1 windPRO introduction

Overview of the windPRO modules

1.0   windPRO introduction, license conditions, service

1.0.1   Introduction

windPRO is a Windows 10 based software suite for the design, development and assessment of wind energy projects. windPRO consists of a number of modules, each of which has a particular purpose. The users are free to combine the modules according to their needs and budget subject to certain restrictions. windPRO is based on more than 25 years of experience in the development of user-friendly software tools for wind energy calculations. The experience gained from this, and from the windPRO team participating in the development of thousands of projects, is applied in the expert system windPRO. The software suite is offered to everyone dealing with project development, planning, sale and approval of wind energy projects.

The windPRO Philosophy: Object Orientated Design/strong graphic interface/Online data
The windPRO philosophy is one of Object Oriented Design. A wind energy project consists of a number of objects among which the turbines (WTGs) are a key element. The program distinguishes between existing and new WTGs and this makes it possible to calculate, for instance, the energy yield or environmental impact from the new WTGs with or without the influence from the existing WTGs.

An object is established on background maps. Any map can be used with the built-in geo referencing tool or easily downloaded from EMD's Online-Server service and used with only a few mouse clicks (subject to service status). Similarly, digital elevation models can be established manually with the powerful digitizing tools or simply downloaded from EMD's Online-Server service.

Importing, screening and analyzing measured wind data as well as applying long-term corrections are based on the most comprehensive tools, guiding the user through this very important and complicated task.

Databases/Online data
The most comprehensive wind turbine database available is probably the one used in windPRO as it has been updated with all market-relevant turbines since the mid-1980s. The database holds all publicly-available and relevant technical specifications for the most important calculations such as energy yield, noise and visualization. With Online data you get access to background maps, wind data, turbine data, elevation data and roughness data and much more.

Google Earth™ export and synchronized Google Earth viewer
Having created a wind energy project, a wind resource map or a photomontage in windPRO, a visual presentation in Google Earth is just one mouse click away. From Google Earth it's easy to e-mail the presentation file to share your project ideas with your business partners or a wider audience. With the synchronized Google Earth viewer, you can see your object positions on Google Earth and thereby use Google Earth as your background map. With the rapid improvement of the quality of the Google maps this makes project development even easier.

Languages, versions and report modules
windPRO in its full language version is available in English, French, Spanish, German, Chinese, Danish and Swedish. Several additional print languages are available. Please see a list of available languages on www.emd.dk. The manual can partly be found in various languages. See help.emd.dk

Calculation modules and reports
windPRO generates reports designed to communicate the results clearly and directly to investors, operators or approving authorities as well as background reports with detailed analyses for evaluation purposes.

1.0.2   **License Conditions**

The independent Energi- og Miljødata (EMD) Foundation holds all Intellectual Property Rights to the windPRO software, which is continuously developed by EMD International A/S and distributed worldwide through a network of appointed agents. The manual and other documentation from the windPRO software are copyrighted and all rights reserved.

The license conditions can be found on the EMD website: www.emd.dk

1.0.3   **Service and Updates**

A valid service agreement with EMD means that the user gets access to the following services:

a) Free e-mail or telephone hotline service covering advice and guidance regarding the use of the software.

b) The latest version of the software and free update of the EMD-maintained databases.

Having the latest version also secures access to online data from other data providers. EMD does not remove access to online data from older versions, but we do not maintain the interface, and there is thereby no security for how long time the old version will work with online data after a new version is released.

The user pays an annual service fee of 20% of the current list price for modules covered by his License Agreement.

It is possible to download improvements and updates from our website www.emd.dk when available.

For users without a service agreement, or who have cancelled a previous agreement, any future software update charge will be calculated based from the date service expired on the license. Please contact us for further information.

Based on our long experience within wind energy project calculations, windPRO is designed as an expert system, both a valuable tool in your daily work, but also a tool, which continuously trains you to develop better projects.

1.1   **Installation of windPRO**

Download and install the latest windPRO edition from the EMD homepage, www.emd.dk or
www.windpro.com.

To install windPRO double-click on the file windPRO-4.0.xxx.msi

Follow all instructions on the screen. The default installation path is:
C:\Program files\EMD\windPRO4.0\

A windPRO data folder is also created, with a default path:
C:\Users\<username>\Documents\windPRO Data

If you wish other users to have read and write access, put the data folder in the Windows documents folder
shared by all users. The location is typically:
C:\Users\Public\Documents\

Placing the windPRO data folder on a network drive might affect the performance of windPRO. For the best
performance place the windPRO data folder on a local hard drive.

Using windPRO requires online activation of your license file. If you do not activate your license file,
windPRO will start in demo mode, where you cannot calculate or print or save a project. Upon purchase of
windPRO modules, EMD International A/S will provide you with a serial number or license file for opening
the licensed modules.

- Licensed modules are shown with a green bar underneath the module icon:

- Non-licensed modules are shown with a yellow bar:

- Time-limited licenses are shown with a yellow and green bar:

1.1.1   **Using windPRO with SharePoint, Azure, or other server solutions**

Project files, wind statistics, time series and other related files are stored in the local file system. windPRO
as an application does not currently know anything about SharePoint or other Cloud services.

It is however possible to store projects and files on a file server. windPRO is able to read and write files on
a file server mapped as a network drive. This allows for easy sharing of projects and data with colleagues,
but windPRO as an application still handles the data through standard file operations.

1.2   **License activation**

A serial number or an attached license file will be sent as an e-mail. Please contact EMD, if you change
your e-mail address or do not receive the license information. The serial number or license file will be sent
to the primary contact that EMD has on record for each company holding a current license. If you are in any
doubt as to the primary contact details, please contact EMD for information.

1.2.1   **New windPRO users**

When starting windPRO for the first time, you will first have to select your program language. Then windPRO will automatically ask for a serial number or license file:

The serial number can be copied from the license e-mail and pasted into the window above. If instead you have received a license file, it should be saved on your computer from your e-mail program and selected using the Browse button from the screen above.

After reading the license file, the *End user license agreement* must be accepted

Each user is identified by an e-mail address and each user is allowed two installations, for example on an office and one on a home computer or similar. In order to activate, the user must go through the activation procedure.

Press Next to continue the activation process.
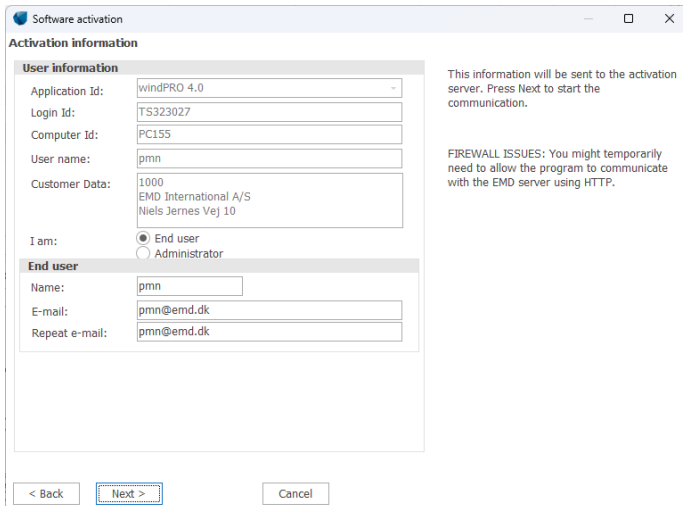
On this screen the data to be sent to the activation server is displayed. The faded texts are read by the software (computer ID, user name etc.).

If you are end-user you fill in your name and e-mail address. A license holder is allowed to use as many e-mail addresses as you have licenses and each e-mail address can be used to activate a license twice.

If you are the administrator you can additionally add your own e-mail address. That will make the activation code come to you instead of the end-user, but the administrator address does not count to the allowed number of licenses.

The "Skip online activation…" option is available for users, who cannot use the normal online activation. Check this to activate by e-mail or phone.
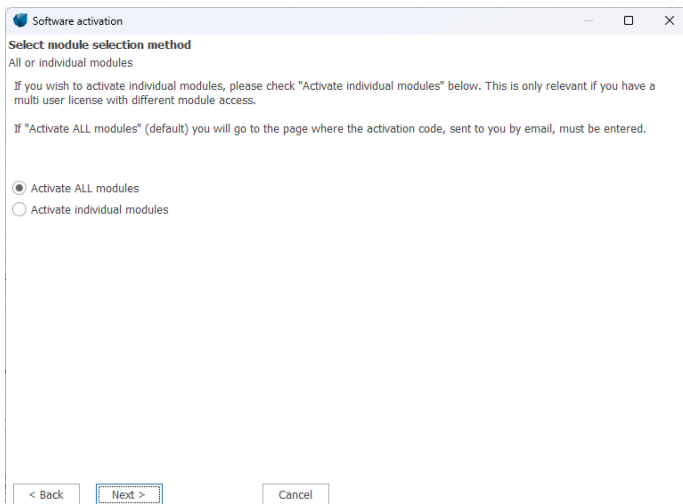
It is possible to buy a different number of licenses for each module. A user who is only going to make visualizations may not need the energy modules, while his or her colleagues may need energy modules but not visualization modules.

If all modules bought by the user should be activated select "Activate ALL modules".

If instead only a selection of modules should be activated then select "Activate individual modules".
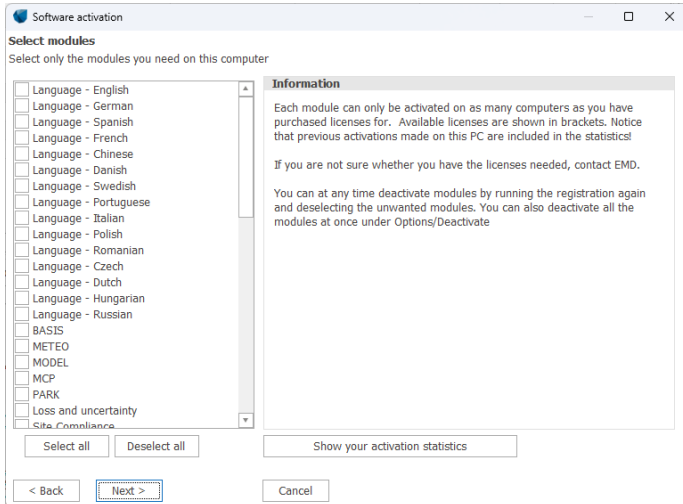
If "individual modules" was selected then you must select the ones to activate. Note that you always need to activate at least one BASIS module and one Language module in order to run windPRO in non-demo mode.

The list will show you all available modules. If the module you wish to activate is not in the list then you do not have a valid license for it and you may contact EMD. By showing the activation statistics you can see who are currently using the licenses in the company.
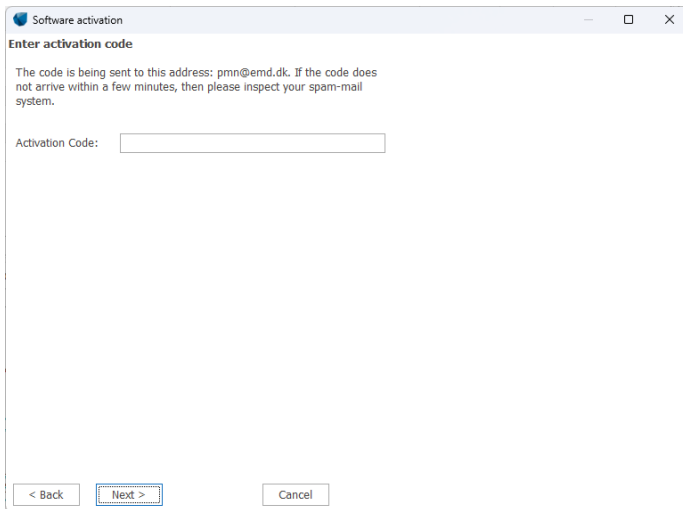
Next step is to enter the activation code. At this stage you will have received an activation code in your e-mail inbox. The code was sent to the e-mail address you typed in previously.
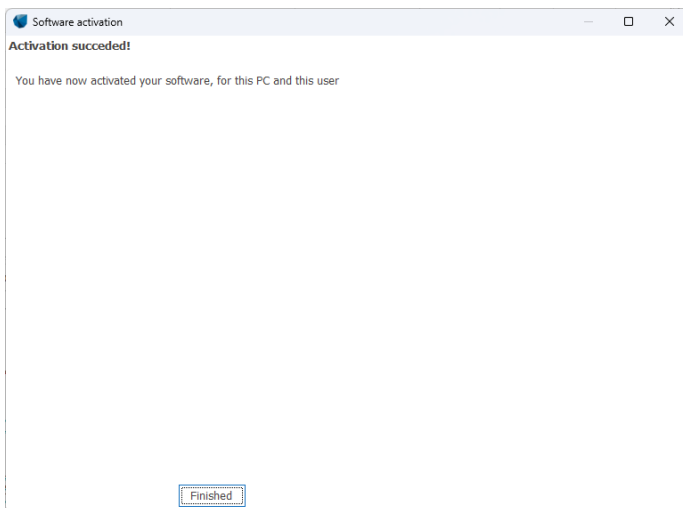
Your license has now been successfully activated.
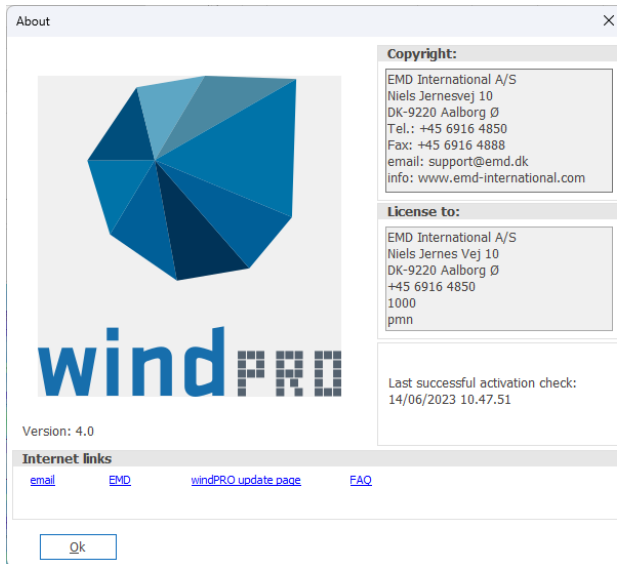
The activation process is concluded by showing you the About window for windPRO on this computer. Here you can see the license information for your organization. This is the information included on all printouts made with windPRO. This is read from your license file and cannot be changed. You can also see your current version of windPRO. If you suspect your version is not up-to-date you can visit the windPRO update page and check if newer versions are available.

1.2.2 Existing windPRO users/manual license activation

If an additional module is purchased, or the license holder info is updated or for some other reasons, manual activation is required, it is possible to reactivate.

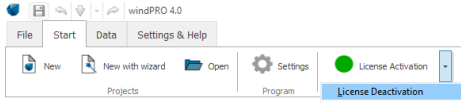Just open windPRO and click "License Activation":
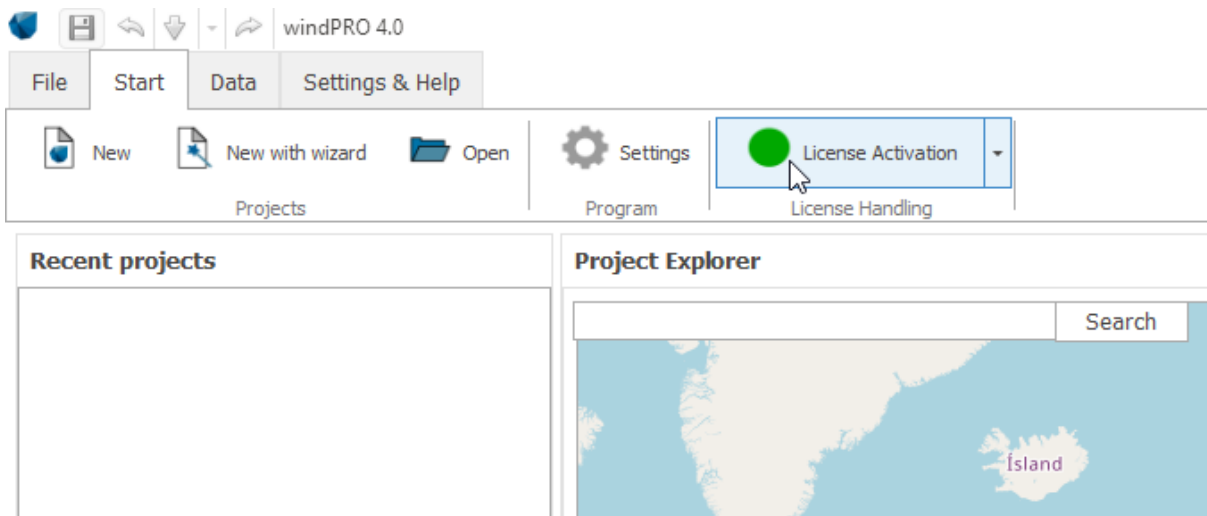
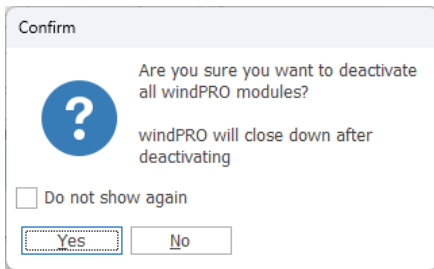Follow the procedure as described previously.

1.2.3 License deactivation

If you need to transfer your license to another computer or another user you will initially need to deactivate your license.

Select "License deactivation" from the Start section.

Confirm that you want to deactivate and windPRO will shut down. The licenses are now released to be used on another computer or by another user.

Note, that if you activated windPRO on two computers using your e-mail address you need to deactivate both before the license is released for another user.

1.2.4 Online activation validation

Please notice that windPRO will perform an online activation validation when starting up. This means that if you are starting windPRO without an internet connection, you will see the following dialog.
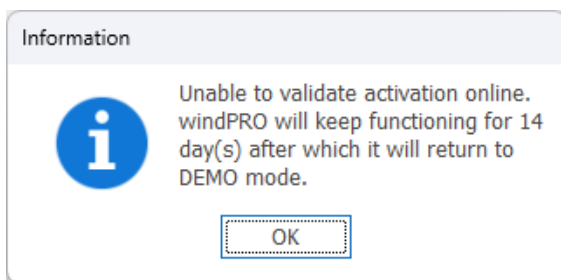
You will be able to continue the session and work with windPRO without any limitations. Within 14 days you need to start windPRO with an active internet connection in order to validate your activation. Otherwise windPRO will return to DEMO mode.

1.2.5   **Contacts**

EMD International A/S	EMD Deutschland GbR	EMD France
Niels Jernes Vej 10 9220 Aalborg Ø Denmark	Breitscheidstraße 6 34119 Kassel Germany	55, rue Saint-Cléophas 34070 Montpelier France
Tel: +45 6916 4850 emd@emd.dk	Tel:+49 (0)561 310 59-60 emd-de@emd.dk	Tel: +33 (0)1 44 64 13 81 france@emd.dk
EMD Spain	EMD UK	EMD North America
Normawind Parc Tecnològic BCN Nord, Carrer Marie Curie, 8 08042 Barcelona Spain	The Wind Consultancy Service 17 Ford Lane Morton, Bourne PE10 0RQ. England	Westwood Professional Services 10170 Church Ranch Way Suite 201 Westminster, CO 80021 USA
Tel:+34 93 241 12 75 info@normawind.com	Tel:+44 7989 018513 ph@emd.dk	Tel.: +1-833-610-1267 emd_sales@westwoodps.com
EMD South America EAPC Sur, S,.R.L. Fitz roy 1466 D C1414CHT Ciudad Autónoma de Buenos Aires Argentina	EMD Brasil Rua Vera Linhares de Andrade, 2845 CEP 88034-700, Itacorubi, Florianópolis/SC Brasil	EMD Middle East T-EMD Ltd. Sti. Yakut Sokak, Huzur Apt. No:39/6 Bakırköy 34140 İstanbul Turkiye
Tel: +54 11 4772 0163 mth@emd.dk	Tel.: +55 48 3232 9100 contato@emdbrasil.com	Tel.: +90 2125438848 ft@emd.dk
	EMD China Beijing Leviathan Technology Co. Ltd Room 1918, Building A, Shiao Int. Center No.101 Shaoyaoju Beili Changyang District, Beijing P.R. China	
	Tel: +8610-84351655 srb@mt168.com.cn	