Team Project
GCS Requirements Statement

The basic problem is to develop a Z Specification for the Viking Mars Lander Guidance Control Software (GCS). The starting point is a complete set of requirements written in the old B5 style. The first task will be to review the documentation to familiarize yourself with the baseline. After a preliminary analysis you will *propose* exactly what functionality you plan to specify using Zed. Your proposal is subject to the constraints and guidance given below:

a) Deliverables (see IEEE standards and tailoring guidance)

b) Draft proposal and project plan (**due in the week 7**)

c) SRS (The SRS provides the context and format for preparing your Z specification as a report) and is **due in the 15th week of semester** (**beginning of the week**)

d) Final presentation SRR (**presentations last week of class**)

e) Development Environment (your choice) on the PC

Various Z tools and pretty printers (see the www).

f) The functionality of the GCS specification

The specification shall include the functionality of all components shown in Figure 3.1 and some subset of the components shown in Figure 4.1 (you choose and propose the subset in the first deliverable).

g) Constraints

After a preliminary analysis of the GCS Specification the teams shall propose a set of requirements that ensure the following. How to handle the finer detail so that the result conveys the existence (i.e., function, structure, dependencies and behavior) of equations (without having to actually specify them). The idea is not to erase but to abstract the critical characteristics in terms of function, structure, timeliness and correctness). The specification shall be extensible and maintainable.

h) Performance Requirements

There are no specific performance requirements.

i) Design Constraints

A team may propose to cut back on the actual scope of the specification and substitute in its place some level of design. The design methodology must be negotiated with the instructor.

j) Software System Attributes

Each team will be responsible for finding a Z tool that will help in proving their results. The use of such tools is not a strict requirement but would certainly be viewed in a positive light with regards to the correctness and readability aspects for the purpose of grading. There will be some links from http://www.eecs.wsu.edu/~sheldon/cs580.html to such resources but you are encouraged to find others and to include those in the http://www.eecs.wsu.edu/~cs980/ page.