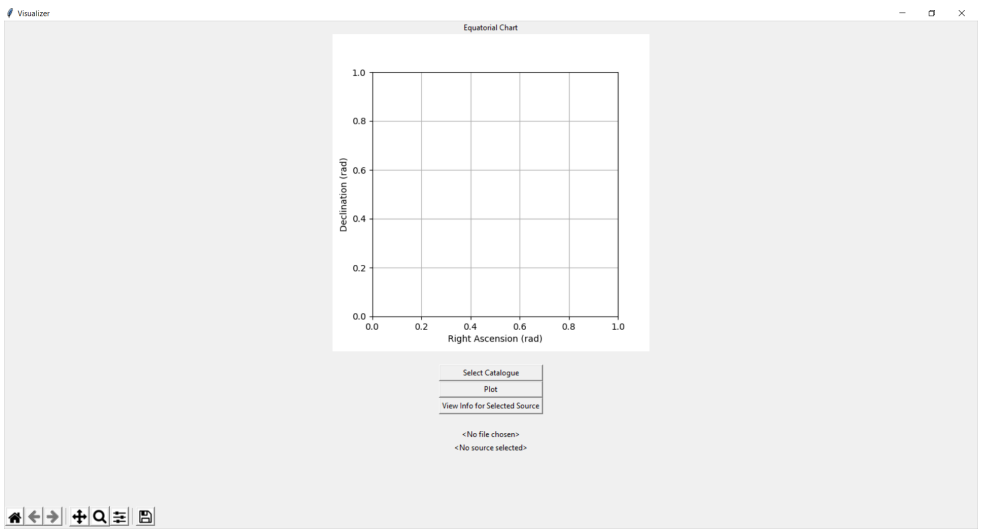
Documentation for the Standalone Application

The application (developed using Python 3.8 and subsequently converted to an executable file) allows the user to visualize and obtain information about a catalogue.

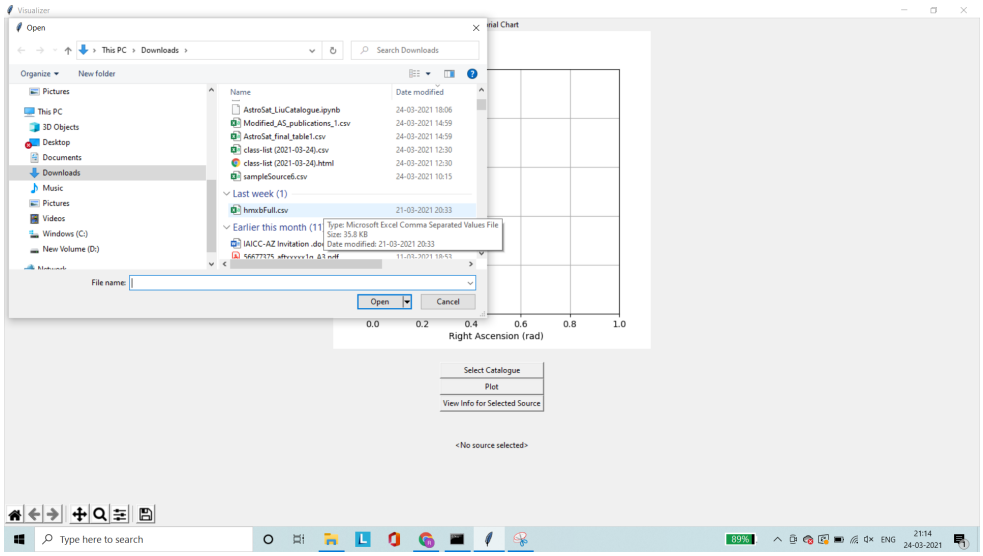
The steps for plotting and exporting information pertaining to a source of interest, are outlined below.

Steps to be Undertaken:

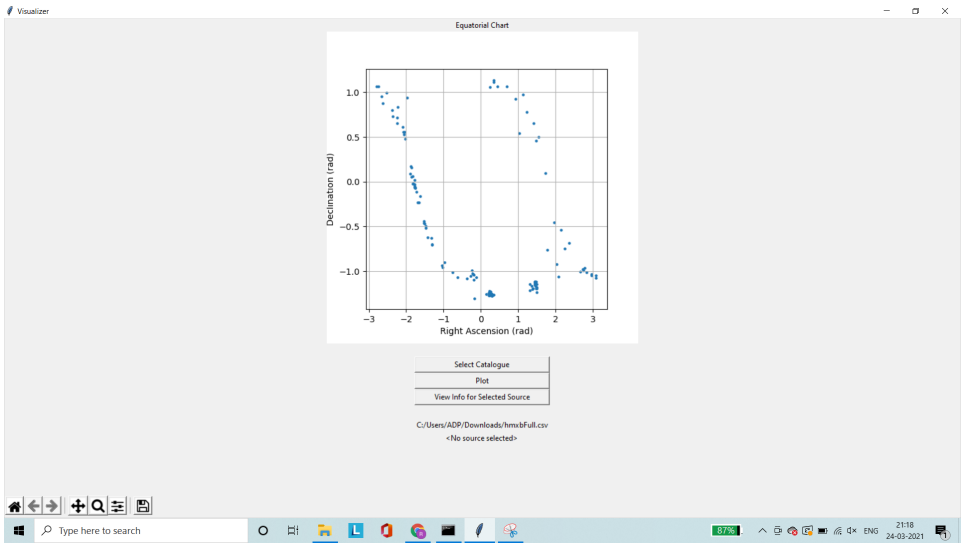
1. Launch the application.



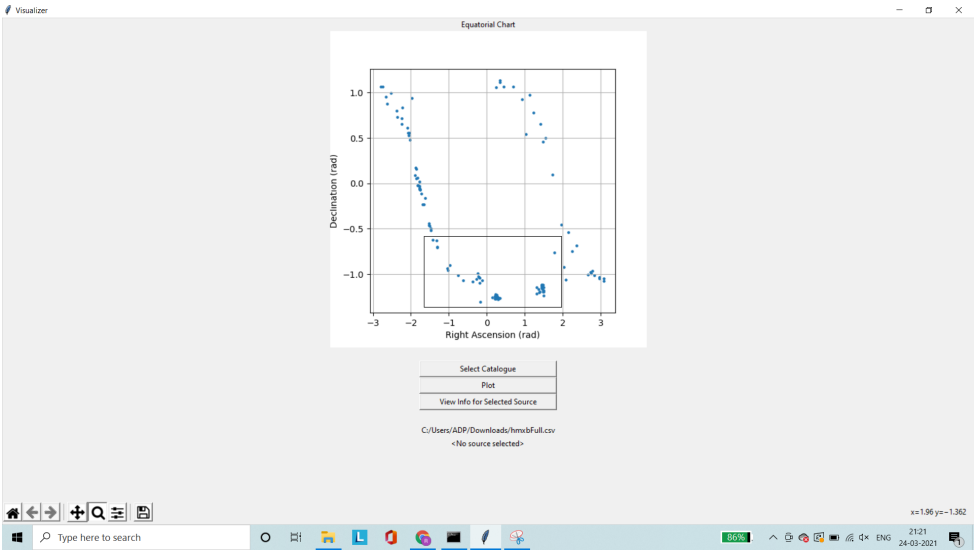
2. Select a catalogue by pressing the '**Select Catalogue**' button. In the dialog box that opens up, choose a catalogue



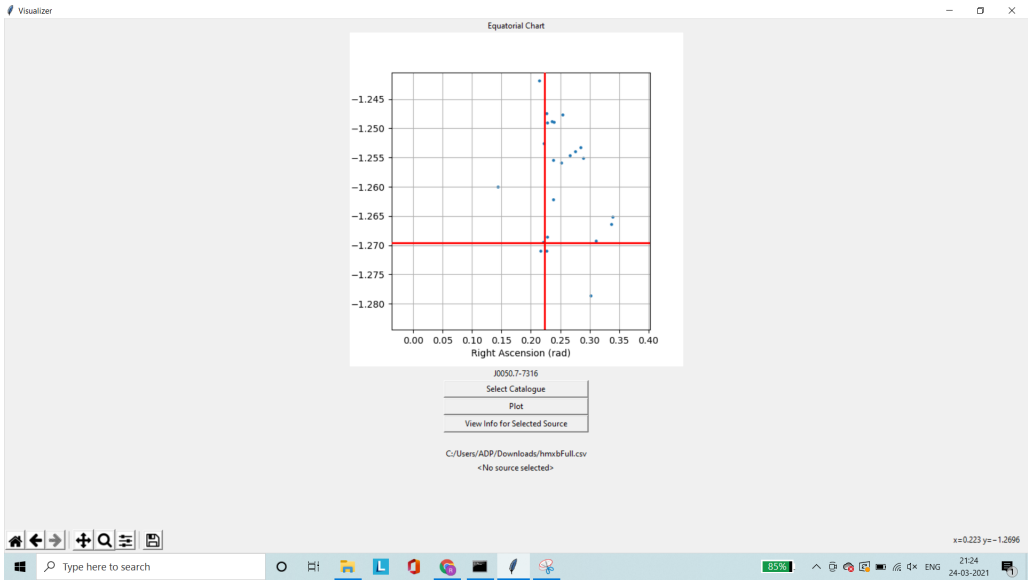
3. Click the '**Plot**' button to plot the locations of the sources present in the catalogue selected.
   A note about the plot: The RA in the catalogue ranges from 0 to 360 degrees. However for the purpose of plotting, the angles ranging from 180 to 360, were mapped to -180 to 0.



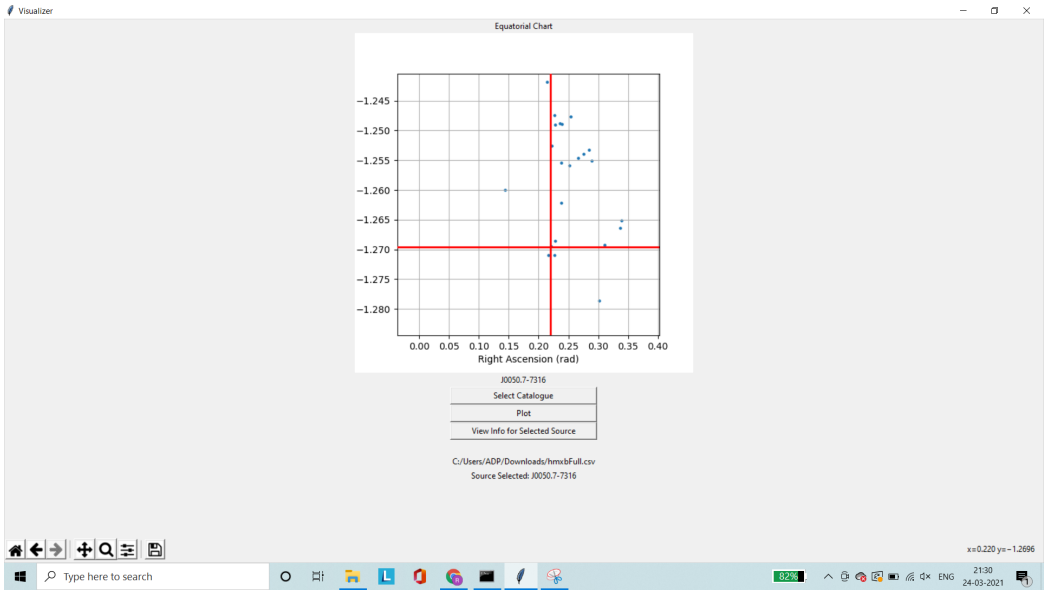
4. Zoom in onto any rectangular section, if needed, by making use of the **magnifying glass** icon in the toolbar on the bottom-left.



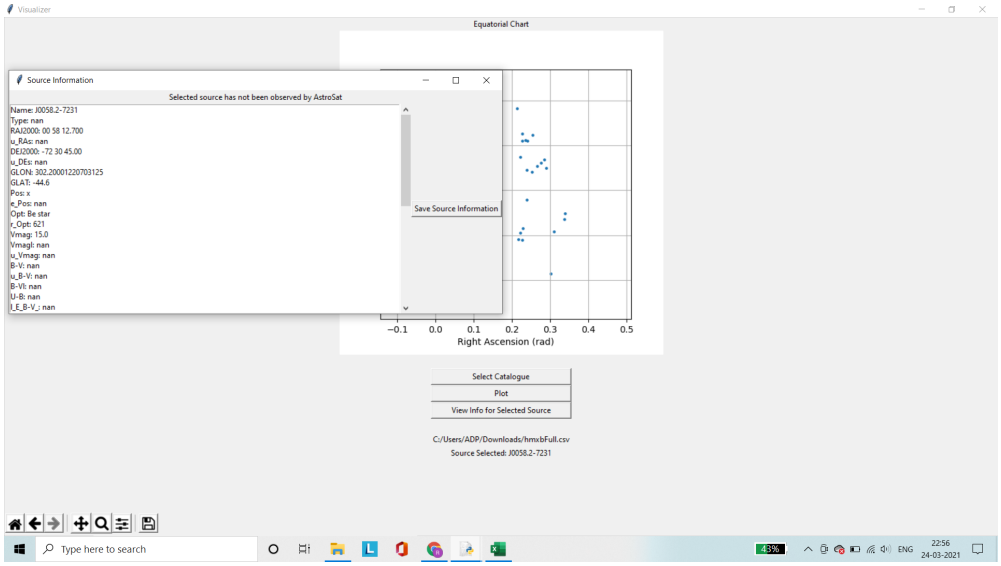
5. Inspect the name of a source while hovering over it and placing the crosshairs of the cursor on top of it. The name of the source that the cursor is hovering over, can be seen in the space between the figure and the '**Select catalogue'** button.



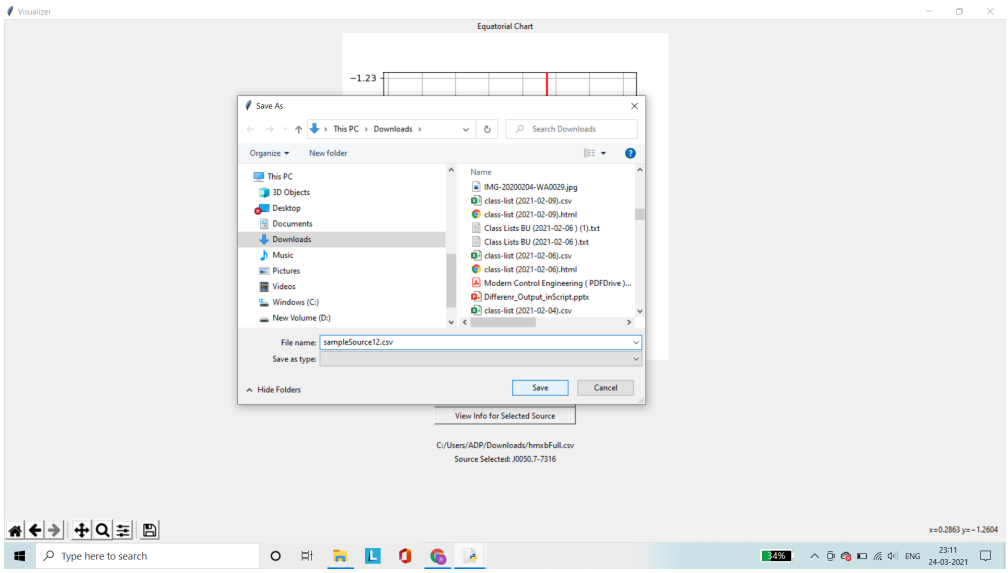
6. Select a source by clicking once on top of it. Its name would now be visible at the bottom of the application window.



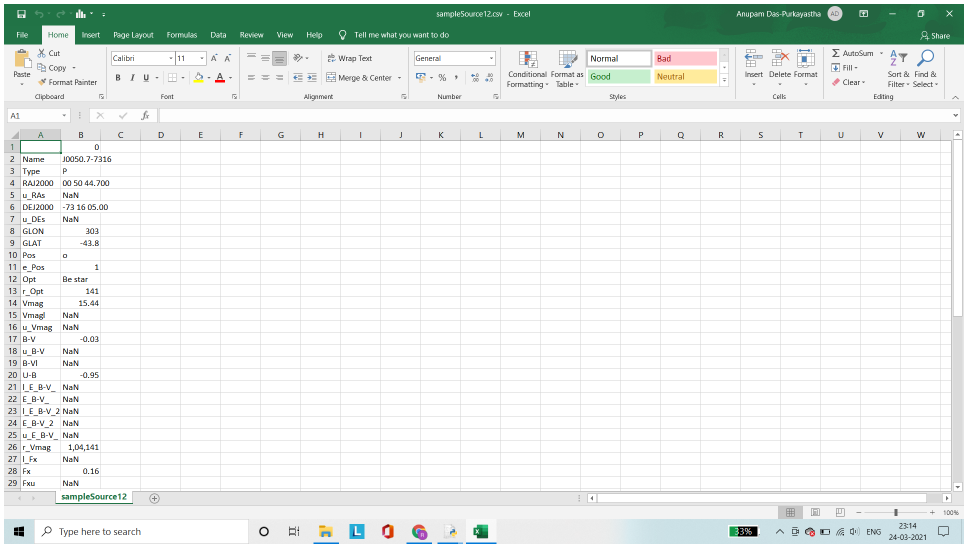
7. Click on the '**View info for Selected Source**' button. This would launch a window wherein the details about the source would be listed. It would also inform the user about whether the selected source has been observed by **AstroSat** or not.



8. To export the information in a ‘csv’ format, click on the ‘**Save Source Information’** and choose the filename and location.



9. If we were to view the newly created file, we would observe something like this:



The first column would contain the parameters from the selected catalogue (and AstroSat catalogue, if the source was observed by AstroSat). The second column contains the corresponding values for the source.