



APC SmartTouch Download Utility Software

User Manual

Version 1.0



Contents

1	Installation of the software	4
2	Connecting to the instrument	6
2.1	Connecting the APC SmartTouch to the APC SmartTouch Download Utility Software	6
2.2	Direct connection	6
2.3	Starting the APC Download Utility Software	6
2.4	Automatic Connection Using USB	7
2.5	Automatic Connection Using Network	9
2.6	Lan Connections IP Address	9
2.7	Automatic Method	10
2.8	Manual Connection	14
2.9	Connection to a company network	19
3	Overview of the software	20
3.1	Connect	20
3.2	Sample data	20
3.3	Location	20
3.4	System	21
3.5	User	21
3.6	Data Base	21
3.7	Standard	21
4	Connecting the APC Download Utility Software to the instrument	22
5	Upload data to the PC	25
5.1	Uploading data to the APC SmartTouch	29
6	Sample Data	31
7	Report	35
7.1	Possible Error Messages for Reports	38
8	Using Area	39
9	Working with Location	42
9.1	The Location Tab	42
9.2	Adding an Image	43
9.3	Adding a Recipe	45
9.4	Volume:	49
9.5	Repeat:	49
9.6	Sample mode:	49
9.7	Wait time:	49
9.8	Purge time:	49
9.9	Count time:	49
9.10	Hold time:	49

9.11	Alarm Tone	49
9.12	Beep	49
9.13	Print record	50
9.14	Setting Channel Parameters	50
9.15	Particle size	50
9.16	Alarm limit (particles):	50
9.17	Action limit (particles)	50
9.18	“Alarm on”	50
9.19	Multiple Recipes	51
10	Adding Locations	52
10.1	Selecting the image	54
10.2	Selecting the Recipe	54
10.3	Specifying the Clean Room Class	55
10.4	Entering Clean Room Size	58
10.5	Navigation Keys	59
10.6	Enter a new location	59
10.7	Adding More Locations	60
11	Adding User	62
11.1	User Authority Levels	64
12	Database	67
12.1	Configuration database (NPP_config.DB3):	67
12.2	User database (NPP_User.DB3):	67
12.3	System database (NPP_System.DB3):	67
12.4	Measure Data database (NPP_Measure.DB3):	67
13	Standard	69
14	Languages	71
15	Flow Rate	72
16	Decimal Separator	73
17	Network Information	73
18	Report Colour	74
19	Help	74
20	Exit	75

1 Installation of the software

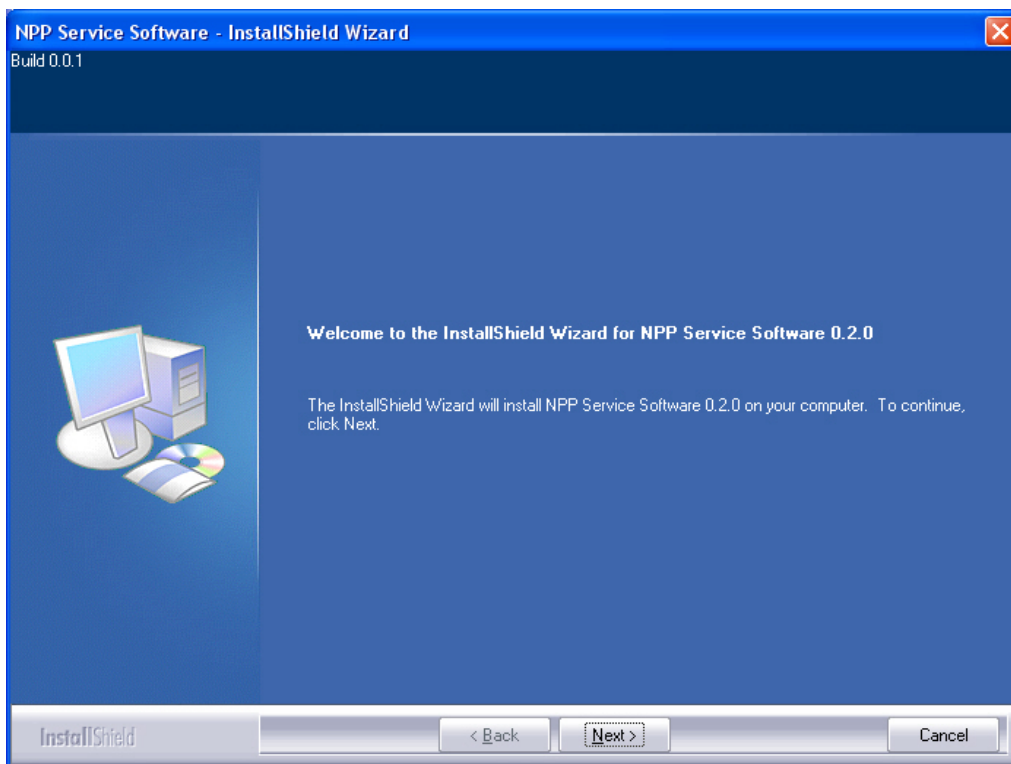
REMARK:

If your computer is running on Windows 7 you need to set the following instructions:

- right click with your mouse on the desktop and choose the last choice "Personalize".
- scroll to the bottom of the window and select: Windows 7 – Basic and high contrast theme.

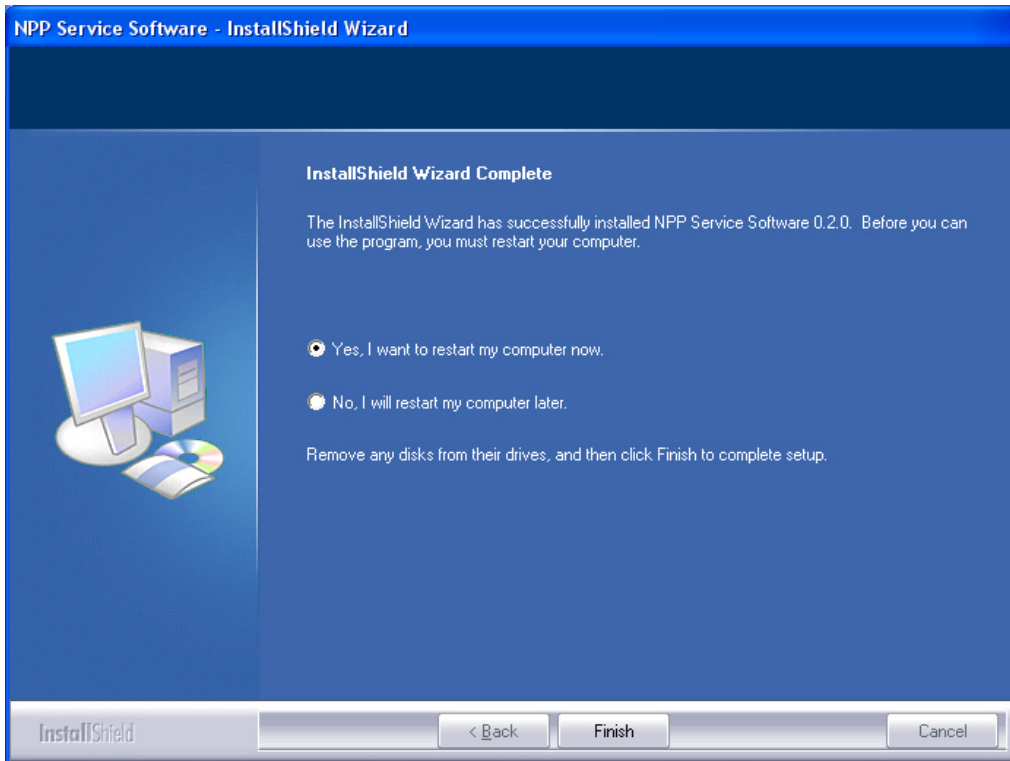
Log into your system as administrator. Place the CD into the CD drive of your PC. If the installation does not start automatically (AutoPlay of CD) start the program Setup.exe of the CD. The InstallShield wizard will guide you through the installation:

1. Select the setup language and click <Next>.
→ The InstallShield Wizard "welcome" screen is displayed:



2. Click <Next> to start the installation.
3. License agreement
Choose "I accept the terms in the license agreement". Only then will you be able to click <Next>.
4. The folder for installation of the software is proposed: please change only for good reasons, then click <Next>.

5. "Ready to install" screen. Click <Install> to start the installation.
6. After installation, you are prompted to restart your computer:



Select one of the options and click <Finish>.

NOTE:

The software installation is not finished until you have restarted your computer!

2 Connecting to the instrument

2.1 Connecting the APC SmartTouch to the APC SmartTouch Download Utility Software

There are two ways to connect the APC SmartTouch to the APC SmartTouch Download Utility Software installed on a PC. Select the direct or network connection to set up the communication between the instrument and the software.

NOTE :

To connect directly you must disable your wireless communication.

2.2 Direct connection

This means there is a direct connection between the instrument and the software through the delivered USB cable. Connect one side of the cable to the USB connection port at the back of the instrument as shown below.

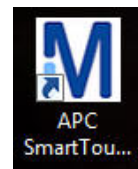
When the USB cable is connected a network icon is displayed on the right in the status bar as shown below.



Connect the other side of the cable to a USB connection of your PC.

2.3 Starting the APC Download Utility Software

After installing the APC Download Utility Software on your PC you will find the following icon on the desktop:

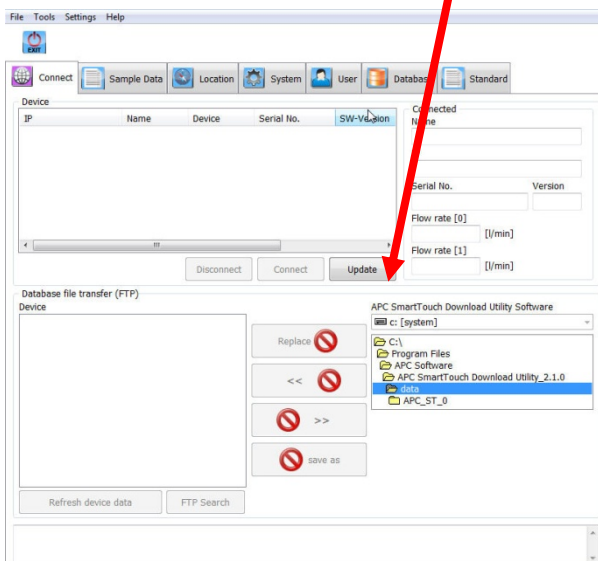


Double click on the above mentioned icon to open the software. You will get the following screen:

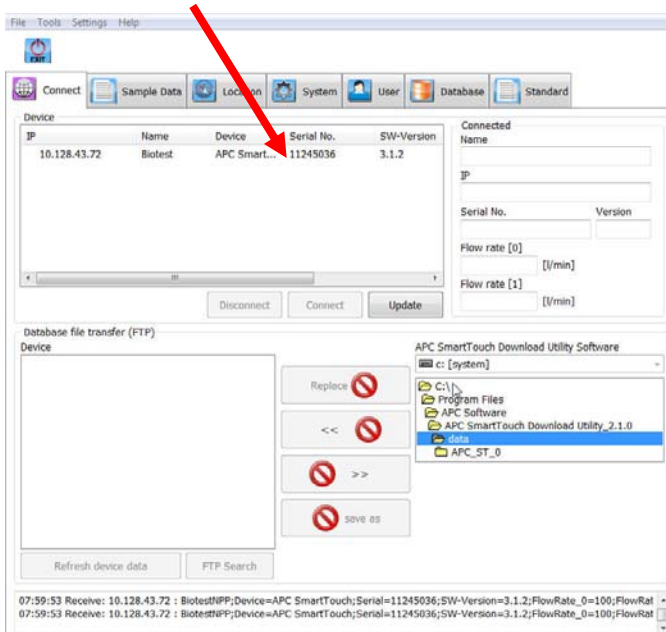
2.4 Automatic Connection Using USB

If you are using a USB connection this is the recommended way to connect the instrument to the PC software.

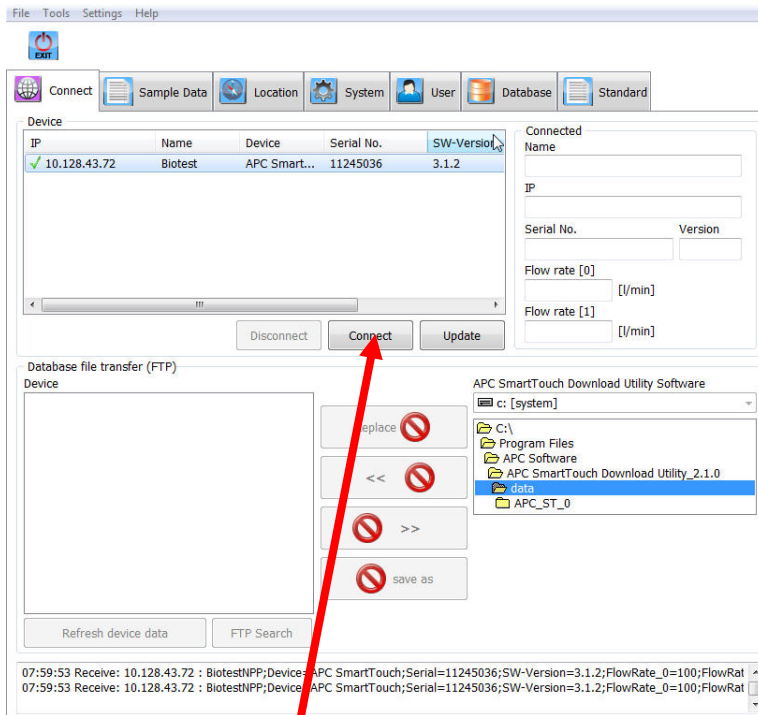
To use the Automatic connection click here:



The Connected Instrument will appear here Now click on the instrument you want to connect to.

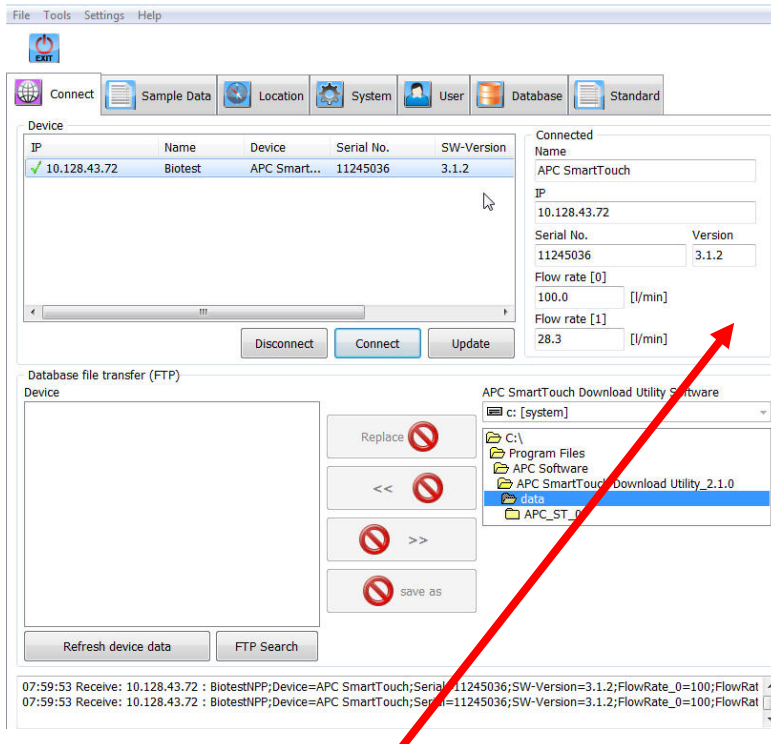


The screen will change to this:



Now Click here to connect to the highlighted instrument.

This is the same screen after connection.



You can now see all the connected instrument data. You can now use the software.

2.5 Automatic Connection Using Network

If you are using a Network connection this is the recommended way to connect the instrument to the PC software

First complete the steps on the instrument as follows.

2.6 Lan Connections IP Address

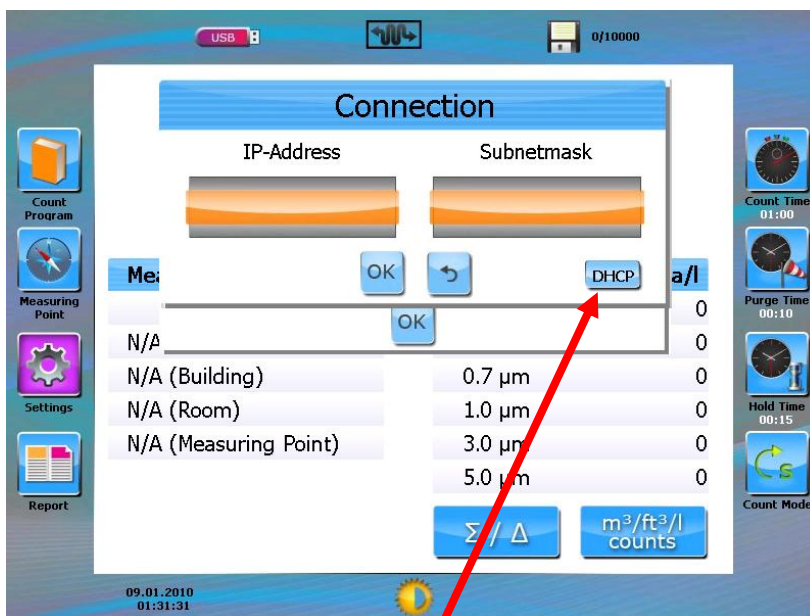
NOTE:

We would recommend the use of the fully automatic feature built into this Instrument unless you are fully trained in setting this type of address.

It is possible to connect the instrument to a Lan Network, this requires an Instrument IP address, to set this address follow the next screens.

From the Settings Menu select Connection.

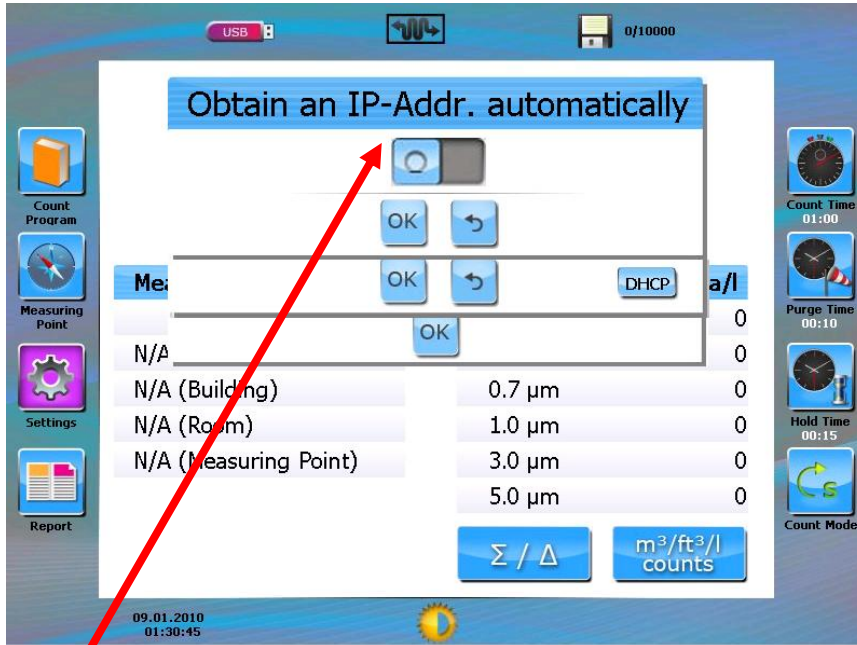
This screen will appear.



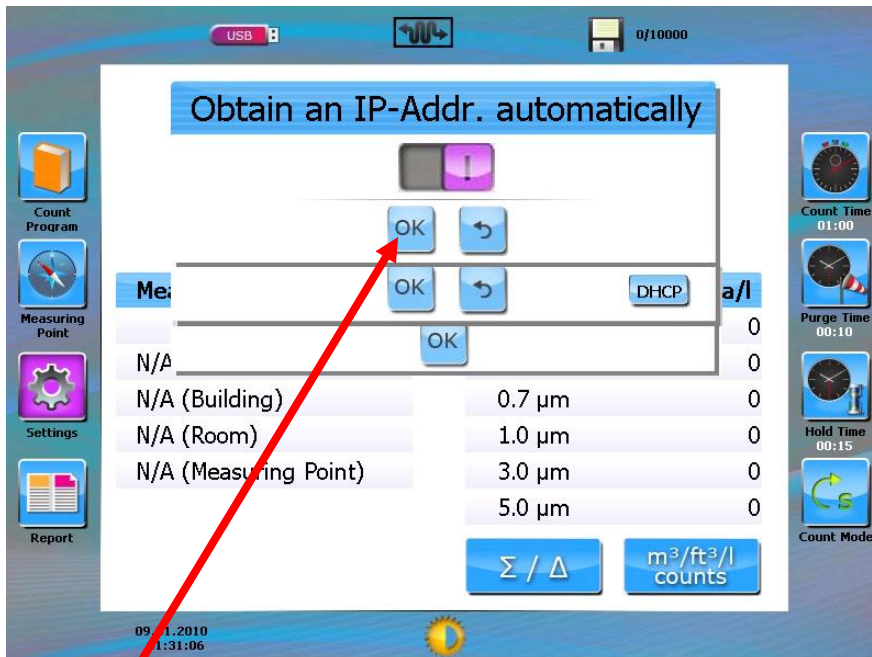
To use the automatic selection Press Here.

This will not work if you are not connected to a Lan Network.

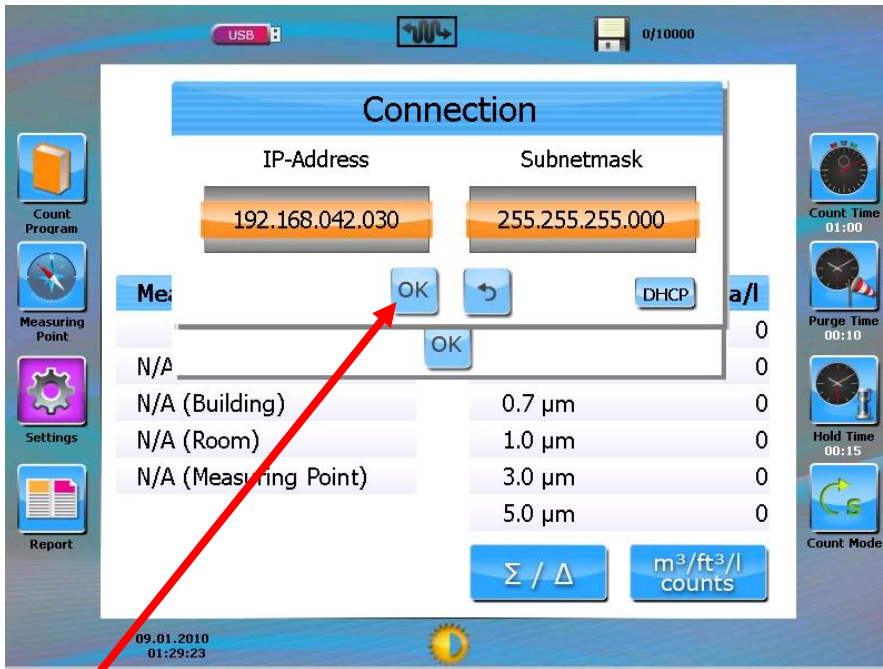
2.7 Automatic Method



Now Press Here.



Now Press here.

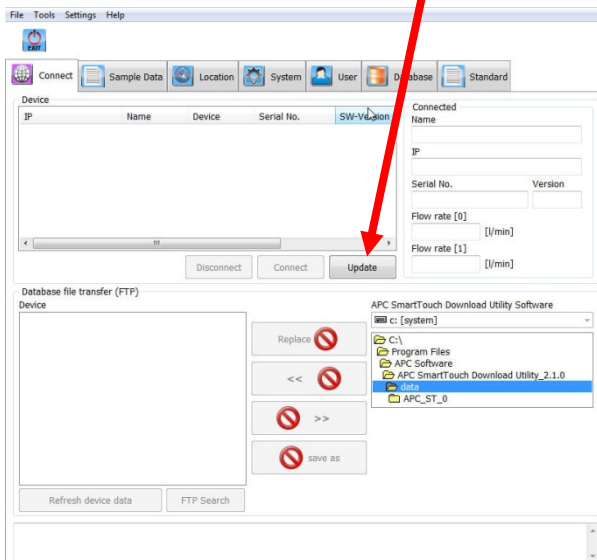


Now Press Here.

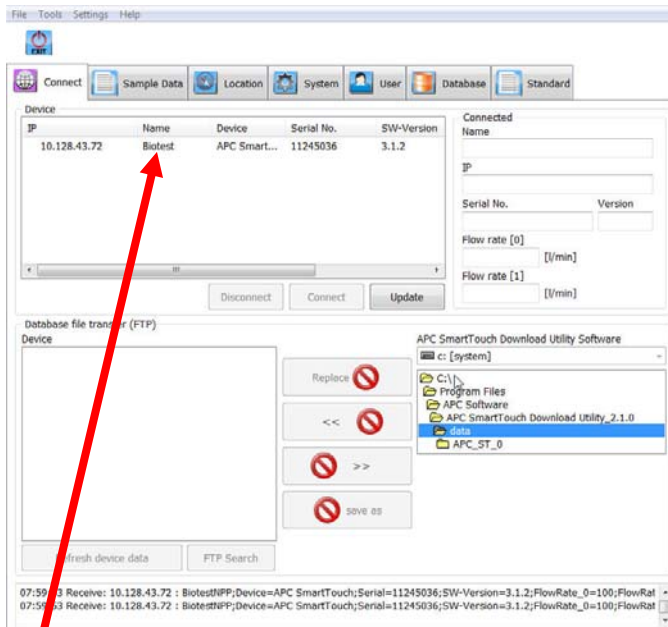
You are now connected to a Lan Network.

Now working on the PC follow these steps:

To use the Automatic connection click here:

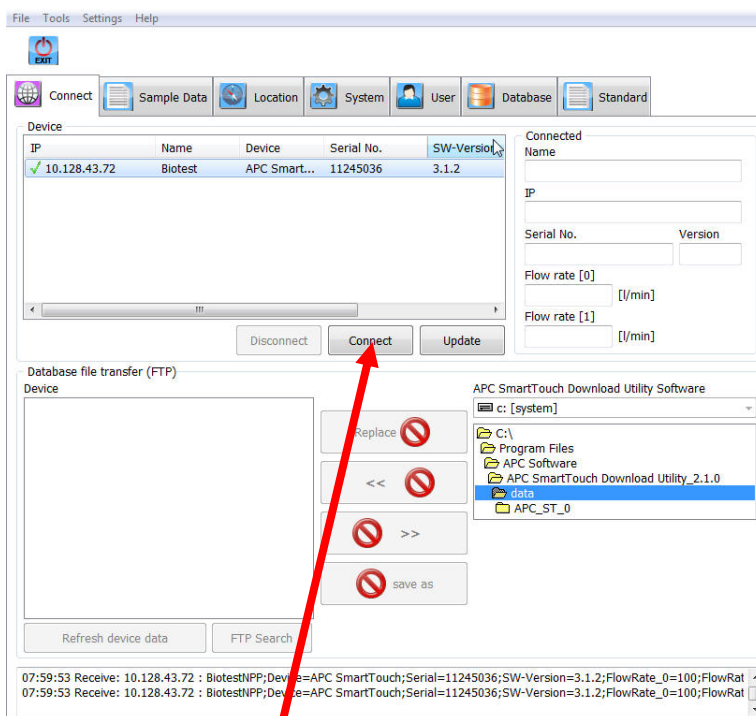


The Connected Instrument will appear here Now click on the instrument you want to connect to.



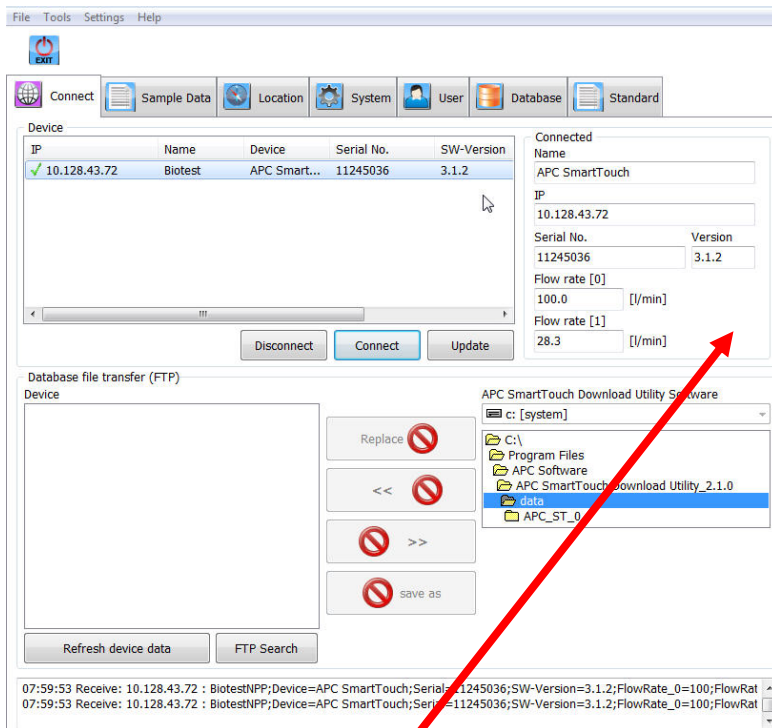
Now click here.

The screen will change to this:



Now Click here to connect to the highlighted instrument.

This is the same screen after connection.



You can now see all the connected instrument data. **You can now use the software.**

2.8 Manual Connection

NOTE:

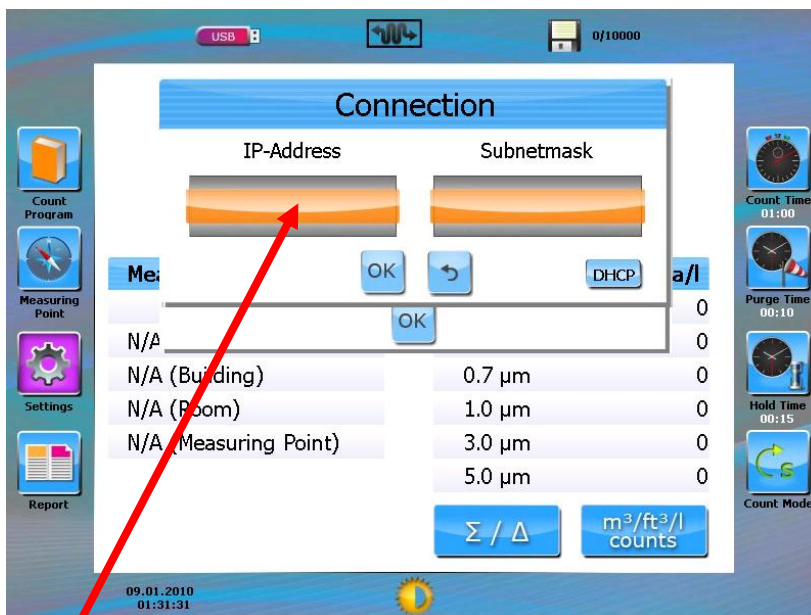
We would recommend the use of the fully automatic feature built into this Instrument unless you are fully trained in setting this type of address.

The APC SmartTouch leaves the factory having the following default IP and Subnet mask address:

- IP address = 010.012.029.244
- Subnet mask = 55.255.255.0

First complete the steps on the instrument as follows:

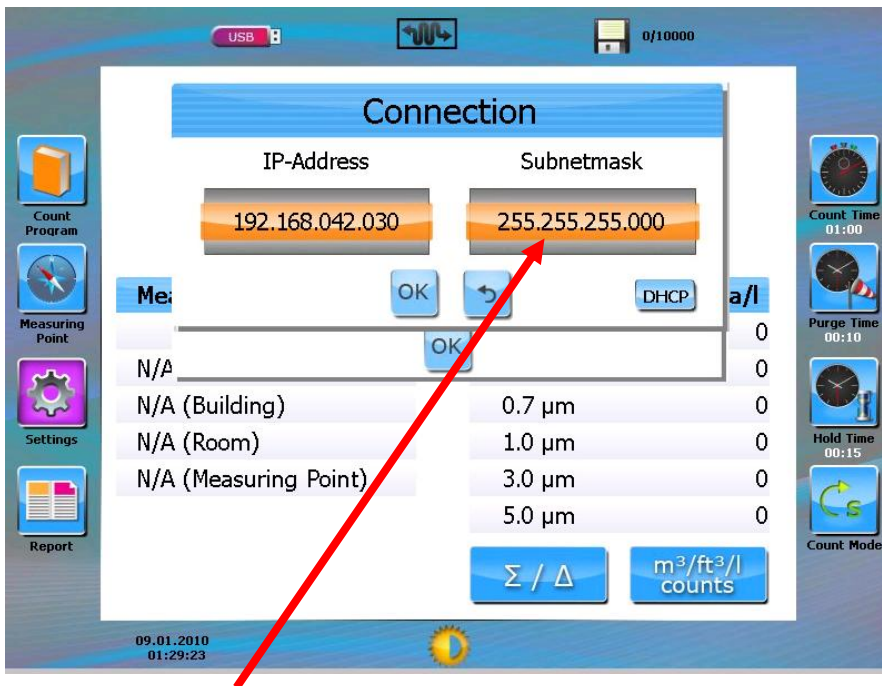
This is how to set the instrument from the Settings Menu select Connection.



Press Here.



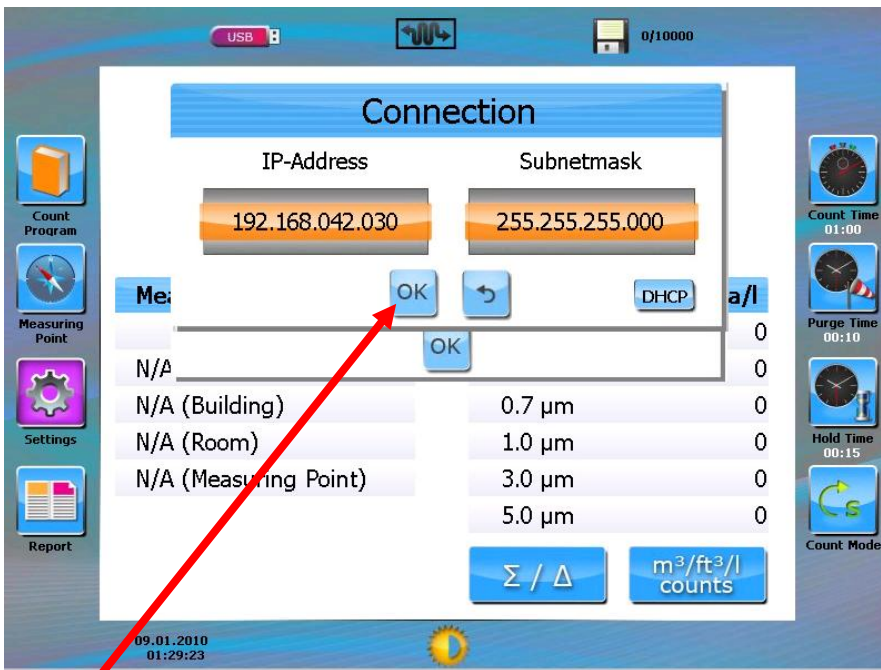
Type in the required IP Address Then press OK.



You need to repeat this process for the sub-mask address now press here.



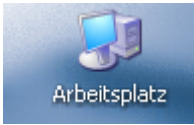
Type in the required Address and then press OK.



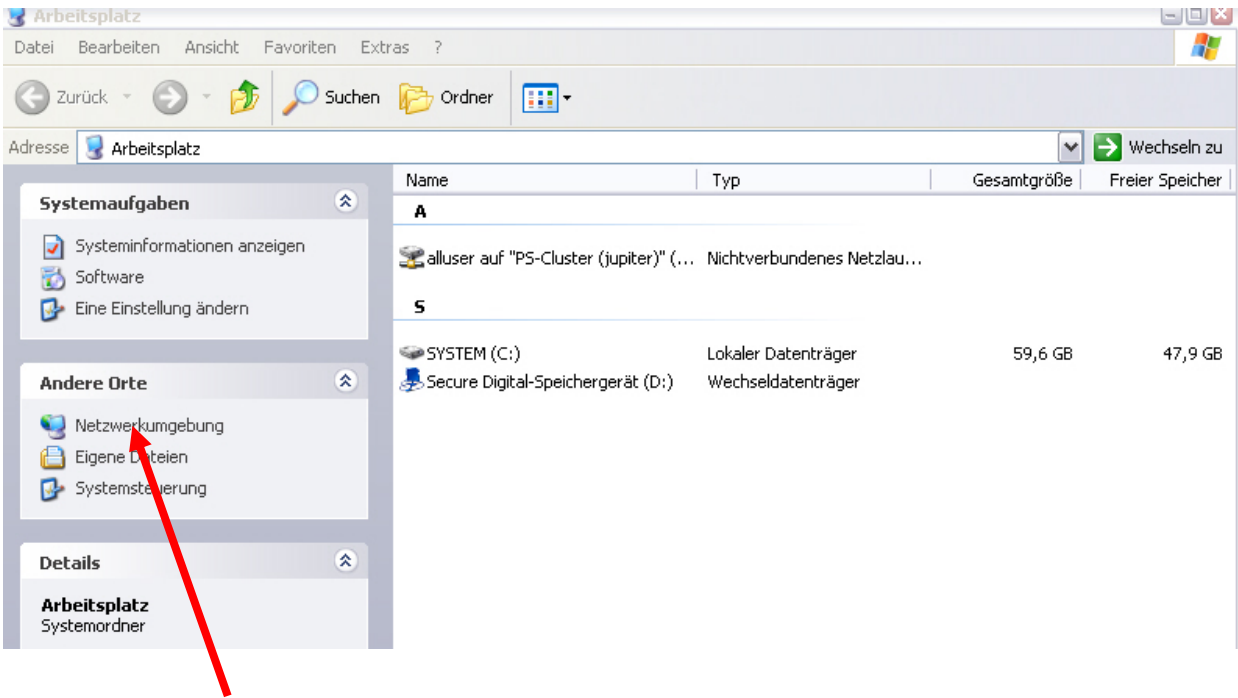
Now Press Here.

A direct link means that the APC SmartTouch will be connected directly with a network cable to a PC.

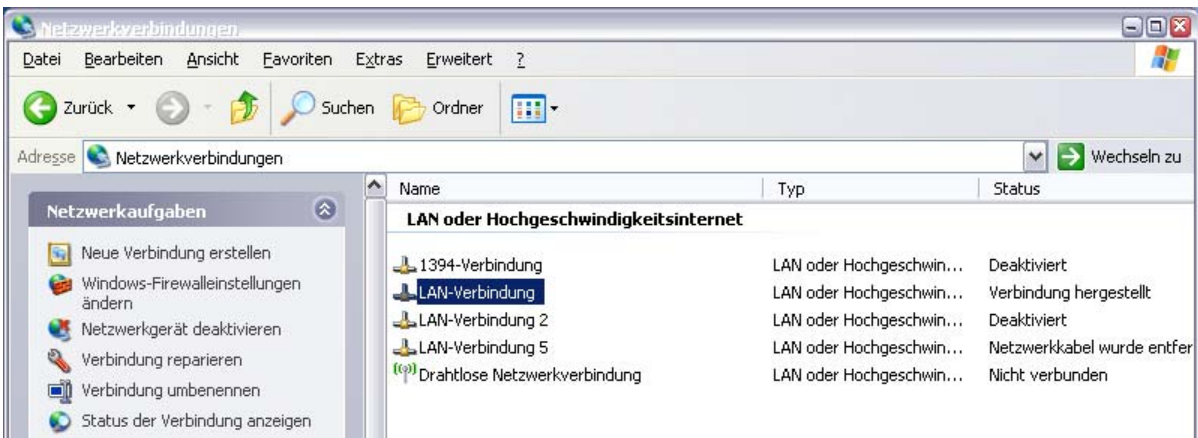
Click on the Windows icon Workstation on your desktop.



Click on Network connections, right click on your mouse and select features.
The window below will appear.

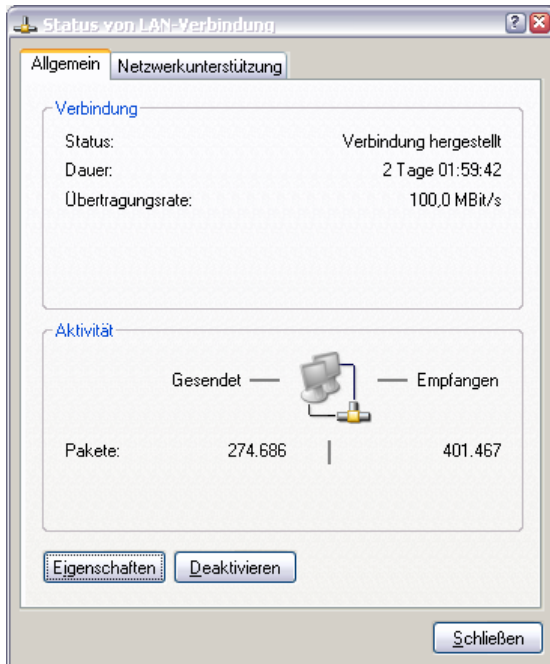


The window below appears:

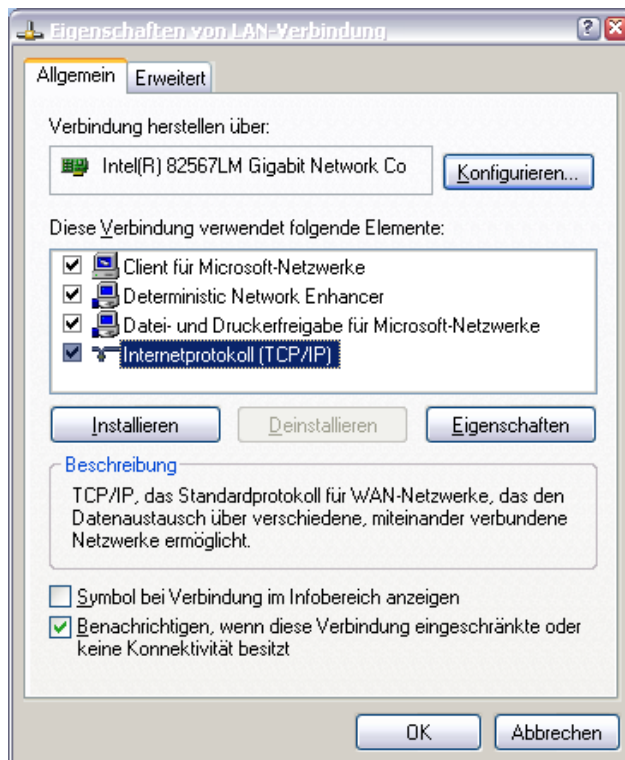


Click on LAN connection, then right click the mouse button and click for features.

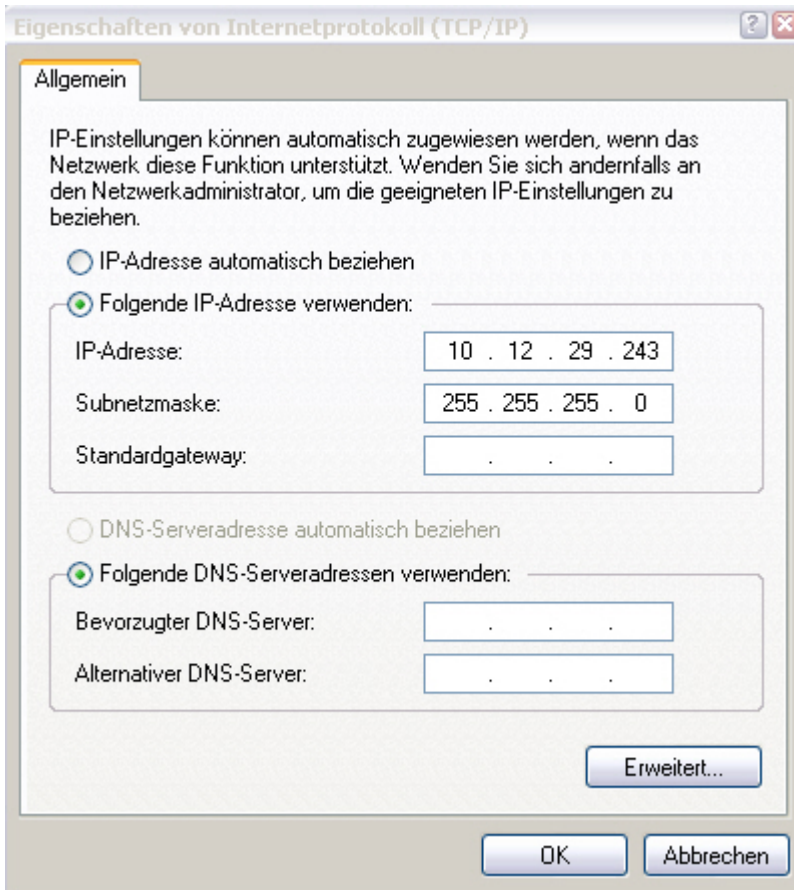
The below window will appear:



Click on features, the following screen appears:



Double click on Internet protocol (TCP/IP) the following screen appears:



Set the PC to the following addresses:

IP address = 010.012.029.243

Subnet mask = 255.255.255.0

Press the ok button twice.

Now the IP and Subnet Mask address has been set to communicate with the APC Download Utility Software.

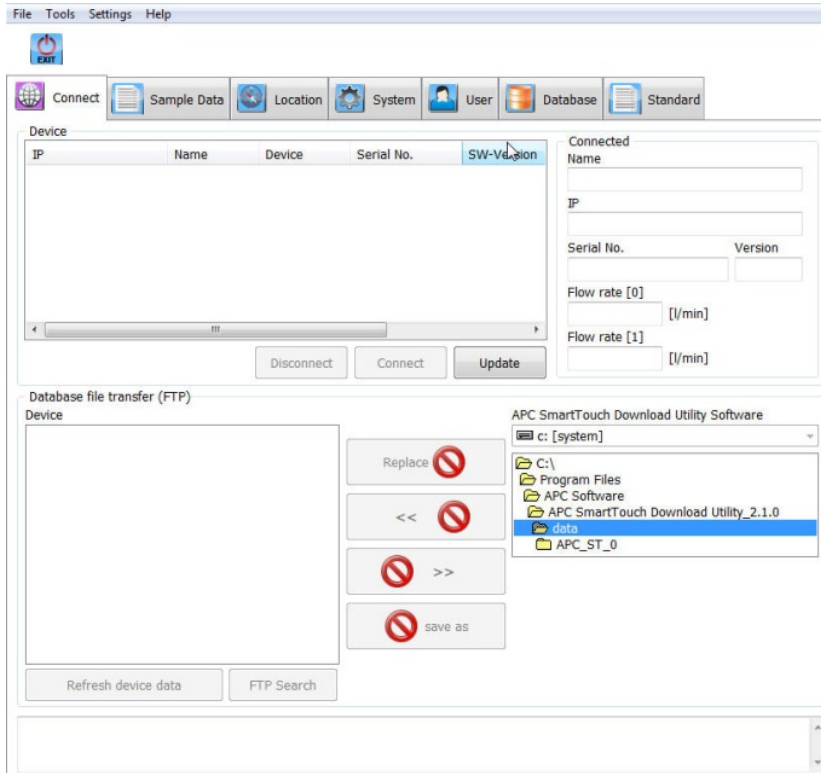
2.9 Connection to a company network

Contact your IT department to get an IP and Subnet mask address for each APC SmartTouch instrument you want to integrate to your company network. Each instrument should have a unique address.

Go to the settings screen on your instrument and select connection to give in the address Now you can use the software.

3 Overview of the software

The software is subdivided into six tabs:

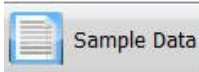


3.1 Connect



Handles the communication between APC SmartTouch Utility Software and the connected counters. It's here where you can up- and download data.

3.2 Sample data



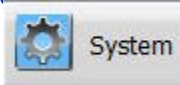
Overview of all sample data listed per record, filter and report data from different devices.

3.3 Location



Defining new locations. Here, you can prepare your location database for transmission to every APC SmartTouch airborne particle counter. This is where you enter the HACCP points.

3.4 System



Defining the IP address & Subnet Mask of the APC SmartTouch. Setting the date and Time.

3.5 User



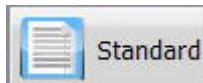
Administer your users, allocate different user right levels

3.6 Data Base



Select the databases shown in the “connect” tab on the lower right side. Select or deselect the display of databases.

3.7 Standard



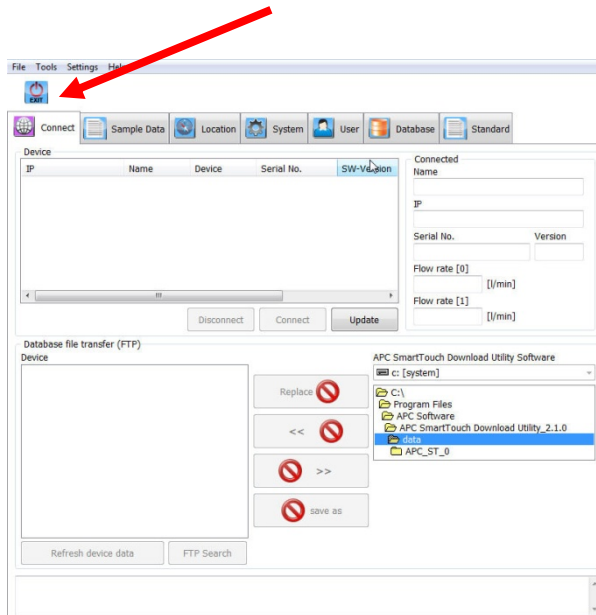
Overview of the different particle counting regulations for consulting: ISO 14644, GMP, FS209E.

The function of these tabs is described in detail in later chapters.

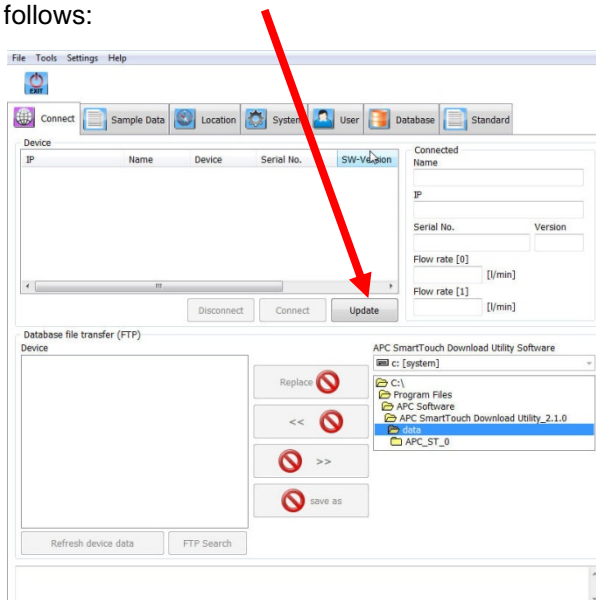
Additionally, there is the “usual” Windows menu bar for general functions like language settings.

4 Connecting the APC Download Utility Software to the instrument

Click on the connect tab  You will get the following Screen:

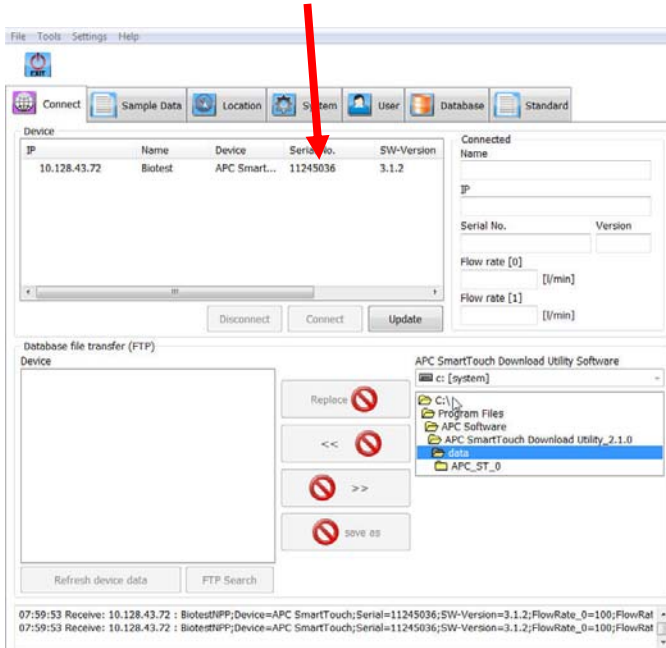


Click on the update button so that the instrument appears in the device list. You will get a screen as follows:

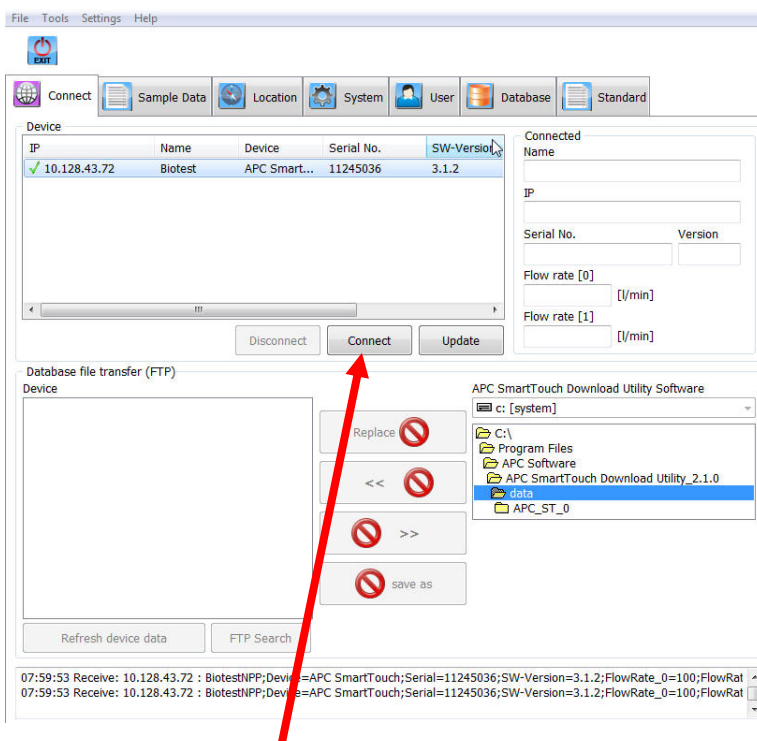


The Connected Instrument will appear here (if you have more than one instrument connected to the network they will all appear in this box).

Now click on the instrument you want to connect to.



The screen will change to this:



Now Click here to connect to the highlighted instrument.

This is the same screen after connection.

The screenshot displays a software application window with the following components:

- Menu Bar:** File, Tools, Settings, Help
- Toolbar:** Connect, Sample Data, Location, System, User, Database, Standard
- Device Table:**

IP	Name	Device	Serial No.	SW-Version
10.128.43.72	Biotest	APC Smart...	11245036	3.1.2
- Connected Panel:**
 - Name: APC SmartTouch
 - IP: 10.128.43.72
 - Serial No.: 11245036
 - Version: 3.1.2
 - Flow rate [0]: 100.0 [l/min]
 - Flow rate [1]: 28.3 [l/min]
- Database file transfer (FTP):**
 - Device: [Empty]
 - Buttons: Replace, <<, >>, save as
 - File Explorer: APC SmartTouch Download Utility Software, c: [system], C:\, Program Files, APC Software, APC SmartTouch Download Utility_2.1.0, data, APC_ST_0
- Status Bar:**

07:59:53 Receive: 10.128.43.72 : BiotestNPP;Device=APC SmartTouch;Serial=11245036;SW-Version=3.1.2;FlowRate_0=100;FlowRate_1=28.3

You can now see all the connected instrument data. You can now use the software.

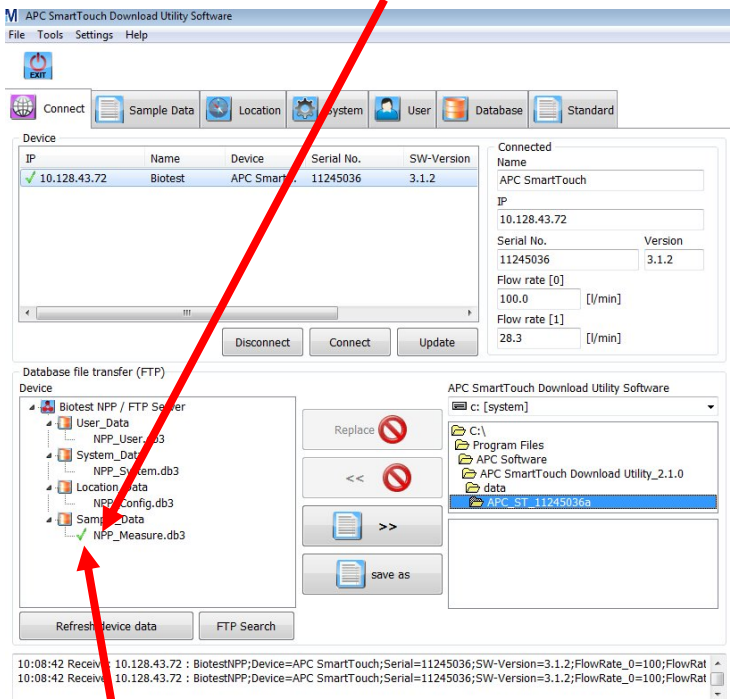
5 Upload data to the PC

The following screen presume you are connected to the instrument.

Click on 

The screen will change to this.

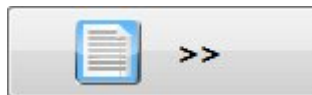
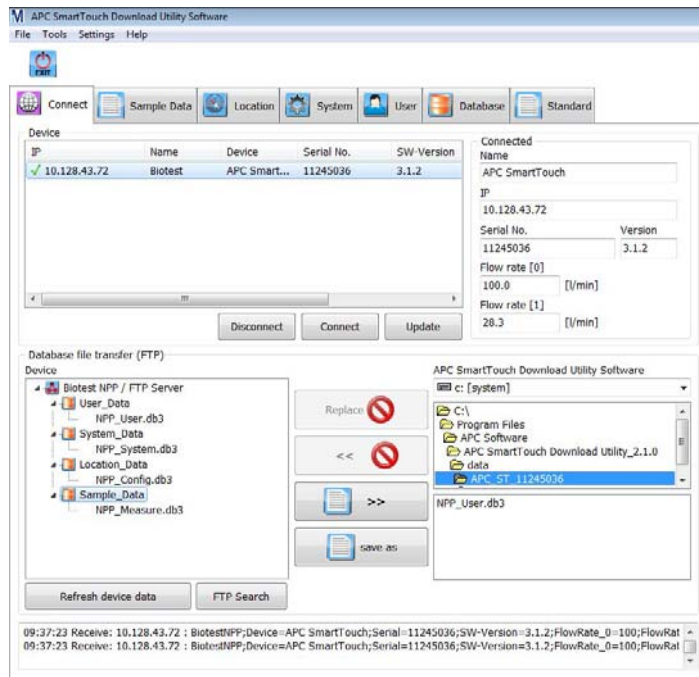
Select the Sample Data by clicking next to NPP_Measure.db3.

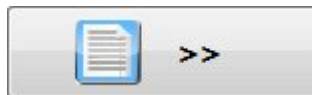


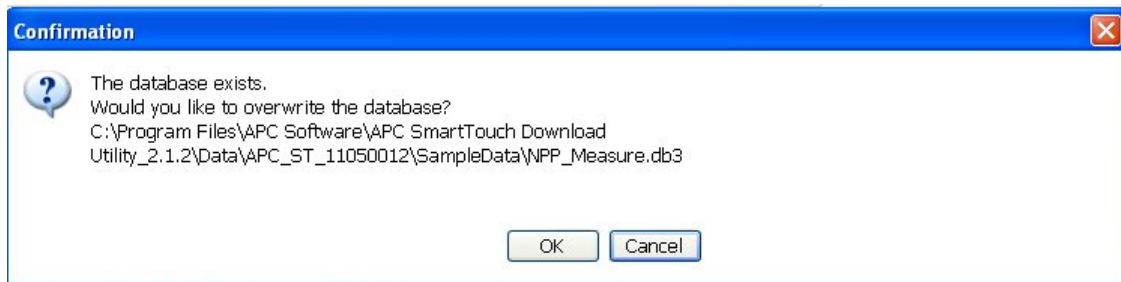
A green Tick will appear next to the selected database.



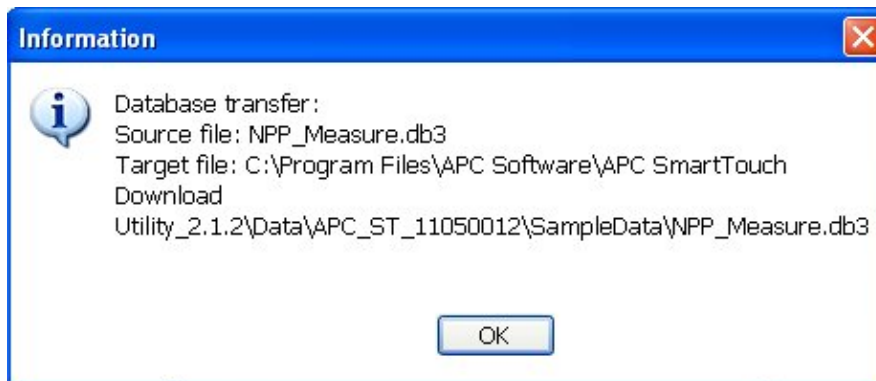
have now become active. Use the first one if you want to save the data under the existing name and use the second button if you want to save under a different name.



If you use the save button , you will get the following message: if the database already exists.



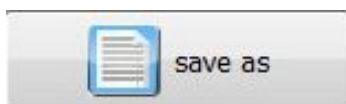
Now click OK and this screen will pop up:



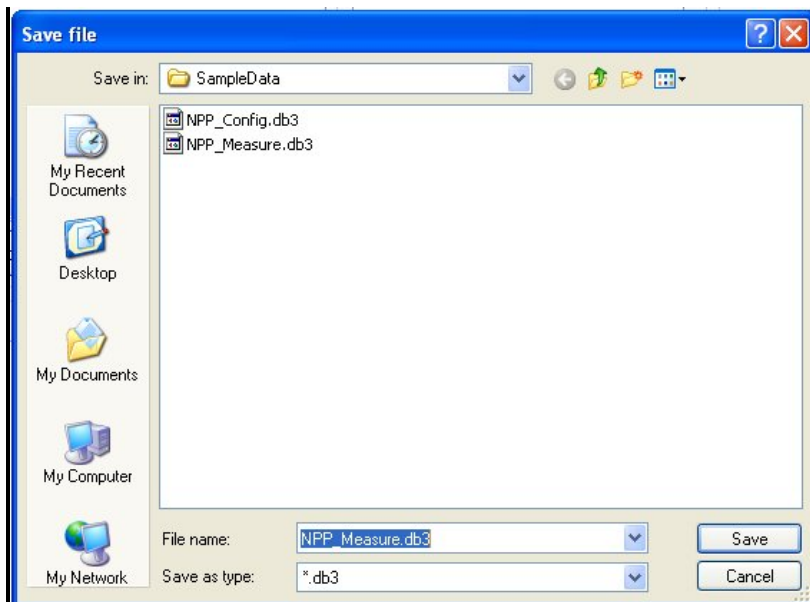
Now click OK.

You have now overwritten the old file.

If you use the following icon:

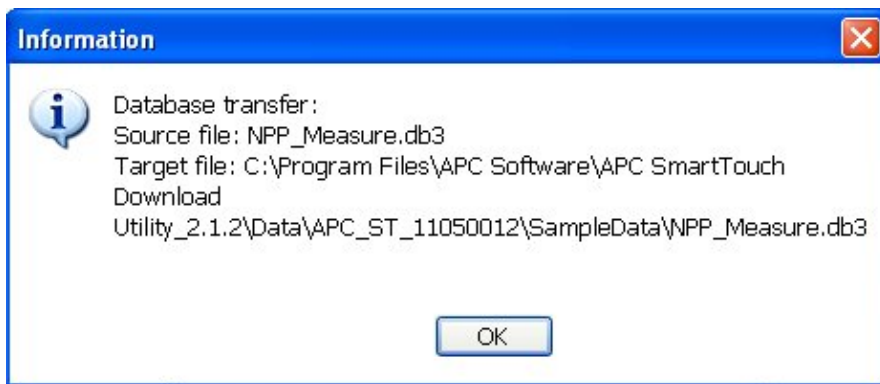


Then you will get the following window:



Click save to overwrite the previous data file. Or enter a new name and then click Save.

If you have not clicked to over write the old file you will get the following screen:



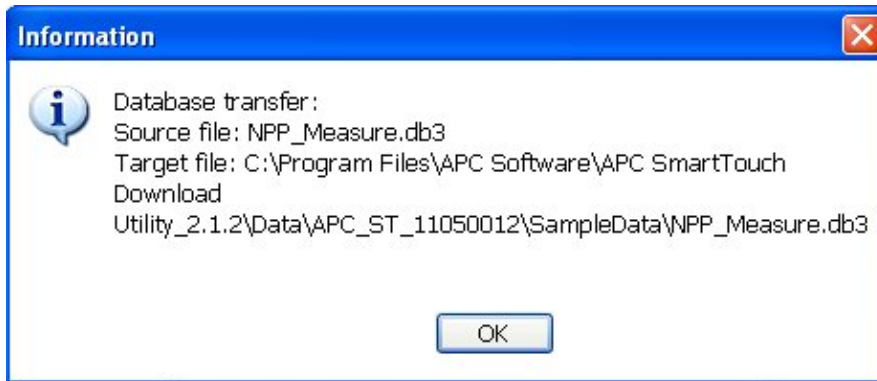
Now click OK.

You have now saved the file.

If you have clicked to overwrite the old file you will get the following screens:



Now click OK and this screen will pop up:

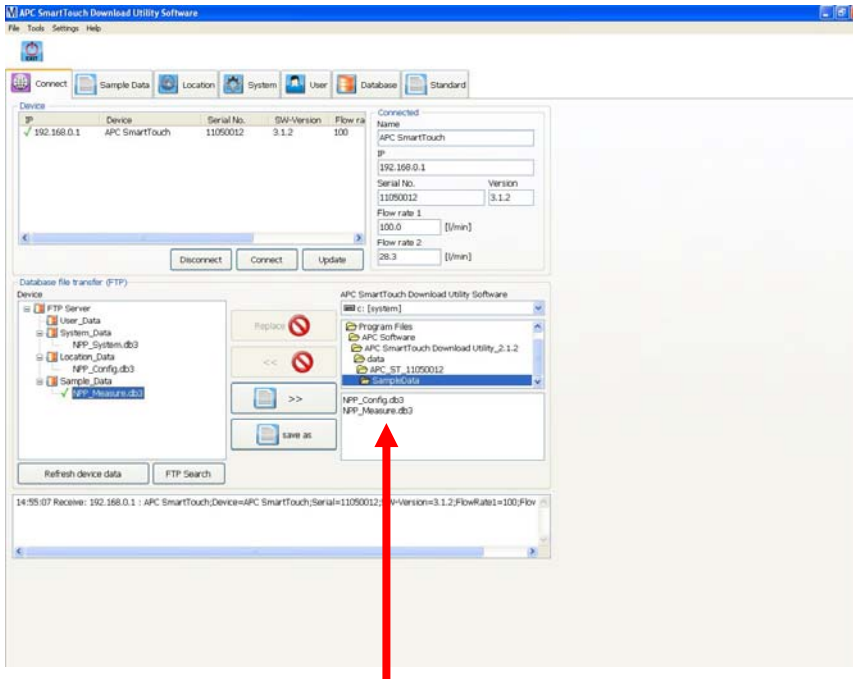


Now click OK.

You have now overwritten the old file.

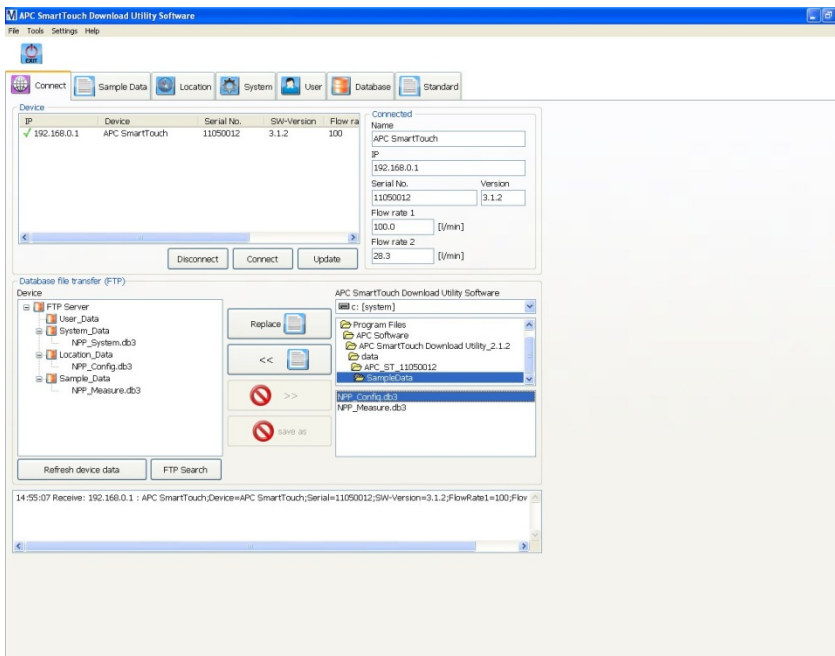
5.1 Uploading data to the APC SmartTouch

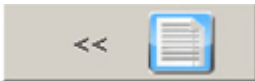
In the following window you can select one of the 4 files to upload them to the APC SmartTouch:



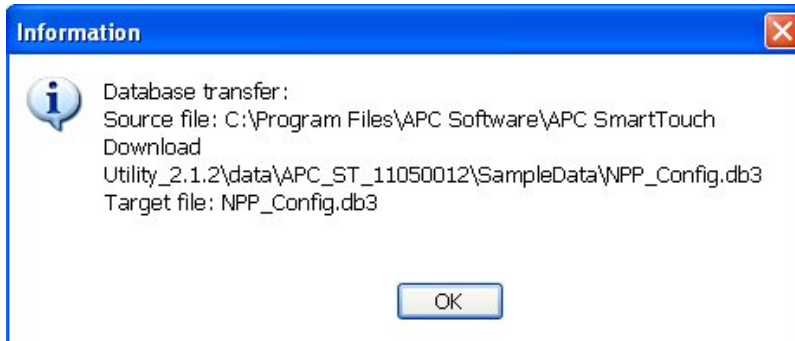
Click on the file you want to upload to the instrument here.

The screen will change to this:



The upload button  is active now to upload the required data file.

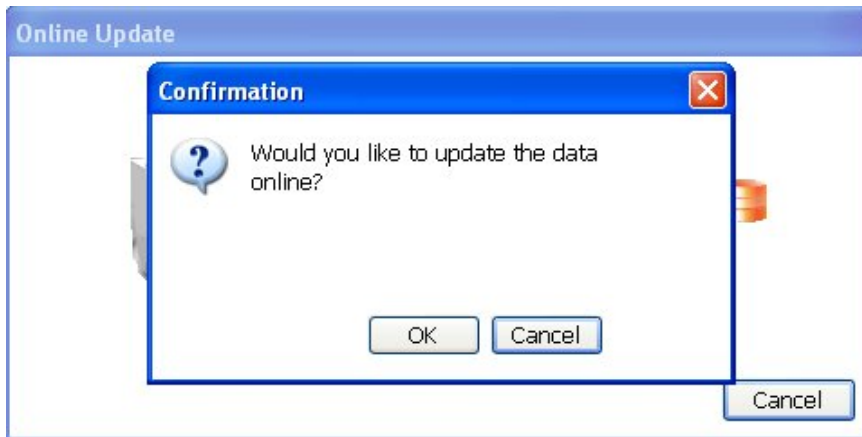
This information screen will appear:



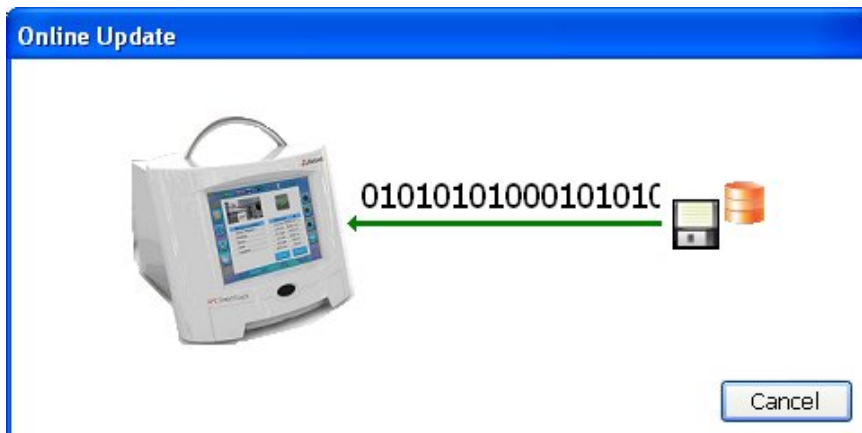
Now Click on Refresh device data



Now click OK and this screen will appear:



Now click OK and this screen will appear:



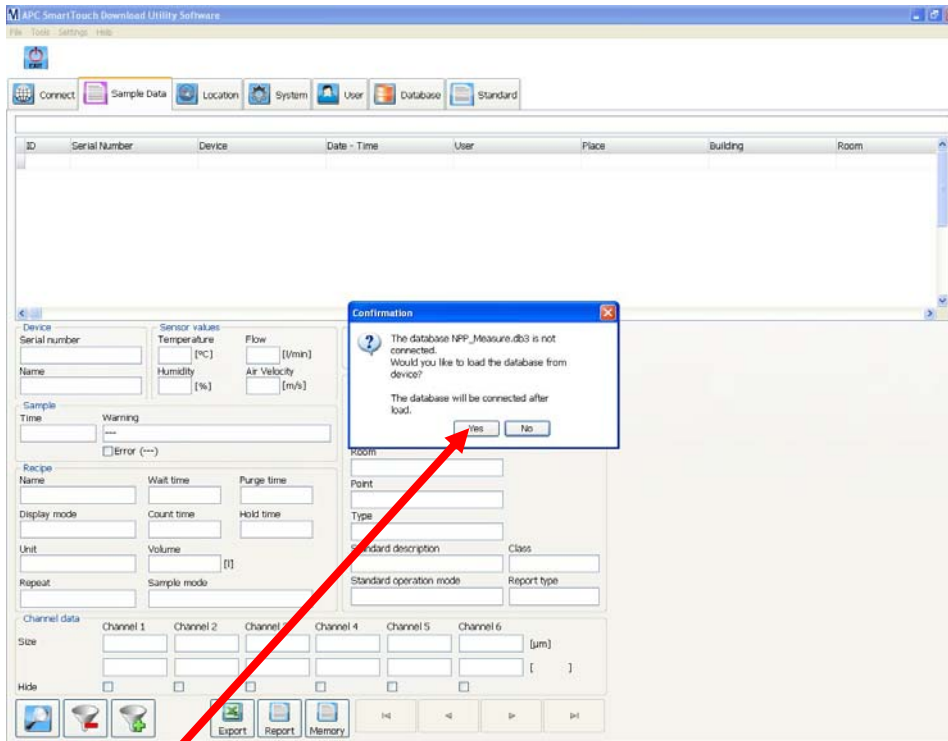
At the same time a screen will appear on the APC SmartTouch, Touch on Yes.

You have now saved the data to the instrument.

Note that the instrument will automatically disconnect from the software.

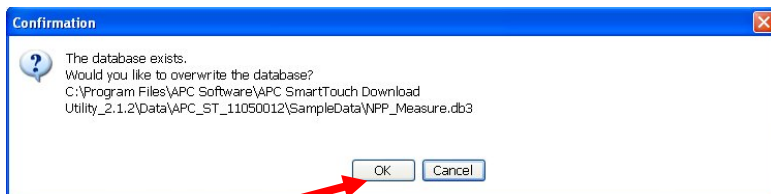
6 Sample Data

Click the Sample Data tab and you get the following screen:

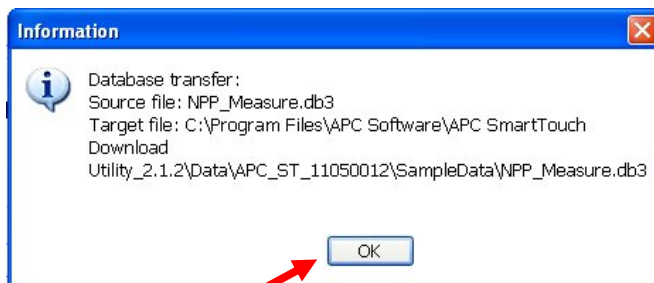


Now click on Yes.

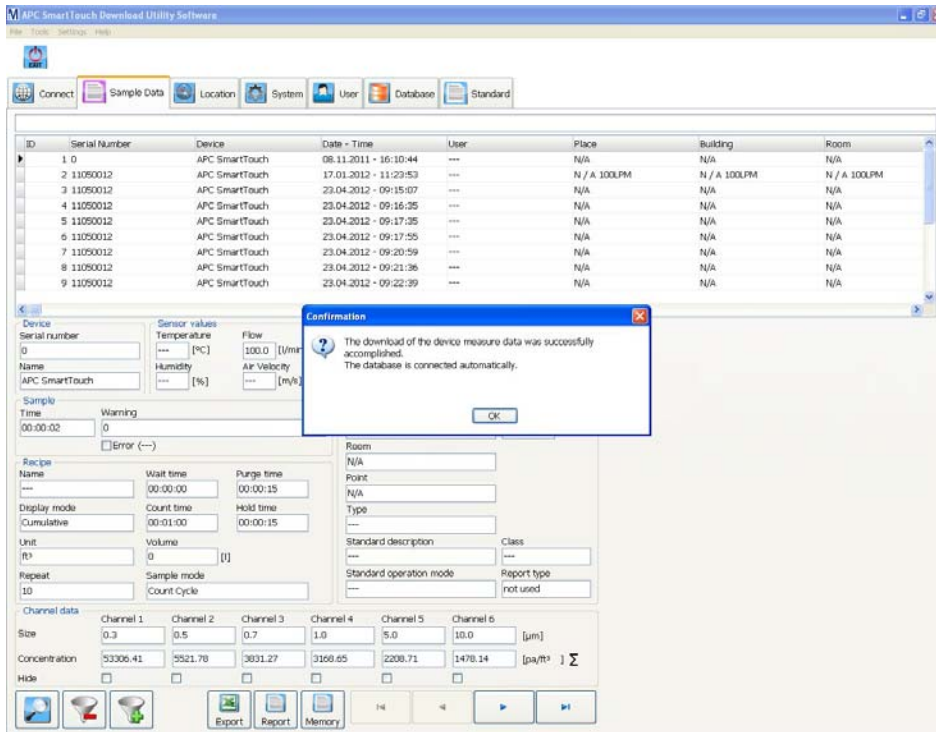
This screen will appear:



Now click on OK and this screen will appear:

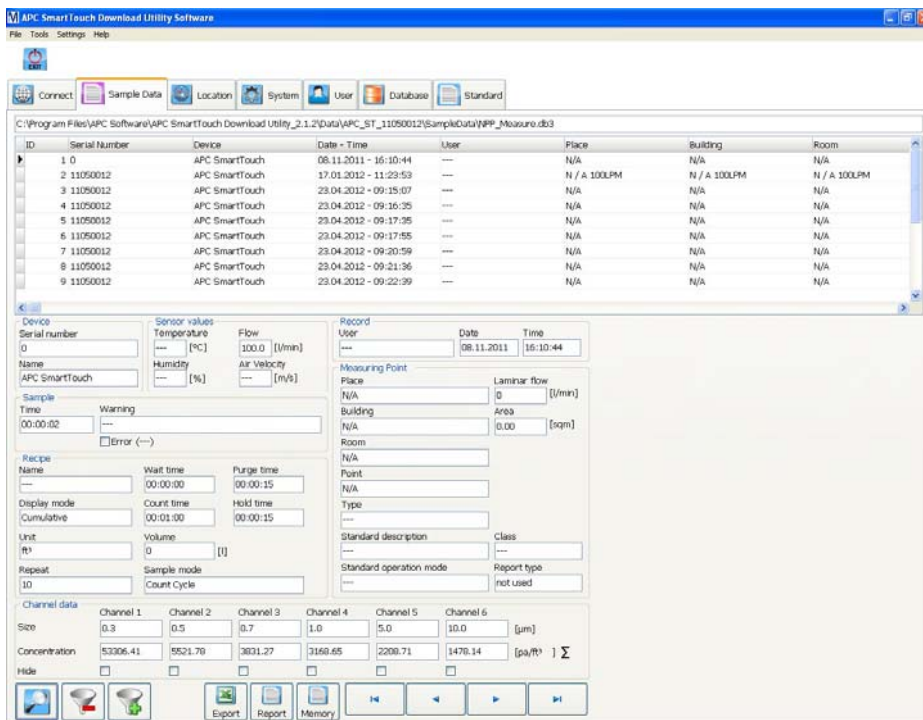


Now click on OK and this screen will appear:

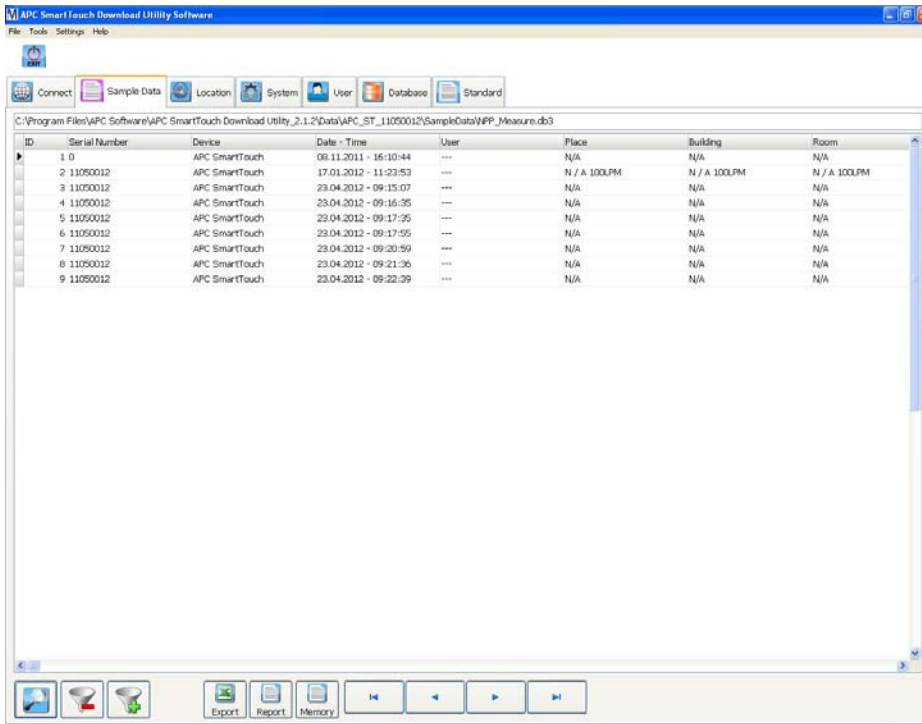


You have now uploaded the files and can now work with them.

This is the Sample Data screen after upload:

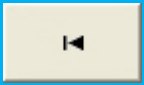


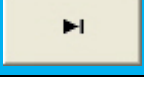


Click on the magnifying glass and you get the following screen to get an overview of the data records stored in the memory:



Click again the magnifying glass to return to the previous screen.

Explanation of the sample data navigation keys:

Key	Function
	Go to the first record of the database
	Step back one record
	Step forward one record
	Go to the last record of the database



Click the plus filter icon and you get the following screen:

Measure Data Filter

Filter

From: 1

To: 10000

Place: [dropdown] Active

Building: [dropdown] Active

Room: [dropdown] Active

Location: [dropdown] Active

User: [dropdown] Active

OK Cancel

With this option, it is possible to filter in the number of records you want to view or you can select on Place, Building, Room, Location and User.

Check the “active” box to activate the selected filter value.

<OK> closes this dialogue. The sample list on the top of the “measure data” displays only the data that match the filter settings.

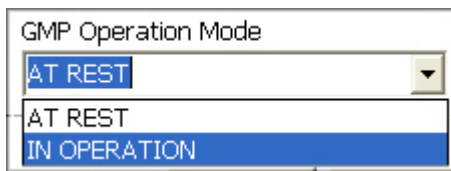
To switch off the filter and show all data records again, press the “Filter off” button:



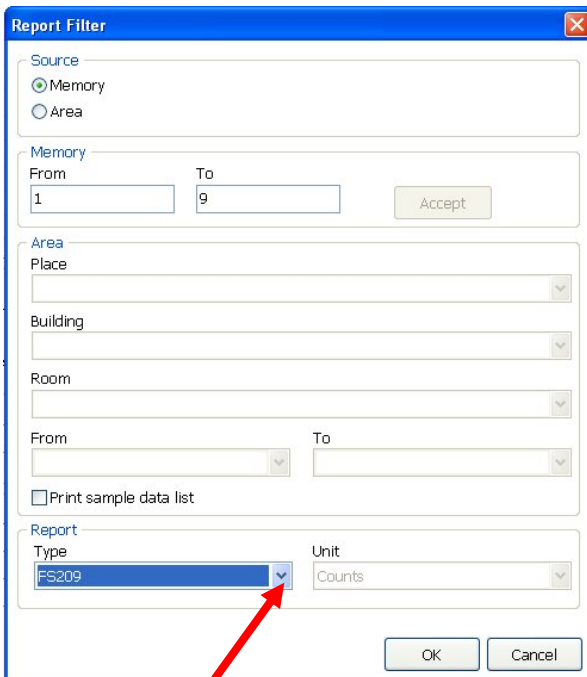
7 Report

As on the APC SmartTouch, the data can be reported in several ways. The data selection works similar to the data filtering:

- Source: Memory
Report over a data memory range. Enter the “from” and “to” values on the left side of the report filter dialogue. “1 to 10000” reports all data.
- Source: Area
Report data from a certain area. Select the place/building/room on the right side of the report filter dialogue.
- Report type: There are 4 types of reports. For the “GMP” report, you need to specify if is needed for “at rest” or “in operation”:



Click on the Report icon and you get the following window:



Click here to select report Type.

This drop down menu will appear:

Report Filter

Source
 Memory
 Area

Memory
 From: 1 To: 9

Area
 Place:
 Building:
 Room:
 From: To:
 Print sample data list

Report
 Type: FS209
 Unit: Counts

FS209
 ISO14644
 GMP
 Average / Min / Max

Select the ISO 14644 report as an example:

Report Filter

Source
 Memory
 Area

Memory
 From: 1 To: 9

Area
 Place:
 Building:
 Room:
 From: To:
 Print sample data list

Report
 Type: ISO14644
 Unit: Counts

Now select the range of results using these boxes then press OK.

You will now get a report preview screen.

Report / APC SmartTouch
11.06.2012
16:36:22

Device
Serial number: 0
Name: APC SmartTouch

Cleanroom
Place: N/A
Building: N/A
Room: N/A
Type: ---
Area: 0.00 sqm
Laminar flow: 0 rvs
Standard: ---
Operation mode: ---
Class: ---

Recipe
Name: ---
Wait time: 00:00:00
Purge time: 00:00:15
Count time: 00:01:00
Hold time: 00:00:15
Repeat: 10
Sample mode: Count Cycle
Volume: ---
Flow: 100.0 l/min

Report
Type: ISO14644
Unit: pa/m³
User: ---




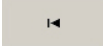
Sample information
Total volume: 3.33 l
Measuring points: 1
Records: 1
Warning: ---
Error: ---

Record store time (Date - Time)
From: 08.11.2011 - 16:10:44
To: 08.11.2011 - 16:10:44

Σ	Size	M	SD	SE	95%UCL
Channel	µm	pa/m ³	pa/m ³	pa/m ³	pa/m ³
1	0.3	1882500.00	0.00	0.00	1882500.00
2	0.5	195000.00	0.00	0.00	195000.00
3	0.7	135300.00	0.00	0.00	135300.00
4	1.0	111900.00	0.00	0.00	111900.00
5	5.0	78000.00	0.00	0.00	78000.00
6	10.0	52200.00	0.00	0.00	52200.00




Channel	Size	Conc. limit	Test result
	µm	pa/m ³	
1	0.3	---	passed
2	0.5	---	passed
3	0.7	---	passed
4	1.0	---	passed

You can now choose if you want to print it or save as an PDF file. Scroll though all the results ECT using the icons at the top of the screen.

If the report contains multiple pages click the  button to go to the next page. Clicking the  button brings you to the last page of the report. To go to the previous page click on the  button. To bring you back to the first record click on the  button.

7.1 Possible Error Messages for Reports

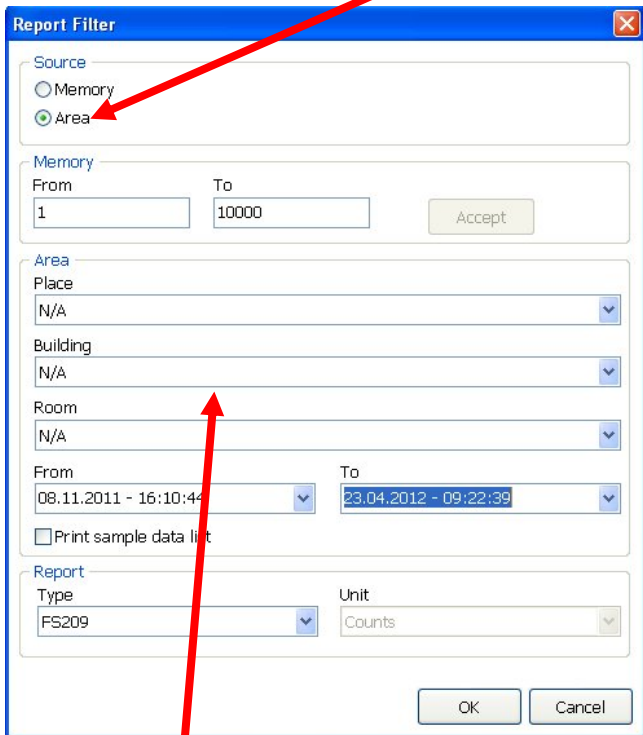
The reports have to meet some requirements in order to calculate according to the standards. If the selected data are not compliant to the report, an error message is displayed:

Error message	Meaning
	<p>The filter settings don't match the report requirements. For example sample locations can not be mixed with other area's.</p>
	<p>Either the area is not defined to the "room" level, or quantity of sample locations is below the minimum required quantity. Is the minimum required quantity of samples per location fulfilled?</p>
	<p>A report can be made only from one counter at a time. All data records must belong to the same counter.</p>

If all settings are valid, the report is displayed.

8 Using Area

You can also select the data via the Area button:



The screenshot shows the 'Report Filter' dialog box. It has a blue title bar with a close button. The 'Source' section has two radio buttons: 'Memory' and 'Area'. The 'Area' radio button is selected, and a red arrow points to it from the text above. Below this is the 'Memory' section with 'From' (1) and 'To' (10000) input fields and an 'Accept' button. The 'Area' section contains dropdown menus for 'Place', 'Building', and 'Room', all set to 'N/A'. It also has 'From' and 'To' date-time dropdowns with values '08.11.2011 - 16:10:44' and '23.04.2012 - 09:22:39'. A checkbox for 'Print sample data list' is present. The 'Report' section has 'Type' (FS209) and 'Unit' (Counts) dropdowns. At the bottom are 'OK' and 'Cancel' buttons. A second red arrow points from the text below to the 'Area' section.

All this section will become active.

Now select the Place, Room and Building.

Report Filter

Source

Memory

Area

Memory

From: 1 To: 10000 Accept

Area

Place: N/A

Room: N/A

From: 08.11.2011 - 16:10:44 To: 23.04.2012 - 09:21:36

Print sample data list

Report

Type: FS209 Unit: Counts

OK Cancel

Now select the date range:

Report Filter

Source

Memory

Area

Memory

From: 1 To: 10000 Accept

Area

Place: N/A

Building: N/A

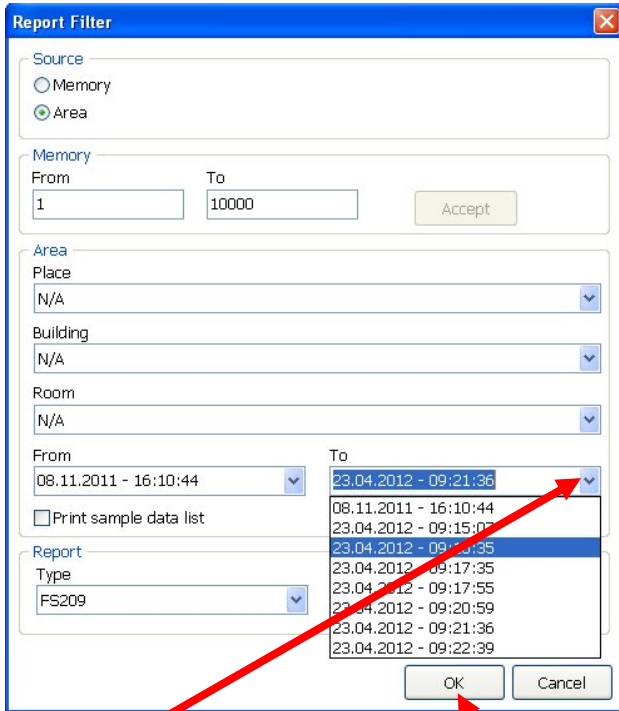
Room: N/A

From: 08.11.2011 - 16:10:44 To: 23.04.2012 - 09:21:36

Unit: Counts

OK Cancel

Click here for the From Date.




Click here for the TO date

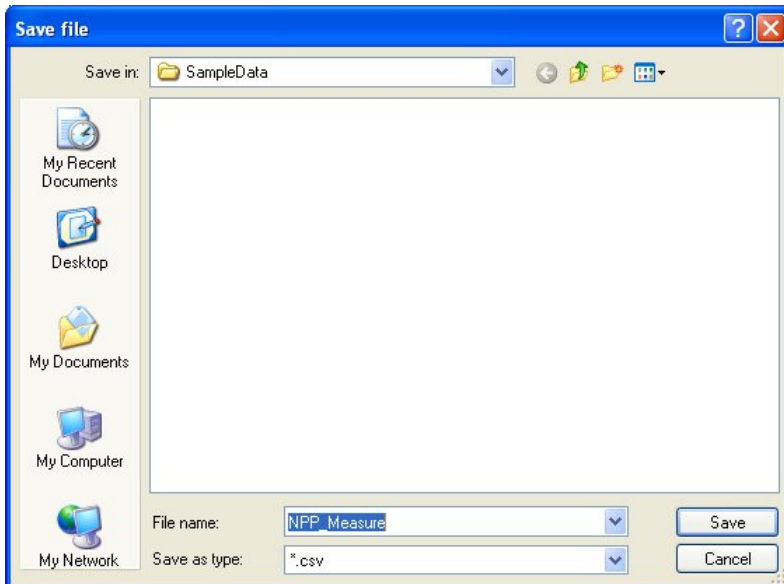
Once you have selected your dates press OK and the preview screen will appear as before.

Export to Excel:



To use the export function click on the  icon.

This screen will appear:



Using normal windows functions save the file to your required position. The file will be exported in a .csv format.

9 Working with Location

In Location you can

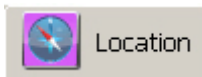
- define sample locations
- define sample parameters (recipes)
- add images to visualize the sample area

With the APC SmartTouch Utility Software, you only have to define these settings once, and then you can upload these settings to the APC SmartTouch counter.

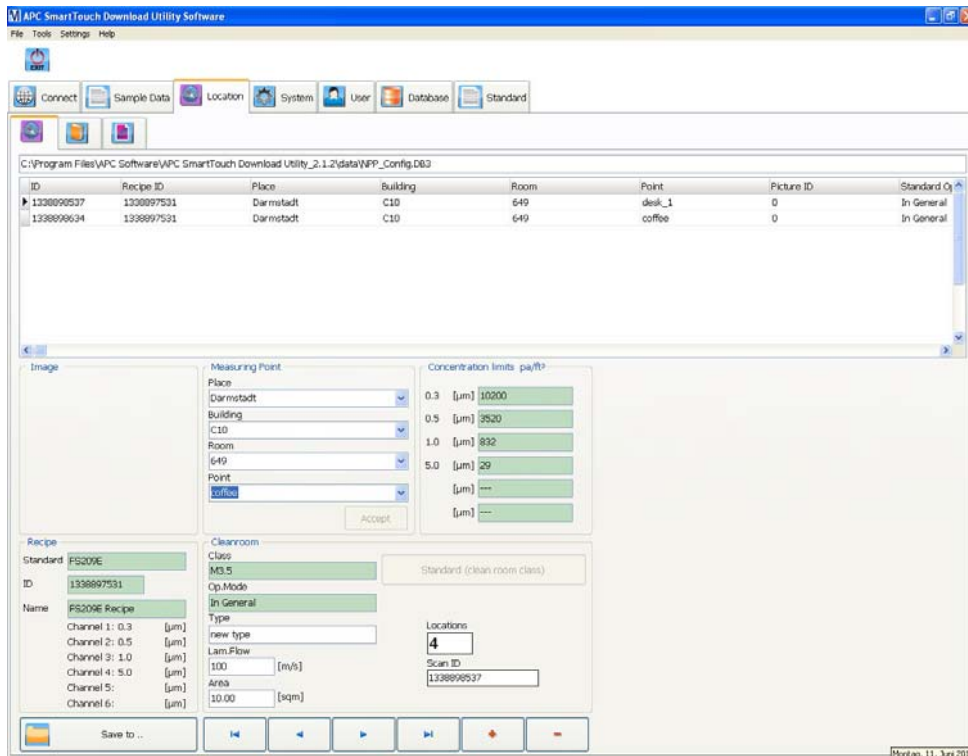
These 3 features are represented by the icons on the left side:



9.1 The Location Tab



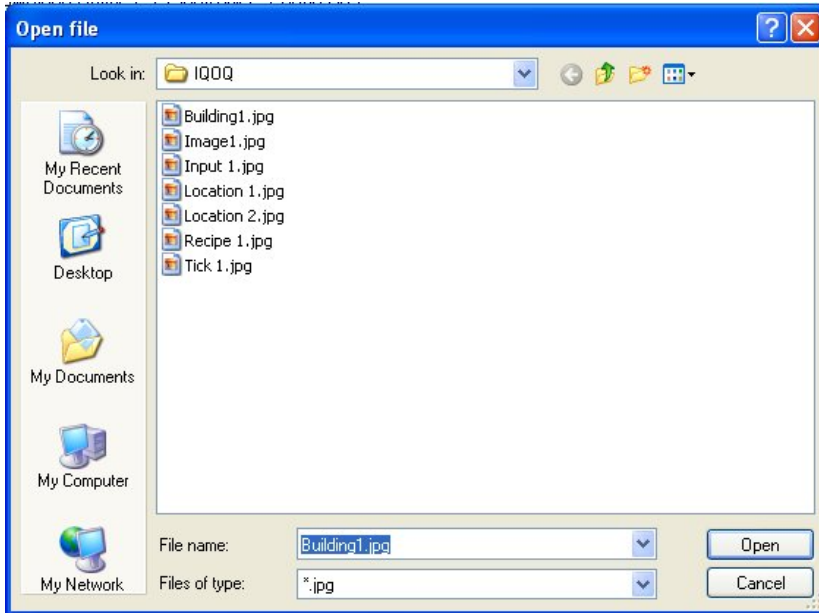
You will get the following screen:



9.2 Adding an Image

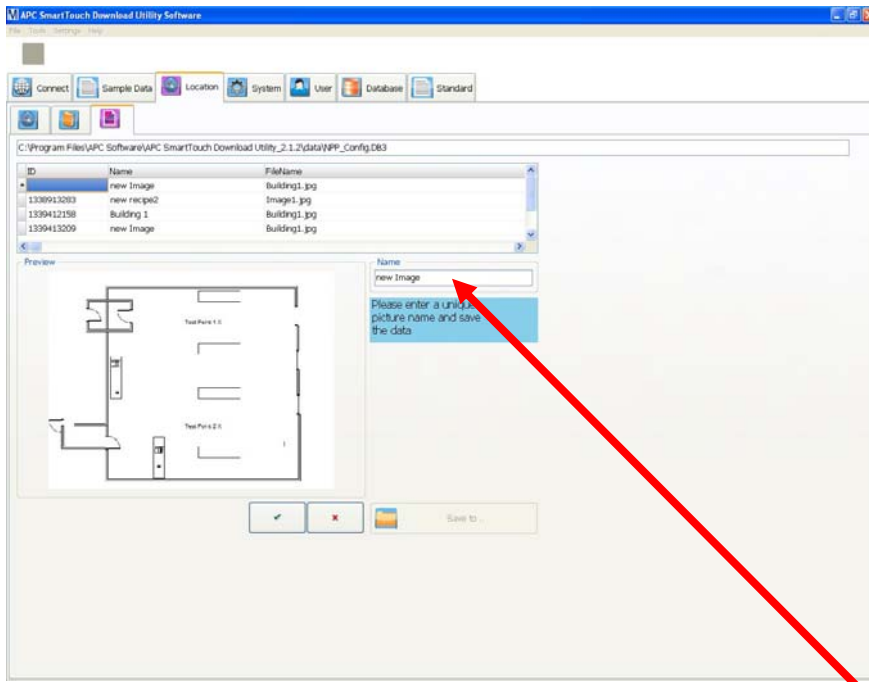
In Location you can upload an image of the cleanroom to the APC Download Utility Software. The image needs to have an Jpeg. A specific particle counting program can be addressed to the uploaded image. To make the link complete also measuring points can be allocated to the created image and counting program.

Click the Image icon  and click on the  button. You will get a window as shown below:

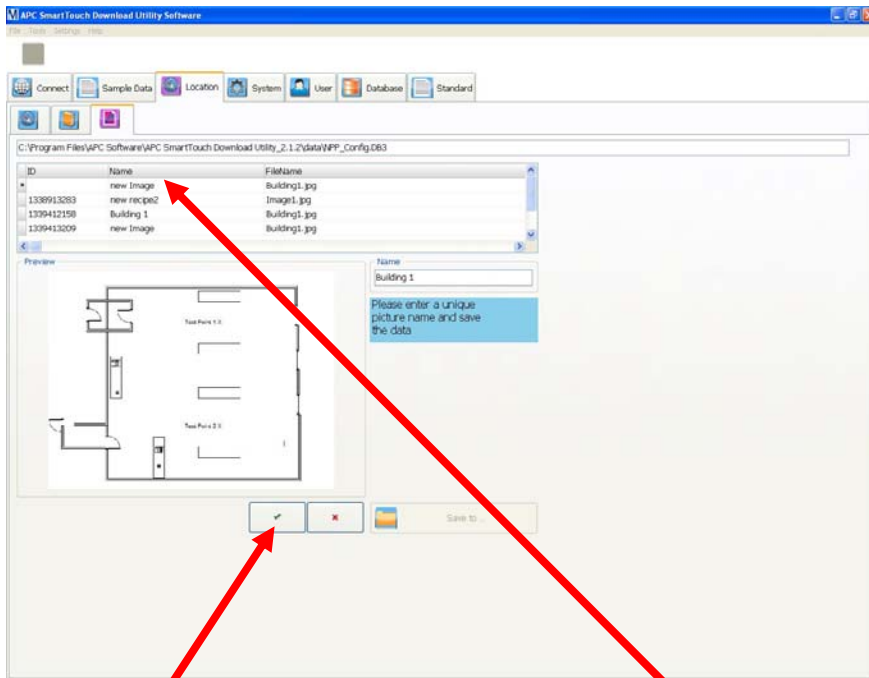


With your Windows system you can upload any Jpeg picture stored on your PC. In this example 7 drawings of cleanrooms are stored in jpg file format.

The first picture is selected to be uploaded to the APC SmartTouch Download Utility Software in the next screen:



A preview of the picture is now seen in the preview panel. Now add a Unique name here:

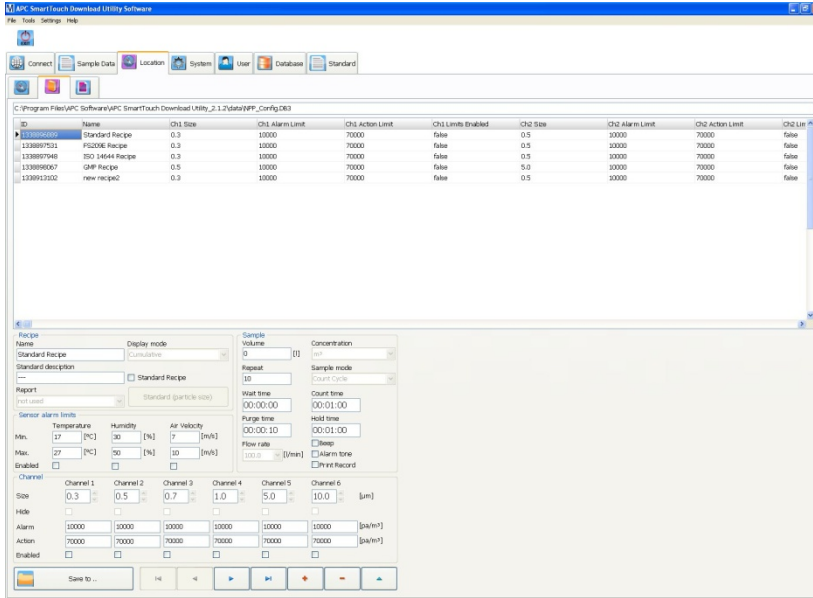


Now click here and the name you inserted will be seen here.

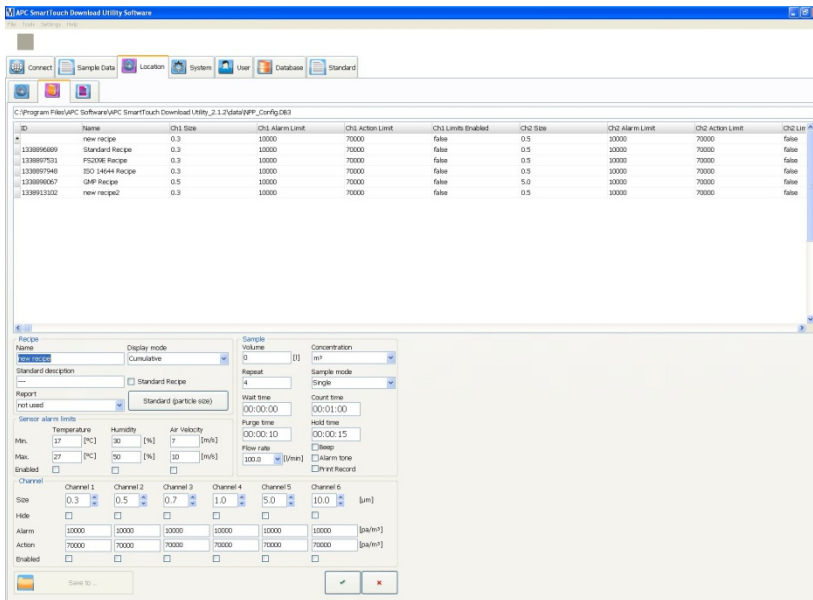
9.3 Adding a Recipe



Click on the Recipe icon the following screen will appear:



To add a new recipe first click on the Plus button the following screen appears:



In this screen a new name can be added to create a new count recipe, for example. Qualification C11 as in the next screen:

Recipe Name: new recipe

Display mode: Cumulative

Standard description: ---

Report: not used

Sensor alarm limits: Temperature 17 [°C], Humidity 30 [%], Air Velocity 7 [m/s]

Channel 1: Size 0.3, Alarm 10000, Action 70000

Channel 2: Size 0.5, Alarm 10000, Action 70000

Channel 3: Size 0.7, Alarm 10000, Action 70000

Channel 4: Size 1.0, Alarm 10000, Action 70000

Channel 5: Size 5.0, Alarm 10000, Action 70000

Channel 6: Size 10.0, Alarm 10000, Action 70000

Add New name here:

Recipe Name: Qualification C11

Display mode: Cumulative

Standard description: ---

Report: not used

Sensor alarm limits: Temperature 17 [°C], Humidity 30 [%], Air Velocity 7 [m/s]

Channel 1: Size 0.3, Alarm 10000, Action 70000

Channel 2: Size 0.5, Alarm 10000, Action 70000

Channel 3: Size 0.7, Alarm 10000, Action 70000

Channel 4: Size 1.0, Alarm 10000, Action 70000

Channel 5: Size 5.0, Alarm 10000, Action 70000

Channel 6: Size 10.0, Alarm 10000, Action 70000

Now select in the recipe how the count results must be presented: cumulative or differential as this is



the same function as the button

on the APC SmartTouch counter.

Recipe Name: Qualification C11

Display mode: Differential

Standard description: ---

Report: not used

Sensor alarm limits: Temperature 17 [°C], Humidity 30 [%], Air Velocity 7 [m/s]

Channel 1: Size 0.3, Alarm 10000, Action 70000

Channel 2: Size 0.5, Alarm 10000, Action 70000

Channel 3: Size 0.7, Alarm 10000, Action 70000

Channel 4: Size 1.0, Alarm 10000, Action 70000

Channel 5: Size 5.0, Alarm 10000, Action 70000

Channel 6: Size 10.0, Alarm 10000, Action 70000

You can now select the specific report type you need for the new recipe.

Select one report type from this drop down box.

The screenshot shows the 'Recipe' configuration interface. The 'Report' dropdown menu is open, showing options: 'not used', 'FS209', 'ISO14644', and 'GMP'. A red arrow points to the 'not used' option. The 'Standard (particle size)' button is also visible. The 'Display mode' is set to 'Cumulative'. The 'Sample' section includes 'Volume' (0), 'Concentration' (m³), 'Repeat' (4), 'Sample mode' (Single), 'Wait time' (00:00:00), 'Count time' (00:01:00), 'Purge time' (00:00:10), 'Hold time' (00:00:15), 'Flow rate' (100.0 l/min), and checkboxes for 'Beep', 'Alarm tone', and 'Print Record'. The 'Channel' section has six channels with 'Size' (0.3, 0.5, 0.7, 1.0, 5.0, 10.0 μm), 'Hide' (checkboxes), 'Alarm' (10000 pa/m³), 'Action' (70000 pa/m³), and 'Enabled' (checkboxes) settings.

By selecting the report type the screen will now change.

The screenshot shows the 'Recipe' configuration interface after selecting 'ISO14644' as the report type. The 'Report' dropdown is now set to 'ISO14644'. The 'Sensor alarm limits' section is now visible, showing 'Temperature' (Min: 17, Max: 27 °C), 'Humidity' (Min: 30, Max: 50 %), and 'Air Velocity' (Min: 7, Max: 10 m/s) with 'Enabled' checkboxes. The 'Display mode' is still 'Cumulative'. The 'Sample' and 'Channel' sections remain the same as in the previous screenshot.

If you have external sensors you can now add the alarm parameters.

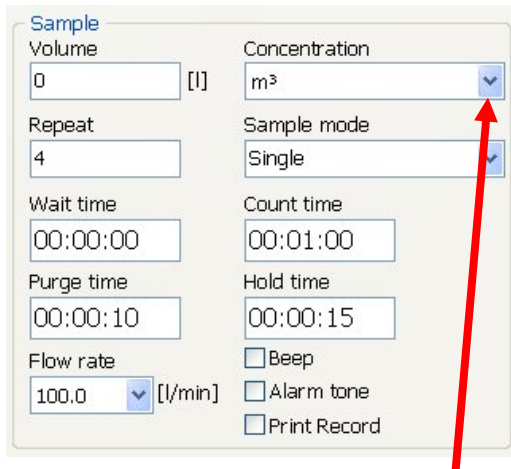
The close-up screenshot shows the 'Sensor alarm limits' section. It has three columns: 'Temperature', 'Humidity', and 'Air Velocity'. Each column has 'Min.' and 'Max.' input fields and an 'Enabled' checkbox. The values are: Temperature (Min: 17, Max: 27 °C), Humidity (Min: 30, Max: 50 %), and Air Velocity (Min: 7, Max: 10 m/s). All 'Enabled' checkboxes are currently unchecked.

Set the required values and then click on the Enable buttons below the parameter

Now Set the minimum and maximum limits for the sensors. If you don't have any sensors, leave the "enabled" box unchecked

Setting Sample Type:

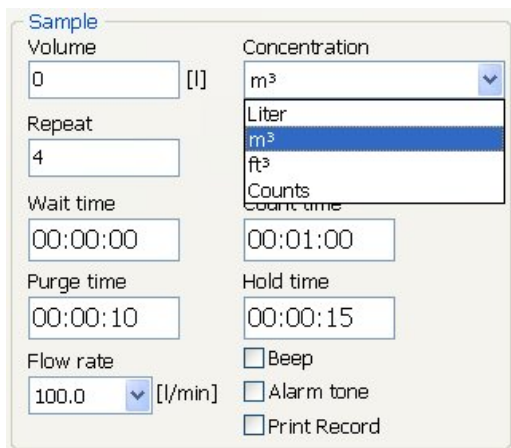
This is done in this section of the screen.



The screenshot shows the 'Sample' configuration window. On the left side, there are input fields for 'Volume' (0), 'Repeat' (4), 'Wait time' (00:00:00), 'Purge time' (00:00:10), and 'Flow rate' (100.0). On the right side, there are dropdown menus for 'Concentration' (m³) and 'Sample mode' (Single), along with time fields for 'Count time' (00:01:00) and 'Hold time' (00:00:15). At the bottom right, there are three checkboxes: 'Beep', 'Alarm tone', and 'Print Record'. A red arrow points to the 'Concentration' dropdown menu.

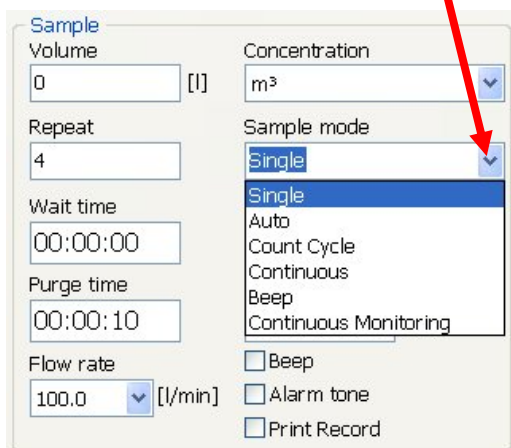
First select the Concentration Type Click here a drop down box appears.

Select the right sample mode as shown in the next screen:



This screenshot shows the 'Sample' configuration window with the 'Concentration' dropdown menu open. The menu lists four options: 'Liter', 'm³' (which is highlighted in blue), 'ft³', and 'Counts'. The rest of the interface, including the 'Sample mode' dropdown, remains the same as in the previous screenshot.

Now select the sample mode by clicking here this drop down box will appear:



This screenshot shows the 'Sample' configuration window with the 'Sample mode' dropdown menu open. The menu lists six options: 'Single' (highlighted in blue), 'Auto', 'Count Cycle', 'Continuous', 'Beep', and 'Continuous Monitoring'. A red arrow points to the 'Sample mode' dropdown menu.

Explanation on the above mentioned screens:

9.4 Volume:

Enter the volume of air to be sampled.

- Concentration: Enter if the data should be displayed as counts, or as a concentration of
 - counts per liter
 - counts per m³
 - counts per cubic foot

9.5 Repeat:

Only relevant if you choose “cycle count”: it defines the number of sample per sample location.

9.6 Sample mode:

Select between single mode, auto mode, cycle count, continuous, beep mode or continuous monitoring. For more information about the different sample modes, see the instrument user manual

9.7 Wait time:

Defines the time delay before the pump starts working. For example, you can use this time to leave a clean room and let the laminar air flow re-establish itself before starting the sampling.

9.8 Purge time:

Defines the time when the pump is already working, but the counting has not started yet. The pump needs a time of about 10 seconds to reach a stable operating condition. Therefore, the purge time should not be set below 10 seconds.

9.9 Count time:

is the actual time that the counter is counting the particles.

9.10 Hold time:

defines how long the sampling stops between two succeeding samples. So, this value is only relevant if “count cycle mode” or “auto mode” is activated.

NOTE:

Enter all time values in the HH:MM:SS format

9.11 Alarm Tone

checkbox: If checked count alarms are active.

9.12 Beep

checkbox: If checked, every particle count will be indicated by a “Geiger counter” sound. This feature can be used for leakage testing of HEPA-filters.

9.13 Print record

checkbox: If checked, the data are printed out on the thermal printer of the APC SmartTouch airborne particle counter.

9.14 Setting Channel Parameters

Now select the particle channels you want to view in the report.

Any Channels you do not want to view can be hidden.

Also an Alarm and Action alarm can be set for each particle size as shown below.

Channel	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	
Size	0.3	0.5	0.7	1.0	5.0	10.0	[µm]
Hide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Alarm	10000	10000	10000	10000	10000	10000	[pa/m ³]
Action	70000	70000	70000	70000	70000	70000	[pa/m ³]
Enabled	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

The Alarms can be switched on or off:

For each of the six particle channels, you can set the following parameters:

9.15 Particle size

in µm. The size of the particle can be incremented in steps of 0,1 µm.

9.16 Alarm limit (particles):

For each particle channel an alarm can be set in number of particles. This alarm should be interpreted as an pre-alarm, a first warning that something is going wrong at the point of measurement.


9.17 Action limit (particles)

This alarm level should be set to a level of particles that when the Action Alarm occurs an action should be taken to secure production of goods. Because of this alarm production could be stopped to secure it from possible contamination.

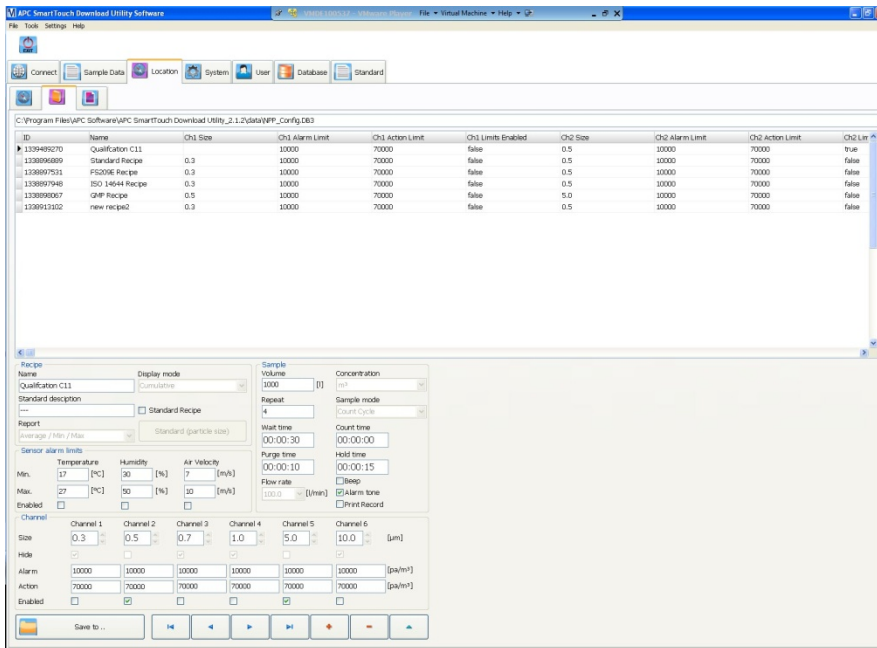
9.18 “Alarm on”

checkbox: Even if alarm and action limits are set, the alarm and action settings will be ignored if the checkmark is not set.

Channel	Channel 1	Channel 2	Channel 3	Channel 4	Channel 5	Channel 6	
Size	0.3	0.5	0.7	1.0	5.0	10.0	[µm]
Hide	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Alarm	10000	10000	10000	10000	10000	10000	[pa/m ³]
Action	70000	70000	70000	70000	70000	70000	[pa/m ³]
Enabled	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

Now click the confirmation button at the bottom of the screen  to store the recipe.

The screen will now change to this:



9.19 Multiple Recipes

You can add multiple recipes.

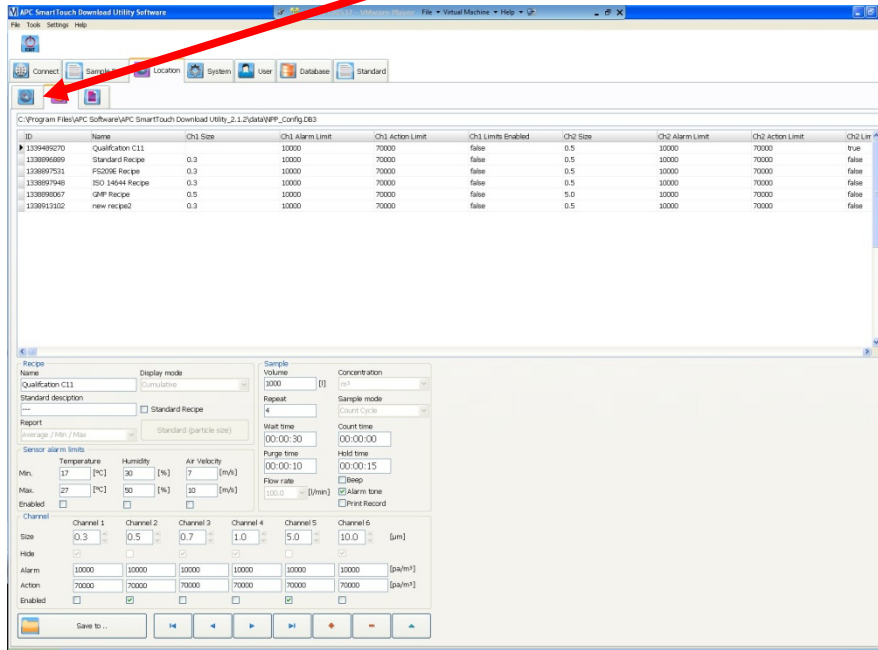


To add more recipes click the  icon and repeat the previous steps.

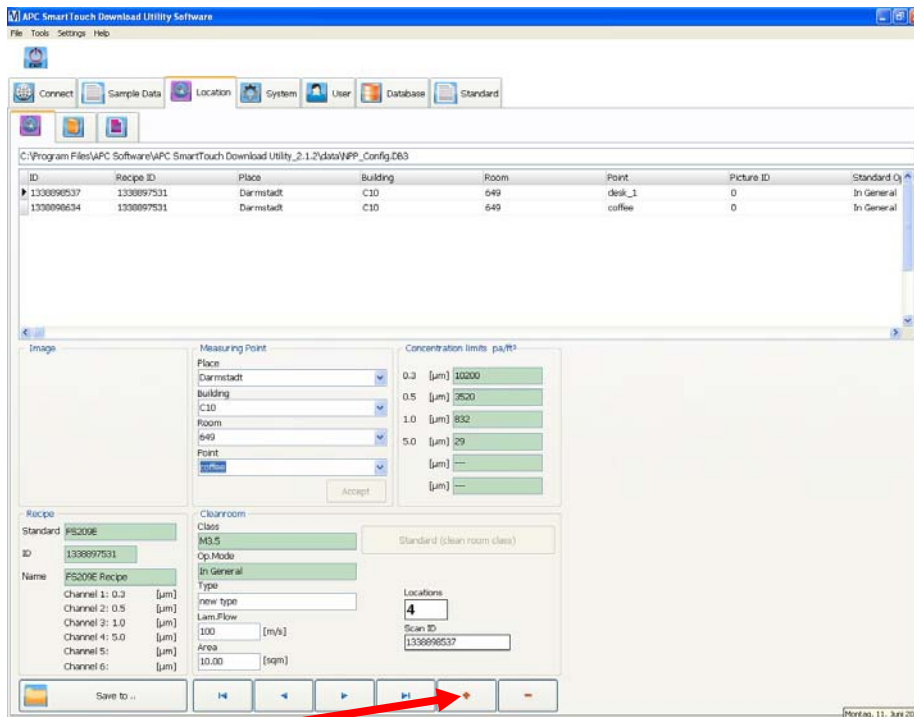
10 Adding Locations



Now click on the Location icon



and you will get the following screen:



Now click Here and the Measure point input box will become active.

Measuring Point

Place
new place

Building
new building

Room
new room

Point
new location

Accept

Fill out this window to identify the measuring point by Place, Buiding, Room and Point.
See example below:

Measuring Point

Place
Darmstadt

Building
E60


Room
323

Point
Test point 1

Accept

Click the Accept button. Following message appears:

Information

 The selected cleanroom area is new.
Please define the specific data of the cleanroom area.

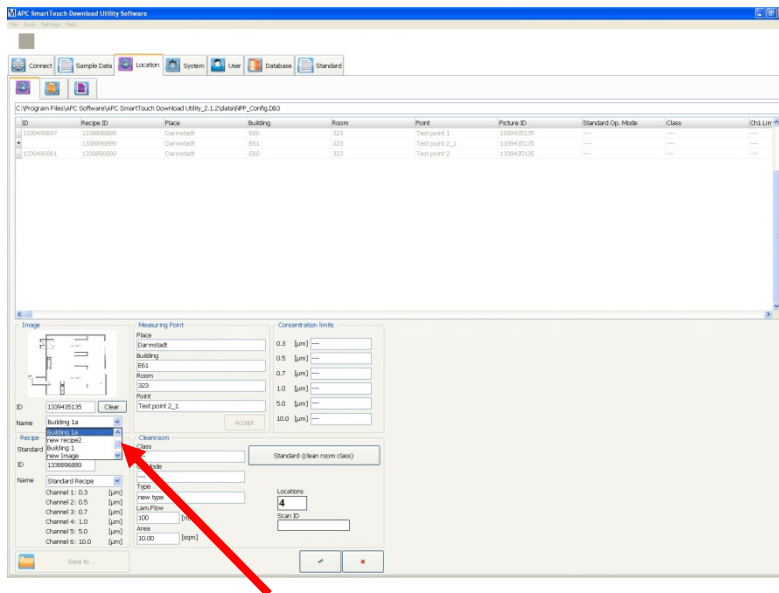
- Image
- Recipe
- Channel concentration limits
- Class (Standard)
- Operation mode (Standard)
- Type
- Area
- Laminar flow

New locations in the cleanroom area will take over the specific data.

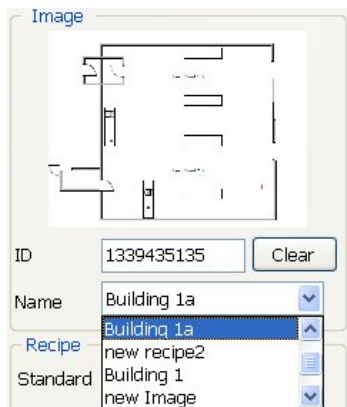
OK

Click OK.

10.1 Selecting the image

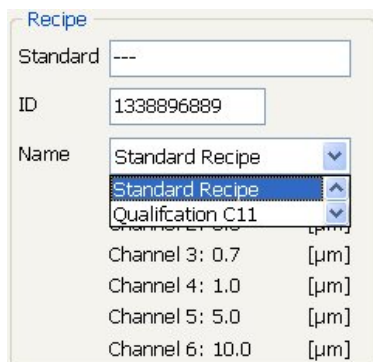


Now select the right picture to link to the first measuring point as shown in the following screen:



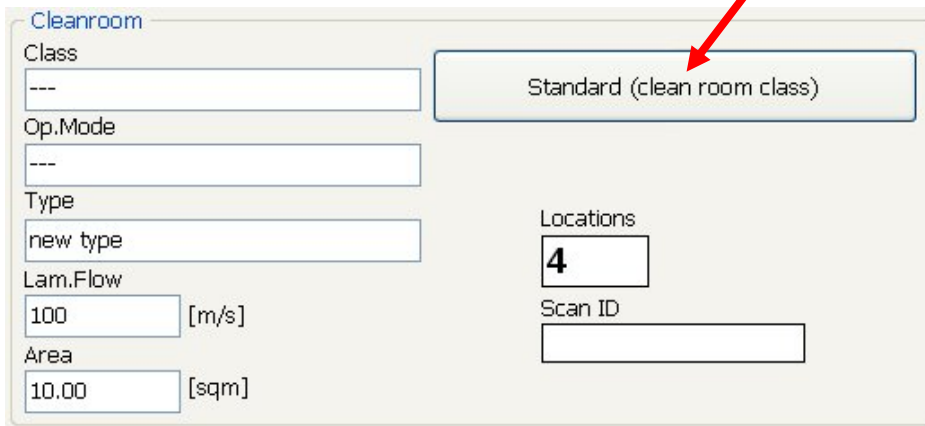
10.2 Selecting the Recipe

Select the right recipe linked to this picture, in this example select Qualification C11.



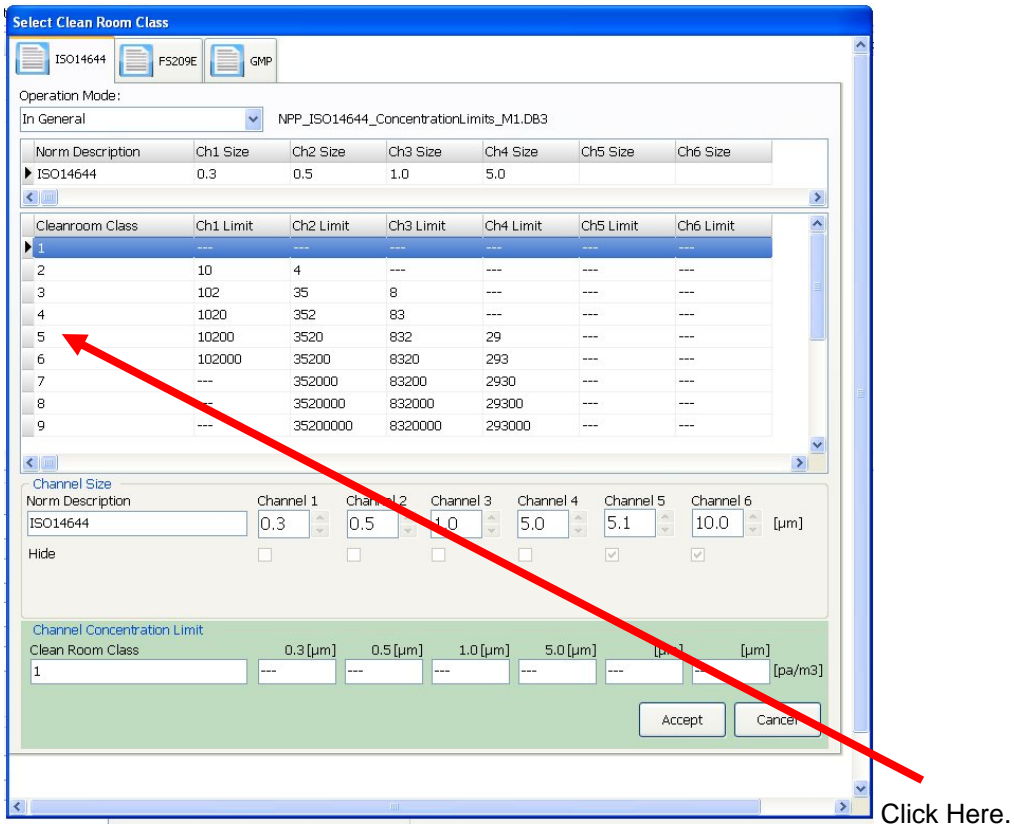
10.3 Specifying the Clean Room Class

Now specify the cleanroom standard for your cleanroom Click Here:



The screenshot shows a software interface for configuring a cleanroom. On the left, there are several input fields: 'Class' (containing '---'), 'Op.Mode' (containing '---'), 'Type' (containing 'new type'), 'Lam.Flow' (containing '100' with '[m/s]' next to it), and 'Area' (containing '10.00' with '[sqm]' next to it). On the right, there are two more input fields: 'Locations' (containing the number '4') and 'Scan ID' (which is empty). A prominent button labeled 'Standard (clean room class)' is located in the upper right area of the form, with a red arrow pointing to it from the text above.

The following Screen will appear:



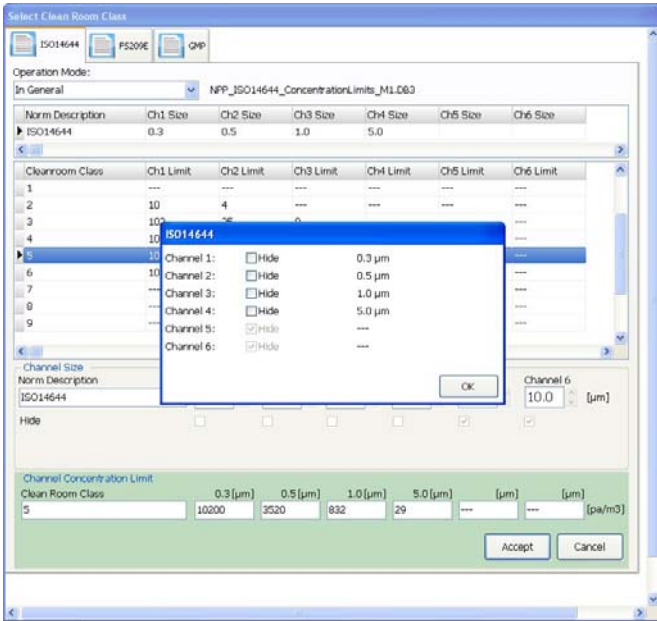
In this window you can select the cleanroom standard to apply for your room: ISO 14644, FS209 or GMP. As an example we select the ISO standard and select an ISO 5 class as shown below:

The selection will be seen as below:

Cleanroom Class	Ch1 Limit	Ch2 Limit	Ch3 Limit	Ch4 Limit	Ch5 Limit	Ch6 Limit
1	---	---	---	---	---	---
2	10	4	---	---	---	---
3	102	35	8	---	---	---
4	1020	352	83	---	---	---
5	10200	3520	832	29	---	---
6	102000	35200	8320	293	---	---
7	---	352000	83200	2930	---	---
8	---	3520000	832000	29300	---	---
9	---	35200000	8320000	293000	---	---

Now press Accept at the bottom of the inserted Box.

Now the following screen will appear:

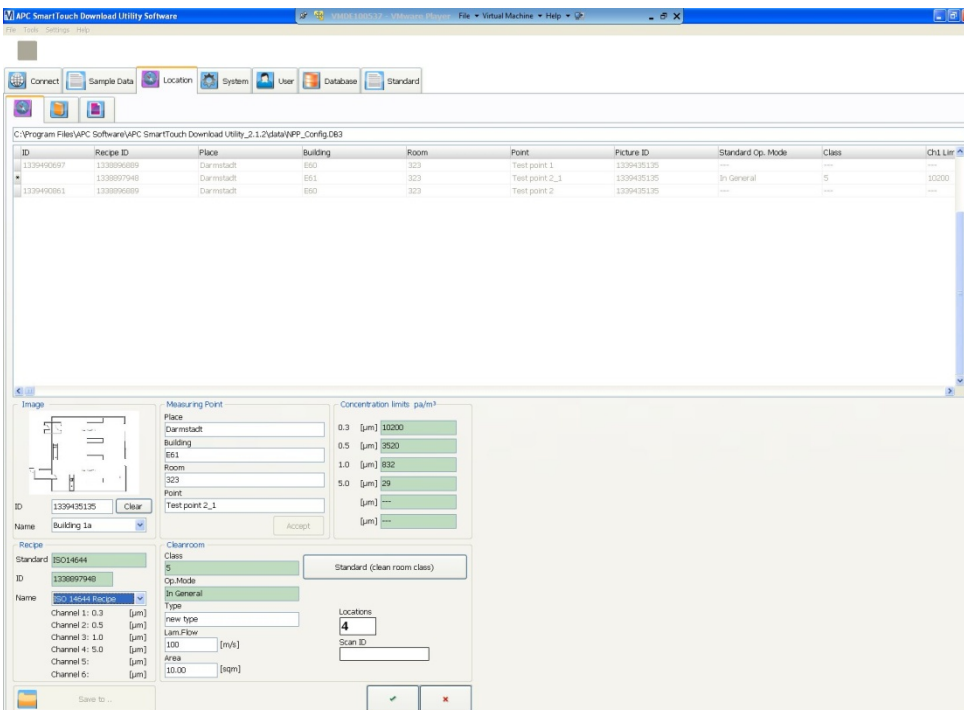


In this Screen you can Hide the Channels you do not want in the Report.

Choose the channels to Hide then press OK.

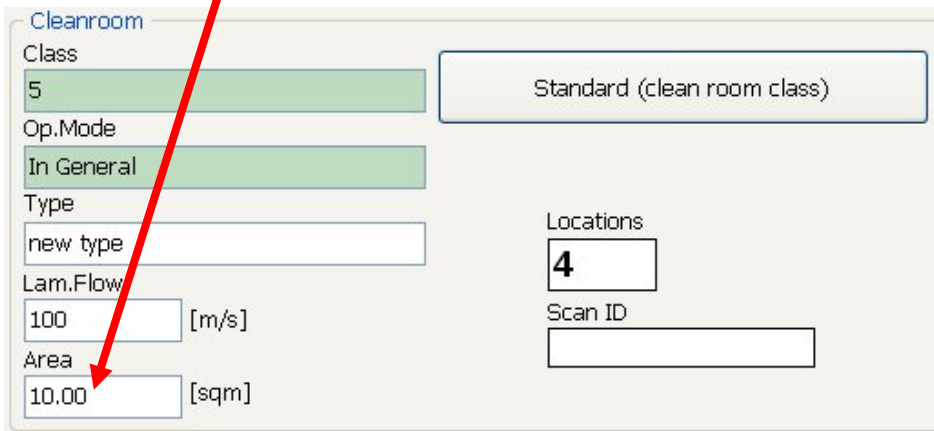
If you do not want to Hide any Channels simply press OK.

The screen will change to this:



10.4 Entering Clean Room Size

In this section enter the Size of your Clean Room



Cleanroom

Class: 5

Op.Mode: In General

Type: new type

Lam.Flow: 100 [m/s]

Area: 10.00 [sqm]

Locations: 4

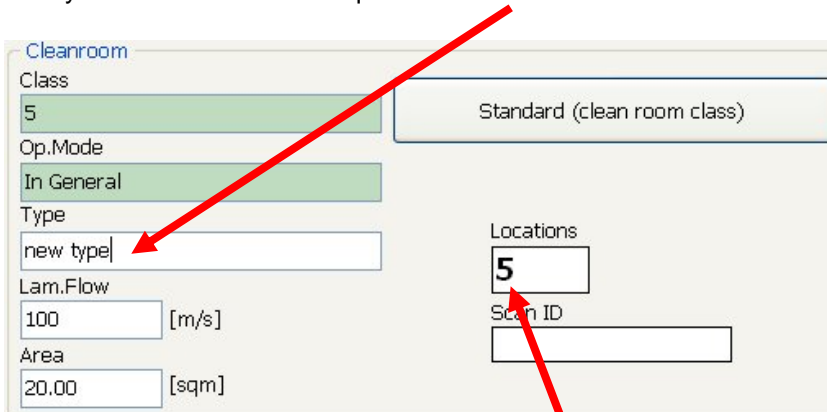
Scan ID: []

Standard (clean room class)

The size of the cleanroom can be set in the cleanroom field to identify the minimum required number of measuring points. In the example below we have a room of 20 square meter, this means there will be 5 locations (measuring points) as indicated below:

The number of sample points is based on the Type of Standard you have selected.

After you have entered the required size Click Here:



Cleanroom

Class: 5

Op.Mode: In General

Type: new type

Lam.Flow: 100 [m/s]

Area: 20.00 [sqm]

Locations: 5

Scan ID: []

Standard (clean room class)

The Number of Sample points will be displayed here.











Now Click the

You have now saved your first Test point in a new Recipe.

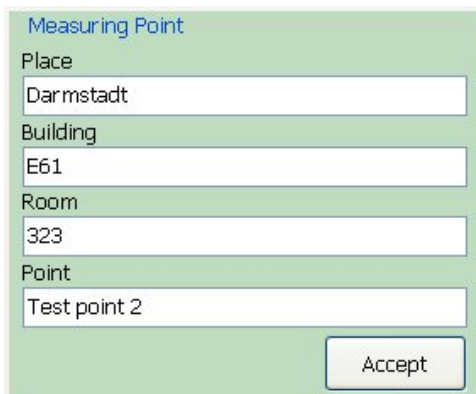
10.5 Navigation Keys

Explanation of the database navigation keys:

Key	Function
	Go to the first record of the database
	Step back one record
	Step forward one record
	Go to the last record of the database
	Add a new record. See below how to do it.
	Delete a record. A warning is displayed, so it is not possible to delete a record unintentional.
	Visible if you click on "+" for a new location: Accept the data entered and return to the locations overview
	Visible if you click on "+" for a new location: Go back to the locations overview without saving data

10.6 Enter a new location

Click on the + button to enter a second measuring point in the same Place, Building and Room. You will get the following screen. Go to the Point field and give in a second measuring point. For example call it Test Point 2.



Measuring Point

Place
Darmstadt

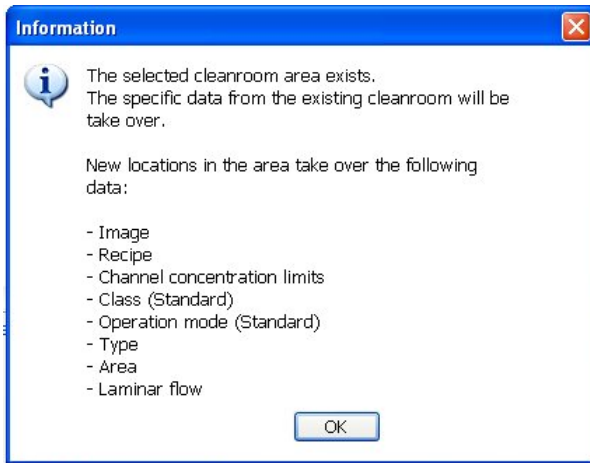
Building
E61

Room
323

Point
Test point 2

Accept

Click on the accept button. The following screen will appear:



You just created the measuring point, Point 2, as shown below.



Click  confirmation button to store the record.

NOTE:

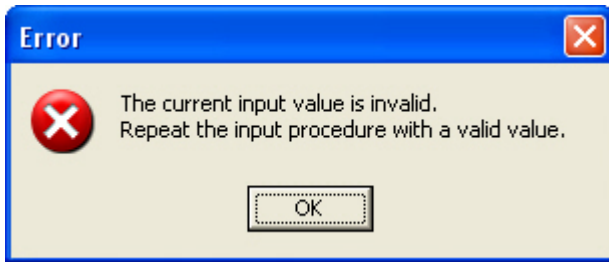
Please Ensure the Test Points you create are represented on the Image. You can create as many test points as you need by repeating the previous step. The Same Room Standard and all other parameters will be used for all new Test Points in this Plan.

10.7 Adding More Locations

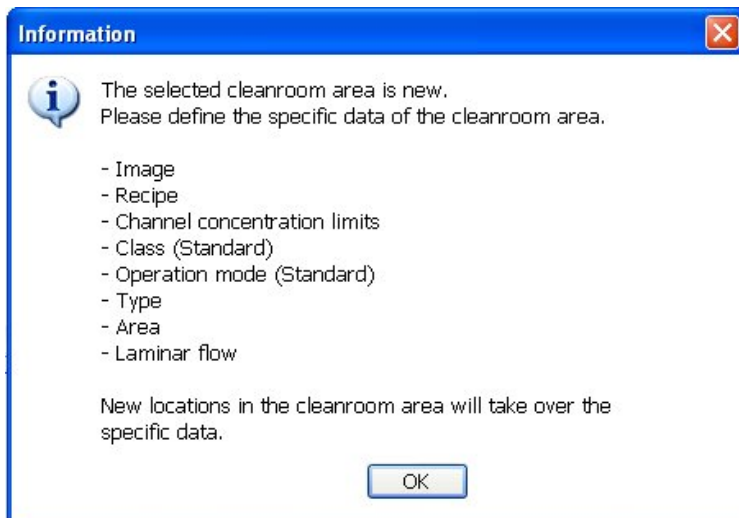
It is also possible to enter new places, buildings or rooms. Select the field, Place, to add a new place and click the “+” button. If the fields are not yet defined they will contain the word new and then the field name. Example: for the field Room you see new room:

A form titled "Area" with four input fields: "Place" (containing "Plant A"), "Building" (containing "IIIb"), "Room" (containing "new room"), and "Location" (containing "new location"). An "Accept" button is located at the bottom right of the form.

You have to complete the area data before you can click “Accept”.
If imported data are missing, the following error message is displayed:

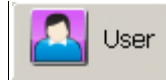


If the location is defined properly, the following message is displayed:

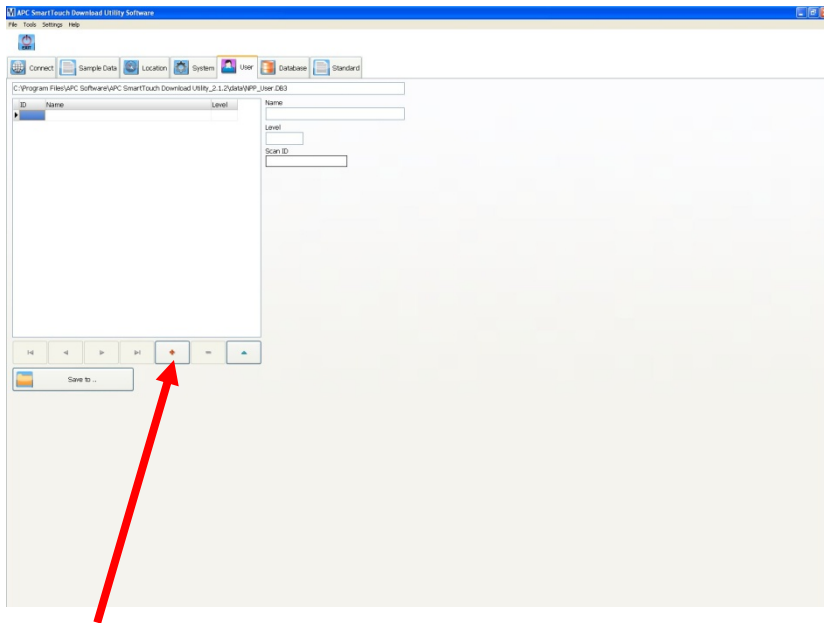


Now follow the steps from Adding a Recipe to complete the new Location Information and define the new Clean Room.

11 Adding User



To Add A user Click on the User Tab This Screen Appears



Now Click here.

This screen will appear:

User administration

Name

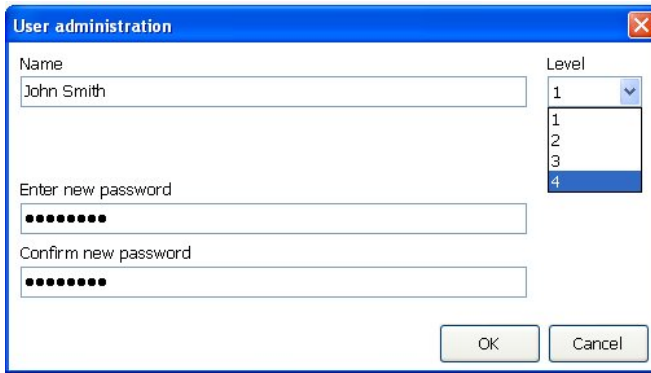
Level

Enter new password

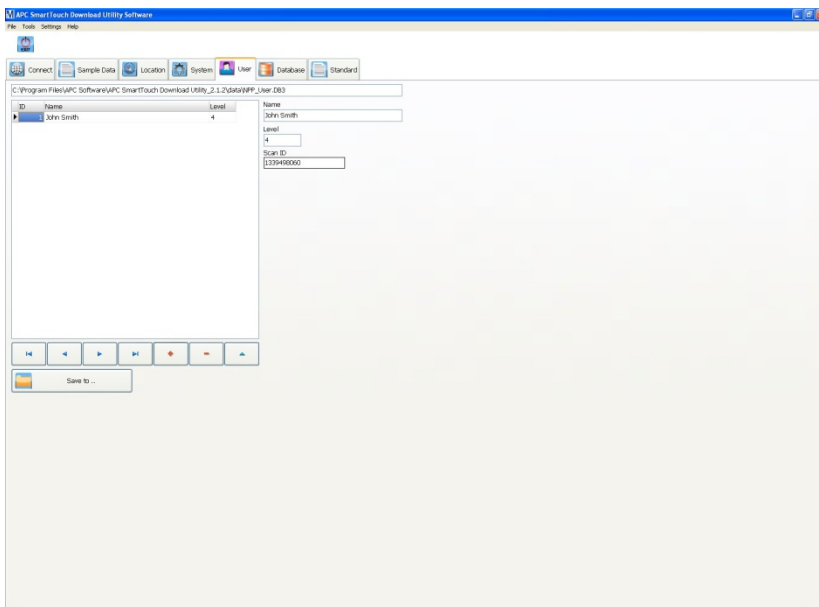
Confirm new password

OK Cancel

Enter the Name and a password twice lastly enter a user level as defined next.



Now Click on OK the screen will now look like this.



To Add more users repeat the previous steps.

Using the user list you can administer the APC SmartTouch airborne particle counter users. This feature is only available on the APC SmartTouch Download Utility Software.

11.1 User Authority Levels

Every user has his unique User ID (allocated by the software), user name and an authorization level from 1 to 4.

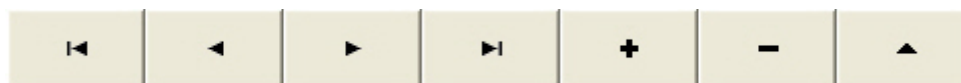
Description of the user levels:

Level	User authority
1	Operator level 1: No authority to change sample parameters. Can change the Measuring Point and run a sample. Can arrange the contrast.
2	Operator level 2: Authority as level 1 + can set CountTime, Sample Volume, Wait Time, Purge Time, Hold Time, Sample Mode, choice Cumulative/ Differential, Concentration Mode
3	Supervisor level: Authority as level 2 + data exchange by using an USB stick, create a Report, Measuring Point and Recipe.
4	Administrator level: Authority as level 3 + set the Date, Time, Alarm Calibration Date, Set up a connection with APC SmartTouch Download Software, Language, Logoff. Setting the flow rate.




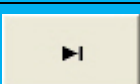
As in previous tabs, the database navigation bar is used to administrate the users.


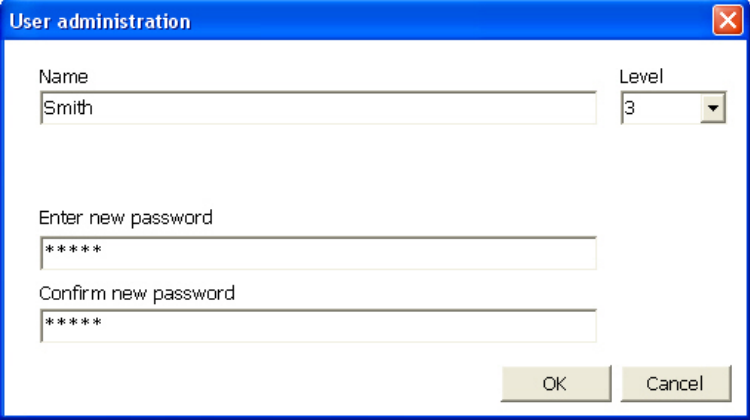

NOTE:


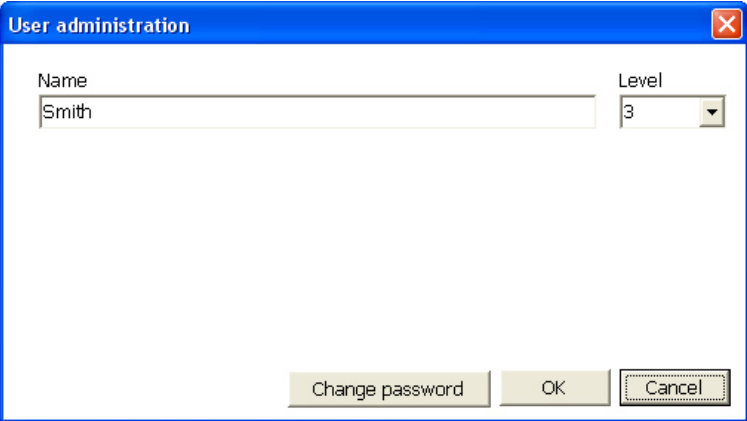
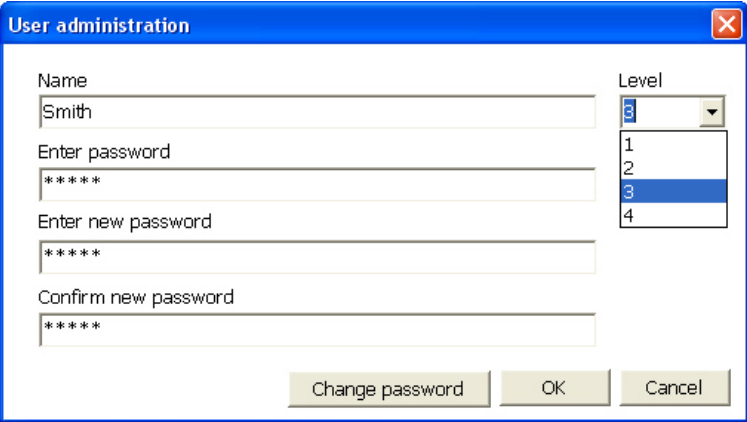
The actual record is marked with a triangle on the left side (▶).



Explanation of the database navigation keys:

Key	Function
	Go to the first record of the database
	Step back one record k
	Step forward one record
	Go to the last record of the database

Key	Function
	<p>Add a new record.</p> <p>The new data can be entered in the following dialogue:</p> 
	<p>Delete a record.</p> <p>A warning is displayed for confirmation, so it is not possible to delete a record by accident.</p>

Key	Function
	<p>Edit the marked record.</p> <p>A dialogue opens where you can change the entries for this record:</p>  <p>If you click on “change password”, the following dialogue opens:</p>  <p>Click <OK> to confirm the changes and to return to the “User” dialogue.</p>

12 Database

There are four databases in the APC SmartTouch Download Utility Software.

12.1 Configuration database (NPP_config.DB3):

Contains the sample locations, recipes and images. The APC SmartTouch Software has many more features than the counter. Here, you can define and administer places, buildings and rooms and visualize them with pictures.

Therefore it is recommended to generate and administer the configurations database in the Utility Software and upload the same data to all APC SmartTouch airborne particle counters.

12.2 User database (NPP_User.DB3):

Contains a list of users with their user level. These settings can be handled individually for every counter, or set up and uploaded through the Utility Software.

12.3 System database (NPP_System.DB3):

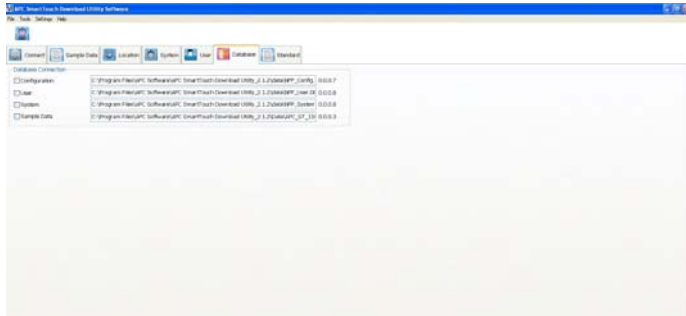
Contains system information as instrument name, instrument IP address and date / time format. This information is unique for every APC SmartTouch airborne particle counter.

12.4 Measure Data database (NPP_Measure.DB3):

This is the main database. The sample records are stored in this database. As they may be collected from different counters, every record also contains the information about the respective counter and sample location, stamped in date and time.

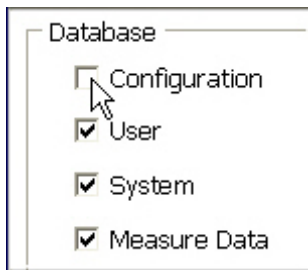
Download measurement data and add them to the Utility Software database in the “Connect” tab (see chapter 4 and 5 for more information).

In this dialogue you get information about the Utility Software databases. If you open this tab, you can see the paths and file date of the four databases shown in the lower right area of the “connect” dialogue:



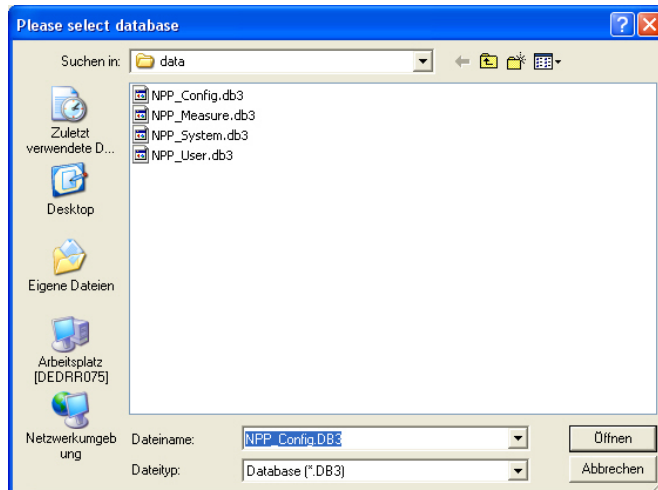
NOTE:

The data displayed in the “Measure Data”, “Location” or “System” dialogue depend on the checkmark settings as displayed below:



In the case of “Measure Data”, you are prompted to connect to the APC SmartTouch counter.

If you want to recall data that is stored in a database, you can connect to another database by double clicking on the database path. The Windows “open” dialogue is displayed, so you can browse your system and choose the desired database:

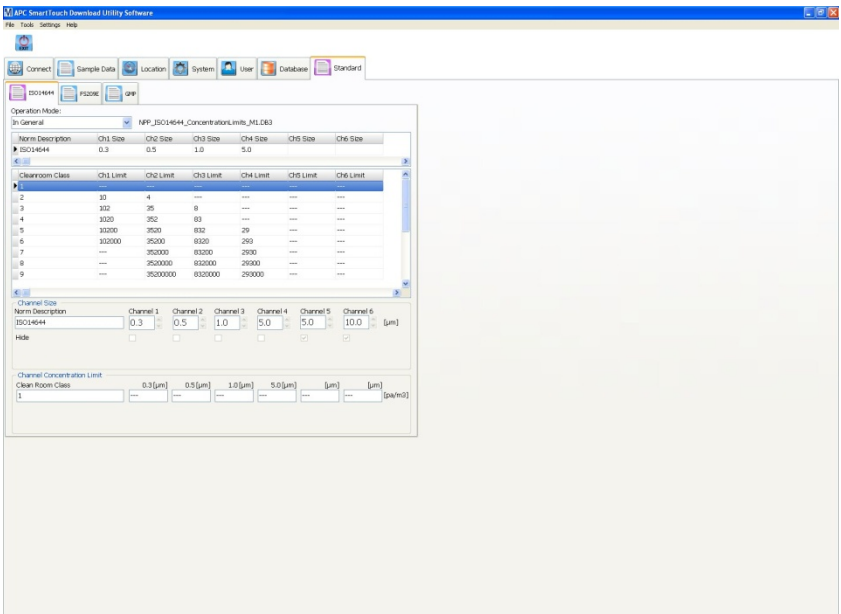


13 Standard

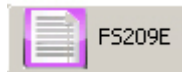
In Standard you can find an overview of the current existing particle counting regulations for consulting the maximum allowed concentrations.



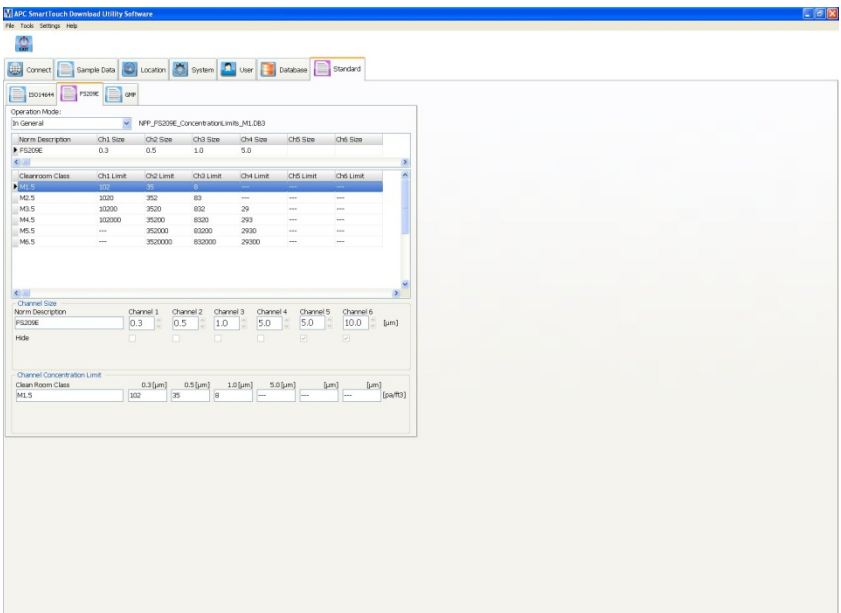
Click on the tab Standard the following screen will appear:



In the above mentioned screen you can find the ISO 14644 table.



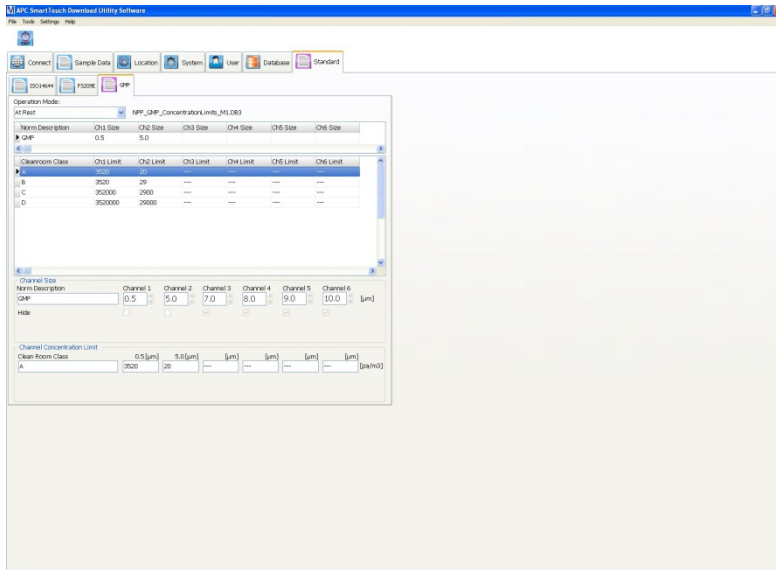
Click on the FS209E tab the FS209E table will appear:



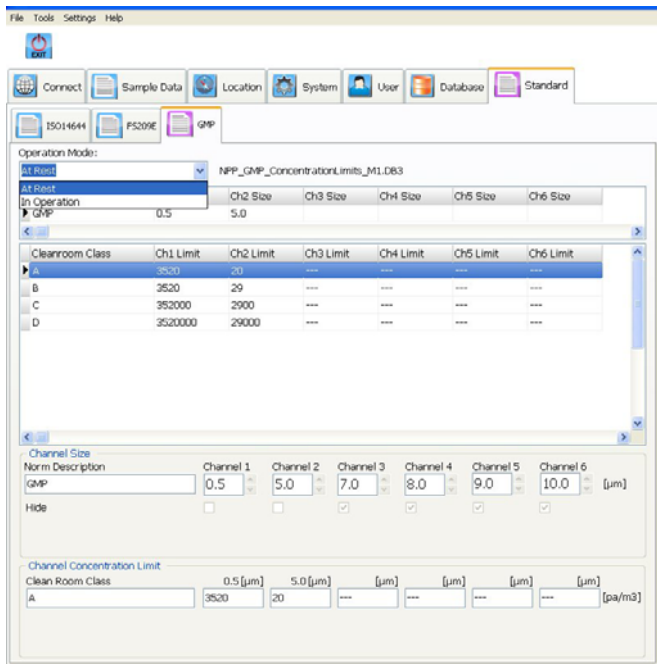
Click on the GMP tab



the GMP table will appear:

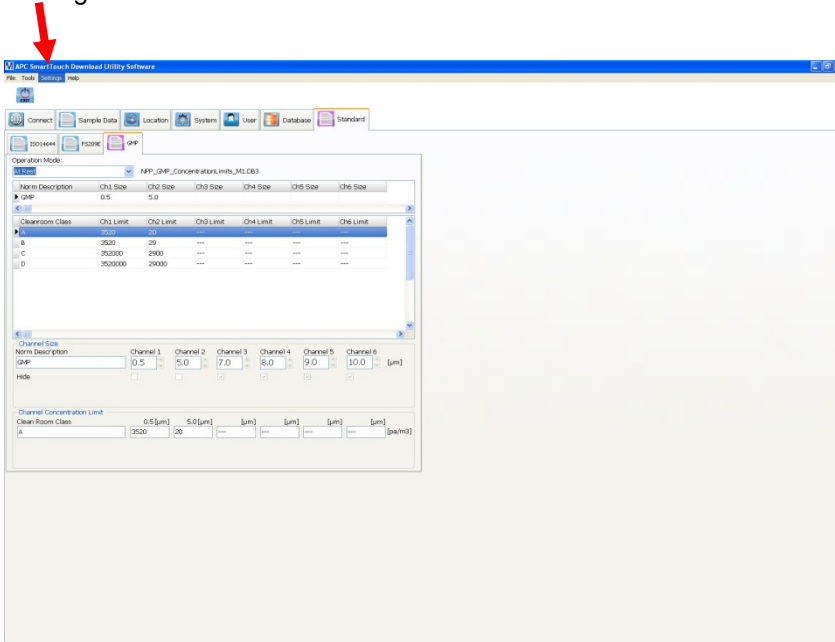


In the GMP table you can switch from At Rest operation mode to the At Operation mode as shown below:

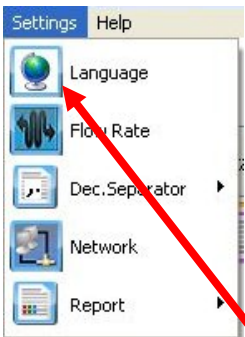


14 Languages

The language of the APC Download Utility Software can be set in English, German, Japanese, French, Spanish, Italian, Russian and Chinese. Make your selection of the language by clicking 'Settings' in the header of the software screen.



This Drop Down will appear.



Double click Here this box will appear:

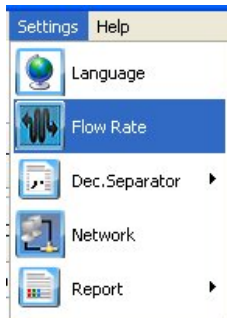


Now select the Language you want and click OK.

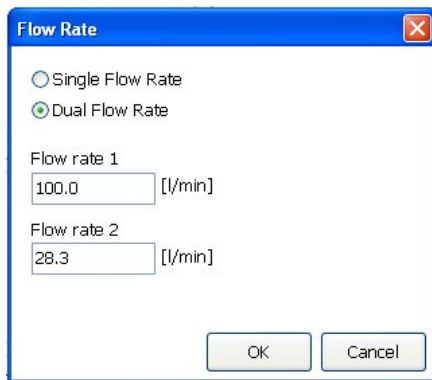
15 Flow Rate

The APC SmartTouch is delivered in a Either a single or dual flow rate.

To select the Flow Rate (if Duel) Click on Settings as before and now select Flow Rate.



This Screen Appears.



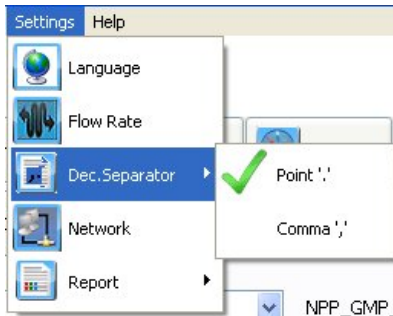
Click 'ok' when the flow rate is set.

16 Decimal Separator

Please select the right Decimal Separator for your geographic location to obtain the right numbers in your Windows System.

In Europe (except UK) you should select the comma and in the US and UK you should select “.”

To select Decimal separator Click on Settings as before and now select Dec. Separator.

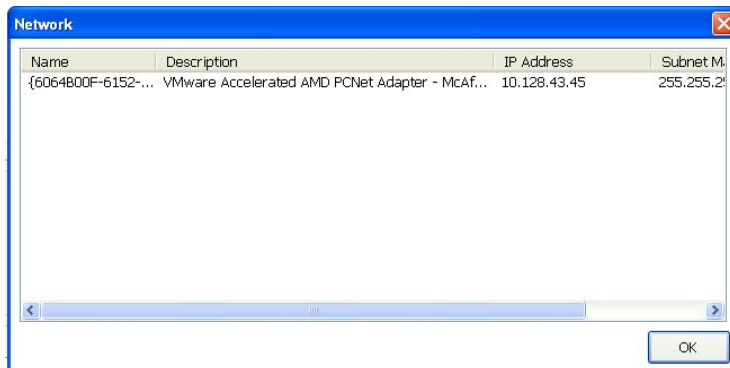


Click on your Choice and the Green Tick will move.

17 Network Information

To get information on the current connection Click on Settings as before and select Network.

This information screen will appear:



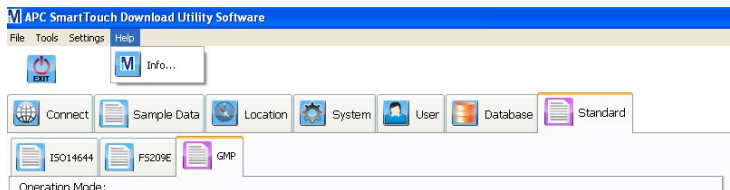
18 Report Colour

You can also choose to print the reports in colour or B/W.

To select Colour Click on Settings as before and now select Colour, click on icon to change.

19 Help

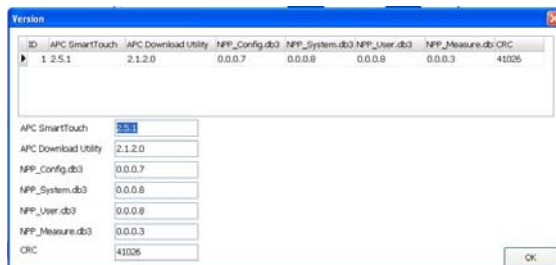
Click 'Help' in the header of the software screen.



Now click here, this screen appears:



If You now click Version you will get the version and compatibility information.



Click Ok to Exit.

20 Exit

You can quit the APC Download Utility Software by clicking the Exit icon:



We provide information and advice to our customers on application technologies and regulatory matters to the best of our knowledge and ability, but without obligation or liability. Existing laws and regulations are to be observed in all cases by our customers. This also applies in respect to any rights of third parties. Our information and advice do not relieve our customers of their own responsibility for checking the suitability of our products for the envisaged purpose. The M mark is a trademark of Merck KGaA, Darmstadt, Germany.

Service:

www.your-contacts.com/biomonitoring

