**WIND TOOLS**

**SCORPION 300/2430 WIND TOOLS**

**DION-AG SCORPION 350 WIND TOOLS**

# Service Manual
# *WINDTOOLS* SERVICE SOFTWARE

# FOREWORD

This manual is for technicians servicing Scorpion 300, Scorpion 350 and 2430 Dion forage harvesters. The *Windtools* service software is used to update the machine control software and access operational data to diagnose potential problems. The software is free of charge and freely distributed, but its use requires the purchase of a mandatory service kit from the Dion-ag Parts department and it is provided to each dealer selling one of these three harvester models for the first time. The service kit is also offered to end-users wishing to service and update the controls by themselves.

Read the manual carefully to familiarize with the installation and use of the software before proceeding. The specifications and concepts of the *WindTools* are subject to change without notice and responsibility from the manufacturer.

 **CAUTION:** The Windtools software does not give access to allow modification of the harvester operating parameters other than by an update with a software version provided and validated by Dion-ag. These parameters are set to provide reliability, safety and performance of the system. Any attempt to alter or modify the software is susceptible to create functional problems that can cause damage or failures that can cause injuries or death of the operator.

# SAFETY

As for any maintenance or service task, make safety a priority. Follow the safety guidelines applicable to the harvester and do not give access to anyone when updating or validating a software installation.

# APPLICABLE WARRANTY

Any maintenance or service operation requiring the *WindTools* service software is subjected to the same warranty conditions as any other normal service. Refer to the terms specific in the warranty contract.

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# REQUIREMENTS

## COMPATIBILITY

*WindTools* is comptabile with Dion 2430, Scorpion 300 and Scorpion 350 harvesters. For the Scorpion 300 and Dion 2430 models, a communication controller named *Thrasher* must be connected to the machine wire harness to access the CAN network through Wifi. This controller is included in the service kit required by Dion.

See the CONNECTION section.

## SERVICE KIT

The mandatory service kit (#K31505) must is shipped and charged with the sale of the 1$^{st}$ Scorpion 300, 350 or Dion 2430 harvester. Contact Dion-Ag's service department if you did not receive it. This kit is used for diagnostic and its purchase is mandatory to obtain the Wifi password allowing access to the harvester software.

It contains:

- The *Thrasher* communication controller (used for Dion 2430 and Scorpion 300 only)
- Pressure gauge
- Different adaptor test ports to diagnose the hydraulic system.



## LAPTOP COMPUTER

The dealership is responsible for providing a laptop computer to the technician to use the *WindTools* service software. The computer must comply with the following specifications:

- Operating system Windows 10 or Win7/8 64bit (32bit version are not compatible)
- Working Wifi network card
- At least 200mb of hard drive free space
- Administrator permission for software installation
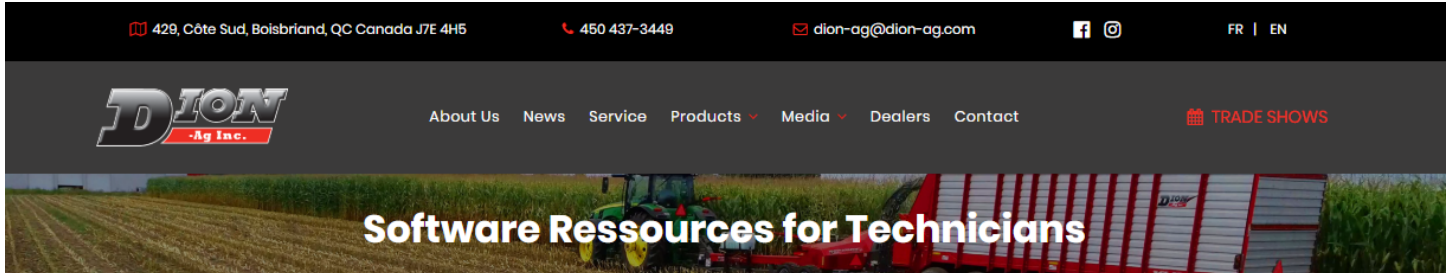
### OS VERSION PRIOR TO WINDOWS 10

On some Windows versions prior to Win10, it is possible that .NET functionality needed for *WindTools* might be missing or require an update. If this is the case, an error message at the installation will signal the problem. (See the Troubleshooting section).

*WindTools* is not supported by *Windows* version anterior to Win7.

# INSTALLATION AND UPDATE

## DOWNLOADING AND INSTALLATION

The installation file for *WindTools* is available on the website [www.dion-ag.com/tech-en](http://www.dion-ag.com/tech-en). The latest version is always available for downloading.



**NOTE:** To upgrade to a newer version of *WindTools*, you must first uninstall the previous version on the computer. The method is explained below.
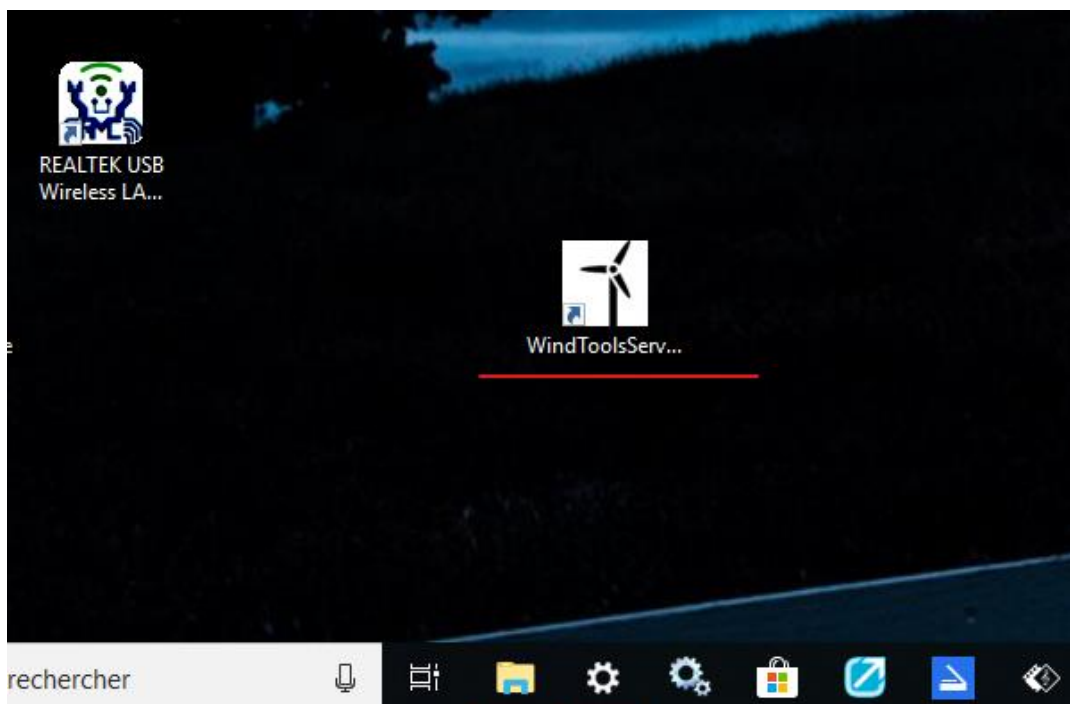
To start the installation, click on the link and download the installer, then execute. You may have a safety notice from Windows to authorize the installation. Click « run anyway ».
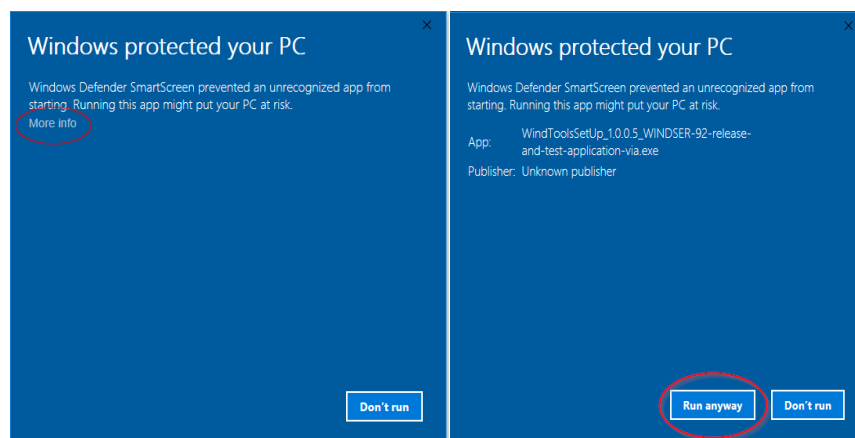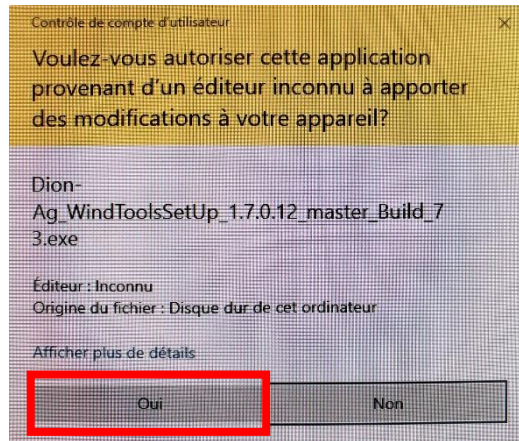
A shortcut will be added to the desktop, double click to open.



## UPDATE AND UNINSTALL

To obtain the latest version of *WindTools* or the harvester control software go to: www.dion-ag.com/tech-en.

Before installing a new version, check the version installed on the computer. Open the *WindTools* app and compare with the published version on the website. The *WindTools* version is shown at the bottom right of the screen. On the website, the version is shown on the download link (see below).
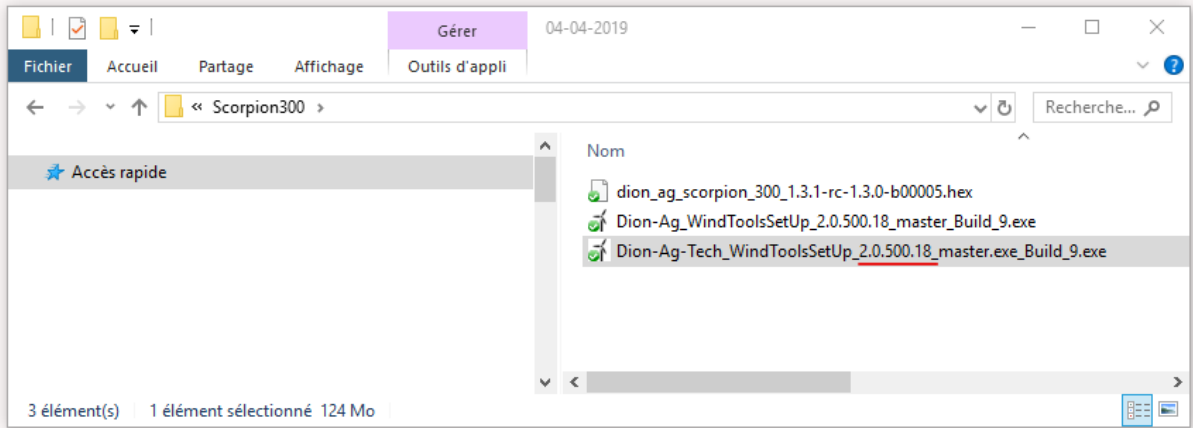
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A service bulletin will be published each time a new version of the windtools or havester control software is available. The type of update (mandatory or optional) will also be displayed on the website. To install the new WindTools version, first remove the installed version on the computer using one of these methods.

A. From the *Start* menu, locate the *WindToolsService* folder and click "*Uninstall WindToolsService*".

B.  From the *Start* menu, locate the *WindToolsService* application and right click to select the Uninstall option. This method will lead to the program uninstall menu. Locate *WindToolsService* and uninstall.
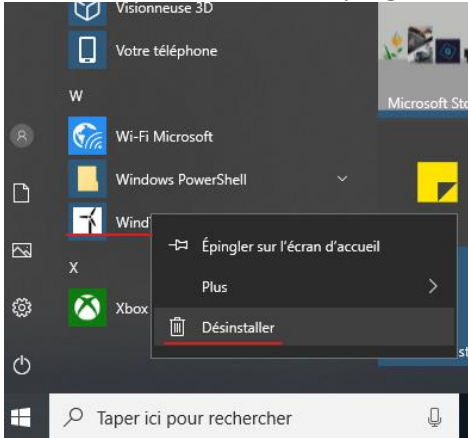


C.  From the *Start* menu, find the Windows parameters and choose the *Application* menu or *Install/Uninstall* menu. Select *WindToolsService* and uninstall
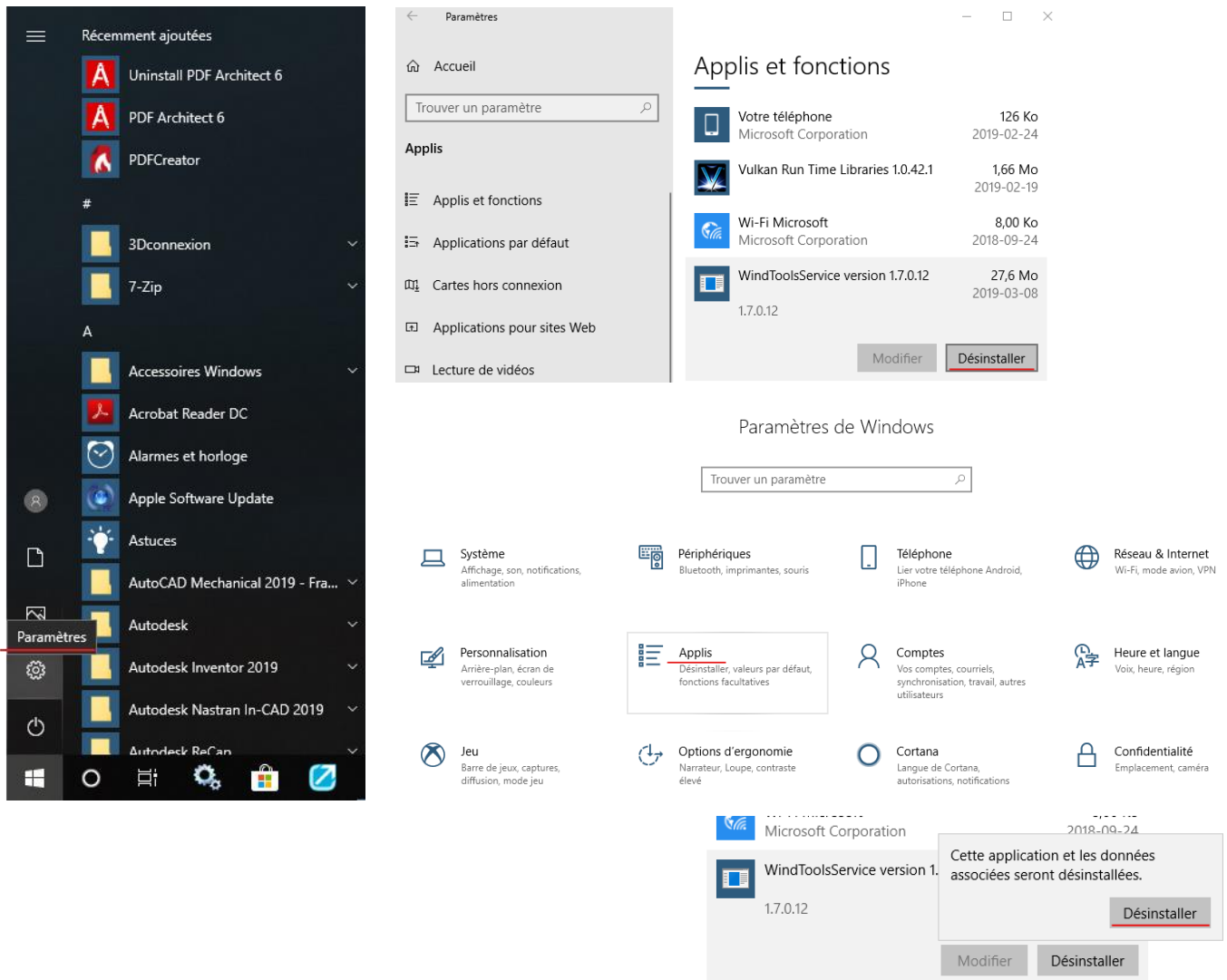
# USING *WINDTOOLS*

## CONNECTION

**SCORPION 300 / DION 2430**

To access the CAN network and controller on the **Scorpion 300** or **Dion 2430** harvester through *WiFi*, first connect the *Thrasher* controller (provided with the service toolkit) to the harvester harness.

- Connect to the « TRASHER-PWR » and « CAN » connectors located close the valves on the control panel. Then insert the controller on the bracket behind the panel.
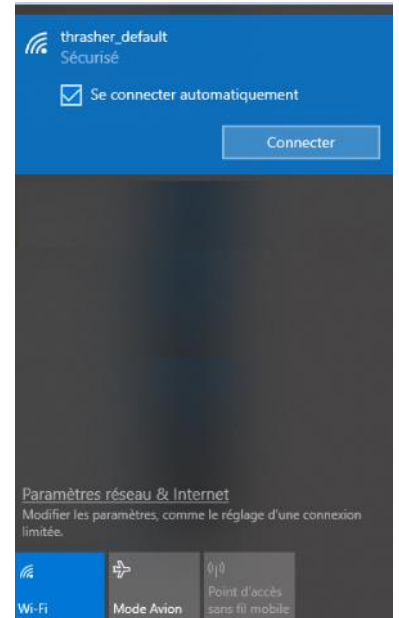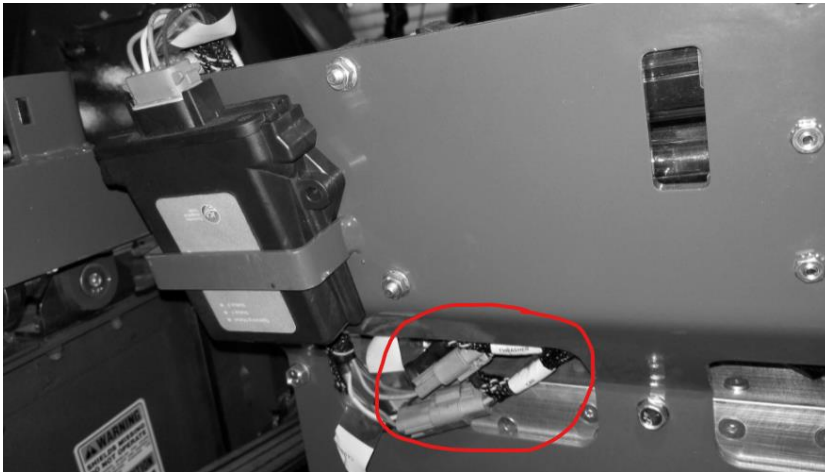


- Turn on the harvester control box, then locate the *Thrasher* controller in the Wifi networks list. A password will be required to access the network (Provided with the purchase of the service toolkit, contact Dion-Ag if necessary).

**IMPORTANT**: It is recommended to select the « connect automatically » option when connecting to avoid losing communication, especially when updating the controller software.

- Start *WindTools* on the laptop computer.



When connected, the harvester controllers will be displayed on the **Systems** tab, including the *Trasher* controller.

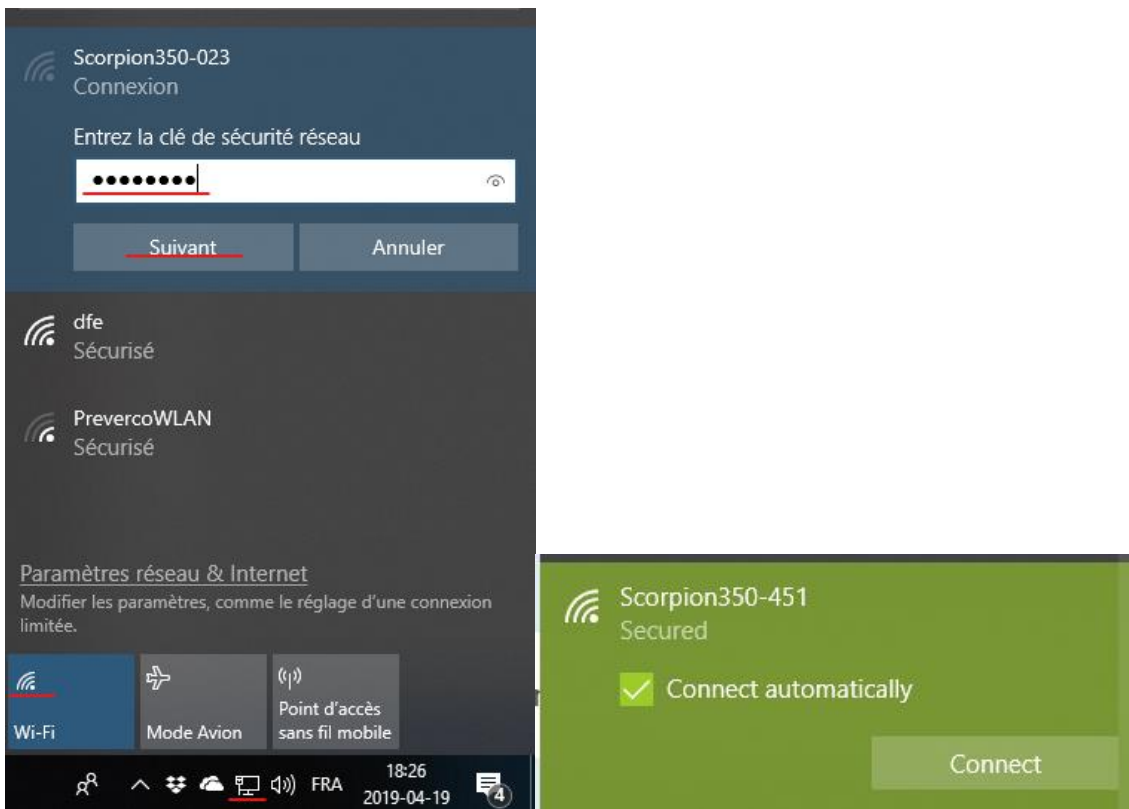**SCORPION 350**

The CAN network of the **Scorpion 350** is accessible without the need for an extra controller. The Wifi network is managed by the onboard *Falcon* controller.

- To connect, make sure the controllers are ON (tractor ignition ON) and locate the *Scorpion 350* Wifi network. A password will be required to access the network (Provided with the purchase of the service toolkit, contact Dion-ag if necessary).

**IMPORTANT**: It is recommended to select the « connect automatically » option when connecting to avoid losing communication, especially when updating the controller software.

# USING *WINDTOOLS*

**SELECT THE HARVESTER MODEL**

Before using any of the app functions, make sure the right configuration is selected. In the **Settings** tab of *WindTools*, select the appropriate configuration file.

For **Scorpion 300** and **Dion 2430** models, select DionAgScorpion300.

For **Scorpion 350** models, select DionAgScorpion350.
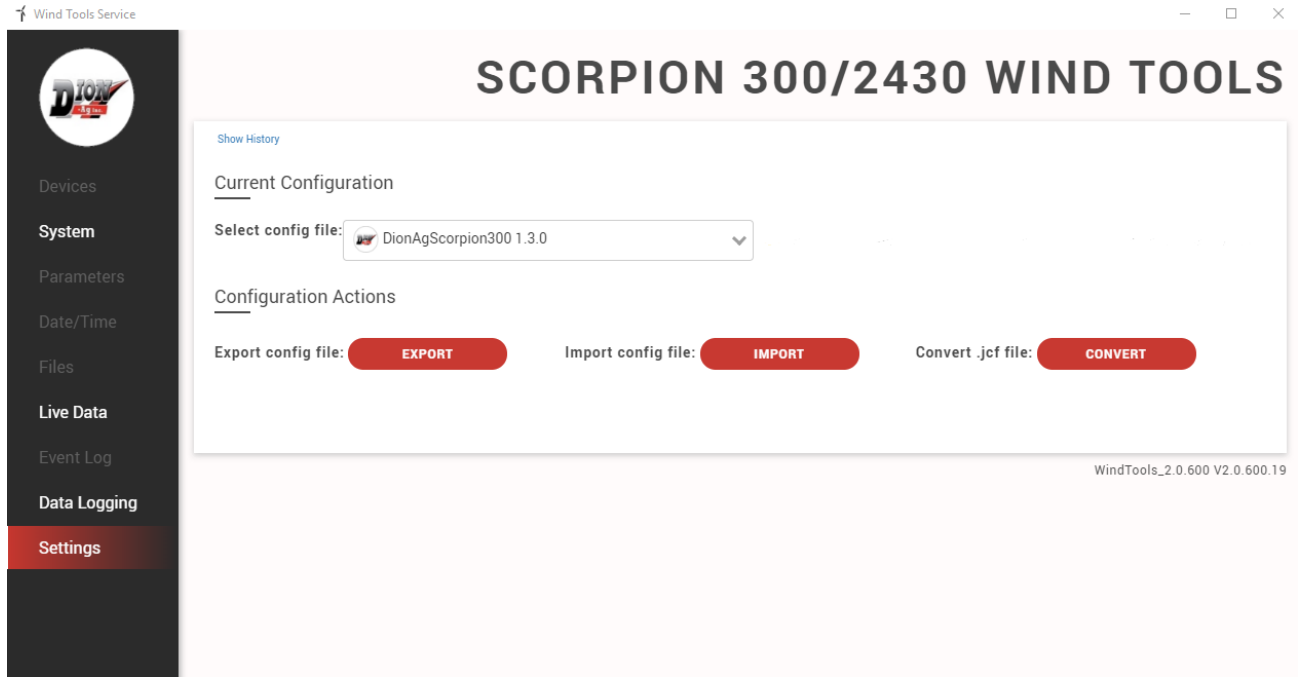
## USING WINDTOOLS

The current harvester software version is visible in the **System** tab as shown below. To validate that the latest version is installed, compare with the latest version available on the technical resource web page (or file already downloaded).
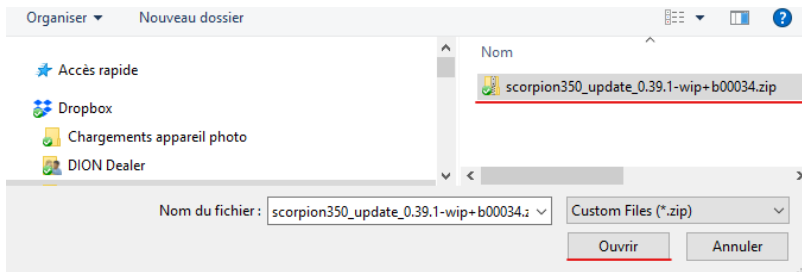
**SYSTEM UPDATE**

This method is the same for all harvester models (Scorpion 300/2430 and Scorpion 350). In the **System** tab, click on the *"BULK UPDATE"* button.
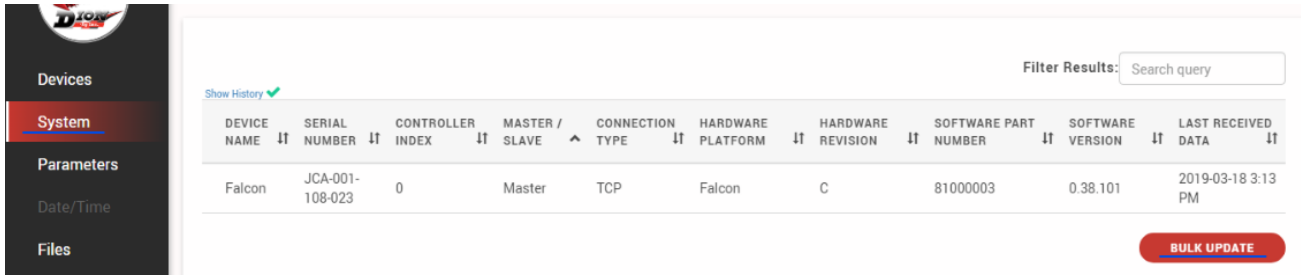


In the pop-up window appearing, locate the proper ".zip" file to install.



A pop-up window will open in *WindTools* and the state of the controllers will be displayed.

**IMPORTANT**: For the Scorpion 350, the two controllers (*Falcon* and *Oriole*) must be visible and connected before updating. In the example below the *Oriole* controller is not connected and the update will not be completed.

Start the update by clicking "START**"** which will become "REPROGRAM". Click again. In case of an error during the installation, restart the procedure. When completed, the button will change for "SUCCESS" highlighted green.
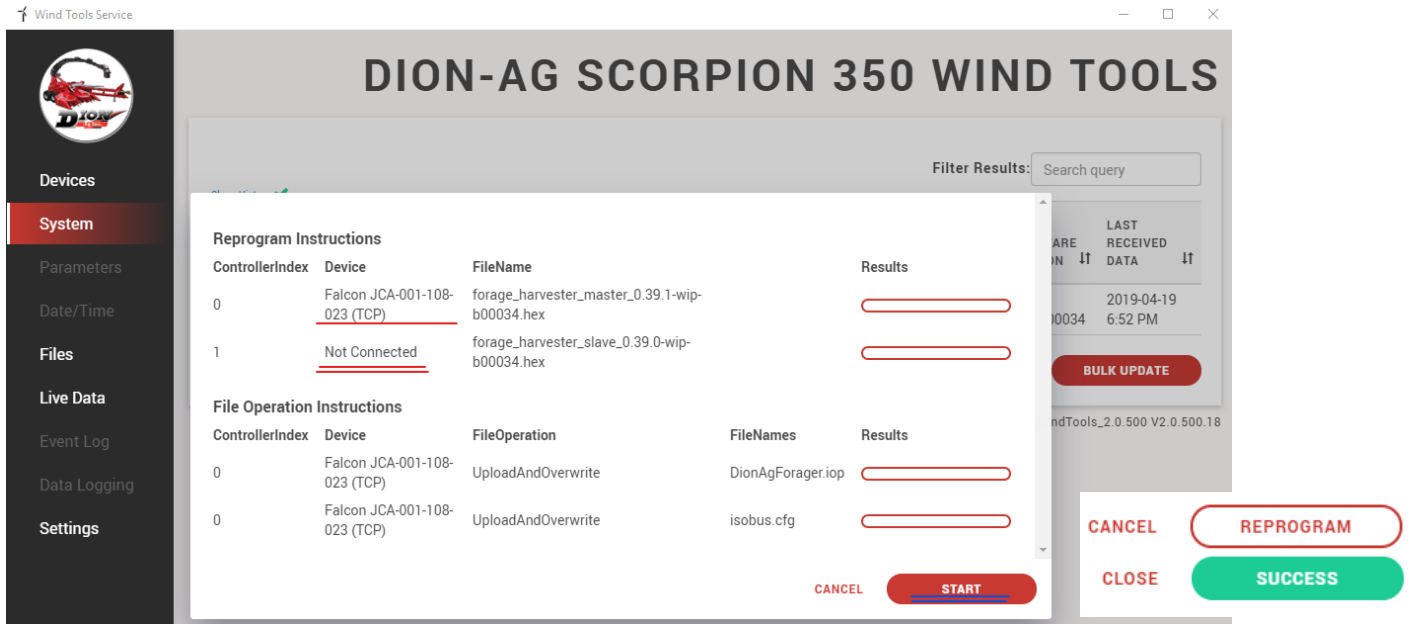


**IMPORTANT**: The *Falcon* controller is rebooted automatically during the updated. If the Wifi is not automatically reconnecting reconnect it manually. (Scorpion 350 only)

**LIVE DATA**

The **Live Data** tab shows the state of the harvester and its sensors in real time, including the metal detector and other systems. It is the preferred tool for diagnostic and servicing. *WindTools* can display the harvester live data in real time in the field having the laptop computer in the tractor cab. Refer to the service manual for more diagnostic procedure details.



**DISPLAY LIVE DATE**

It is possible to display the live data on a graph. Select the data you want to display and click the "GRAPH" button. For best results, use data that has similar units, but up to 2 different scales on the same graph are possible. See the example below.

## DOWNLOAD THE DATA

When a graph is obtained, it is possible to export it by clicking "EXPORT GRAPH" or "EXPORT DATA" buttons. The graph displayed will be automatically download in the **Downloads** folder of the Laptop computer. These files can be emailed or a picture of the screen can be sent to the Dion-Ag service department for support on an issue.
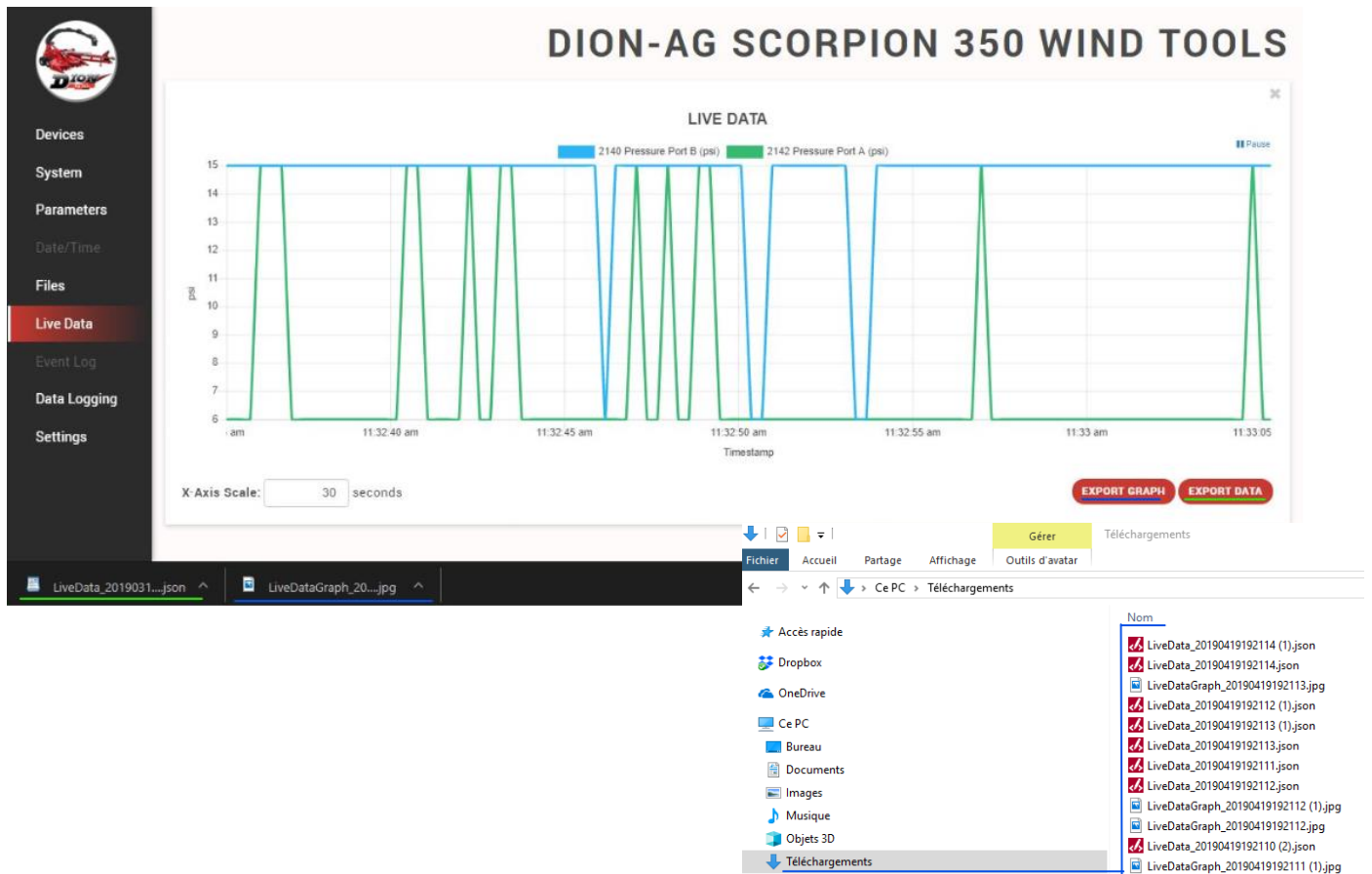
## DOWNLOAD THE EVENT LOG

To access the datalogs on the harvester, select « Data Logging » tab in WindTools. The data file can be downloaded and can be used for diagnostic or warranty claim analysis.

Select the file and click the download icon. Then select the "DOWNLOAD » button. The file will be automatically downloaded in the **Downloads** folder of the Laptop computer in the format "DataLogs_YEARMMDDTIME.csv".



The file can be emailed to the Dion-Ag service department (service@dion-ag.com) for support or open directly in a spreadsheet software such as *Microsoft Excel* to display the content.
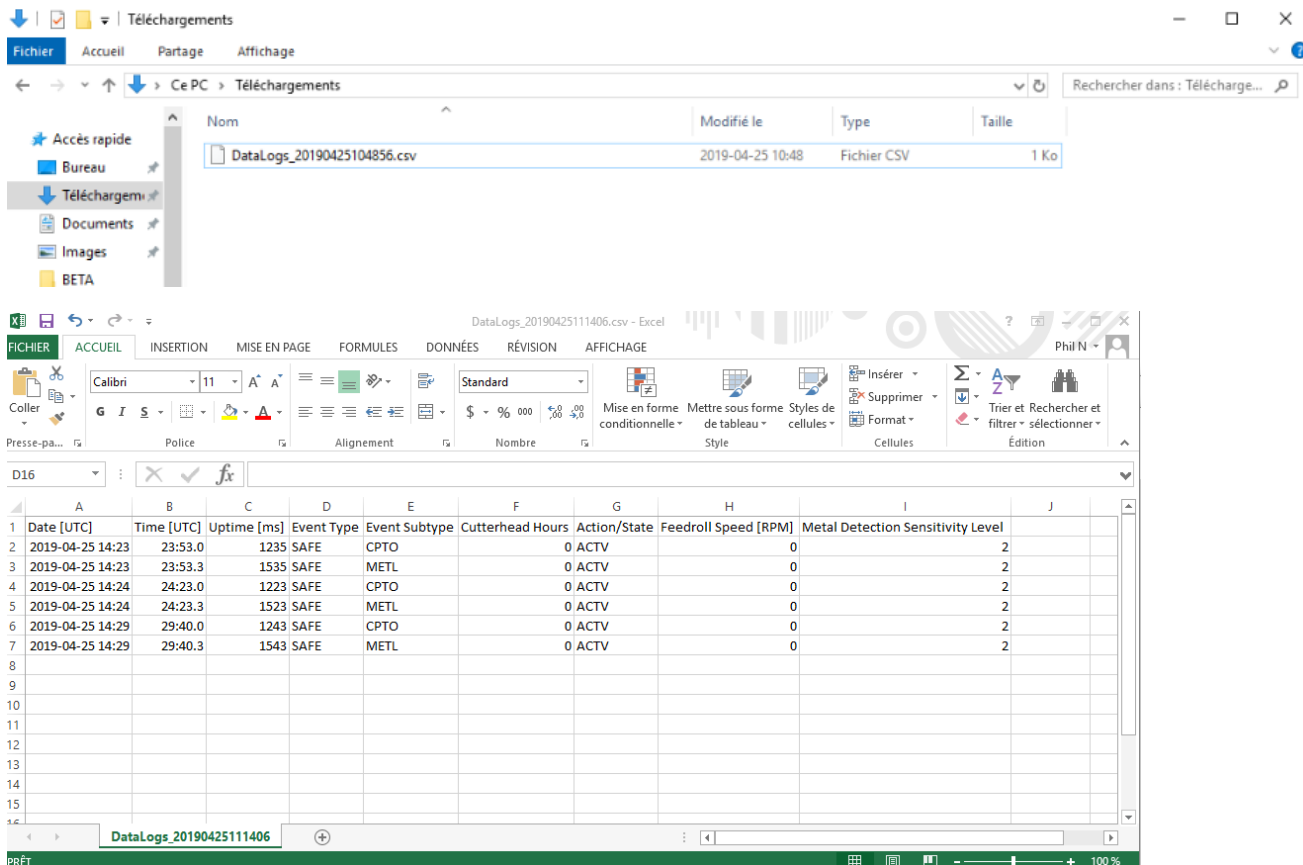
# TROUBLESHOOTING

In the case the *Windtools* installation or operation fails, check the following possible causes.
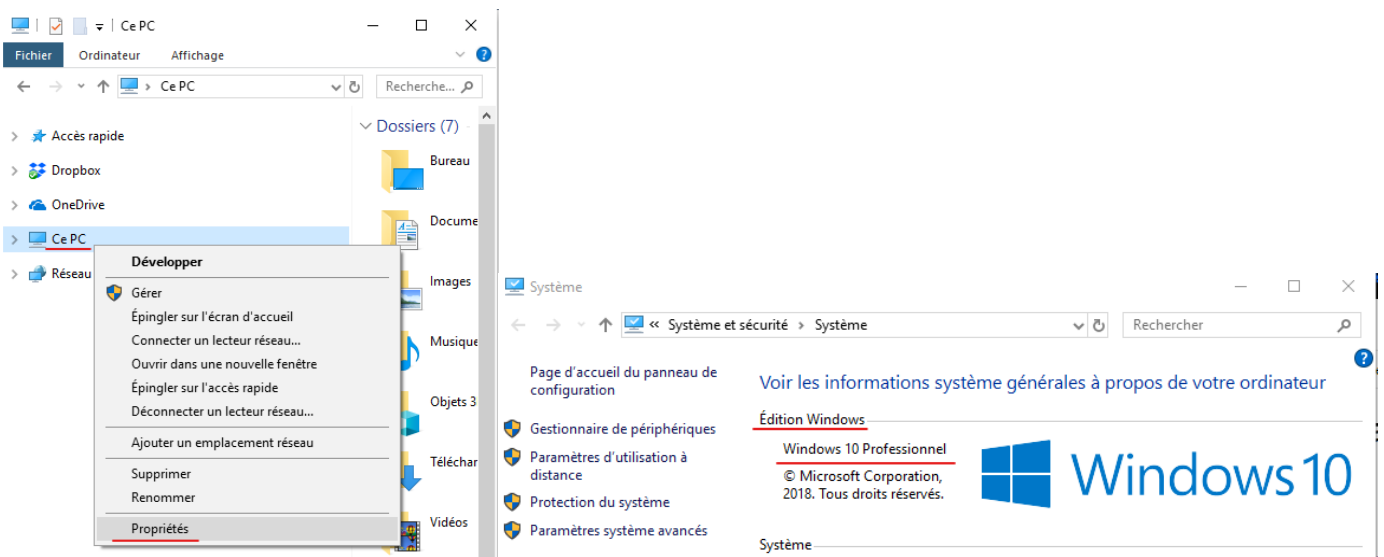
## .NET FRAMEWORK ISSUE

On *Windows* versions prior to *Windows 10*, it is possible that *.NET* functionality required by *WindTools* might by missing or require an update. In this case, an error message will be displayed when installing *WindTools*, signaling the .NET *framework* issue*.

**IMPORTANT**: *WindTools* is not supported by *Windows* version prior to Windows 7.

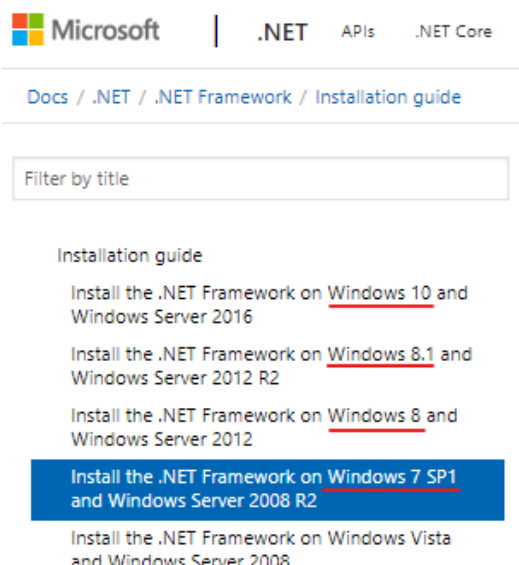### CHECKING THE WINDOWS VERSION INSTALLED

This information is available by right-clicking on « This PC » in the file explorer, and then selecting « properties ».



### INSTALL THE LATEST .NET FRAMEWORK ON WINDOWS 7 OR WINDOWS 8

To download the latest update go to: *https://docs.microsoft.com/en-us/dotnet/framework/install/on-windows-7*.

To install select the right *Windows* version installed on the laptop.

Then follow the installation procedure.



## CHECKING/ACTIVATING WINDOWS SERVICES

It is possible that the *Windows Service* associated with *WindTools* crashes or fails. Restart the Windtools if the app crashes during usage. If the problem repeats itself, two solutions are possible:

1. Uninstall *WindTools* and reinstall.

2. Manually restart the *Windows Services*. To do so, follow this procedure:

With the *Windtools* open, type "*Services*" in the search bar, Select the *Services* app in the results and click "Run as administrator".
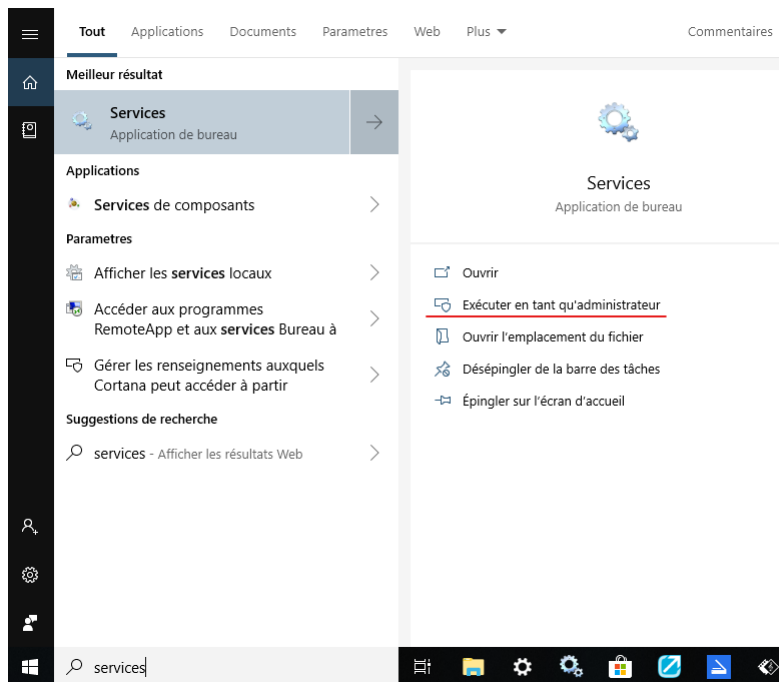
The following window will appear. Locate the « W*indToolsService* » in the list.  Right-click and select "Start" or "Restart"
The service is now active and *WindTools* will reconnect to the harvester.