**Structs**

Satellites

-Frequency

-Kepler

-Decode InformationsetWeather

**Functions**

**setFreq**(float newF) -move SDR receive frequency to a new frequency

**kepAdj**(Sat satellite) - adjust the frequency as the satellite passes overtaking into effet Kepler’s law

**updKeps**()-updates Kepler information by pulling data from servers.

**getSatPos**(Sat satellites)- returns the current position of satellite longitude and latitude

**setGndPos**(long longitude, long latitude)- sets the position of the ground station for rotor tracking

**getRotorPos**()-returns rotors current position based on input from rotor controller. Will need to communicate with the rotor and read its position

**setRotorPos**(int asmuth,int elev)- moves the rotor to correct position returns 1 if sent to controller successfully and returns 0 if not coved correctly

**setRotorDif**(int degAsm, int degElev) - sets how much of a difference there needs to be between the position of the satellite and direction the rotor is facing before it repositions.

**setRotorCom**(int com)-sets the rotors com port

**getRotorCom**()-returns rotors com port

**setSDRCom**()-sets SDR’s com port

**getSDRCom**()-returns SDR com port

**setActiveSats**(Sat satellites[])-sets the satellites being actively tracked from an input array

**getPassTime**(Sat satellite)-returns time till satellite passes over(enters the area above the ground station where we can receive data.)

**setMinElev**(int N, int E, int S, int W)-set minimum elevation for the rotor to track the satellite and turn on SDR receiver.

**setWeaterSource**(int source)-sets where the weather automation is pulling data from

**getNOAAWeather**()-get weather data from noaa source

**getGNDWeather**()-get weather data from the custom weather station

**getWeatherShutDown**()-returns weather shut down state 0- shutdown, 1- running, 2 autorunning,3 - autoshutdown

**setWeatherShutDown**()- sets shutdown state 0 - shutdown 1- running 2- auto