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

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- 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

Select the satellites that	Database		View's conter	nts
you want by dragging	A-1 (ASTERIX)	^	Default Sat	
their names from the left	AAM/PSLV			
box to the right box.	AAU CUBESAT			
	AAUSAT CUBESA			
Delete satellites as	AAUSAT3			
necessary.	ABRIXAS			
	ABS 1 (LMI 1)			
······	ABS 3 (AGILA 2)			
Artificial satellites 💌	ABS-1A (KOREAS)	Υ.		
Satellites Observers	Display Title			- 1
Satellites Observers	Display Title		👘 Dele	ete

- 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.

ows 7/24/25 18:19:13 UTC Wizard [Simple mode



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**.

🛹 Rotor Setup	×				
Rotator Setup					
Rotator Model: ARS-USB					
ARS-USB Port: 4 Config					
Open Com Ports at Startup					
	_				

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.

Setup/Antenna Rotator 🛛 🗙					
Interface Gene	ral Calibrati	on	Advanced	Display	
Rotator Interface			Azimuth rotator		
<no interfac<="" td=""><td>:e> ▼</td><td colspan="3">C Range 180-0-180°</td></no>	:e> ▼	C Range 180-0-180°			
Optional se	ettings	•	Range 0-360	0°	
		Abs max	olute 36 kimum	0 🜩	
		Abs min	olute 0	•	
		Ele	vation rotato	r	
		œ	Range 0° - 9	90°	
		0	Range 0° - 1	180°	
		Abs max	olute kimum	90 🌲	
		Minii for t	mum elev. racking		

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.

Setup/Antenna Rotator						
Advanced	Disp	olay Joystick				
Interface	Genera	I Calibration				
Rotator Interface		Azimuth rotator				
Yaesu GS-232	-	C Range 180-0-180°				
Optional settin	igs	Range 0-360°				
Serial port 4	(1-8)	Absolute 360 🚖				
Start delay 2	sec.	Absolute 0				
Pacing 0	ms					
		Elevation rotator				
		Range 0° - 90°				
		C Range 0° - 180°				
		Absolute 90 🚖				
		Minimum elev. for tracking				
	4					

- 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.

🥭 12:5	8:45 —		×
Off	Sun	Ant	enna
Azim.	177.5°	().0°

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

^	-A	Sag			ats	3 S
	111.4°			Azimuth		
	-20.1°				tion	Eleva
	11 km	18		- Ű	ge	Rar
	11 km	16			ght	Hei
	33 Loc	8:15:	1		time	AOS
	40 Loc	2:26:4	0		time	LOS
	:03:08	02			til	Ur
	:11:06	08			tion	Dura
	130°				Az.	AOS
	20°				EI.	Max
	230°				Az.	LOS
					ual	Vis
		_			it#	Ort
	>					
	••	•	TOP	5		44
	1		•		Q.	
			•		11	R

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

🥭 13:0	0:49 —		×
On	Sun	Ant	enna
Azim.	178.9°	().0°

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