Real-time Decision Support System for Infrastructure and
Logistics Management Disastrous Situations
Arctic Donkeys

**Sprint Evaluation**

What is the progress of your project in this sprint? What goals are achieved? What problems are overcome? If you are updating your plans what are your justifications?

We have mentioned that we had trouble regarding connecting the ArcGIS and Java. We have connected the ArcGIS by 2 steps. One of them is performing database and algorithm parts through the Java and we have written the risk results to .txt file. Then, by using python script, we have run the ArcGIS to create risk map and so on. According to search tools, there is a direct way to connect Java and ArcGIS but when we tried this method ArcGIS gave error and did not compile the code. This is because, we are using the trial version of ArcGIS and we think that trial version does not cover such properties. Unfortunately, sources on internet about direct connection are fairly limited. The other problem is that creating exact borders of districts is not supported by the software. Hence, we have hand drawing borders and they do not seem Professional in terms of visual perception. One another problem is drawing map from source to destination. Route drawing is available in full version of ArcGIS; however, full version is too expensive for us. Then, we have to draw route by synthetically. So, we stuck in those restrictions and come up with an idea. By carrying system to the Web, we can use Google Map API and this API provides life saver extensions. We can draw natural borders, create hot-spot map and perform route drawing things via this way. In fact, there are lots of sources regarding implementing map and its extensions by using JavaScript. Then, we have decided to shape our product in this way (spring MVC, Maven technologies). First, we have created a temporary login page to limit access of people. Only authorized staff is able to use that product. This is open for discussion. Then page is directed to our old user interface (but in web mode) to take inputs from user. So, we have completed web interfaces. We have implemented basic backend and application connection and tested it. Now, we can extract coordinates from Google Map which is useful to draw exact borders of districts. In addition, after user completed input process, page is directed to new page and user logs are recorded. Other than these issues, we have changed the web site of the project and it is connected to the team's own domain. It seems that using Web technologies enable us to perform more effective process. Because of all unintended issues, we couldn't focus on algorithm implementation. However, we ease the process of integration of code and border detection issues.

**Team evaluation**

How well your team working together? How many meetings did you hold? Are you planning any changes in your cooperation strategy? Which work is completed by which member (in a Gannt chart)?

As a team, we have good division of labor. We have met 5 times until last sprint. This time we have lots of work due to changing ArcGIS to the Google Map API. Two of us have worked on web-page construction of project. For the rest, we all have worked on Google Map API to make progress. Details of the works are described in part 1. Everyone completed his/her work on time.

| Task | Assigned Members | 1st Week | 2nd Week |
|---|---|---|---|
| Web Site Design of Conveyor | Onur Yılmaz<br>Göksucan Akın | +<br>+ | +<br>+ |
| Interface Design | Zeynep Miray Mazlumoğlu<br>Arda Aslan | | +<br>+ |
| Backend Coding | Zeynep Miray Mazlumoğlu<br>Onur Yılmaz<br>Göksucan Akın<br>Arda Aslan | +<br>+<br>+ | +<br>+<br>+ |
| Coordinate Extraction | Zeynep Miray Mazlumoğlu<br>Onur Yılmaz<br>Göksucan Akın<br>Arda Aslan | + | + |

**Backlog Updates**

What are your backlog updates?

Meeting Etkin Hasgul for further algorithm design.

Connecting MySQL to the Web part of project.

Drawing borders of reference districts.

Backend - Frontend improvements.