

2.6 Service Pack-1 January 2009

New Build number: 252

Previous released build numbers: 235 (official version)

Beta service pack-1: 248 (mailed link December 08)

Updated Beta service pack: 250 (on the download page start Jan.09).

From Beta build 248 to 252, some minor fixes have been addressed; one is related to German Gauss Krueger system (see attachment in German); there is also one very important initialization missing when starting new PARK calculations that makes the PARK calculation working with a "random" UTM zone. Therefore the update from build 248 to 252 is **VERY IMPORTANT**.

Major improvements in Service Pack-1

A new Meteo object Report function is included (within the METEO object itself)

The CFD interface module is included (generalized version of previous WindSim interface)

UMBRA module (German) updated to work with 2.6

Polish report language improved (requires license)

Romanian report language included (requires license)

NOTE:

NCAR data download system from the previous WindPRO v. 2.5 will be shut down from March 2009.

Other improvements/fixes

In Meteo object:

The "hint" function showing the values in the graphs is back in an improved version. Click on the graph and a yellow box will show the data values for all series displayed. Note: There might be some delay the first time you try this, especially when running Microsoft Vista.

Calculation of availability (data recovery) has been changed to show the number of enabled data/possible data sets between the first and last time stamps (as was the case in WindPRO v2.5).

Calculation of shear based on Weibull data is now possible

Availability table can also show number of enabled data pairs per day and can be expanded to show "total availability" for pairs of wind speed and direction signals.

Power density is now included in "Weibull statistics"

The feature to insert "start – end" intervals to enable/disable data with mouse drags

has now stabilized fine adjustment ability in both the meteo object and the meteo analyzer. Note: if you want to finely adjust the “end interval” with a mouse drag, close the “disable form”, drag and then right click for re-enabling the disable form with selection of “Advanced disable”.

Some more general improvements have also been included, making the object more stable and flexible.

In Meteo analyzer:

New checkbox: [x] use concurrent data only (all your aggregated tables and graphs can be compared looking only at data with same time stamps).

Other:

Calculation of air density in METEO calculation fixed, so the elevation is included (not only the hub height).

PARK calculation based on 16 sectors (22.5°) (or other sector widths ending with 0.5°) did not calculate the sector-wise array losses correctly, but the totals were still correct in the problem project we tested – this might not be so in all projects! This is now fixed so the calculation resolution always will be increased to be a multiple of the sector width.

PARK calculation had a bug when wind farms crossing a UTM zone divider were being used. What happened was as follows: when a wind farm was located with some turbines east of an UTM zone divider (each 6 degree longitude), and some on the western side, the two parts were “taken apart” before the wake loss calculation, due to the routine that converts geographical coordinates to rectangular coordinates – resulting in too low a calculated wake loss. Please check/recalculate projects that cross longitude 0° – 6° – 12° -18° etc.

Establishing a 3D object when running Windows Vista created an error, this is now fixed.

Mismatches in the project coordinate system and wind resource (.RSF file) coordinate system created an error, this is now fixed.

Photomontage: Meteo objects are now shown as a single line (“like in v2.5”), this makes the camera calibration much faster when using measurement masts as control points in the photo calibration.

ZVI calculation – improved calculation speed.

eGRID – error in loss calculation when cut off wind speed present in power curve.

When using “purpose” settings in meteo object, MCP module might load wrong data in previous versions.

Some recommendations regarding hardware

If you are working with large data amounts, especially in the METEO object or

attempting to perform calculations on large projects with many turbines (>100) and/or using large height contour files or background maps, the software will need more RAM than previously was the case. We therefore recommend at least 2GB RAM for such extensive projects, this should solve many of the reported stability problems. If you have upgraded to Windows Vista, please be aware that the operating system itself uses a lot more RAM than was the case for Windows XP, so for a Vista PC, 2GB should be the absolute minimum for all sizes of project. You should also not consider running Vista on computers without dual core or better processor types.

Identified software conflicts slowing down parts of WindPRO

This is not a specific problem with WindPRO, but we have seen the Nuance PDF converter slows down operations like the opening of site data objects or shadow receptors. Visit <http://knowledgebase.scansoft.com/view.asp?60VQ=KFEJ&5d7r4B=> to fix the problem if you use the PDF software from Nuance.