



October 2016

## ASK THE EXPERTS: Windrock MD Data Export to Ariel Performance Software

QUESTION: I have the Ariel Performance program and the run file for my compressor. Is it possible to perform a comparison of the pressure data I gathered with my Windrock portable analyzer and the pressure profile data predicted by the Ariel Performance software?

Yes, the Windrock pressure profile data can easily be imported into the Ariel Performance software for comparison. You can also export data from Windrock online systems.

In the Windrock MD software, go to **Reports** and select the compressor report date and run number that you want to export. Then click the **Comp Data Dump** button.

A **compdump.txt** file will be created which can be saved to a selected folder.

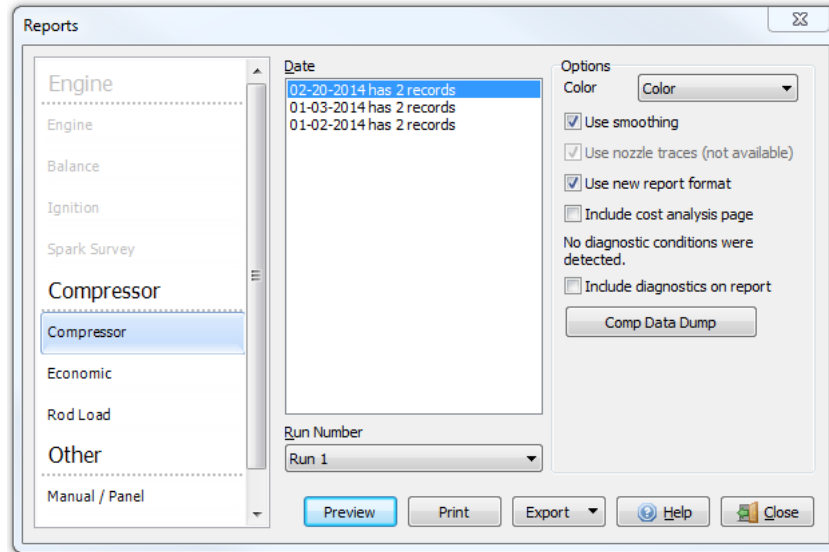


Figure 1



In the Ariel Performance program, open the appropriate run file.  
From the **View** dropdown box, select **Dynamics Viewer**.

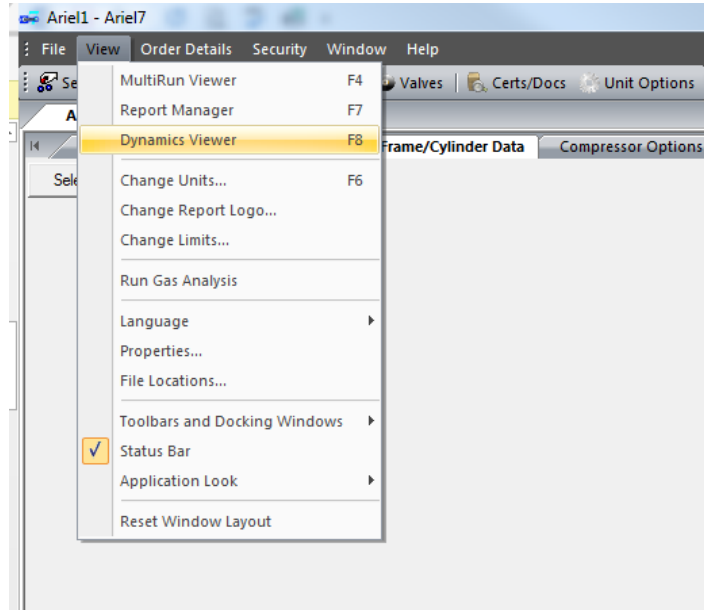


Figure 2

With the **Dynamics Import Wizard** opened, select the **Windrock** analyzer type.  
Then select **Next**.

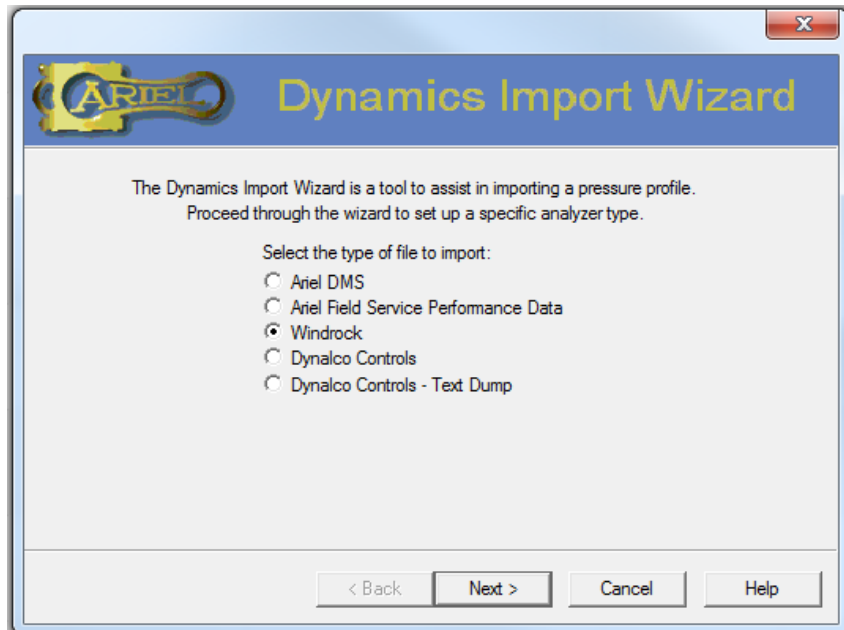


Figure 3



Click on **Add File(s)**. Locate the **.txt** Windrock data file then select **Next**.

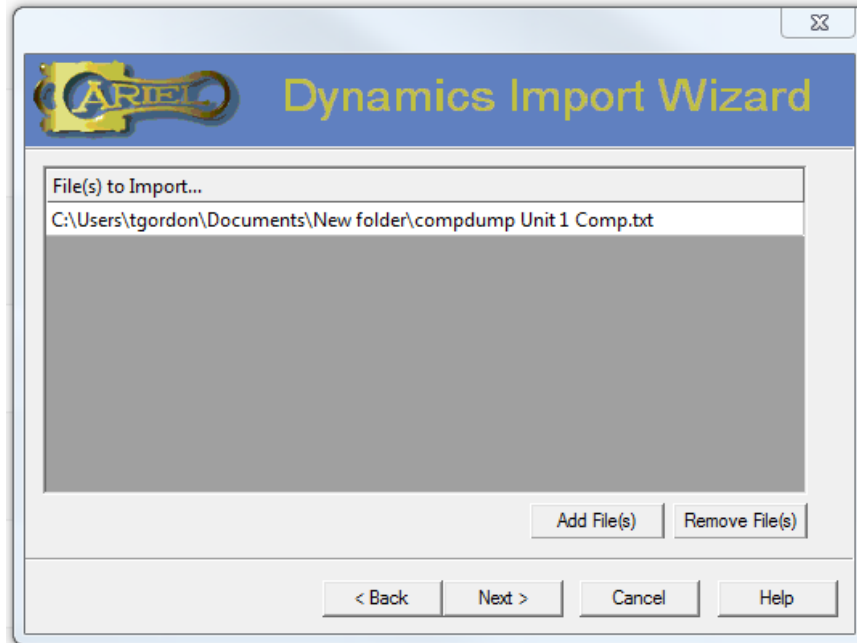


Figure 4

The **Dynamics Import Summary** should have data type and file location listed in the window. Select **Finish**.

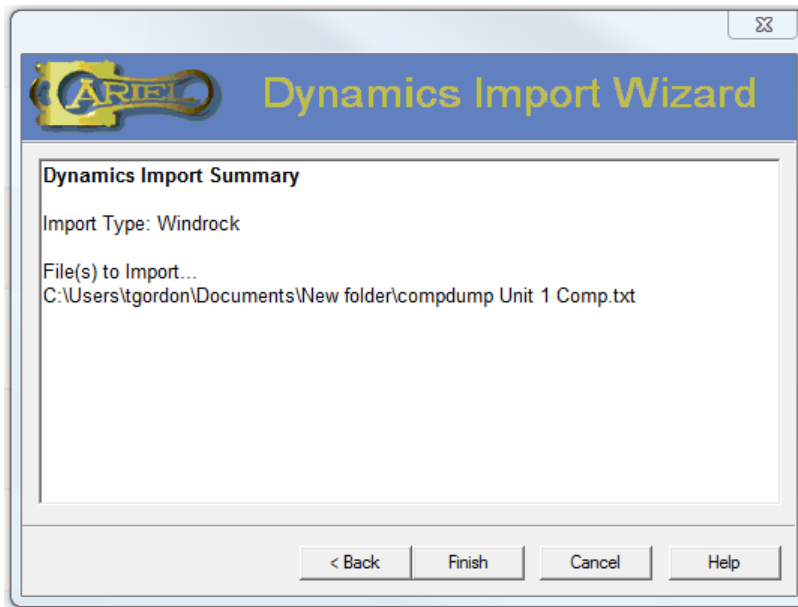


Figure 5



A **Pressure Profile Configuration** screen will come up. Make any selections or adjustments as needed then click the **Import** button.

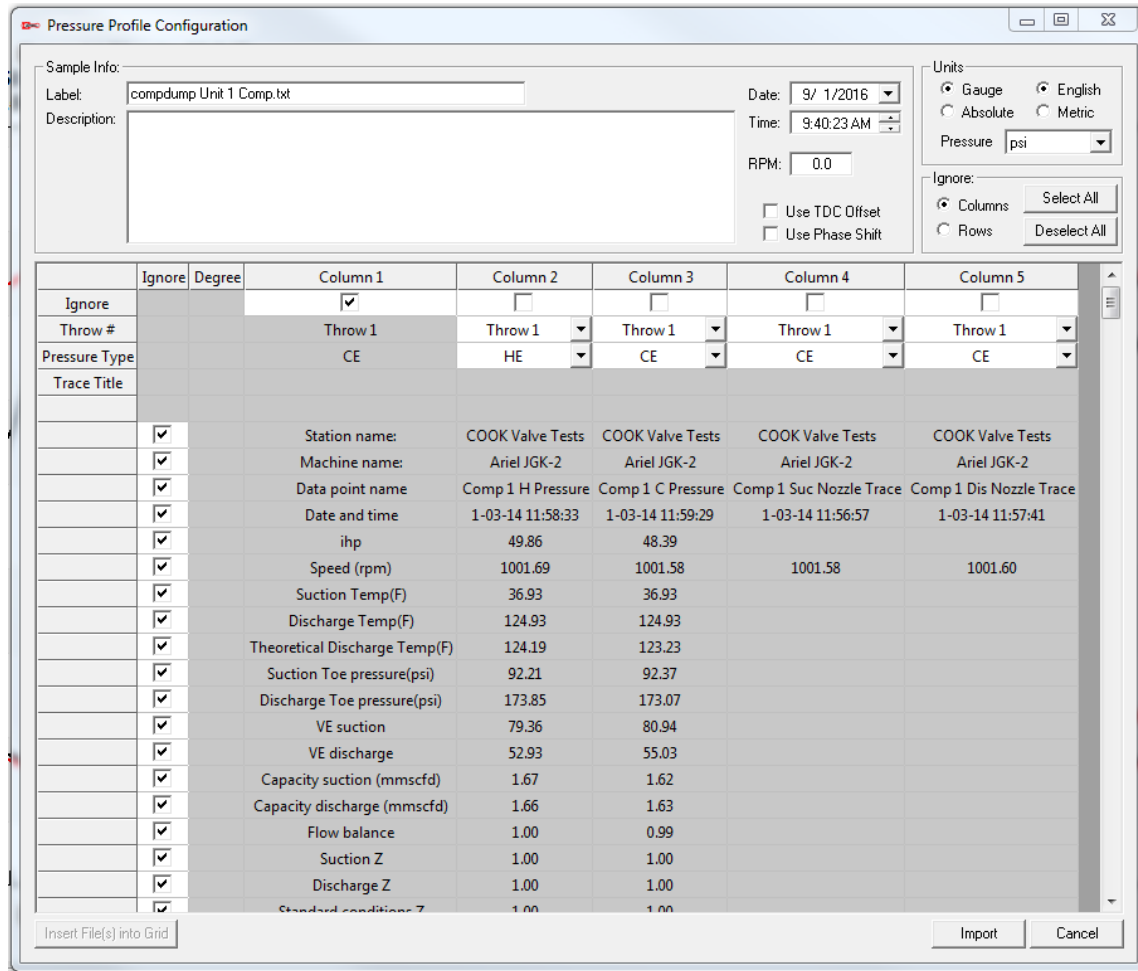


Figure 6

The Windrock pressure profile data will now be displayed along with the performance software predicted pressure profiles. Display controls can be used to adjust the graphed data. **TDC Roll** can be used to match predicted and measured data more closely. Clearances and toe pressures can be adjusted for each stage by right clicking and selecting **Enter Operating Parameters**. In Figure 7, a suction discharge leak can be seen with the Windrock MD software.

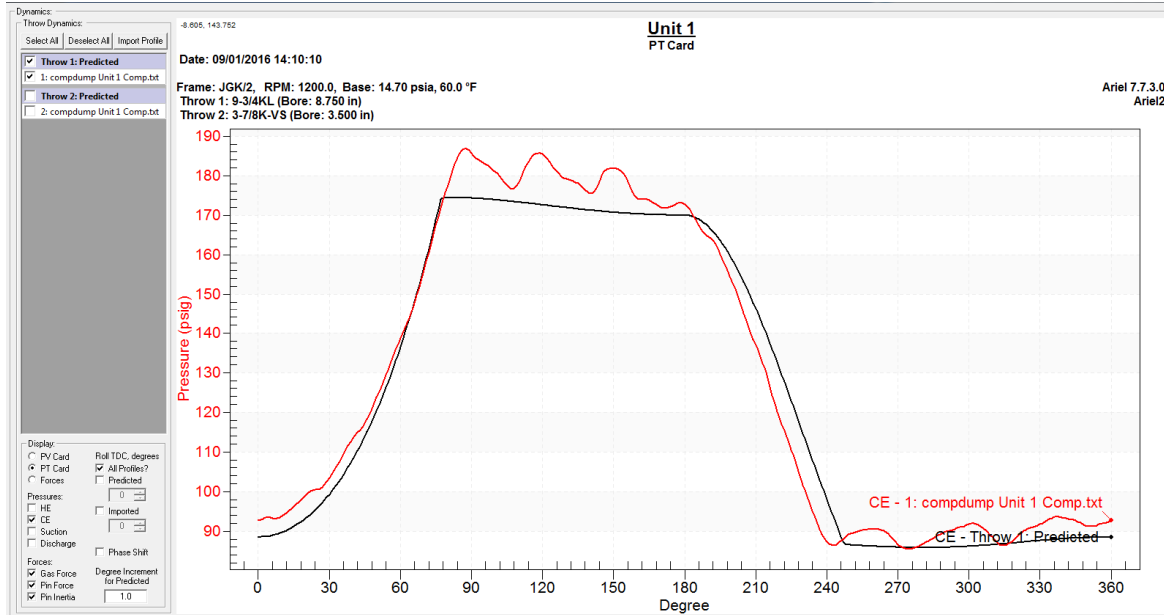


Figure 7

In Ariel Performance software, models can be predicted for different operating parameters, such as different suction pressures, discharge pressures, target gas flow, piping sizes, etc. Many use this software to view the predicted pressure profile. However, Ariel Performance does not have the capability to show the actual pressure profile of your compressor without importing data from performance monitoring systems. This is why an analyst will find instant benefit to importing the actual pressure traces from Windrock MD software against the predicted pressure traces of Ariel Performance. It helps the analyst know the performance of his machinery using metrics from both Windrock and Ariel.

Also, keep in mind that Windrock MD software has the capability to show theoretical models as well. Theoretical models are only useful with known TDC. The main difference between Windrock and Ariel theoretical models is that Ariel's incorporates some of the valve loss into the model whereas Windrock does not. This helps a company to understand their own processes.

If you have additional questions about software or would like more information about other topics, please email [sales@windrock.com](mailto:sales@windrock.com).