

Progress Report 4: 23 April 2012

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KIMportant REST ADditions

Work done this week

We have worked on, but not finished, the following tasks planned in last week's report:

- Enemy class
- Game logic
- GUI elements
- Game screen states
- Game screen class
- Class diagrams
- Object loader

We have finished the following tasks planned in last week's report:

- Resource management
- Weekly report
- Food class
- Level class
- Camera class
- Player class
- Audio manager and 2D sound

On top of that, a new task was added: Setting up and getting acquainted with Redmine, a project management software. We also included some basic helper components, such as primitive types and exception handling from Lars's private code base.

Major design decisions done:

Redmine was chosen instead of Excel since this program is better suited for the task. It will also make it easier since everybody then can report their hours and at what task simply by logging in, as opposed to logging it in files for one person to summarize at the end of the week.

The decision was made to not represent pellets and power pellets with their own classes in the model, since they don't have their own behavior. The Render batch's functionality will be split into a Sprite batch (for 2D elements, such as HUD and GUI) and the scene (for 3D elements), since the scene is already responsible for sorting 3D objects.

We will use resource managers to keep track of all loaded resources so that no resource is loaded twice in order to keep down memory usage and loading time. The resource managers are going to use the Factory pattern ensuring that all resources are loaded and stored in the managers, giving

them the control of deleting so that we can avoid dangling pointers. The resource managers are all Singleton classes, for easy access globally.

Changes to the Work Breakdown Structure

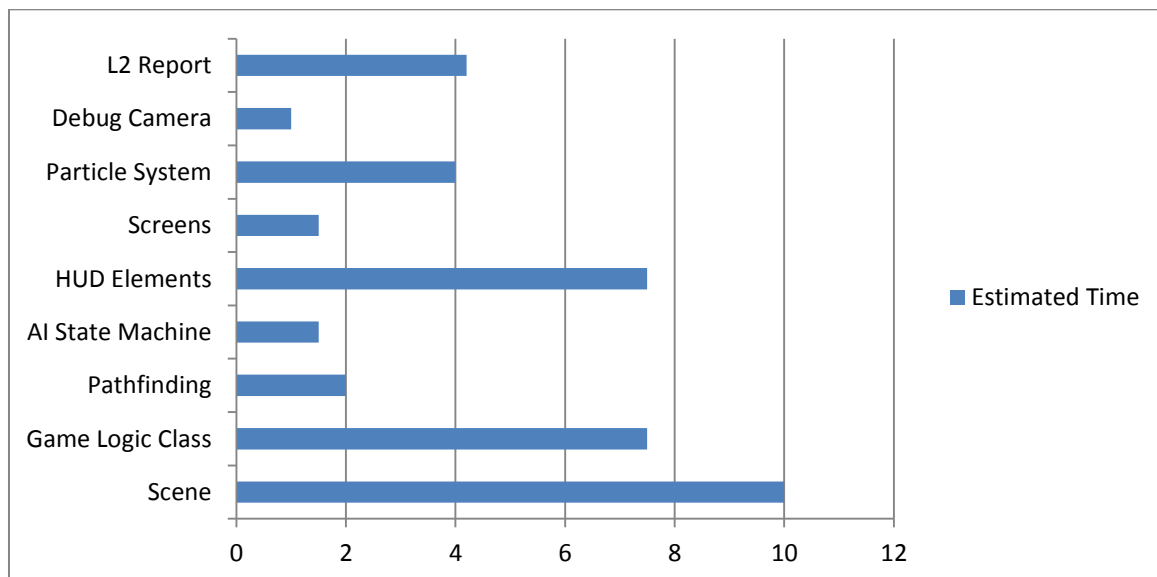
The particle system task was postponed, since we don't have an environment to properly test it in yet. A task for Redmine was added. The render batch also needs to be postponed, since it cannot be tested without a scene. The Game screen, game screen states, GUI elements and HUD elements tasks had to be prolonged into next week. The class diagrams task has been prolonged, since they are subject to change during the course of development. The Render batch task has been changed into a Sprite batch task, since functionality for rendering 3D objects will be handled by the scene.

Issues, problems and risks

Time estimation remains a large issue. What seems daunting one week turns out to be trivial the next. The WBS is difficult to plan because of this. A minor issue lies in keeping everyone busy, since some tasks depend on the finishing of others. Another big issue is that we haven't spent enough time working. The reason for this seems to be, at least partially, some confusion around the WBS, and also that our estimations are often very off. We will have to work more in the following weeks, however. The reason that we have worked so much less than the time allotted is thus two-fold, as far as we can reckon. We also have the issue with code metrics. We have yet to find suitable software for this, and we are also a bit confused as to which metrics are important to present.

Work planned

The work planned for the next week, along with estimated time the task will take and who will do what, is shown below:

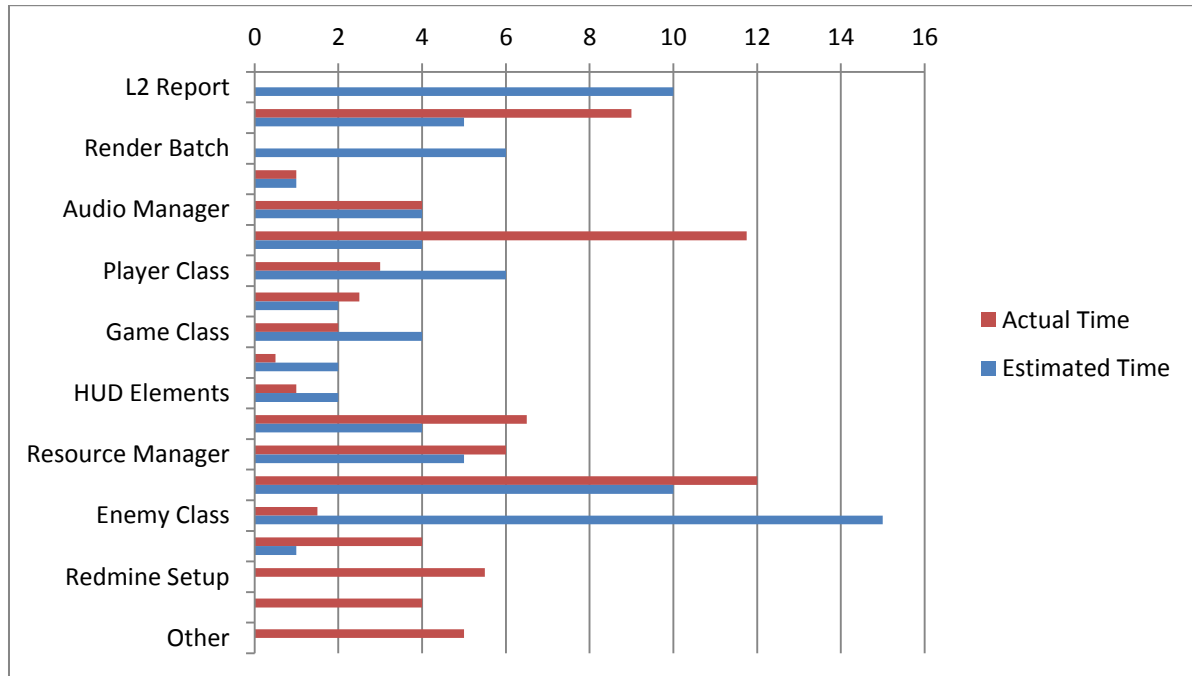


Along with a Gantt chart, showing the schedule for the previous week through next week, this sums up the work for the next week. See accompanying image file for the Gantt chart.

Summary

Schedule compliance

Below is a graph of the tasks we have worked with the past week, along with the time we estimated and the time we worked. Unless stated below, the tasks are finished.



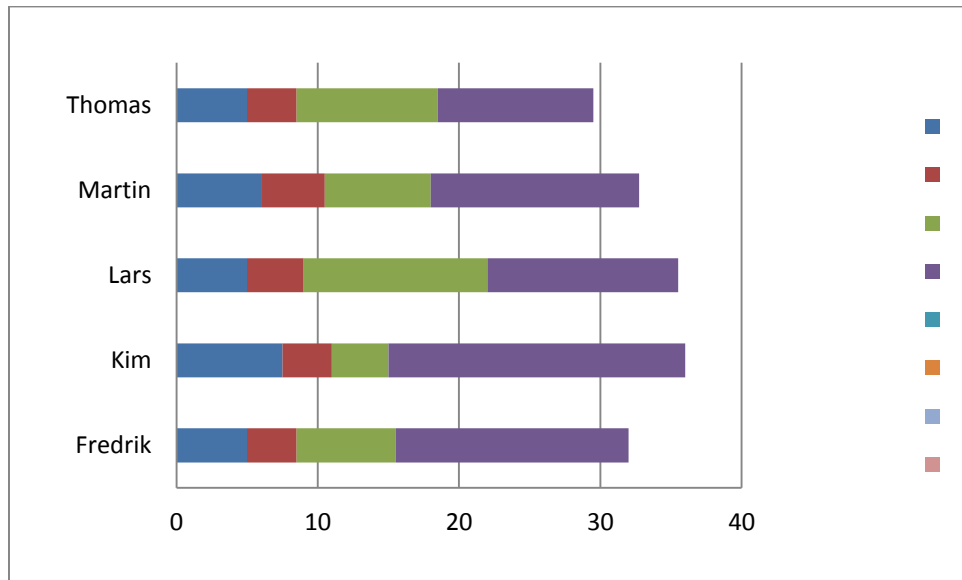
Unfinished tasks (planned over several weeks):

- ✦ Particle System
- ✦ Game logic class
- ✦ L2 report

As can be seen we are a bit behind schedule as far as tasks are concerned. Even more so regarding time spent. As stated, we believe that we have done poor estimations in combination with too little work.

Resources spent

The number of hours each person has spent on the project working either in a group or individually is shown below. The total number of hours is a little less than would be expected at this time in the project due to an uncertainty about what the project entailed along with poor time estimations. As we get more comfortable with what we need to do we spend more time on the project, which is evident in the graph.



Product metrics

No metrics recorded yet.