

SkyView and WindInterface Installation Tutorial

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These instructions are to install WindInterface, allowing your turbine to report data to the Wind for Schools SkyStream Wind Turbine Database.

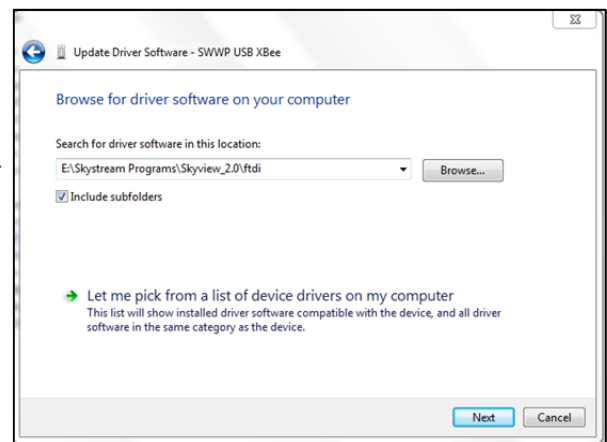
1. Identify a computer which can be designated for the use of collecting and uploading data. It should always be turned on, and must be located within sight of your wind turbine.
2. Install SkyView
 - a. Plug the X-bee wireless communicator into a USB port.
 - b. Open Device Manager (Start→Control Panel→Hardware & Sound→Device Manager).
 - c. Find the SWWP USB XBee device, under 'Ports (COM & LPT). It should have a yellow exclamation point next to it. Right click and choose 'Update Software'.

d. Browse to find the ftdi folder within the SkyView 2.0 folder from your SkyView installation disc or download. Click Next.

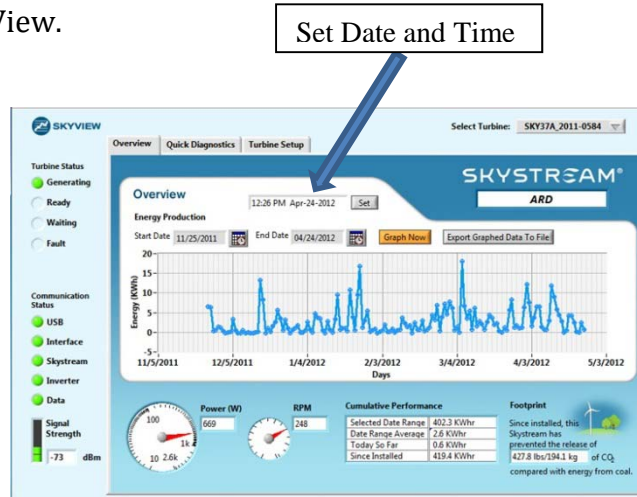
e. In the next window choose 'Install Anyway.'

f. When the update has finished, there should be a yellow exclamation point next to 'USB Serial Port.' Right click and choose 'Update Software.' Follow the remaining steps in parts d and e.

g. From your SkyView installation disc or download, open the file called 'SkyView_setup.' Go through all prompts, and restart your computer when asked.



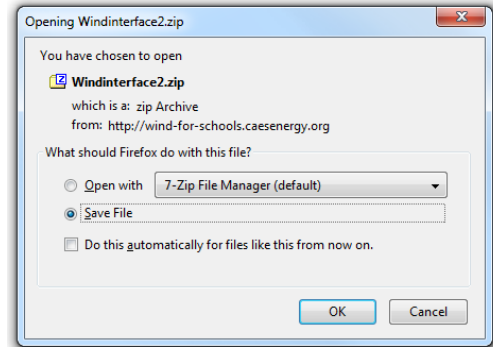
- h. SkyView should now be installed on your computer. Open the program to set the date and time and to ensure it is communicating properly with your wind turbine.
- i. Close SkyView.



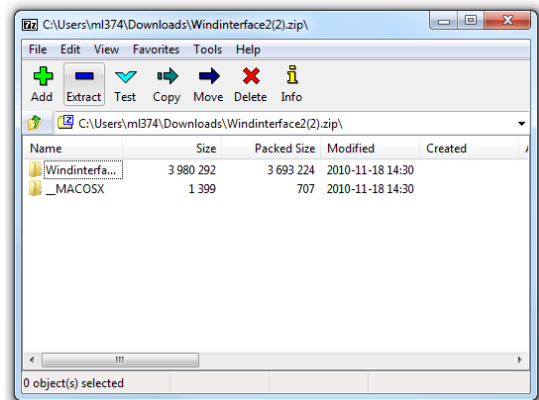
- 3. Contact Mike Kostrzewa at the Colorado Wind Application Center at Michael@engr.colostate.edu with the following information:
 - a. School name
 - b. School address
 - c. SkyStream location (lat, long)
 - d. Contact information for a teacher or school tech at the school
 - e. SkyStream serial number
 - f. Zigbee system ID
 - i. Open Command Prompt.
 - ii. Type 'cd Desktop\Windinterface2\resources'. Press enter.
 - iii. Type 'dir'. Press enter.
 - iv. Type 'skzcmd -z'. Press enter.
 - v. A '%' should appear. After this type 'zls'. Press enter.
 - vi. The serial number of your wind turbine should appear here in the format 'SKY37A_XXXX_XXXX'. Confirm this serial number.
 - vii. Also, your Zigbee System ID should be listed before that in the format XXXXXXXX-XXXXXXX. Take note of the last 8 digits.
 - viii. Type 'end'. Press enter.

4. Install WindInterface

- Go to <http://www.engr.colostate.edu/wind/Skystream.html> When file has finished downloading, choose 'Save File'.
- When file has finished downloading, double click to open the zip file.

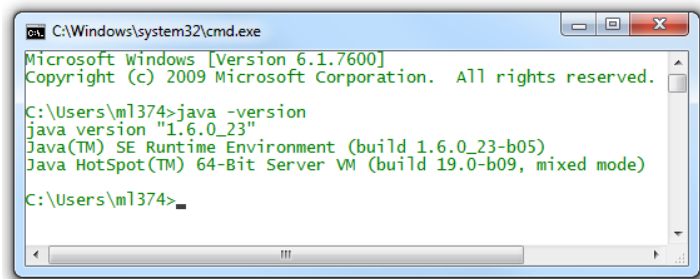


- In the following window click 'Extract' (or go to 'File'→'Extract').
- Select the Desktop as the location for your files to be extracted.

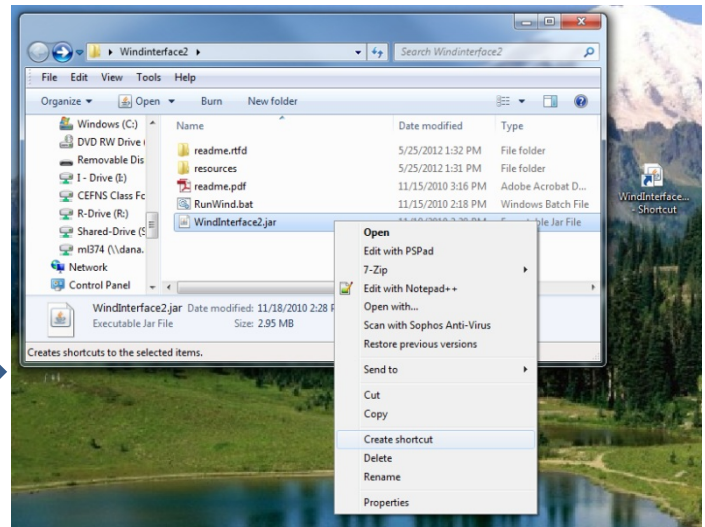


5. Install Java

- Click START.
- Type 'cmd' into the search bar at the bottom of the menu to open Command Prompt.
- Type 'java -version' into Command Prompt. Press enter.
- This will tell you which version of Java is installed on your computer. If you are using version 1.6 or better, skip to step 7.
- If you do not have version 1.6 installed, go to <http://www.java.com/en/> to download the newest version of Java for free.

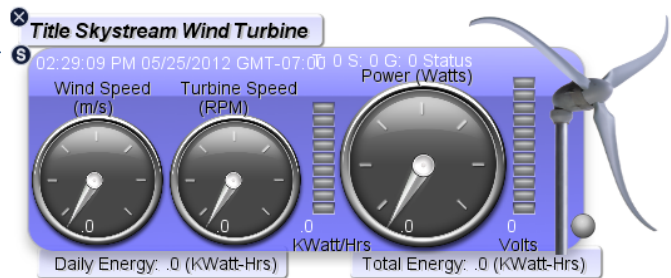
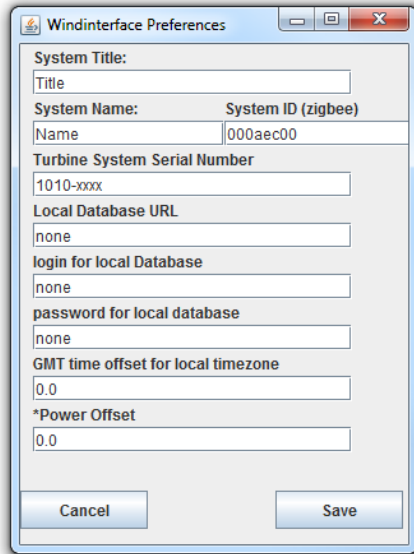


6. Open the WindInterface2 folder which was extracted to your desktop.
7. Right click the WindInterface2.jar file and choose 'Create shortcut'.
8. Drag and drop the WindInterface2.jar shortcut to your desktop. →



9. Set up WindInterface.

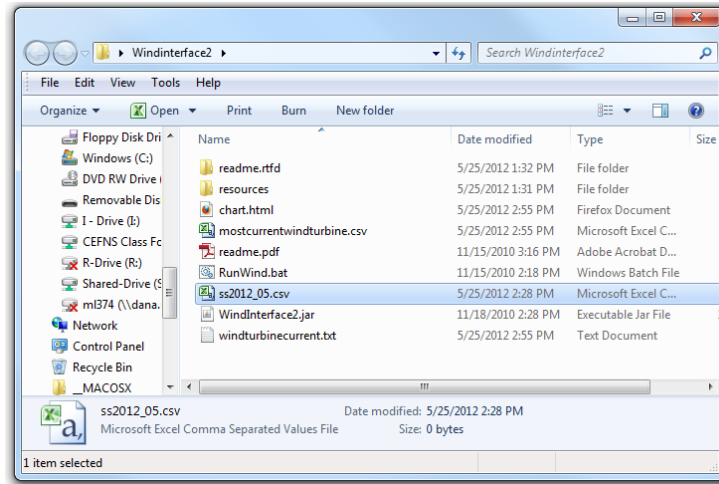
- a. Open WindInterface using the shortcut on your desktop, which was created earlier.
- b. Click the 'S' and choose 'Yes' to open the WindInterface Preferences menu, and fill in all fields.



- i. **System Title:** choose a title for your turbine
 - ii. **System Name:** enter the passcode provided by Mark McKay
 - iii. **System ID (zigbee):** enter the 8 digit Zigbee System ID found in step 3f
 - iv. **Turbine System Serial Number:** enter the last 8 digits of your turbine's serial number in the format XXXX-XXXX, found in step 3f
 - v. **Local Database URL:** leave as none
 - vi. **Login for local Database:** leave as none
 - vii. **Password for local database:** leave as none
 - viii. **GMT time offset for local timezone:** enter 7 for Arizona
 - ix. **Power Offset:** leave as 0.0
- c. Click 'Save'.
 - d. Click the X in the upper left corner to close the program. Then re-open and verify settings have been saved (title, date, and time).

10. At this point your turbine should be communicating. If working properly, the circle in the lower right corner of WindInterface should be green, and there should be a non-zero number after "Total Energy".

11. When WindInterface is running and the status light is green, you are successfully archiving data and uploading it to Idaho National Lab's online database. These archives can be found as .csv files in the WindInterface2 folder which was extracted to your desktop.



12. Add WindInterface to the startup menu
- Right click the WindInterface shortcut on your desktop and choose 'create shortcut'.
 - Click START. Click ALL PROGRAMS. Click STARTUP.
 - Drag and drop the second shortcut to the startup folder.
 - Open WindInterface using this shortcut to ensure it works properly.
13. Change your computer's power settings so
14. Go to <http://wind-for-schools.caesenergy.org/wind-for-schools/Welcome.html> to see the data being reported from your wind turbine.