Welcome!
Congratulations on being hired by Novasoft Game Laboratories, a wholly owned subsidiary of Novasoft Research Laboratories. Over the next 3 to 4 months, our company will produce a new game software product. The success of this new endeavor will depend on your ability to commit to the project, to work as part of the development team, to “think outside the box,” and to carefully design and implement your part of the product.

Product Description
Our software has three purposes. First, it is a fun-to-play game system that allows a user to enjoy a variety of interesting games. Second, it is an extensible development platform that allows other researchers, programmers or students to create and integrate their own game modules. Third, it becomes a calling card for each team member to use in the future to illustrate their abilities, providing experience in an actual software engineering and development group.

Project Leader: Dr. Tom Way

Corporate Profile
Novasoft Game Laboratories is a software development company specializing in using the latest software engineering tools and techniques to create innovative computer-based entertainment products. There are two offices: Headquarters (located in Palo Alto, CA) and East (located in Nashua, NH).

Office descriptions
- HQ (section 1): located in Palo Alto, California in the heart of the drab, shabby, but usually sunny "Silicon Valley," it meets most Tuesdays and Thursdays in Mendel Science Center G87 from 11:30am to 12:45pm.
- East (section 2): located in Nashua, New Hampshire, in the midst of the scenic but snowy "Northeast Technology Corridor," it meets most Tuesdays and Thursdays in Mendel Science Center G87 from 1:00pm to 2:15pm.

Teams
Each employee (student) will be a member of two distinct teams. The first team is a game module engineering team. The second is a corporate-level product development team. Each team will be responsible for a verbal weekly update at our weekly engineering meeting (in class), where each team member will report status.

Game module teams
A team of 3-5 employees all located in the same office (either HQ or East), responsible for the complete development from design through implementation of a game module that integrates seamlessly into the overall product. It is up to the discretion of the team as to what specific game is developed, subject to an obscure, ill-defined, overly-complicated approval process.
Project Overview (cont'd)

Product development teams
At the corporate level, each employee will belong to a product development team consisting of 3-5 members from each of our company's two offices (so 6-10 members in a team). This will involve exchange of information via email, phone calls, IM, etc., between team members in both offices. All "travel" (face-to-face meetings) much be approved in advance by the project leader.

- **Web & Legal** - create web site, online help, put all pertinent product and developer information, coordinate to acquire info from all other teams, acquire GPL license info and create product use agreement and license as needed.
- **Front End & Integration** - menu, overall look & feel, input/output of images, pulling together components, integrating all game modules, coordinate with other teams to implement the spec, provide user and programmer tips, etc.
- **Module & Support** - create API for game modules, including basic example, coordinate with Front End and Specification teams, assist all programmers with creation of game modules, coordinate with other teams for design and implementation
- **Specification & Documentation** - pull together best specification information from all team members, keep it all up to date, provide a development road-map, create user & programmer manuals
- **Testing & Distribution** - develop testing plan, test software in an ongoing fashion, create delivery system (installer that includes software, source code and documentation), guide the iterative reengineering development process

Tasks
The general high-level tasks we must accomplish to produce the product are:
1. Brainstorm product features
2. Organize engineering teams to perform higher level design & development tasks
3. Create a rough design overview and project plan
4. Develop a prototype
5. Write an initial requirements specification
6. Revise the prototype
7. Write a revised and improved requirements specification
8. Produce a finished product including web site, licensing information, source code, online demo, contact information, documentation, installer, etc.

Adaptability & Innovation
In any large software development undertaking such as this, there will be a great deal of uncertainty. Adaptability to a changing environment will (“going with the flow”) will be a key skill to cultivate. Don’t worry if the terminology and description sounds a little unfamiliar. It is not nearly as tricky or difficult as it sounds. We’ll manage this lack of knowledge by “growing” our software, starting with simple prototypes and adding features and functionality. Research will also play a key component, as we will search the web for info on unfamiliar topics. The web will become the key “12th player” on our team (to use a football analogy). Because our company has two offices, communication will be trickier, so we must development ways to manage communication to achieve our goals.