

Using Orbitron with the VK5DJ Beam Indicator Project

Orbitron is a very good satellite tracking program. Sebastian Stoff (<http://www.stoff.pl/>) has programmed a capacity to export the data from Orbitron to beam controlling systems.

I have modified his interface to support serial data through the RS232.

To use the interface (Remote.exe) do the following:

- First copy **Remote.exe** into the main orbitron directory.
- Set specific name for your driver program, e.g. Remote.exe. Then edit '{Orbitron}\Config\Setup.cfg' file by adding a line to the [Drivers] section with your driver information.

Example:

[Drivers]

Remote=c:\program files\Orbitron\Remote.exe

The name of the driver must be the same as the name of the exe file.

- Next time you run Orbitron, your driver will be listed on 'Rotor/Radio' panel. You can launch it there. If no path specified, Orbitron will ask you about your driver's location (drivers located in {Orbitron} directory will be found automatically).
- In Orbitron click the *rotor/radio tab* and choose the wanted body (satellite/moon/sun) and choose the Remote driver. Activate it by clicking the icon to the right.
- On the beam controller unit choose the External mode of the Int/Ext switch.
- If the driver is running you will now see the AZ and EL readings occasionally changing in the last digit unless the antenna is moving when it will be indicating the movement. The system does require the External/Internal switch on the Shack unit front panel to be in External position.
- Clicking on Orbitron will relegate the interface to the background.
- Shutting down Orbitron also shuts down the interface.

Note: the computations by Orbitron for the location of the moon and the sun are not as accurate as those produced by the PIC in the VK5DJ beam controller system. I suggest you use Orbitron for satellite use and the REMOTE beam controller internal calculations for moon and sun.

For satellite use it may also be necessary to make the hysteresis settings in the beam controller system larger than you would use for tracking moon/sun to reduce wear and tear on the rotators. Depending on your beams a setting of 5 degrees may be more appropriate.

The interface between Orbitron and Remote.exe Beam Controller sends data many times per second, but Orbitron updates less frequently. The interval may be set in Orbitron configuration.

Note that there is an 'Update Time' button on the Remote interface screen. Clicking this updates the clock in the shack unit and is somewhat easier to use than the menu system on the shack unit. It automatically sets the correct UTC time providing you correctly configured Windows with your UTC offset (see timezone in control panel/Date and Time). Set your computer on local time.