Addendum to UAS operating instructions

New Sensors

HumT1

HumT1 is the new humidity sensor managed by UAS.

You can browse and trend Relative Humidity and Dry Temperature recorded by the sensor.

ParaDish2

ParaDish2 is the new Parabolic Dish managed by UAS.

UAS manages it as previous well known ParaDish1.

AC1

AC1 is the new accelerometer sensor managed by UAS.

You can browse and trend Acceleration and Velocity recorded by the sensor.

Measurement data

Ultrasound

For new readings recorded by ultrasound sensors compatible with the SDT270, UAS can browse and trend:

- US RMS
- US MaxRMS
- US Peak
- US Crest Factor

Vibration

Using accelerometer sensor AC1, UAS manages two frequency ranges:

- [10 Hz – 1 kHz]
- [10 Hz – 10 kHz]

UAS can browse and trend:

- RMS Acceleration
- Peak Acceleration
- Crest Factor Acceleration
- RMS Velocity

Temperature

In addition to the temperature value, UAS is now also managing the Emissivity value.

Measurement node

The user interface of the creation/edition of a measurement node changed;

It suggests you to first select the physical sensor, then its filter frequency range for accelerometer) and its mode: Static or Dynamic (for Ultrasound and Vibration).

The interface is now using the new sensor denominations and a sensor picture preview is showed to help you to select the right sensor.

Alarm trigger fields

UAS allows you can define & attach alarm based on following trigger fields list:

Ultrasound:

- US RMS
- US MaxRMS
- US Peak
- US Crest Factor

Vibration:

- RMS Acceleration
- Peak Acceleration
- Crest Factor Acceleration
- RMS Velocity

Temperature:

- Temperature value

Humidity:

- Relative Humidity

Mass Flow:

- Mass Flow value

RPM:

- Rotation value.

Static trend settings

From static trend settings, you can now set which information you want to trend per measurement type. This is also true regarding the overlay trend settings.

System settings

From UAS System Settings, you can choose your unit types.

- Temperature: Celcius or Fahrenheit
- Acceleration: g or mm/s² or inch/s²
- Velocity: mm/s or inch/s

FFT Graph

Default X Axis scale of FFT graph changed:

- For Ultrasound Heterodyned signals recorded by the SDT270, default X Axis range is [0; 3] kHz,
- For Vibration Raw signals recorded by the SDT270 using Acc100[10-1k], default X Axis range is [0; 1] kHz,
- For Vibration Raw signals recorded by the SDT270 using Acc100[10-10k], default X Axis range is [0; 10] kHz,
- For others, default X Axis range is [0; sample rate / 2] kHz.

SDT270 survey

Survey items order

By adding a tree branch to a SDT270 survey, UAS is automatically ordering the measurement nodes onto the survey; by placing Dynamic measurement of a sensor before its static measurement node.

This automatic reordering is to let the SDT270 survey marks the corresponding static measurement node of a dynamic measurement recorded as “checked”.

This behavior is implemented because now the SDT270 automatically records a static reading when a dynamic one is recorded.

It remains possible to change the automatic survey items order by performing drag & drop of survey items into the survey tab of the “top pane” of UAS.

New survey parameter: Acquisition time

By editing a measurement node, you can now specify the Acquisition time.

This acquisition time value corresponds to the time frame to use to record the static reading values.

Network database

UAS has now the ability to connect to a network database for a single user connection at a time.

To unlock this functionality, an UAS Static Network or an UAS Dynamic Network license is required.

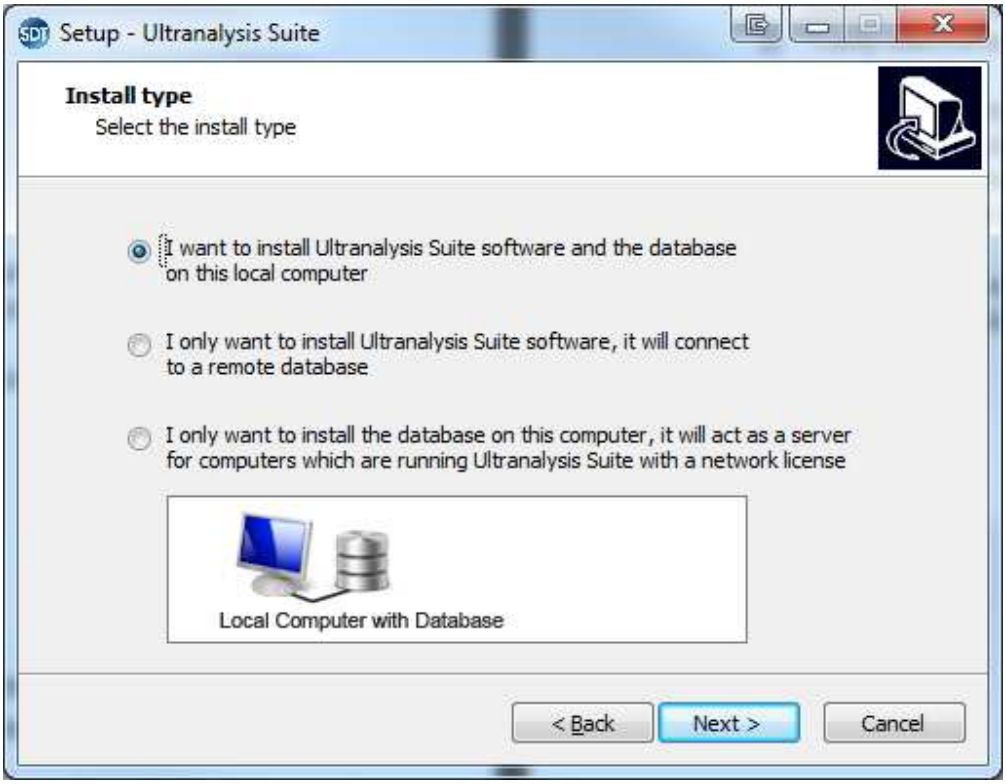
UAS Base setup

At the “Installation type” page of the UAS Base setup, you have three different installation types:

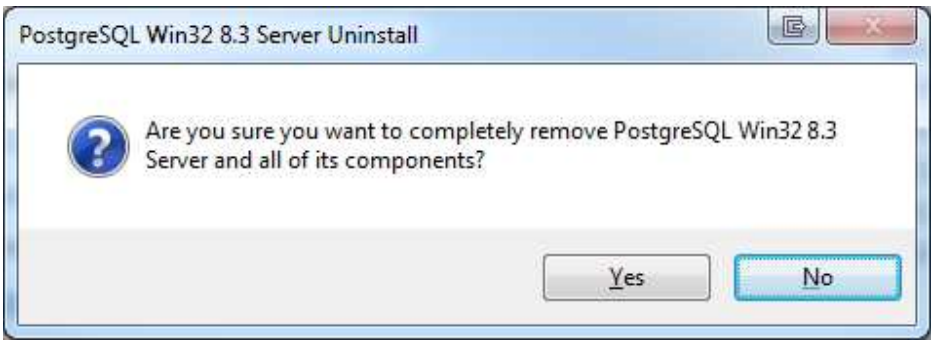
1) “I want to install Ultranalysis suite software and the database on this local computer”
This type is the “standalone” installation type; it installs the UAS software and the database onto your local computer, just like previous UAS version.

2) “I only want to install Ultranalysis Suite software, it will connect to a remote database”
This type only installs UAS onto your local computer, it assumes your database is installed or will be installed onto another computer considered as database server.

3) “I only want to install the database on this computer, it will act as a server for computers which are running Ultranalysis Suite with a network license”
This type only installs the database on the computer where this install type is performed; it assumes the UAS software will be installed by the install type 2) described here above.



If you are performing install type 1) on a computer which already has an UAS and database installed then here is how the setup will work. It will ask you confirmation to remove PostgreSQL Win32 8.3.



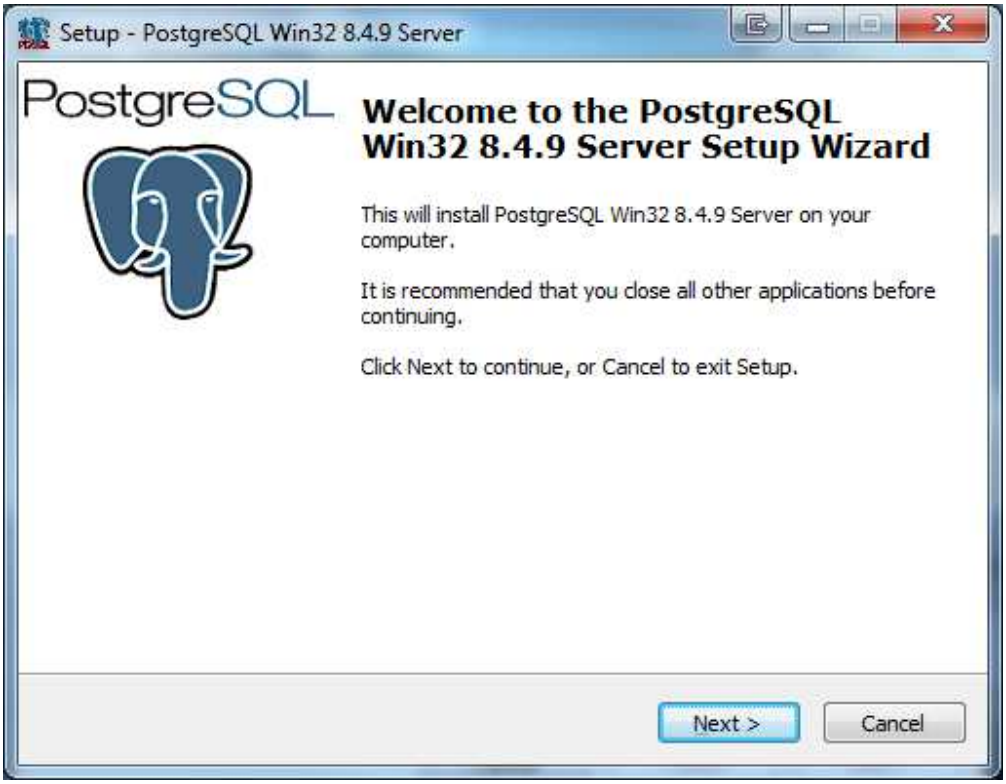
Click Yes

The remove action is performed.

Once it's finished you should see:

Click OK

Follow the installation of PostgreSQL 8.4.9



To manage the new database network ability, the PostGreSQL 8.4.9 was required; that's why the setup asks you to remove its previous version 8.3.

The setup will first backup your existing data, remove PostgreSQL 8.3, install PostgreSQL 8.4.9 and then restore your data into the new database system.

UAS license form

a) First time UAS is installed on my computer
At first UAS launch, following license form will be showed:

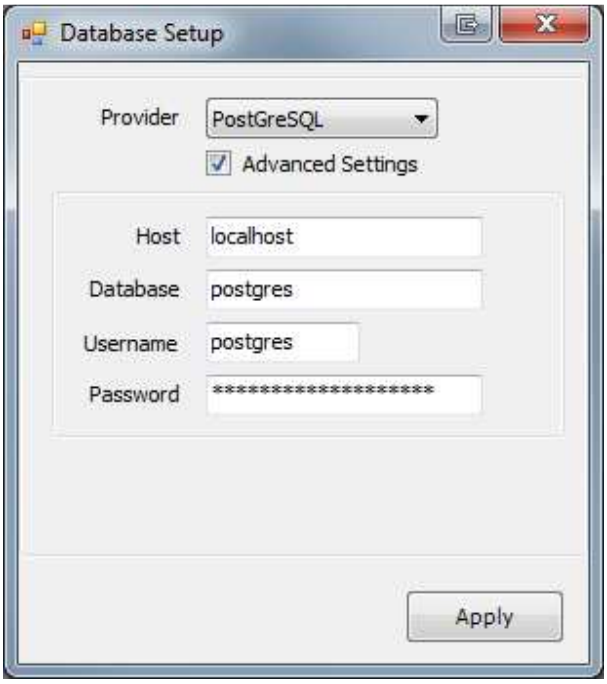
Serial number: fill the UAS serial number you received by email from SDT Extranet.
Hardware PC Code: Click Generate button to generate your PC hardware code.
Following the SDT extranet activation link from the email your received for your UAS serial number to activate your UAS license using the PC hardware code you just obtained.
The extranet will send you an email with the licenses number you get from previous steps.

Fill the last field “license number” with the license number received by email.

b) I already had an UAS installed before I tried to use the new network database ability
To reopen the UAS license form at any moment:
From the UAS top menu, click the “?” menu item, then click “License Setup”.
Just like step a) here above, fill the license info with the new network license you activated.

Database settings

a) First time UAS is installed on my computer
At first UAS launch, the Database Settings form is showed:



Check the checkbox “Advanced Settings” to access extra settings needed for the network ability.
Fill the “Host” field with the IP address of the server which has the UAS database installed (ask help to your IT administrator if you don’t know it).
If the UAS database is installed into your computer (and then will play the database server role) fill “localhost”.

b) I already had an UAS installed before I tried to use the new network ability
From UAS top menu, click “Options” menu item, then click “Database settings”.
Just like describe at step a) here above, fill the appropriate host value.