Documentation for *Scilab* and GNU *Octave* Software Interfaces for GNATS

IMPORTANT NOTE: These interfaces have been tested only with the specific versions of *Scilab* and *GNU Octave* identified in this document.

Instructions for *Scilab*:

1. Install *Scilab* by running "`sudo apt-get install scilab`". GNATS currently supports *Scilab* version 6.0.0.

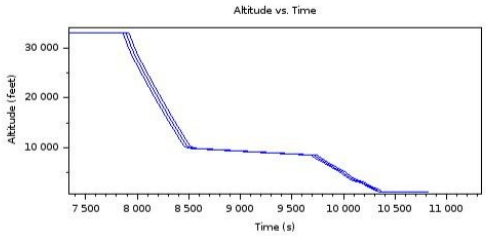
2. Run *scilab* by running "`sudo scilab`" command in terminal.

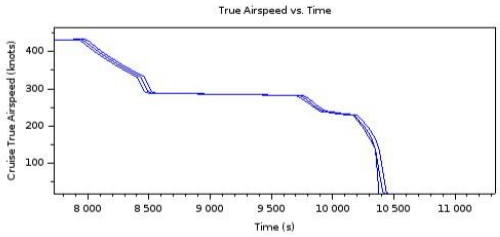
3. Open the provide sample file in *Scilab* window using:

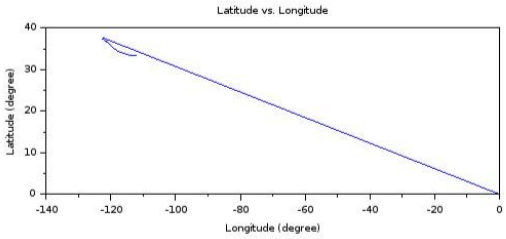
"`File→Open...../GNATS_Standalone/sample/Scilab_SampleMonteCarlo……._Beta_1.9.sce`". Please provide the location of GNATS Home in the header.

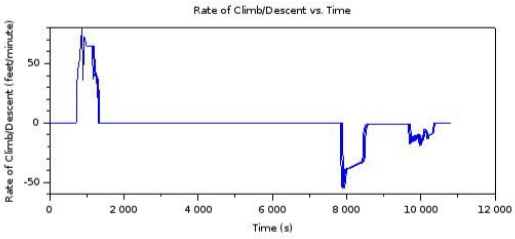
4. Click execute button (5th from right) on the toolbar in *Scilab* window.

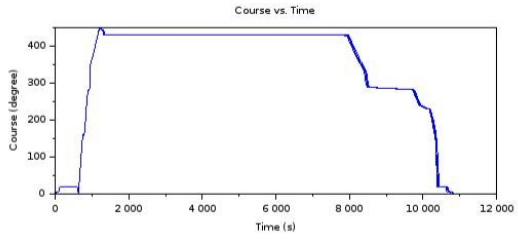
5. Once Simulation is complete, the output should be present in GNATS_Server/share/mcSimulation/, in the file "`AIRCRAFT_CALLSIGN-Scilab-Monte-Carlo-Sim-Trajectory_INDEX.csv`". Also, output graphs such as the ones in the following will be generated:











Instructions for using the *GNU Octave* Software Interface:

1. Install *Octave* by running "`sudo apt-get install octave`". GNATS currently supports *Octave* version 4.2.x.

2. Run *Octave* by running "`sudo octave`" command in terminal.

3. Go to GNATS_Standalone directory in the terminal, and run "`octave --persist sample/Octave_SampleMonteCarlo..._Beta_1.9.m`". The "`--persist`" argument is to make sure the graphs generated do not close once the program is executed.

5. Once Simulation is complete, the output should be present in GNATS_Server/share/mcSimulation/ folder, under the file name "`AIRCRAFT_CALLSIGN-Octave-Monte-Carlo-Sim-Trajectory_INDEX.csv`". Also, the output graphs generated, as shown in the following: