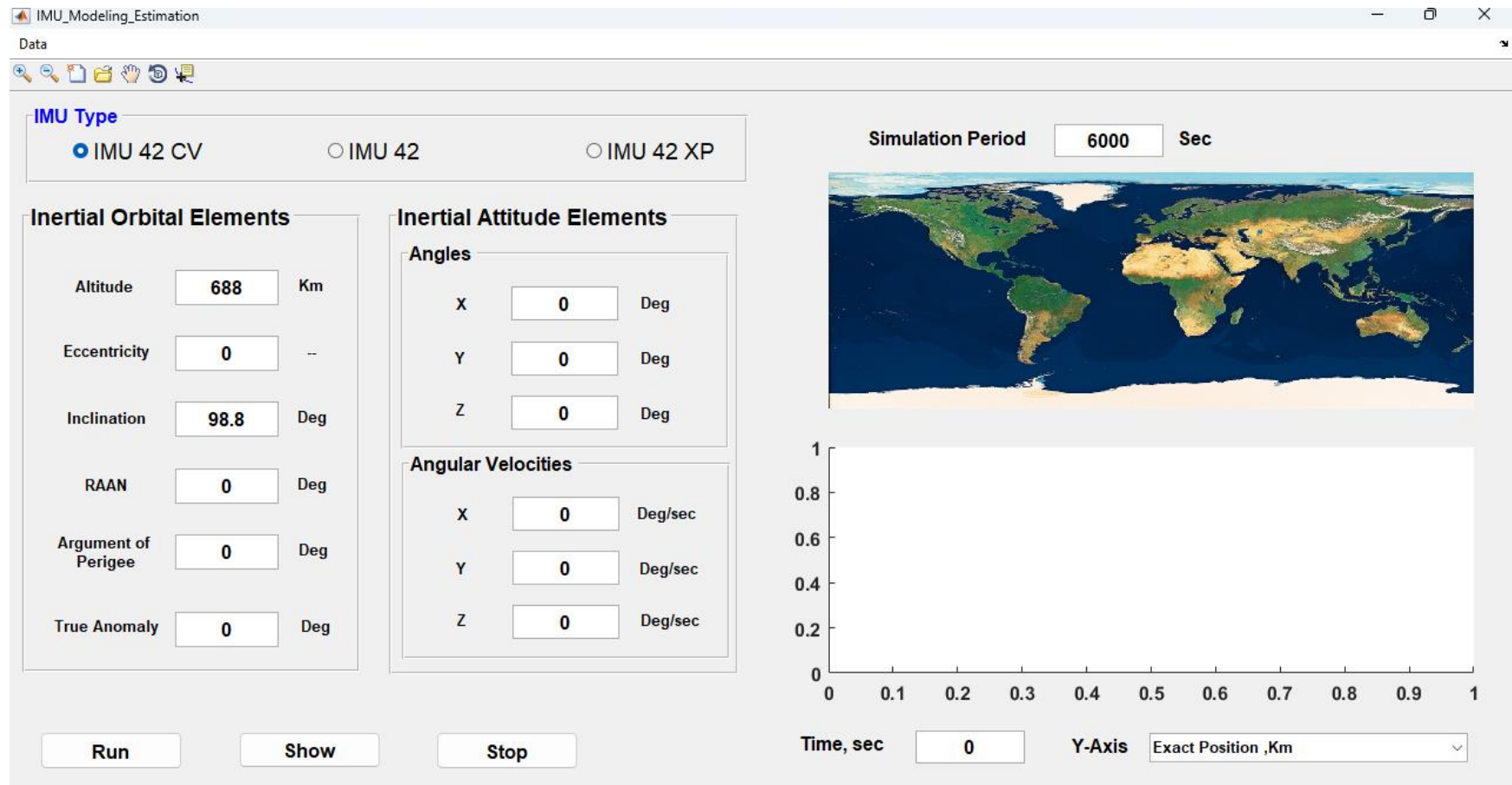


Graphical User Interface with explanation:

The main function is called “**IMU_Modeling_Estimation.m**”. Run it and you will get this graphical user interface.



- 1- IMU Type: To select one of the following IMU sensors with its parameters. (1- IMU 42CV , 2- IMU 42 , 3- IMU 42 XP)
- 2- Simulation Period: You can put the duration of the simulation.
- 3- Inertial Orbital Elements: Select the initial values for six Kepler elements as presented in the following figure (I just put altitude instead of semi-major axis for simplicity, RAAN: Right ascension of the ascending node)
- 4- Inertial Attitude Elements: Select the initial values for attitude angles and angular velocities.
- 5- Run: This button is to run the simulation
- 6- Show: This button is used to show the results with time.
- 7- Stop: This button is used to stop show and presents the whole figure.
- 8- Time: present for the running time during show.
- 9- Y-axis: Pop-up menu to the Y-axis values that will be plotted with time.

