

# Use Case Diagram in Expanded Format



Español



## Inputs

- High Level Use Case Diagram
  - ◆ Can it be used configuration management?: **Yes**
- Requirements Specification Document
  - ◆ Can it be used configuration management?: **Yes**



## Output

- Use Case Diagram in Expanded Format (using the [Craig Larman Method](#))
  - ◆ Can it be used configuration management?: **Yes**



## Solution



## Process

Archivo:Diagrama de Casos de Uso en Formato Expandido.png



## Development time

- ◆ To acquire the necessary knowledge to develop the software product: 2 hours
- ◆ To create the Product Pattern: 2 hours
- ◆ To apply the Product Pattern: 10 hours.



## Explanatory Video

- ◆ Not applicable



## Patrones Relacionados

- [Use Case Diagram](#)
- [High Level Use Case Diagram](#)
- [Requirements Specification](#)





## Quality Controllers

- None




## Templates

-  [Use Case Information in Expanded Format](#)
-  [UML notation Use Cases](#)



## Examples

- (2008)  [Explanation and examples of use cases. Software Engineering Lab \(SEL-UC3M\)](#)



## Support Tools

- [Argo UML \(Open Source Project\)](#)
- [Dia \(GNOME\)](#)
- [Rational Software Modeler \(IBM\)](#)
- [StarUML \(Open Source Project\)](#)
- [Visual Paradigm for UML \(Visual Paradigm\)](#)



## Initial Context

It is developing a software system using the [Craig Larman Method](#). It is already created the use case diagram high-level system.



## Resulting context

It has been explained in detail all use cases of the use case diagram of the system, this explanation contains both, information in the format described at a high level, and a description of activities involving each use case including its alternative courses . It has been using the format proposed in [Craig Larman Method](#).



## Issue

It is desired to explain in detail all use cases diagram, including a description of system activities involving each.



## Restrictions (*Forces*)

- **Type of Organization:** SMEs, Large Companies.
- **System Type** It applies to all types of systems.
- **Programming Paradigm:** OO (Object Oriented).



## Roles

- Analyst
- Customer
- Project Manager
- System Users



## Lessons Learned

- Benefits of using this pattern[Fuensanta Medina-Dominguez, 2008]
  - ◆ A graphic description of how the software system works and how it will be used is provided.
  - ◆ It is possible to describe the interactions between the system and its actors.
  - ◆ It has a detailed and explicit description of the purpose of each use case diagram.
  - ◆ The activities described are useful for creating the class diagram.



## Maturity level

- Maturity Level 2 CMMI.



## Basic Knowledge and Skills



### Knowledge

- Definition of software requirements (functional and non-functional).
- **Craig Larman Method**
  - ◆ Notions of UML, especially the technique of modeling of use cases.



### Abilities

- Capacity of abstraction.



## Information Resources

- Ferré Grau, X & Sanchez-Segura, M. (2004). *Desarrollo Orientado a Objetos con UML*. Recuperado el 2009-11-26 de <http://www.clikear.com/manuales/uml/index.aspx>.
  - Fowler, M. (2004). *UML distilled: a brief guide to the standard object modelling language*. Addison-Wesley.
  - Larman, C. (2001). *Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and the Unified Process* (2da. ed.). Prentice Hall.
  - Jacobson, I. & Booch, G.(1999). *The unified software development process*. Addison-Wesley.
  - Rumbaugh, J. & Jacobson, I. (2005). *The unified modeling language reference manual*. Addison-Wesley.
  - Rumbaugh, J. (2005). *Object-Oriented Modelling and Design*. Prentice Hall.
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