escuela Técnica Superior de Ingeniería Informática  
Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

• Common use scenario

1 get content  
svn checkout  
svn update

2 Make changes  
svn add  
svn move  
svn delete

3 See what was changed in the repository in the meantime  
svn status -u

4 Update your local copy  
svn update

5 Merge your changes  
Resolve conflicts  
svn diff  
svn resolved

6 Submit your changes  
svn commit

Subversion Repository

September 2016

Requirements Engineering

6

Escuela Técnica Superior de Ingeniería Informática  
Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

• Common repository structure

trunk ← main project line

branches ← parallel development

some-feature

tags ← baselines

v1.0

v1.1

SVN

September 2016

Requirements Engineering

7

UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior de Ingeniería Informática

Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

• Project creation in projETSII

– Create a new project in projETSII.

– Add students in your group as members of the new project with role **student**.

E.T.S. DE INGENIERÍA INFORMÁTICA

Sistema de Información para MI

Inicio | Proyectos | Roles de Usuarios | Miembros

Actividad | Mi cuenta | Configuración

Conectado como User

Configuración

Información | Miembros | Versiones

Nombre \*

Sistema de Información para MI

Proyecto padre

Descripción

Este proyecto trata de desarrollar una aplicación web para del tiempo a ...

Formato de texto simple

Sitio web

Privado

Tipo de Proyecto \*

Práctica-Assignment

Tareas de tareas

☒ Gestión Proyecto/Project Mgmt

☒ Investigación-Research

☒ Requisitos-Requirements

☒ Análisis-Analys

☒ Arquitectura-Architecture

☒ Modelado de Componentes-Design

☒ Modelado de Datos-Data Modeling

☒ Diseño de Tipos de Datos-Design

☒ Programación-Coding

☒ Pruebas-Testing

☒ Soporte-Support

☒ Presentación-Presentation

☒ Despliegue-Deployment

☒ Otros-Other

Guardar

https://proyectos.informatica.us.es/proyectos/public/proyecto/1/config/miembros

September 2016

Requirements Engineering

8

UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior de Ingeniería Informática

Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

• Creating deliverable versions in projETSII

– Each deliverable should be a “version” in projETSII.

– Each tasks must be associated to a version (deliverable).

E.T.S. DE INGENIERÍA INFORMÁTICA

Sistema de Información para MI

Inicio | Proyectos | Roles de Usuarios | Miembros

Actividad | Mi cuenta | Configuración

Conectado como User

Configuración

Información | Miembros | Versiones

Información

Versiones

Versión	Fecha	Descripción	Estado	Compartir	Página Wiki
YC-1	2013-10-20	Primer entregable del primer cuatrimestre	abierto	No compartir	<input checked="" type="checkbox"/> Modificar <input checked="" type="checkbox"/> Borrar
YC-2	2013-11-24	Segundo entregable del primer cuatrimestre	abierto	No compartir	<input checked="" type="checkbox"/> Modificar <input checked="" type="checkbox"/> Borrar
YC-3	2014-01-12	Tercer entregable del primer cuatrimestre	abierto	No compartir	<input checked="" type="checkbox"/> Modificar <input checked="" type="checkbox"/> Borrar

Nueva versión

Cerrar versiones completadas


September 2016

Requirements Engineering

9

RE

5



UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior  
de Ingeniería Informática

Departamento de Lenguajes  
y Sistemas Informáticos

1. Project tasks management


2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII




Project Management with projETSII and Subversion

- WBS for the first deliverable
  - 1. Understand the problem domain
  - 2. Understand customer's business process
  - 3. Identify positive & negative aspects
  - 4. Understand the customer's IT environment (optional)
  - 5. Obtain and document customer's needs
  - 6. Manage meetings with customers and users
    - a) One subtask for each held meeting

September 2016

Requirements Engineering

10



UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior  
de Ingeniería Informática

Departamento de Lenguajes  
y Sistemas Informáticos

1. Project tasks management


2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII



Project Management with projETSII and Subversion

- WBS for the second deliverable
  - 1. Enhance 1<sup>st</sup> deliverable contents\*
    - a) One subtask for each enhancement
  - 2. Develop system general requirements
  - 3. Develop system use cases
  - 4. Develop information requirements
  - 5. Develop business rules
  - 6. Develop other functional requirements (behavioral in Madeja)
  - 7. Develop non-functional requirements (including technical restrictions and integration requirements)
  - 8. Develop the system conceptual model
  - 9. Develop the user interface prototype
  - 10. Manage meetings with customers and users
    - a) One subtask for each held meeting

September 2016

Requirements Engineering

11

UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior de Ingeniería Informática

Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

• WBS for the 3<sup>rd</sup> deliverable

1. Enhance 2<sup>nd</sup> deliverable contents\*

a) One subtask for each enhancement

2. Improve the user interface prototype

3. Develop system sequence diagrams

4. Specify the system user interface

5. Specify the system services interface

6. Validate user interface prototype

a) One subtask for each validation session held with customers & users.

7. Manage meetings with customers and users

a) One subtask for each held meeting (apart from validation sessions).

\* If needed.

September 2016

Requirements Engineering

12

UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior de Ingeniería Informática

Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

• Project tasks views

– It may be useful to organize the task view hierarchically and according to version.

Consulta personalizada

Nombre: Vista por versión y con jerarquía de tareas

Público ☒

Para todos los proyectos ☐

Columnas por defecto ☐

Agrupar resultados por: Versión prevista

Filtros

☒ Estado todos

Añadir el filtro:

Ordenar

1: Versión prevista Ascendente

2: Tarea padre Ascendente

3: Fecha de inicio Ascendente

Columnas

Proyecto

Tipo

Tarea padre

Estado

Prioridad

Autor

Asignado a

Actualizado

Categoría

Versión prevista

Tema

Fecha de inicio

Fecha fin

Tiempo estimado

% Realizado

Guardar

September 2016

Requirements Engineering

13

RE

7

UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior de Ingeniería Informática

Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII

4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

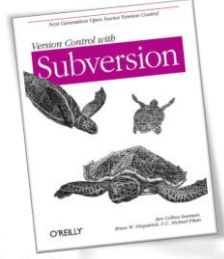

Bibliography

– projETSII help documentation

<https://projetsii.informatica.us.es/>

– B. Collins-Sussman, B. W. Fitzpatrick, C. Michael Pilato, *Version Control with Subversion*

<http://svnbook.red-bean.com/>



September 2016

Requirements Engineering

14

UNIVERSIDAD DE SEVILLA

Escuela Técnica Superior de Ingeniería Informática

Departamento de Lenguajes y Sistemas Informáticos

1. Project tasks management

2. Version control management

3. Project creation in projETSII


4. Deliverables in projETSII

5. WBS for deliverables

6. Organized task view in projETSII

Project Management with projETSII and Subversion

Comments, suggestions, ...



September 2016

Requirements Engineering

15

RE

8