MAÇA YAZILIM

ONLINE VIRTUAL TEAM COLLABORATION PLATFORM WITH 3D GRAPHICS

CENG 491

Project Proposal Report

METU

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1. PROJECT MEMBERS AND ROLES

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2. PROJECT DESCRIPTION

As understood from the project name, one of the most important aspects of the project is the need for collaboration between team members. When people take part in a cooperative work, they have to consider the coordination issues in addition to the task they are responsible for. The project has some features in order to achieve upwards, downwards and peer-to-peer communication.

The number of users is determined. There will be three users and a facilitator connecting to a server. Users will have first person view while the facilitator has third person view. One of the users will be coordinator and the others will be obliged to report him for their actions. They will have an opportunity of voice communication.

Each person will have his/her own resource. The resource will include special work equipment (varying by the scenario) and human type resource. Human resource do not have to be intelligent, they will obey the commands given by the chiefs. These three users are

expected to use their resource effectively and accomplish the given task in the context of scenario.

3. REQUIREMENTS

Development

- Microsoft Visual Studio 2005
- Ogre3D Open Source Graphics Engine
- Open Source Network Libraries (not decided yet)

Programming Language

- C++

User Requirements

- Windows XP Operating System
- Network connection

4. INITIAL IDEAS AND POSSIBLE ENHANCEMENTS

So far, we have gathered information about the basic concepts related to the project. Then we built up some constructive ideas on the method to be followed and the scenario that will create the difference among other projects of ETC. These ideas are not static; as we find out more; a few points can be changed. In addition to that, we determined some features as extra functionalities to add the project if we have time. But these features are beyond the scope of the specifications offered to us.

4.1 Initial Ideas

Regarding the specifications of the project, we have built up a possible scenario. The details are not strictly determined. So we give the basics at this moment.

The team will manage a restaurant that provides high quality service to its customers. They will work in collaboration to achieve their target. Voice communication will be used between them so they can work in harmony. The three users will have different roles: chief of kitchen, headwaiter, and manager of the restaurant.

Chief of kitchen will take the responsibility about cooking and washing the dishes. He will order other people in the kitchen. These other people can be considered as an additional resource to the main resources in the kitchen (like cooking equipments, food, detergents…etc). He will try to use his resource to prepare the orders of customers and keep the kitchen tidy.

Headwaiter will coordinate the other waiters in order to give response to customer needs as quickly as possible. He will be responsible from taking the orders and serving them, then bringing the bill. Moreover he can get tips if customers are generous. The resource of headwaiter will be the limited energy of other waiters.

Manager of the restaurant is responsible from hiring and dismissing workers, supplying takeout food service and making proper decisions in case of crisis. The resource he has consists of budget and delivery service employee with motorcycles.

There will be an extra person in the team, namely facilitator. He will help the other three to play their roles efficiently. He will not be in the scenario directly and will not have the first person view.

4.2 Possible Enhancements

- Reservation system
- Different restaurants with different difficulties depending on their characteristics
- Simulation recording
- For the users without microphones, *text-to-speech* functionality

5. APPLICATION AREAS

The application area of the project is directly affected by the scenario. Considering our scenario, the main usage of our project will be educating people working in restaurants; letting them meet situations virtually and getting themselves further on their job. Obviously, a simulation program has a simple application area; that is what it simulates.

6. RISK ANALYSIS

Risks	Probability	Impact
Changing Technology	70%	2
Changing Standards	30%	3
Bugs in Development Tools	30%	4
Technology will not meet expectations	50%	3
Improperly Trained Users	70%	1
Changing Specs	30%	2
Lack of training on tools	60%	2

1- Negligible

2- Marginal

3- Critical

4- Catastrophic

7. EXPECTED GRADES

As Maça Yazılım members, we believe that we will complete the project successfully and as a result of the effort we pay, we expect to get a grade over BB.