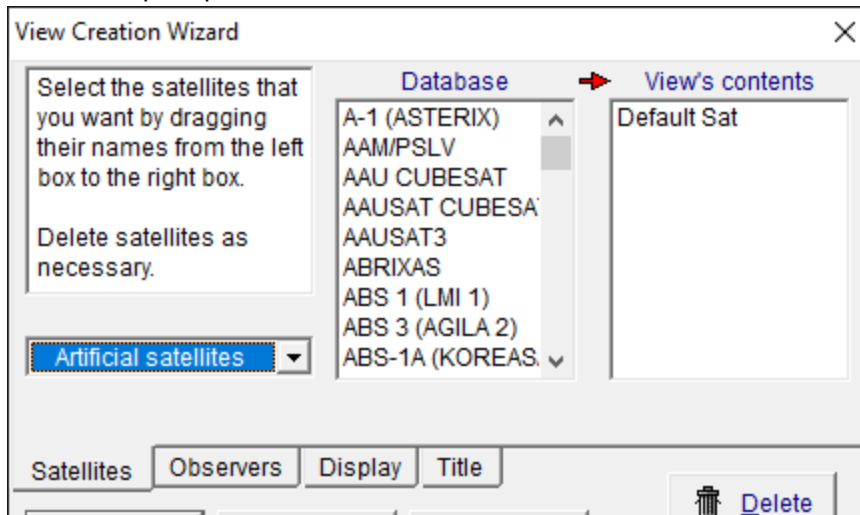


Using NOVA For Windows to stream astronomical coordinates to a EATX ARS-USB controller & steer a Yaesu G5500 Azimuth/Elevation rotator, Cosmic Ray Tracking Detector

Anthony Constanza Aug 2023, QCC Physics

1. Open Nova For Windows
2. You will see something pop up, click continue.
3. Look for where it says **Views**
4. Then click **Create New View**
5. Then click **Use The View Creation Wizard**
6. You will be prompted with **View Creation Wizard**

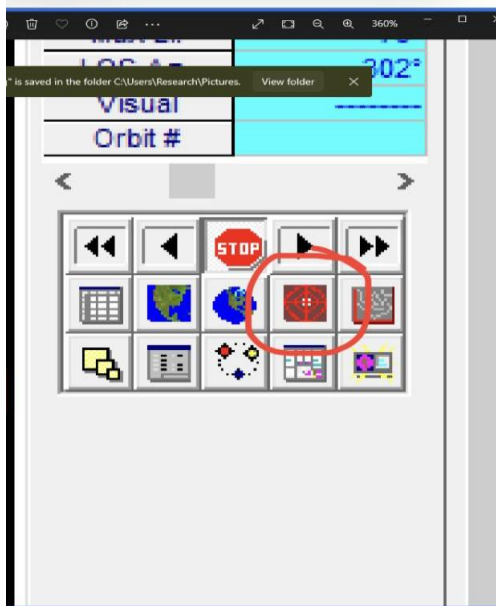


7. Look for **Satellites** tab and click **Artificial Satellite** and click **Celestial objects**
8. Then from the **Database** column click, hold, and drag the Sun, Sag A, and Taurus A to **View's contents**
9. DON'T FORGET TO CLICK **DEFAULT SAT** AND PRESS **DELETE**.
10. Click on **Observers**
11. Click on the N and scroll to find New York, NY.
12. When you find it from the **Database** column click, hold, and drag it to **View's contents**
13. DON'T FORGET TO CLICK **TEMPORARY** AND PRESS **DELETE**.
14. Finally you can press **Create**.

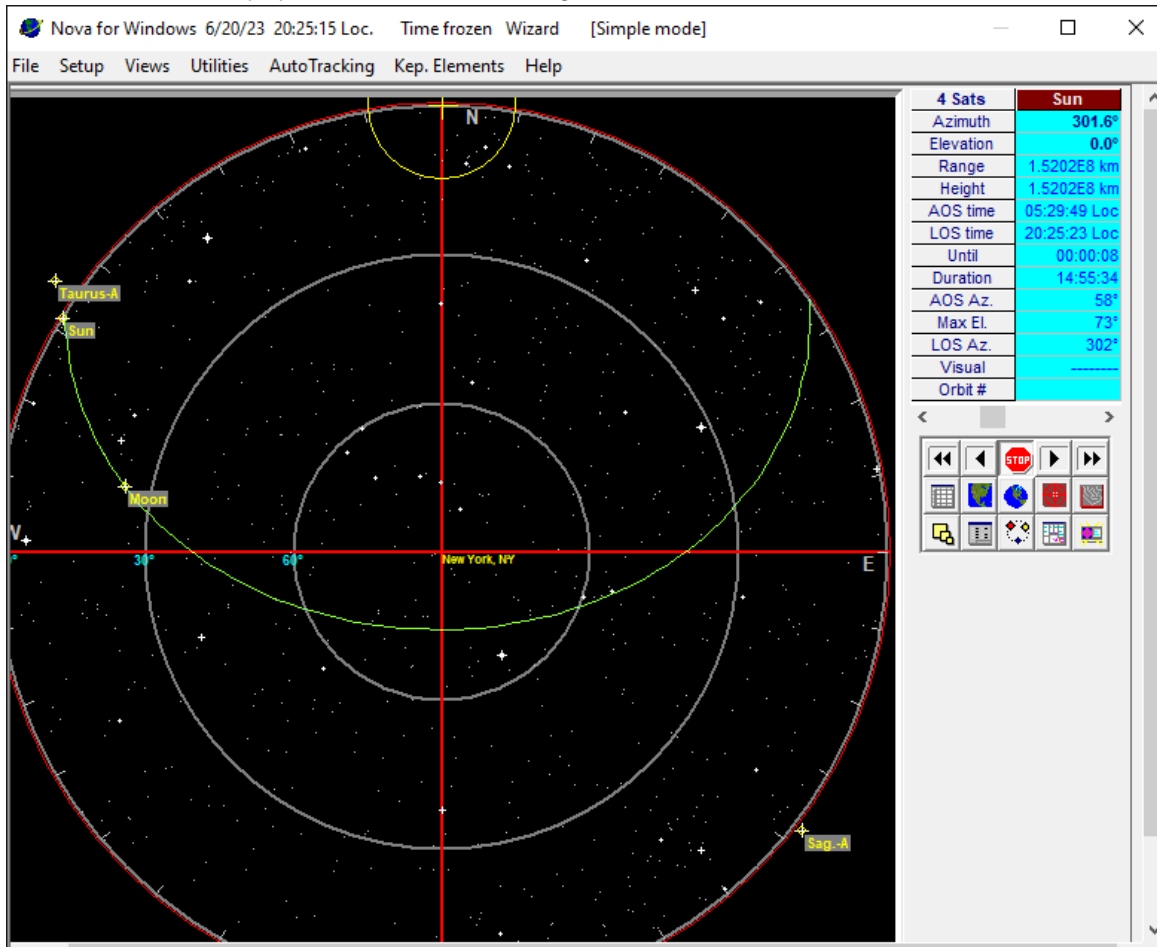
IF DONE CORRECTLY YOU WILL GET THIS.



15. Then click on Radar Map



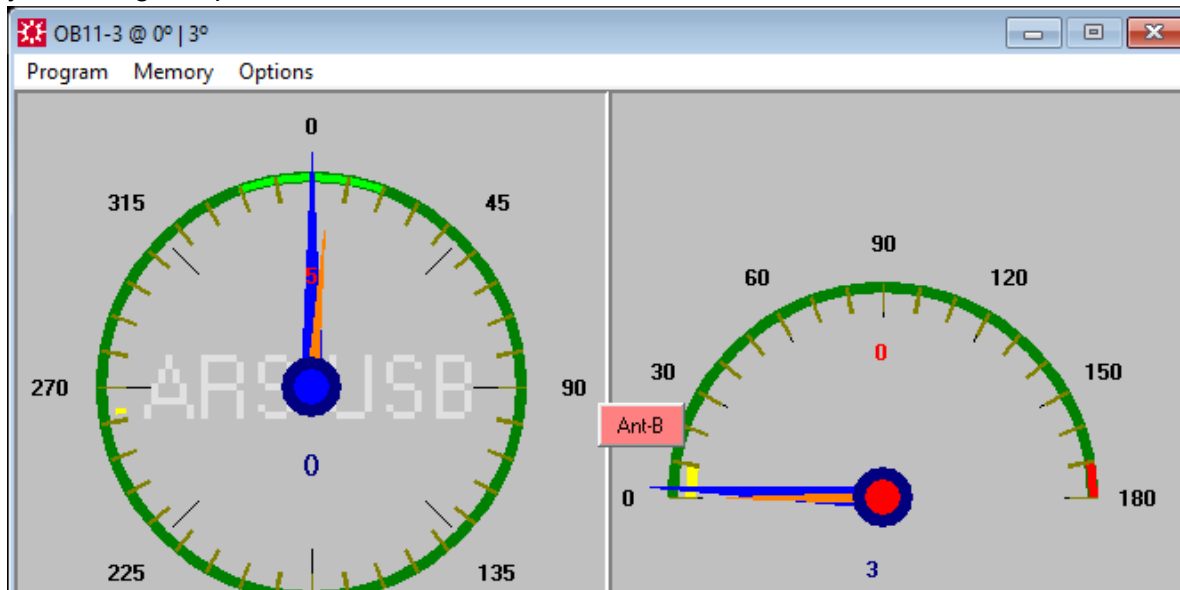
If done successfully, you will see something like this.



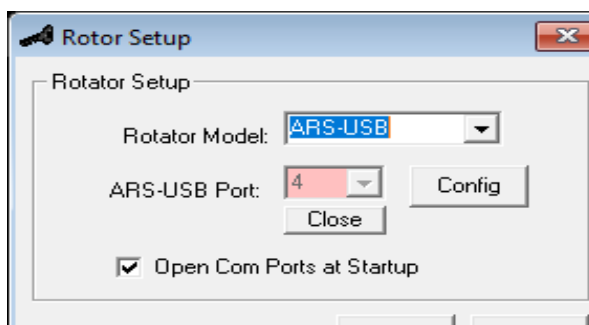
16. Now to get Nova for Windows you want to make sure that the EATX ARS-USB is connected to the computer via Usb.



17. Once the usb cable is connected, find the application **ARSVCOM** and open it. Once open, if you see the elevation and azimuth dial appear then move on to step 18. But if you don't go step 19.

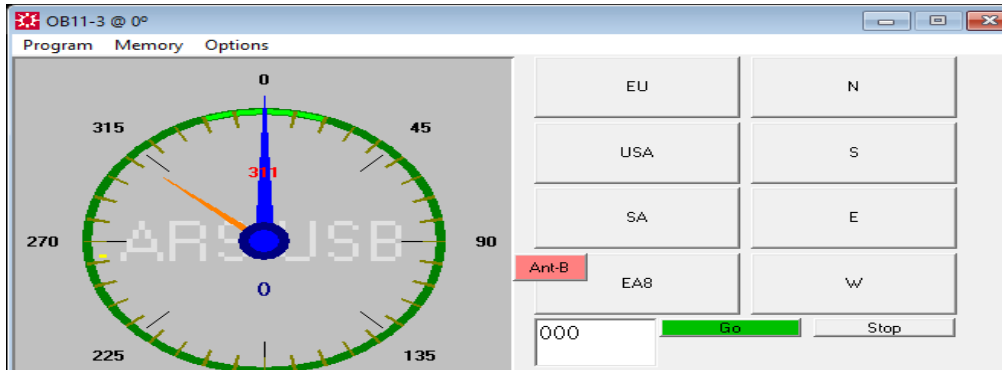


18. Click where it says **Program** then click **Rotator Setup**.



If done correctly you will see this and will need to remember the number that it says in ARS-USB Port. Then move to step 25.

19. If you only see azimuth dial appear then this means the program is not recognizing the COM port assigned to the ARS- USB device.



20. Click where it says **Program** then click **Rotator Setup**.

21. Where it says **ARS-USB Port**, click on where it says **close**. Then it gives you access to many more number options.

22. Click on a different number and click **Open** and if you see both dials, then you're good.

23. If you don't see both dials, then repeat steps 21 to 22 until you get the correct number.

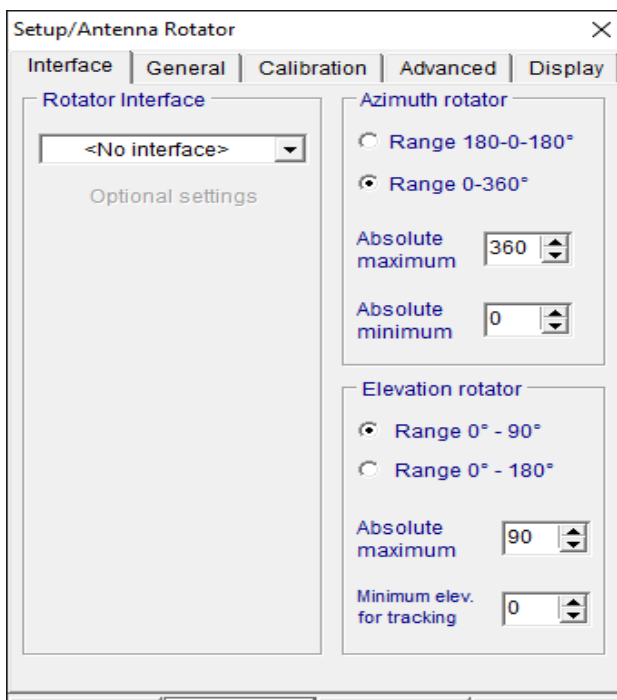
MAKE SURE TO REMEMBER THE NUMBER

24. After you get the right number, click save

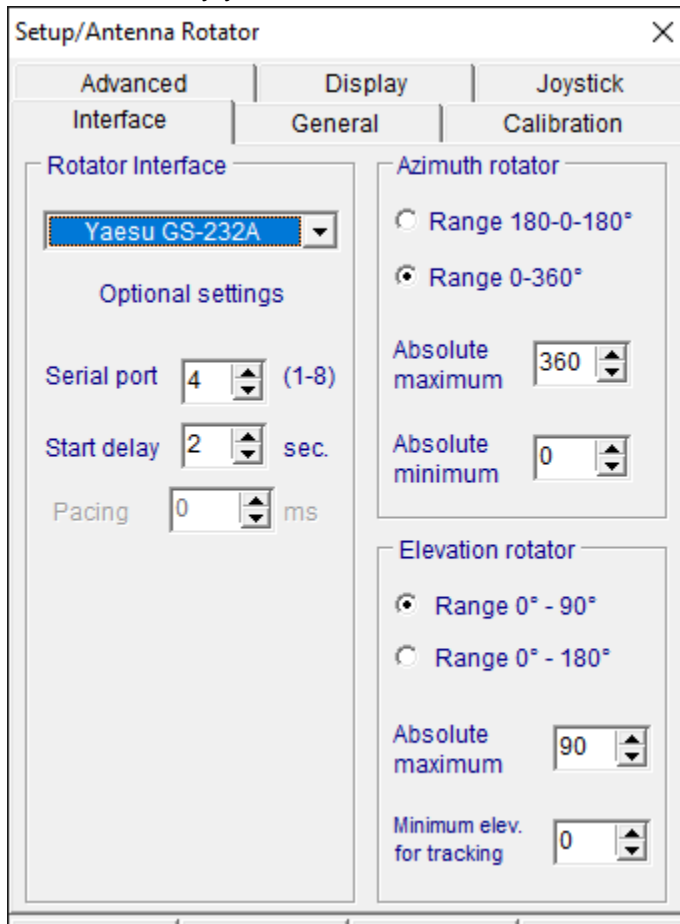
25. Close the **ARSVCOM** program.

26. Go back to Nova for Windows and click where it says **Autotracking**, then click on **Antenna Rotator Setup**

If done correctly you should see something like this.



27. Click below where it says **Rotator Interface** and look for *Yaesu GS-232A* and click on it. If done correctly you should see this.



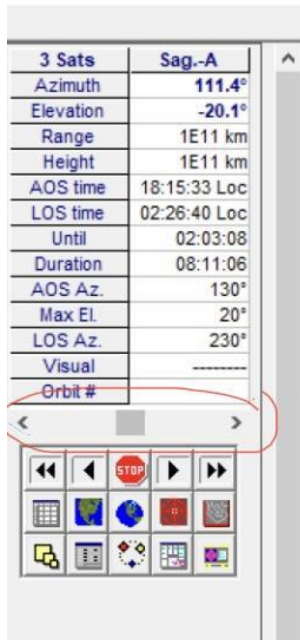
28. Then where it says **Serial port**, make sure it's the same number from the ARS-USB port.

29. Then click **OK**.

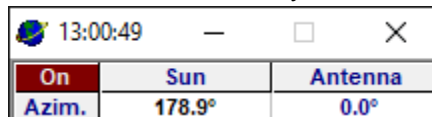
If done correctly you should see this little box pop up.

Off	Sun	Antenna
Azim.	177.5°	0.0°

30. Depending on what you want to track, you should move the slide to choose what you want to start tracking.



31. Then click where it says Off on the little box to turn it On for the tracking.



32. If you want to stop, then click the On on the box to turn Off the tracking.