Data Management Plan

**Types of data produced:**

During the course of the project, we expect to have data about stand-up meetings, client meetings, team meetings, weekly iteration plans, team status reports, project management plan, requirements document, use case diagrams, specifications, issues tracking document, data management plan, database design, test plan, test suite, project code, user manual, installation manual and client presentations.

Static data of trains and tracks will be required for running the simulation. Static data of tracks is stored in tracks.txt file, of trains in trains.txt, of routes in routes.txt file. Dynamic data will be generated by the simulation which will be required by the system for decision making in simulation. These data include sections locked by trains and destinations of trains. Such data will be stored temporarily in variables and data structures through the course of simulation.

**How the data will be created?**

Data about stand-up meetings, client meetings and team meetings will be created during and after those meetings by the note taker assigned at those meetings. Weekly iterations plans will be created submitted by each team members at start of each academic week. Team status reports are created and submitted by one of the team members on Wednesday and Friday of each academic week. Project management plan, requirements document, use case diagrams, specifications, issues tracking document, data management plan, database design, test plan, test suite, project code, user manual, installation manual and client presentations are created by the team collaboratively.

Data required for project database is provided by our client. This data includes details of trains, tracks and interactions between them. Most of this data is made available through the document provided by our client. Other required data for project database was obtained through client meetings.

Simulation will produce live data of trains which includes the routes of trains, current speed and current location. It will produce live track data which includes sections locked by trains, sections available and directions of switches.

**Storage of data:**

All of the documentation and coding Data will be stored in GitHub repository of our team - Elite-nwmsu. Admin level access rights are provided to our professor Dr. Michael Oudshoorn along with all of the team members in GitHub repository.

All of the documentation data will be stored in .docx and .txt format to make it more accessible. All image data will be stored in .jpeg, .png or .gif formats. Coding data will be stored in respective formats of programming languages used.

All data will be stored in primary directory of Elite-nwmsu. Subdirectories will include Documentation and code. The Documentation subdirectory will include Meetings, weekly iteration plans, team status report, project management documents, requirements document, database design, test plan, test suite, user manual, installation manual and client presentations. The code subdirectory will include the code of the project and resource files necessary for the project to work.

**Archiving and preservation of data:**

Upon completion of project, data will be preserved on GitHub repository which is a stable resource for making data readily available. Data will be made available indefinitely on GitHub. This data will include all of the documentation and code data.