

Functional Specification for PCP Orange

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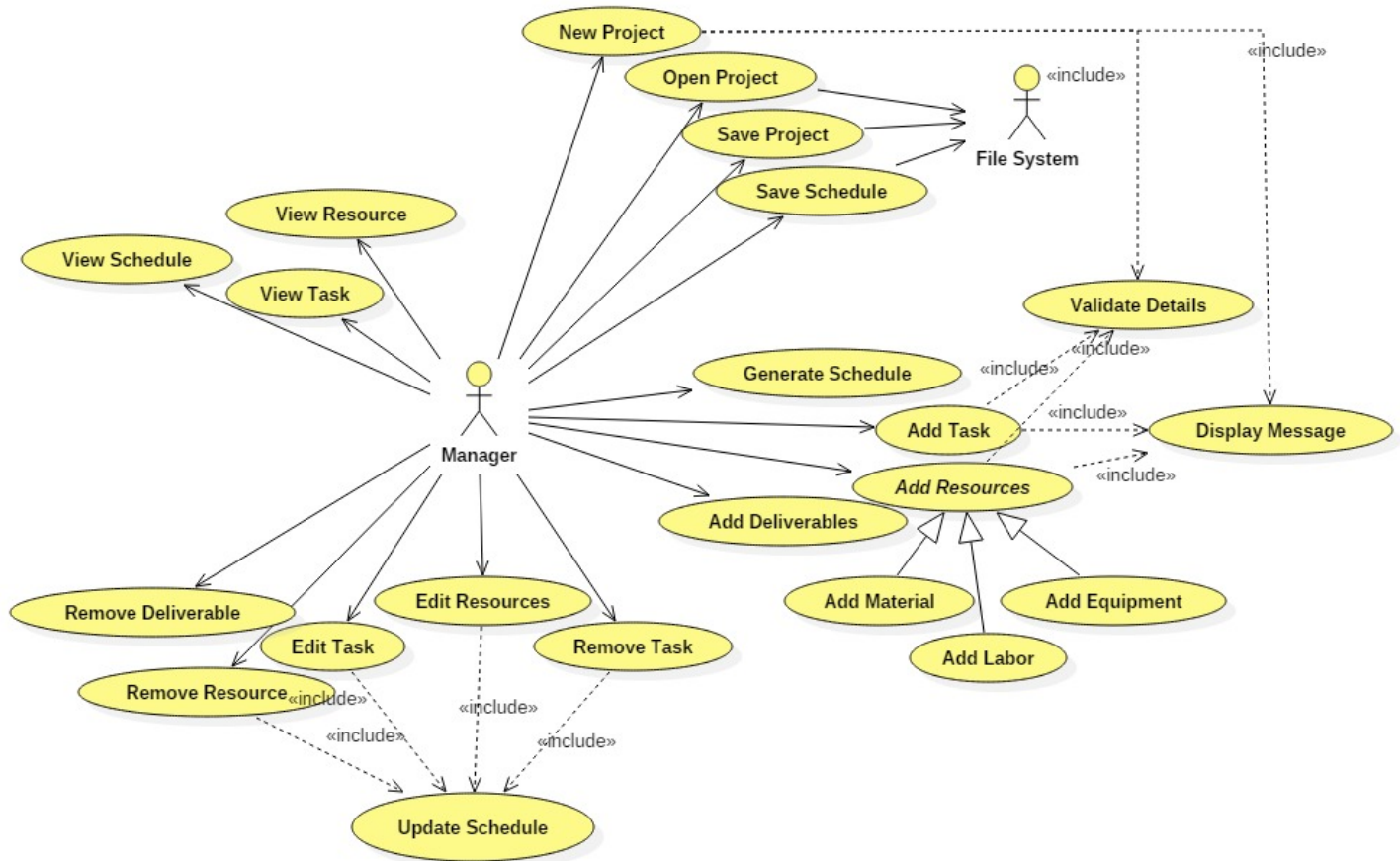
Version: 1.0

Introduction

Project Control Panel (PCP) is a program that allows program managers to define and schedule projects.

Functional Requirements

Use case diagram



Use cases

UC1: New Project

Actors: Manager;

Included Usecases: Display Message; Validate Details;

Description: Create a parent task/new project

Priority: High

Risk: Medium

Main Scenario:

1 **Manager:** Selects new from File Menu

2 **UC:** Ask for Project name, start_date, duration, description

3 **Manager:** Enters details and selects Finish

4 **UC:** Validates details

5 **if is valid :**

creates project with the details and loads views of task, resources and schedule and close panel

else:

display message to reenter correct details. Repeat from 3

Alternate Scenario 2:

1 **Manager :** Selects new from File Menu

2 UC: Ask for Project name, start-date, duration and description
3 **Manager:** Enters details and selects Cancel
4 UC: Close Panel

UC2: Save Project

Actors: File System;Manager;

Included Usecases: None

Description: Save an open project

Priority: Low

Risk: Medium

Main Scenario:

Manager: Selects Save from File Menu

UC: Ask manager to enter filename and select location

Manager: Enters details and press okay

UC: Write Project in ProjectML format and save. Close Panel

Alternate Scenario 1:

Manager : Select Save from File menu

UC: If project has already been saved once, overwrite the file.

Alternate Scenario2:

Manager: Selects Save from File Menu

UC: Ask manager to enter filename and select location

Manager: Cancels

UC: Close Panel

UC3: Open Project

Actors: File System;Manager;

Included Usecases: None

Description: Open a saved project from the disk

Priority: Medium

Risk: Medium

Main Scenario:

Manager: Selects Open from File Menu

UC: Ask manager to browse directory and select file to open

Manager: selects file and press okay

UC: Check file is ProjectML format,

if valid format:

load project

if Load successful:

display Task View, Resource View and Schedule.

else: display msg Error Opening file, Corrupted file.

else: display msg Invalid File Format, can not open selected file.

Alternate Scenario:

Manager: Selects Open from File Menu

UC: Ask manager to browse directory and select file to open

Manager: Cancels

UC: Close Panel

UC4: Save Schedule

Actors: File System;Manager;

Included Usecases: None

Description: Export the generated schedule to the disk\file system

Priority: Low

Risk: Medium

Main Scenario:

Manager: Selects save schedule

UC: checks if there is any schedule generated before

if no: generate schedule

Ask Manager to enter filename and location.

Manager : Enters file name and location and press okay

UC: Writes schedule to the file and save the file.

Alternate Scenario:

Manager: Selects save schedule

UC: checks if there is any schedule generated before

if no: generate schedule

Ask Manager to enter filename and location.

Manager: Cancels

UC: Close Panel

UC5: Add Task

Actors: Manager;

Included Usecases: Display Message; Validate Details;

Description: Add task to the project

Priority: High

Risk: Medium

Main Scenario:

1. **Manager:** Selects Add Task from menu
2. **UC:** Ask Manager to enter Task name, description, start_date, duration and which resources and deliverables to associate with it, add predecessors and successors to the task, is it simple or composite task
3. **Manager:** Enter details and press okay
4. **UC:** Validate details,
if Valid: create task, update task view and Close Panel
else : Display message to Enter correct details, Repeat UC from 2

Alternate Scenario:

1. **Manager:** Select Add Task from menu
2. **UC:** Ask Manager to enter Task name, description, start_date, duration and which resources and deliverables to associate with it, add predecessors and successors to the task, is it simple or composite task
3. **Manager:** Cancels
4. **UC:** Close Panel

UC6: Add Resources

Actors: Manager;

Included Usecases: Display Message; Validate Details;

Description: Add resource to the created project

Priority: High

Risk: Medium

Main Scenario:

1. **Manager:** Selects Add Resources from menu
2. **UC:** Ask Manager to enter Resource name and Type and daily cost, and which task to associate it with
3. **Manager:** Enter details and press okay
4. **UC:** Validate details,
if Valid: create resource, update resource view
else : Display message to Enter correct details, Repeat UC from 2

Alternate Scenario:

1. **Manager:** Select add Resources from menu
2. **UC:** Ask Manager to enter Resource name and daily cost, and which task to associate it with
3. **Manager:** Cancels
4. **UC:** Close Panel

UC7: Generate Schedule

Actors: Manager;

Included Usecases: None

Description: Generate Schedule

Priority: High

Risk: Medium

Main Scenario:

Manager: Selects Generate Schedule from Project Menu

UC: Generate Schedule based on Task list.

UC8: Add Labor

Actors: None

Included Usecases: None

Add Resource of type Labor

UC9: Add Equipment

Actors: None

Included Usecases: None

Add resource of type Equipment

UC10: Add Material**Actors: None****Included Usecases: None****Add Resource of type Material****UC11: Validate Details****Actors: None****Included Usecases: None****Validates Details like Dates, Nouns, File Names, File Locations etc.****UC12: Display Message****Actors: None****Included Usecases: None****Display Error or Confirmation messages with Ok and/or Cancel buttons.****UC13: Add Deliverables****Actors: Manager;****Included Usecases: None****Manager can add deliverables to the Project****UC14: Edit Task****Actors: Manager;****Included Usecases: Update Schedule;****Description: Edit the already existing task****Priority: High****Risk: Medium****Main Scenario:**

Edit Task

1.Manager: Selects a task and select edit from menu**2.UC:** Open edit Task dialogue with pre-filled task information**3.Manager:** Change the task details**4.Manager:** Select save form the edit dialogue**5. UC:** Validate the details**6. If valid:****7.UC:** Close the edit dialogue**8.UC:** Save the task details**9.UC:** Call Edit Schedule**10.Edit Schedule:** Edit schedule and Update schedule view**Else:****7. UC:** Show validation error**Repeat form 3****Alternate scenario 1:** Manager selects cancel form the edit panel**1.Manager:** Select task and select edit form Menu**2.UC:** Open edit Task dialogue with pre-filled task information**3.Manager:** Change the task details**4.Manager:** Select cancel**5.UC:** Close the edit dialogue**UC15: Edit Resources****Actors: Manager;****Included Usecases: Update Schedule;****Description: Edit the existing resource****Priority: High****Risk: Medium****Main Scenario:**

Edit a Resource

1.Manager: Selects a resource and selects Edit form menu**2.UC:** Open a edit resource dialogue box with pre-filled information**3.Manager:** Change details**4.Manager:** Select save**5.UC:** Validate the changes**If Valid****UC:** Close the edit dialogue box**UC:** Save the resource details**UC:** Update the resource view**Else****UC:** show validation errors

Repeat form 3.

Alternate Scenario 1: Manger selects cancel

1.Manager: Selects a resource and selects Edit form menu

2.UC: Open an edit resource dialogue box with pre-filled information

3.Manager: Change details

4.Manager: Selects cancel

UC: Close the edit dialogue

UC16: Update Schedule

Actors: None

Included Usecases: None

Main Scenario:

Update schedule

UC: Update schedule

UC: Update Schedule view

UC17: Remove Resource

Actors: Manager;

Included Usecases: Update Schedule;

Description: Delete the resource from the project

Priority: High

Risk: Medium

Main Scenario:

Remove a resource

Manager: Select a resource and select Remove from menu

UC: Display confirmation box asking for user confirmation

Manager: Select ok

UC: Delete the resource

UC: Update the resource view

Alternate Scenario 1: Manager selects cancel

Manager: Select a resource and select delete

UC: Display confirmation box asking for user confirmation

Manager: Select cancel

UC: Close the delete dialogue box

UC18: Remove Task

Actors: Manager;

Included Usecases: Update Schedule;

Description: Delete the existing task from Project

Priority: High

Risk: Medium

Main Scenario:

Remove a task

1.Manager: Select a task and selects Remove from Menu

2.UC: Open Confirmation Dialogue box (Are you sure want to remove the task)

3.Manager: Selects ok

4.UC: Close the confirmation box

5.UC: Delete the task

6.UC: call Edit Schedule

7.Edit Schedule: Update schedule and schedule view

Alternate Scenario 1: Manger selects cancel

1.Manager: Select a task and select Remove form menu

2.UC: Display Confirmation Dialogue box (Are you sure want to delete the task)

3.Manager: Selects cancel

4.UC: Close the confirmation box

UC19: Remove Deliverable

Actors: Manager;

Included Usecases: None

Manager can remove Deliverable from project.

UC20: View Schedule

Actors: Manager;

Included Usecases: None

Manager can view schedule all the time

UC: Observes Project class and update the schedule view.

UC21: View Resource

Actors: Manager;

Included Usecases: None

Description: View the details of the created Resource

Priority: High

Risk: Medium

Manager can view resources all the time

Manager: Double-click on the resource

UC: Opens the detail view of the resource

UC22: View Task

Actors: Manager;

Included Usecases: None

Description: View the created Task

Priority: High

Risk: Medium

Manager can view task list all the time

Manager: Double-click on the view

UC: Opens the detail view of the task.

Actors

Actor Name: Manager

Description: Project Manager can use this tool to schedule a project which consists of resources and tasks. Manager can specify resources needed by a project and tasks that need to be executed to generate schedule.

Actor Name: File System

Description: The Project Schedule is saved in XLS format and ProjectML format is used to save the Project.

Non-Functional Specifications

Usability:

The anticipated user will be required to have experience in opening a browser and navigating webpages. The user will be required to have minimal knowledge of computer skills, however must understand project management practices.

A readme.pdf file will be created for instructions to traverse program.

Performance:

Up to one user will be allowed to use this program at one time for this version.

Supportability:

Team Orange will maintain the software, although it will be open source for others to contribute to.

Implementation:

This program will be accessible through any platform that enables the use of a browsers and allows internet access.

Packaging:

One installation will be installed online.

Legal:

This will be an open source program for others to contribute to.