Getting started on Computing

1. First we should look at what it takes to get started
   - http://mu2e.fnal.gov/atwork/computing/gettingstarted.shtml
2. Next we should find an available project which interests us:

The Software and Simulation group is looking for people to work on many issues, including those listed below. This list is far from complete so feel free to suggest other topics.

- Develop/port/import Kalman filter code to work with all of our proposed tracking geometries.
- Event display. Either within the framework or as a separate program.
- Add a model of the scintillator and support structure for the cosmic ray veto system.
- Add dead material that is missing in our current model. In particular add support structure detail to the ECal, trackers and targets.
- Investigate G4 physics processes, such as scattering, energy loss, hadronic interactions etc. . Does G4 match data for these processes at our energies? Do we have G4 properly tuned?
- Implement the muon beamline in G4. The first step is to copy from either G4 beamline or from GMC.

Some lower priority, long term jobs:

- Develop code to propagate tracks and error matrices in the real DS magnetic field. During the track fit it would be nice to have something faster than a Runge Kutta integrator; we should be able to treat the field as a perfect solenoid plus perturbations.

3. We should contact Robert Kutschke to make sure no one else is working on this.
4. Start attending Software meetings Wednesdays 2:00 PM - 4:00 PM