



SIMULWIND: maintenance **SIMUL**ator for the sustainability of European **WIND** farms

Project nº 2017-1-DE02-KA202-004261

IO3: WIND SIMULATOR “Creation of the platform and procedures to update the simulator”



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A4/A5. PLATFORM TO INTRODUCE NEW MAINTENANCE PROCEDURES.

One of the goals of the creation of the SIMULWIND simulator was to give the opportunity to other users to integrate new wind turbines and maintenance procedures in the version developed by the project partners. As stated in the different reports, the standard WTG 3D model created in the project belongs to the technology most extensively used in the market: Gear Drive and Double Fed Induction Generator, so many of the new exercises and practices can be implemented in the prototype uploaded in the Platform.

The experiences carried out in the Pilot tests showed a great interest for using and updating the simulator for specific results. Nevertheless, it is fully recommended to spend some initial time to familiarize with the simulator structures, its capacities and the methods to introduce new exercises as presented in the tutorials. Similarly, to other digital platforms, it is important to learn how to use the simulator before starting its upgrading.

To introduce a new maintenance procedure, it is necessary to define the involved objects, the actions to be carried out and messages that pop up when those tasks are fulfilled. In parallel, videos, texts and pictures can also be integrated in the software to complete the simulation experience. Once again, it is suggested to start with some simple exercises and make them more complex once the simulator is being used.

The **Simulator** und the **3D model** can be downloaded in the following web site:

www.simulwind.com

The **minimum hardware** requirements are the following ones:

- Procesor **Intel Core i9-9900k**
- Base board Gigabyte Z390 Aorus Pro WiFi
- RAM memory Corsair Vengeance LPX **16Gb 3000MHz** (4x8GB)
- CPU heatsink Corsair H100i Pro RGB
- **Graffic card Nvidia RTX 2070**
- HDD Seagate Barracuda 2TB
- SSD Samsung 860 EVO **250GB**
- Source Antec HCG Gold **650W**
- **Goggles HTC Vive Pro Full Kit**

(in red: preferences/in bold: compulsory)

The **New Maintenance procedures** have to use a similar structure of the example included in the following directory:

“SimulWind_1.38\Simulwind_Data\StreamingAssets\practica1”

(In that folder you can find the .XML file which defines the whole practice and also all the images and videos which will be shown during the practice)

Once they have been finished, have to be downloaded in this directory.

“SimulWind_1.38\Simulwind_Data\StreamingAssets”

So the new practice “x” would be in the folder:

“SimulWind_1.38\Simulwind_Data\StreamingAssets\practicax”

The .XML file and the media should all be in that folder, that makes it very easy to download and move.

The **Community of users mentioned** in A5 task of the IO3, must use the SIMULATOR and introduce the information following the above mentioned explanations. The user community is built by downloading the simulator. Anyone who downloads the simulator must provide their e-mail address. In this way, all users of the simulator can be informed about new products regarding the simulator.