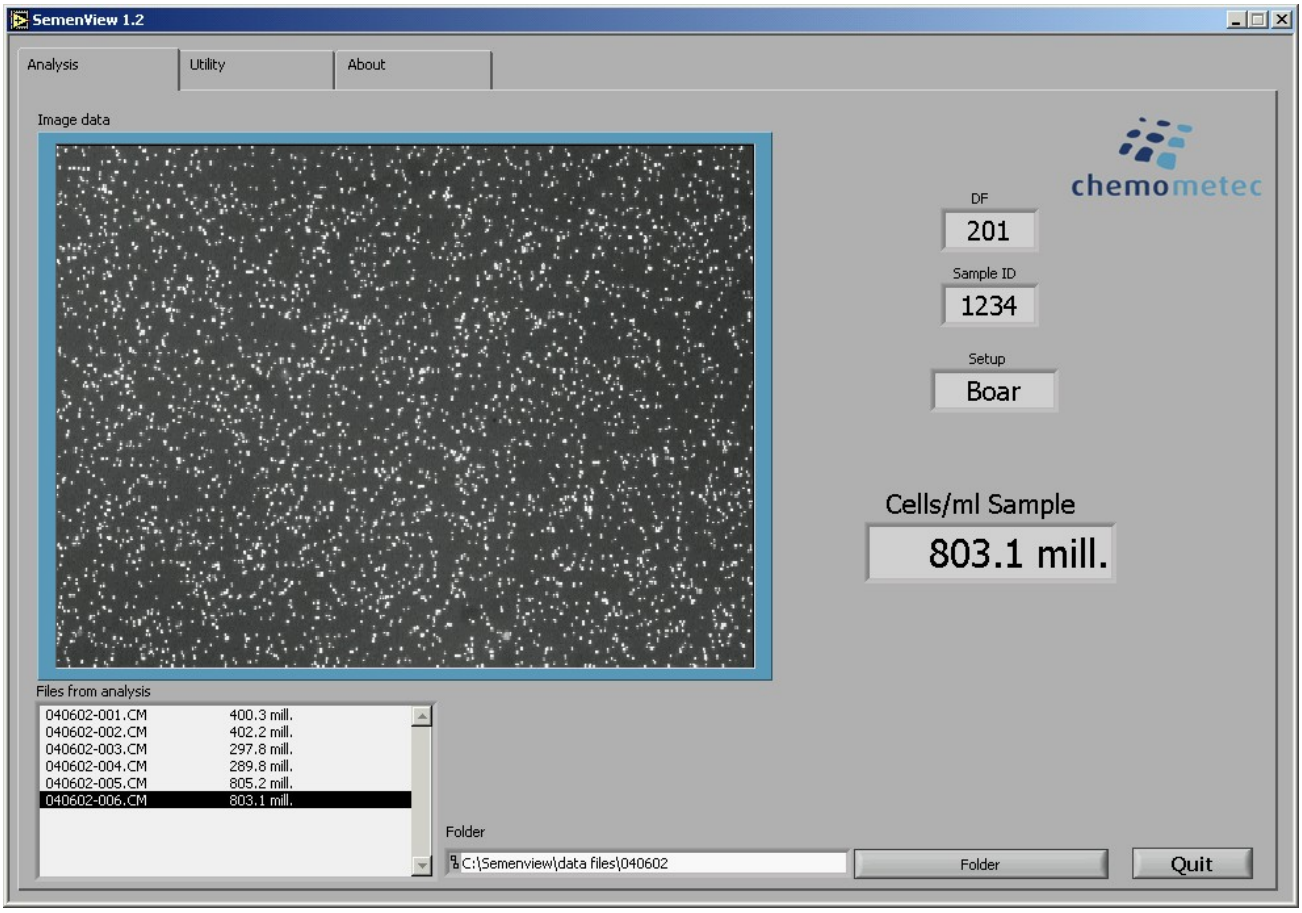
SemenView™

For Program Version 1.21

Revision 1.4

User's Guide



Technology that counts

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SemenView™

A part of the NucleoCounter® SP-100™ system

Manual No. 991-0103 (English)

Revision 1.4

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Customer support

If you have questions about installing or using your SemenView™ software check this user's guide first - you will find answers to most of your questions here. If you need further assistance, please contact customer support at ChemoMetec A/S.

Contacting support

Technical information including product literature, answers to questions regarding the operation of the NucleoCounter® SP-100™, which are not covered in this document and information on software upgrade, are available through the following:

- For Email support, send questions to NucleoCounter Technical Support on the address **info@nucleocounter.com**
- For Technical Support , call (+45) 48 13 10 20.

Please note the NucleoCounter® SP-100™ serial number and have it available when contacting ChemoMetec A/S for support. The NucleoCounter® SP-100™ serial number is found on a label affixed to the bottom of the instrument and in the display upon start-up.

Sales and ordering information

For pre-sales assistance with NucleoCounter® SP-100™ or the SemenView™ software, to place an order for a NucleoCounter® SP-100™ or consumables, call (+45) 48 13 10 20 fax (+45) 48 13 10 21, or mail to **info@nucleocounter.com**

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Intended use

The SemenView™ software is intended to be used with the NucleoCounter® SP-100™ instrument, for the purpose of semen analysis; it is intuitive and easy to use. SemenView™ offers the user several features when connected to the NucleoCounter® SP-100™.

SemenView™ is intended for the documentation of results from the NucleoCounter® SP-100™, results can be printed or saved for later use using the SemenView application.

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Table of contents

1 Installation

When the NucleoCounter SP-100 is connected to a computer running SemenView it is possible to register the estimated cell concentration and the collected image of the SP1-Cassette chamber. Connecting a NucleoCounter SP-100 to a computer does not affect the operation of the NucleoCounter SP-100 in any way and the SemenView software performs no additional image analysis.

The installation procedures below describe the installation of the SemenView software and the USB driver on computers running Windows 2000. It is possible to install SemenView and the USB driver on computers running other operating systems than Windows 2000. For a list of supported operating systems please refer to chapter 7, Technical specifications.

The communication between NucleoCounter SP-100 and SemenView is based on the USB 1.1 protocol; hence the computer must be equipped with an USB 1.1 compatible port.

NOTICE - IMPORTANT!

Before installation of SemenView the USB driver for the NucleoCounter SP-100 must be installed (see chapter 1.1 Installation of the USB driver - Windows 2000).

1.1 Installation of the USB driver - Windows 2000[1]

When the computer has been turned on and is done with the start-up process connect the NucleoCounter SP-100 to the computer using the USB cable supplied with the NucleoCounter SP-100. The USB port on the NucleoCounter SP-100 is located on the rear left side (when viewed from behind). The other end of the USB cable is inserted into an empty USB port on the computer.

The first time a NucleoCounter SP-100 is turned on while connected to a computer, the computer will identify the NucleoCounter SP-100 as new hardware. Initially the computer will search for an installed driver. Please note that this can take some time. If the USB driver has not previously been installed on the computer, the computer will prompt the user for a driver and activate the “Found New Hardware Wizard”, see figure 1.

[1] This description applies to Windows 2000 only. For Windows XP UK and Windows 98 2nd edition please refer to Appendix 2: Installation of the USB driver on other Windows operating systems.

Figure 1 The Found New Hardware Wizard.

The driver needed is supplied on the NucleoCounter SP-100 CD-ROM. Insert the CD-ROM and click “Next”. The next dialogue is shown in figure 2.

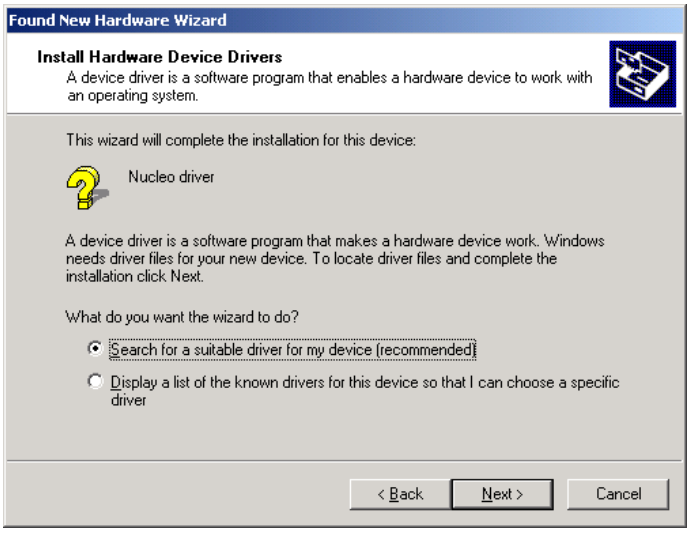

Figure 2 Search for a driver for the NucleoCounter SP-100.

Select the default method “Search for a suitable driver for my device” and click “Next” to continue. The dialogue shown in figure 3 will appear.

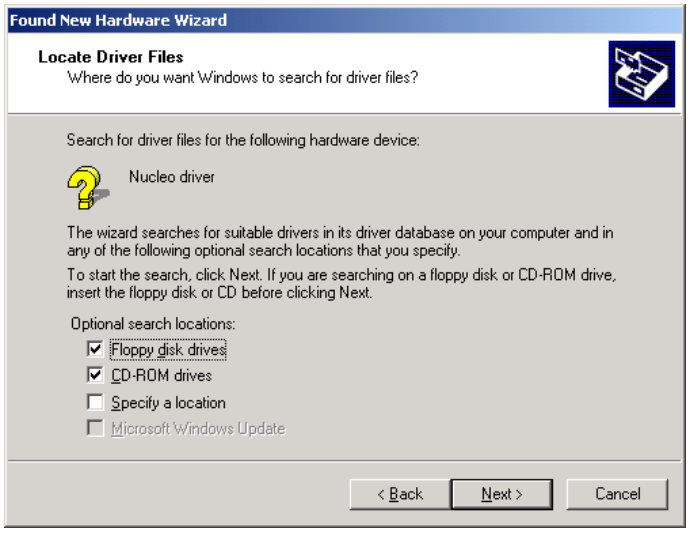

Figure 3 Locations where the computer searches for the driver for the NucleoCounter SP-100.

Make sure that the “CD-ROM drives” is selected as “Optional search location” and click “Next” to continue.

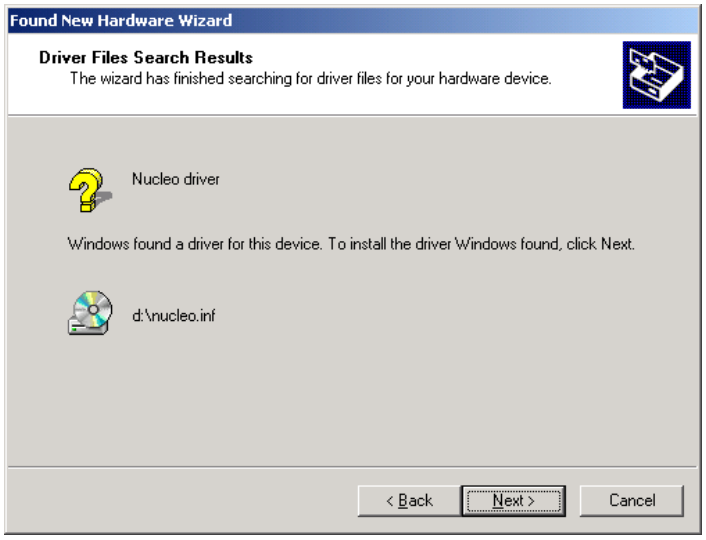

Figure 4 The driver has been found on the NucleoCounter SP-100 CD-ROM.

Verify that the wizard has found “nucleo.inf” on the NucleoCounter SP-100 CD-ROM and click “Next” to continue, see figure 4. If “nucleo.inf” is not found, make sure that you have inserted the NucleoCounter SP-100 CD-ROM properly, and then click “Back” to repeat the search for the driver.

Figure 5 The installation has been successful.

If the installation was successful the dialogue in figure 5 will appear. Click “Finish” to complete the installation. Now the USB device driver for the NucleoCounter SP-100 is successfully installed. It will not be necessary to redo the installation unless you wish to use the NucleoCounter SP-100 on another computer or if you reinstall Windows 2000.

1.2 Installation of SemenView™ – Windows 2000[2]

The NucleoCounter SP-100 CD-ROM contains the necessary software for the installation of SemenView. SemenView allows viewing of images and results from the NucleoCounter SP-100.

SemenView will be installed in a separate folder containing the necessary software (by default C:\SemenView). Any data collected from the NucleoCounter SP-100 will also be stored in separate data folders within that folder. It is necessary to place the SemenView software in a folder in the root directory of the local hard disk named "SemenView" as suggested by the installation software.

It is possible to choose a different location for the data but this will disable the data collection capabilities of SemenView and is therefore not recommended.

[2] This description applies to Windows 2000 only. For Windows XP UK and Windows 98 2nd edition please refer to Appendix 2: Installation of the USB driver on other Windows operating systems.

For the installation of SemenView insert the NucleoCounter SP-100 CD-ROM into the computer. To start the installation, locate the file “SETUP.EXE” on the CD-ROM and open it (double-click it using the mouse). The dialogue shown in figure 6 will appear. Click “Finish” to complete the installation.

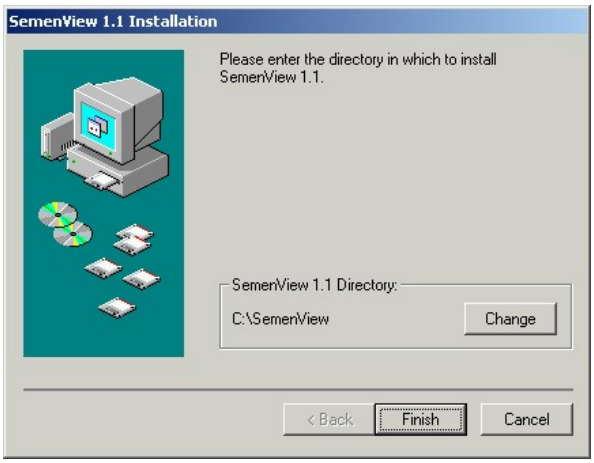

Figure 6 Dialogue box for installation of SemenView.

When the installation is finished the computer will display a dialogue saying “SemenView installation successful!”. Click “OK” and proceed with the installation of the LabVIEW application as described below.

SemenView is programmed in the LabVIEW system. Therefore it is necessary to install a LabVIEW application on the hard disk. When SemenView has been installed, the installation of a LabVIEW application is automatically activated and a dialogue is shown, see Figure 7. Please click “Next” to continue.

Figure 7 Start-up dialogue for installation of the LabVIEW application

In the next dialogue Figure 8, please confirm the default destination folder for installation of the LabVIEW Run-Time Engine by clicking “Next”.

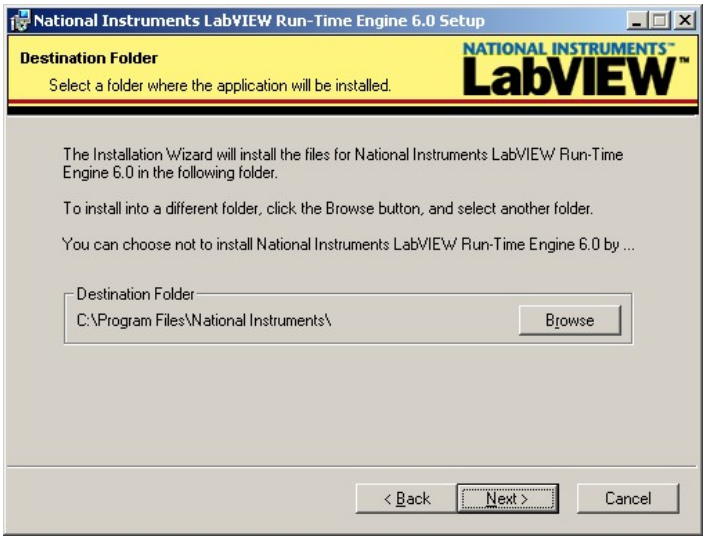

Figure 8 Dialogue for the selection of the destination folder. Please select the default folder by clicking “Next”

The dialogue shown in figure 9 finally allows you to implement a modification of the LabVIEW application. Click “Next” to continue or click “Back” to check your selection for the installation.

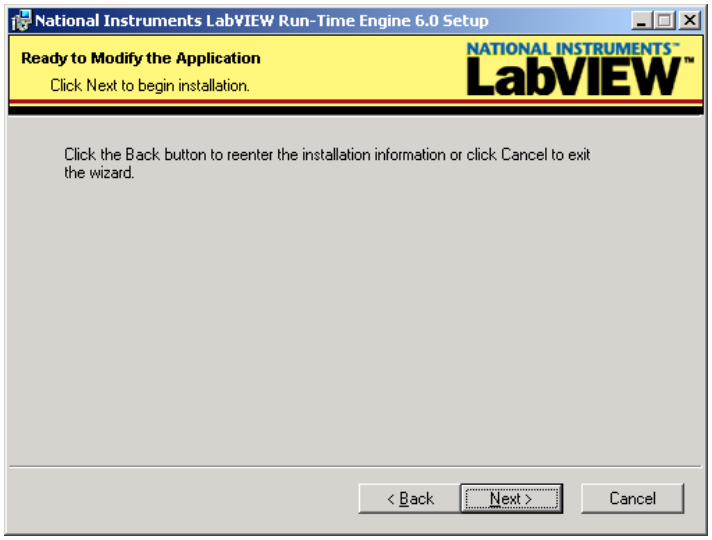

Figure 9 Acceptance of the features selected for the LabVIEW application.

If the installation is successful the dialogue shown in figure 10 will appear. Click “Finish” to complete the installation. The SemenView software and LabVIEW application are now installed.

Figure 10 Successful installation of the LabView application.

For directions on start-up and use of the SemenView software please refer to chapter 2 Getting started with SemenView™ on page 11.

1.3 Removal of the SemenView software

For removal of the SemenView software and the USB device driver follow the directions below.

1.3.1 Removal of the USB driver – Windows 2000

In order to remove the USB device driver make sure that the NucleoCounter SP-100 is turned On and connected to the computer using the USB cable. Then locate the “My Computer” icon on the desktop and option-click on the icon (click once using the right mouse button). Click on “Properties” and the “System Properties” dialogue will appear. Alternatively open the "System" module of the Control Panel.

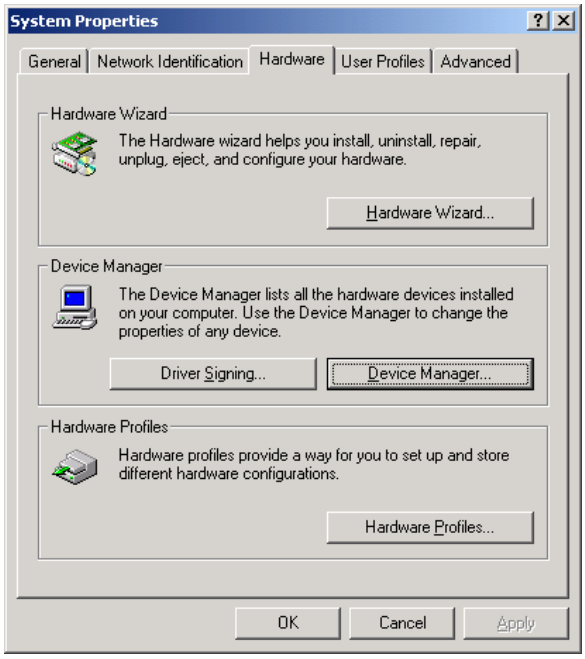

Figure 11 "System Properties" dialogue.

In the "System Properties" dialogue select the "Hardware" tag (figure 11) and click on the "Device Manager" button. A list of system devices will be shown, see figure 12. Locate "nucleo Device" and open it by clicking on the ⊞ to the left of the name. This will show its content, which also has the name "nucleo Device".

If "nucleo Device" is not on the list, make sure that the NucleoCounter SP-100 is turned On and connected to the computer and try again.

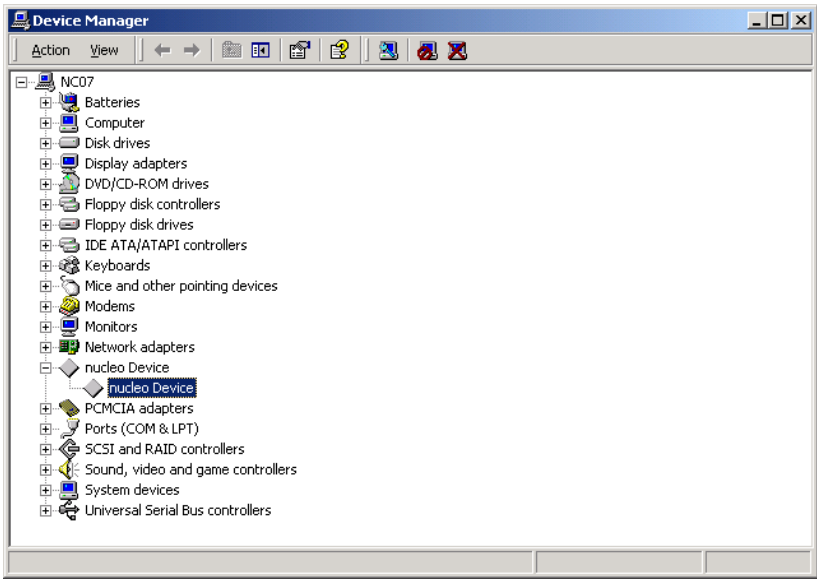

Figure 12 The Device Manager.

Highlight the “nucleo Device” as shown in figure 12 and option-click it using the right mouse button. This activates a pop-up menu. Select the “Uninstall…” function and the USB device driver will be removed from the system.

1.3.2 Removal of SemenView™ - Windows 2000

To remove the SemenView software[3], open the SemenView folder (Figure 13). The folder should be located in the root directory of the local hard disk (C:\SemenView) if the location was not changed during the installation.

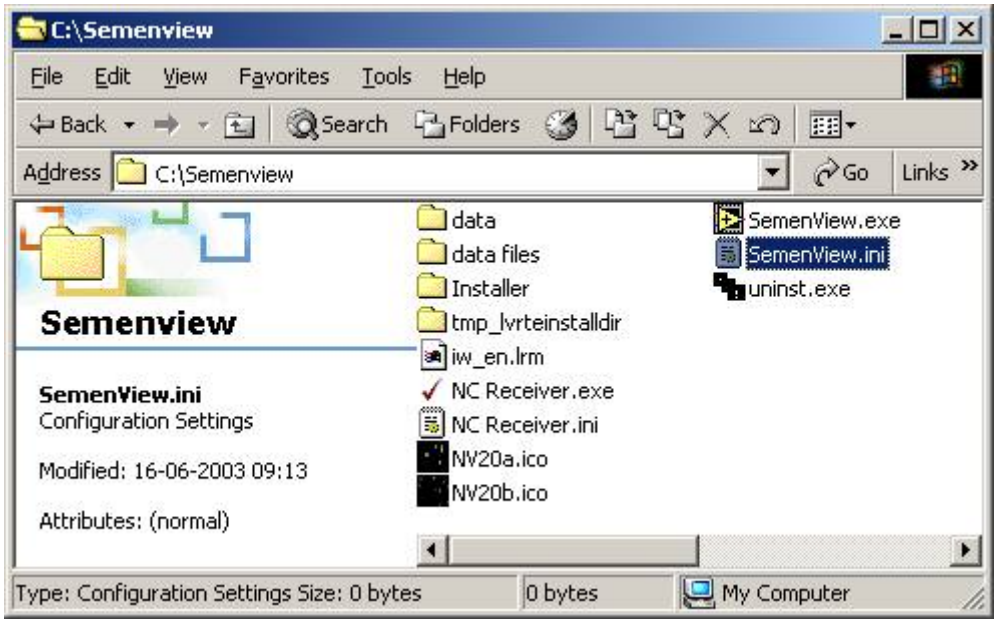

Figure 13 Contents of the SemenView folder.

In the SemenView folder double-click on “uninst.exe” and confirm that the SemenView software is to be uninstalled. During this un-install process you will see the following dialogue boxes (hit the Yes button on both)

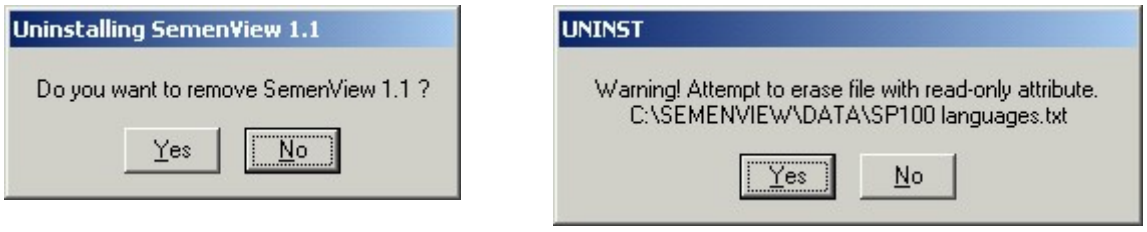

Figure 14 a and b Dialogue boxes during the un-install process.

[3] In order to remove the program correct, first quit the NC Receiver.exe program if it is running.

The SemenView software and LabVIEW application will then be removed from your computer. Any saved data will remain on the computer.

1.4 Upgrade the SemenView software

For upgrading the SemenView software the previously installed version must be removed before the new version can be installed. Follow the directions from 1.3.2 Removal of SemenView™ - Windows 2000.

The uninstall procedure will not interfere with previously stored data. However the language selection will be reset to “English”.

Follow the directions from 1.2 Installation of SemenView™ – Windows 2000. Please note that during the installation, the LabVIEW Run-Time Engine must be modified, therefore Figure 7 Start-up dialogue for installation of the LabVIEW application, will be replaced by the dialogue box below.

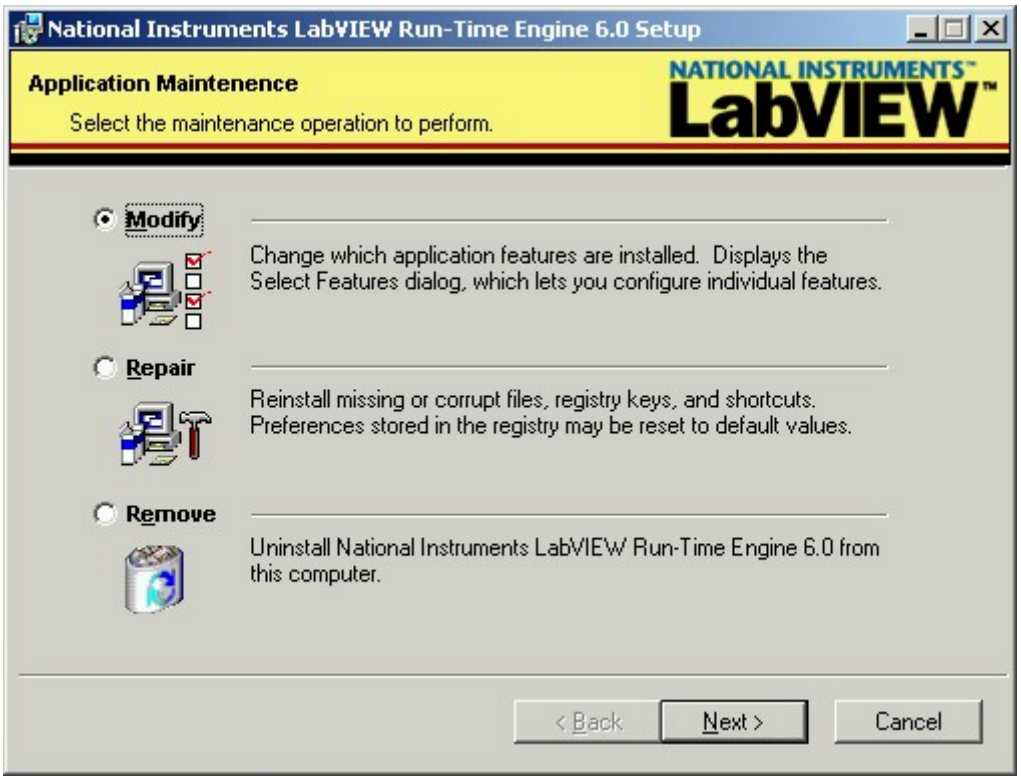

Figure 15 Dialogue box for modification of the LabVIEW Run-Time Engine.

From this dialogue box until successful installation click “Next” and finally “Finish”. Your SemenView application is now upgraded. Please remember to select the correct language for your purpose.

2 Getting started with SemenView™

SemenView allows the user to register the results of counting of cells in Semen samples with the NucleoCounter SP-100 on a computer. This is useful when documentation of results and data is needed.

2.1 Launch SemenView™

SemenView can be activated through the Windows “Start” menu. First select “SemenView” from the “Programs” submenu, and then select “SemenView”.

When SemenView is launched, both SemenView and the NC Receiver appear on the task bar. The NC Receiver is an application, which must be active when receiving data from the NucleoCounter SP-100. NC Receiver is launched automatically when SemenView is launched.

Data from NucleoCounter SP-100 can only be transferred if the NC Receiver is active, therefore it must not be closed.

2.2 Quit SemenView™

To quit SemenView click the “Quit” button in the Analysis tab.

Figure 16 Quit button

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3 The structure of SemenView™

NucleoView is operated through a number of tabs. The different tabs are selected by clicking on the corresponding tab. The tabs are shown in figure 17.

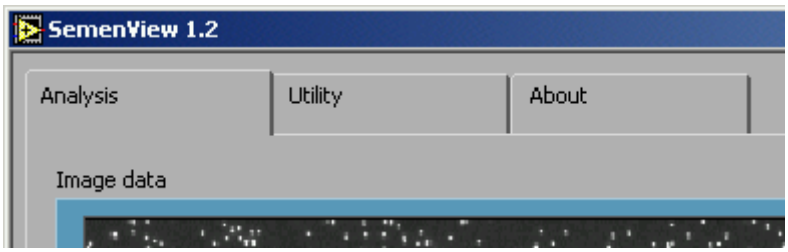

Figure 17 The three tabs of SemenView.

The default startup screen is the Analysis tab. For detailed descriptions of the different tabs see the following chapters. An overview of the three different tabs is given below.

3.1 Analysis tab

This is where data, from the CM file received, from the NucleoCounter SP-100 is presented. The presented data are:

Cells/ml Sample	The actual result from the NucleoCounter SP-100 analysis
DF	The dilution factor used for the analysis
Sample ID	The sample identification if entered
Setup	The measurement Setup according to the selected species of animal is shown here. Boar, Bull etc.
Viability	The percentage of viable cells
Calculate Viability	Calculate Viability check-butten enables the calculation of Viability.
Image data	The fluorescence image with the "starry sky" made by the Semen cell nuclei.

3.2 Utility tab

Here it is possible to print data from a chosen session (folder), select language, set preferred text editor and set a sound scheme when a new result is present in SemenView.

3.3 About tab

This tab displays version information of the SemenView program. No further presentation of this tab will be made.

4 Analysis tab

Analysis is the default start-up tab of SemenView. In this tab data and results transferred from the NucleoCounter SP-100 are automatically displayed. An example of the Analysis tab is shown in figure 18.

Once SemenView has been launched the Analysis tab is automatically displayed. Usually there are no files in the active session upon start-up. Start the measurements or use the Browse button to navigate to another session (see chapter 4.6 Folder selection.).

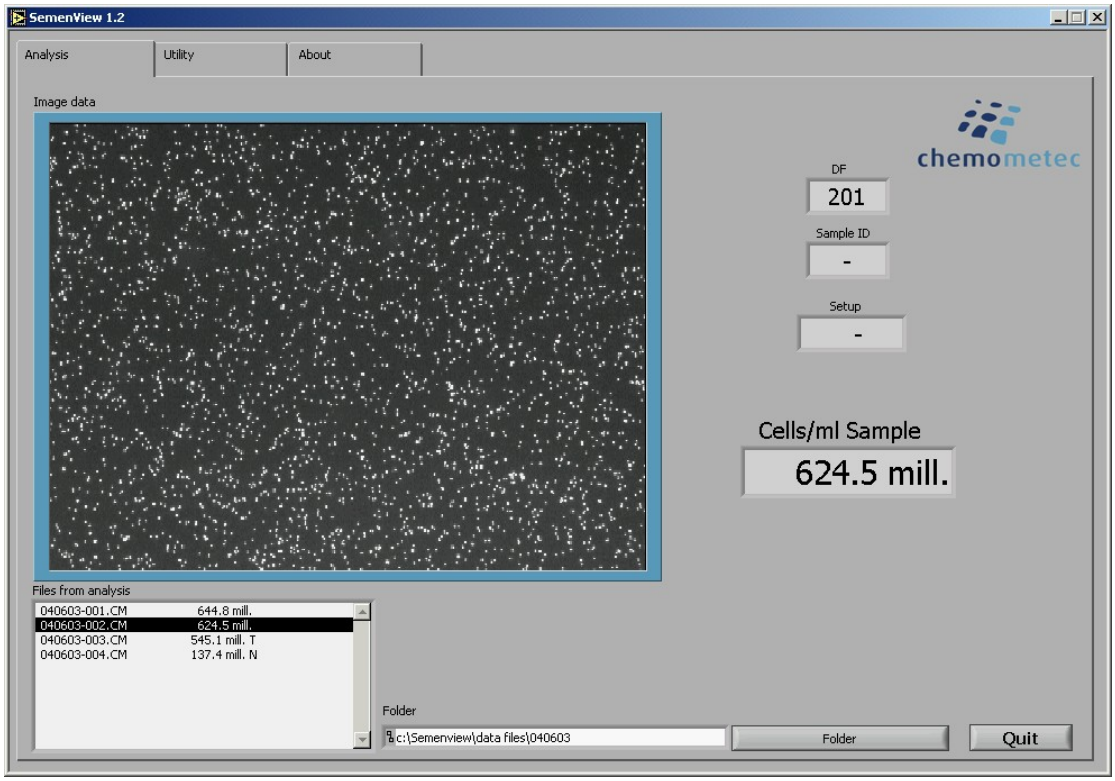

Figure 18 The SemenView Analysis tab.

When a result of a Semen analysis is received from the NucleoCounter SP-100, the Cells/ml Sample, Image data, DF and Sample ID are displayed. The result from each analysis is saved on the computers hard disk in an individual data file. The NucleoCounter SP-100 generates the data file and SemenView adds no data.

4.1 Cells/ml Sample

The estimated number of Semen cells/ml Sample is displayed to the right of the Image data field. The result is presented in the same manner as in the display window of the NucleoCounter SP-100.

4.2 Retest of sample

If the NucleoCounter SP-100 suggest to perform a retest of the sample, then SemenView will show a flashing Retest indicator and the digits will turn red in the result field.

Figure 19 The digits turns red and the Retest indicator will flash red if Retest of a sample is suggested

In some cases the following is displayed in the result field:

Figure 20 No digits are shown – only red dashes, and the Retest indicator will flash red if the instrument reports an error.

This occurs when the instrument displays: “Error: Sample could not be analysed. Press any key” or if you have set the F32 – Retest res.? to "Off". (refer to User’s Guide for the NucleoCounter SP-100 regarding further explanation).

4.3 DF – Dilution Factor

The dilution factor used by the NucleoCounter SP-100 during analysis is displayed in the top right field.

Figure 21 Dilution factor (DF), Sample ID and Setup

4.4 Sample ID – Sample identification

During analysis on the NucleoCounter SP-100 a numerical Sample ID can be entered. This number will if entered be displayed in the field below the Dilution Factor.

4.5 Setup – Measurement setup

The NucleoCounter SP-100 provides analysis of different species of animal. Once a Measurement setup is activated it will be shown in the "Setup" field. E.g. Boar, Bull etc.

4.6 Folder selection.

Each day SemenView is launched, a new session (folder) is created. The folder's name is the date of the session (yymmdd). It is possible to browse sessions created at an earlier date using the Folder button (Figure 22)

Figure 22 The Folder button and selected folder.

When a measurement is performed and data is transferred to the computer, a file containing the measurement data is created. The file is shown in the file list, and the file name consists of the date of analysis and a running number as "yymmdd – nnn", see figure 23. The file list will also contain the actual result from the analysis.

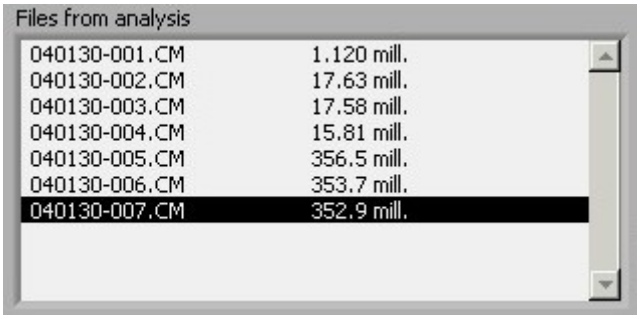

Figure 23 The file list made of filename and analysis result.

It is possible to browse through files or results from the active session. To select and view a file from the list use the mouse or the arrow keys on the keyboard. The selected file will be displayed including all data.

To browse files from other sessions, follow the directions below.

1. Click the “Folder…” button. This activates a dialogue where another session, which is to become the active session, can be located.

2. Use the mouse to double click on the session or highlight it and click “Open”.

3. Click “Select Cur Dir” and the session will be displayed in SemenView. The files will appear in the file list[4] and it is possible to browse through them using the mouse.

The selection of a session from a previous date does not affect the transmission of data from the NucleoCounter SP-100. If the active session is not the session of the day when data is received from the NucleoCounter SP-100 then SemenView detects this and changes the active session to the session of the day, displaying the most recent results.

In case you use SemenView during midnight, the date changes and this will automatically generate a new folder for the data files.

In the folder text field (see Figure 22) you can easily key in the name of the folder. E.g. you can easily go back to the folder from the 6th of June 2003 if you change 030607 to 030606 using the keyboard (remember to hit the enter key on the keyboard).

4.7 Viability

The Calculate Viability check-button is presented (see Figure 24) when a file from a Non-viable analysis is selected from the file list (see Figure 25). Once the button is marked the

[4] By default the newest file (highest "nnn" in the filename) has focus. This will be the file at the end of the file list.

SemenView program will find the file from the first valid Total analysis listed before (above) the Non-viable file selected, from the file list.

The Viability is calculated as:

$$\text{Viability} = 100 \cdot \frac{\text{Total} - \text{Nonviable}}{\text{Total}}\%$$

Please refer to your NucleoCounter SP-100 User's Guide for reference on how to perform Viability analysis.

In the case presented here the Viability becomes:

$$\text{Viability} = 100 \cdot \frac{545.1\text{mill} - 137.4\,\text{mill}}{545.1\text{mill}}\% = 75\ \%$$

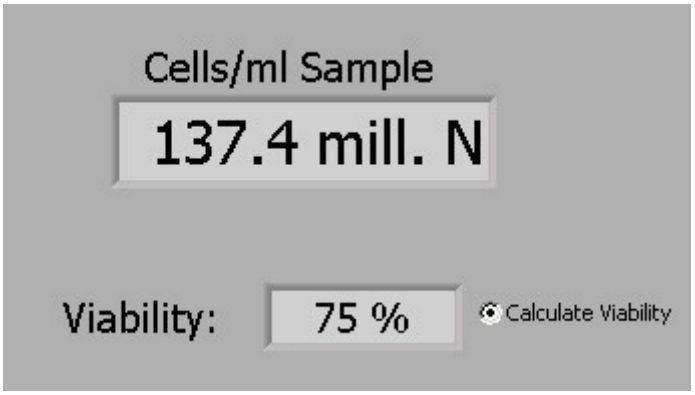

Figure 24 Calculate Viability check-button, Viability result and the Non-Viable result.

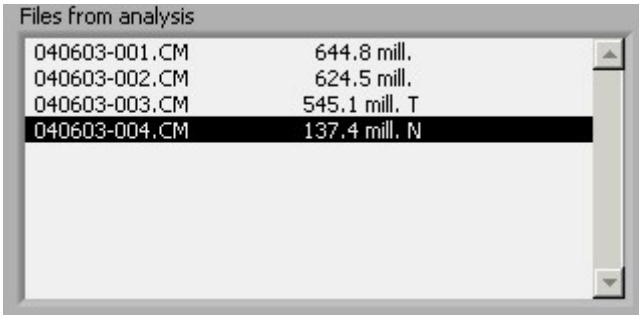

Figure 25 File list showing Non-viable (N) and Total (T) samples.

The program will remember the status of the Calculate Viability check-button when it is running. The default value is un-checked.

4.8 Collected image - Image data field.

When estimating cell concentration with the NucleoCounter SP-100, an image of the stained nuclei in the SP1-Cassette chamber is collected. This image is transferred to the computer and SemenView presents it. The image bears resemblance to a starry sky, where

each of the stars is a stained nucleus. Figure 26 shows an example of an image displayed by SemenView.

The NucleoCounter SP-100 records the image of the SP1-Cassette chamber when counting cells. The image is then processed in the build-in computer of the NucleoCounter SP-100 to give an estimate of the cell concentration, counting every star or white dot as a nucleus.

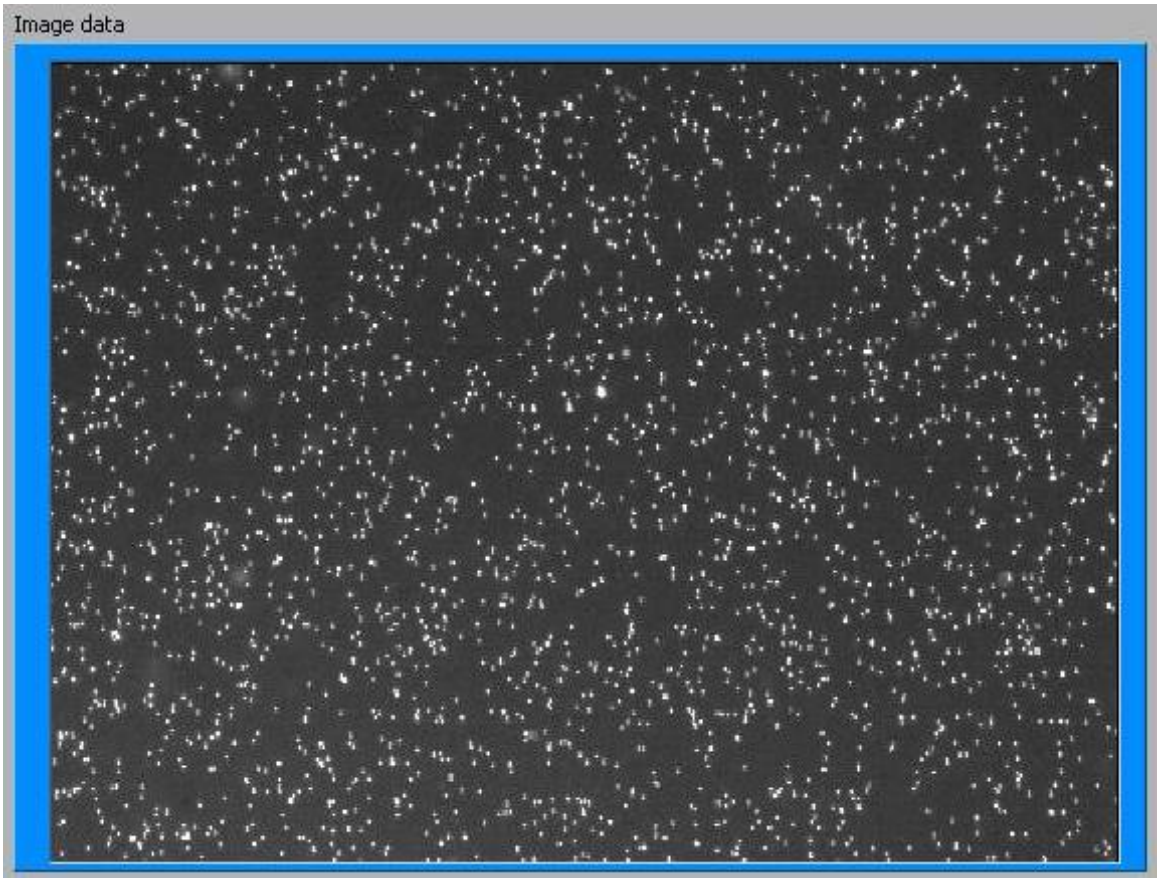

Figure 26 SemenView presents the images from the NucleoCounter SP-100 like a starry sky. Each “star” represents a stained nucleus.

5 Utility tab

In the Utility tab (figure 27) it is possible to print and save results. Furthermore it is possible to select language, text editor and sound scheme.

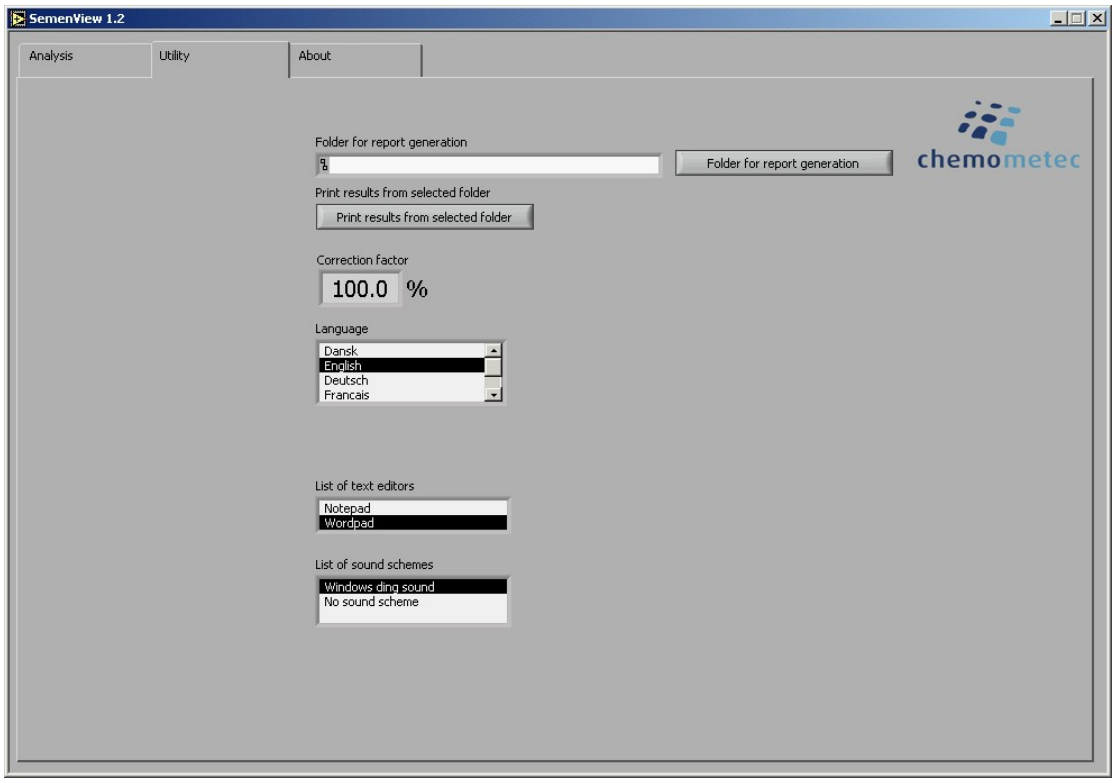

Figure 27 The Utility tab.

5.1 Print results

The report path is found in the top of the Utility tab. Please note that printing only can take place if a valid printer is configured in the Printers folder of the Windows 2000 Control Panel.

Figure 28 Select a path for report generation

If no folder is selected SemenView suggest that the folder from today is selected.

Figure 29 Accept selection of today's folder

Using the button to the right in Figure 28 any folder can be selected as the basis of a report. Once activated, locate the folder and click “Select Cur Dir”. The file that is printed is also saved on the hard disk of the PC (see Figure 30). If a report has already been created and stored, the new report will overwrite the older report.

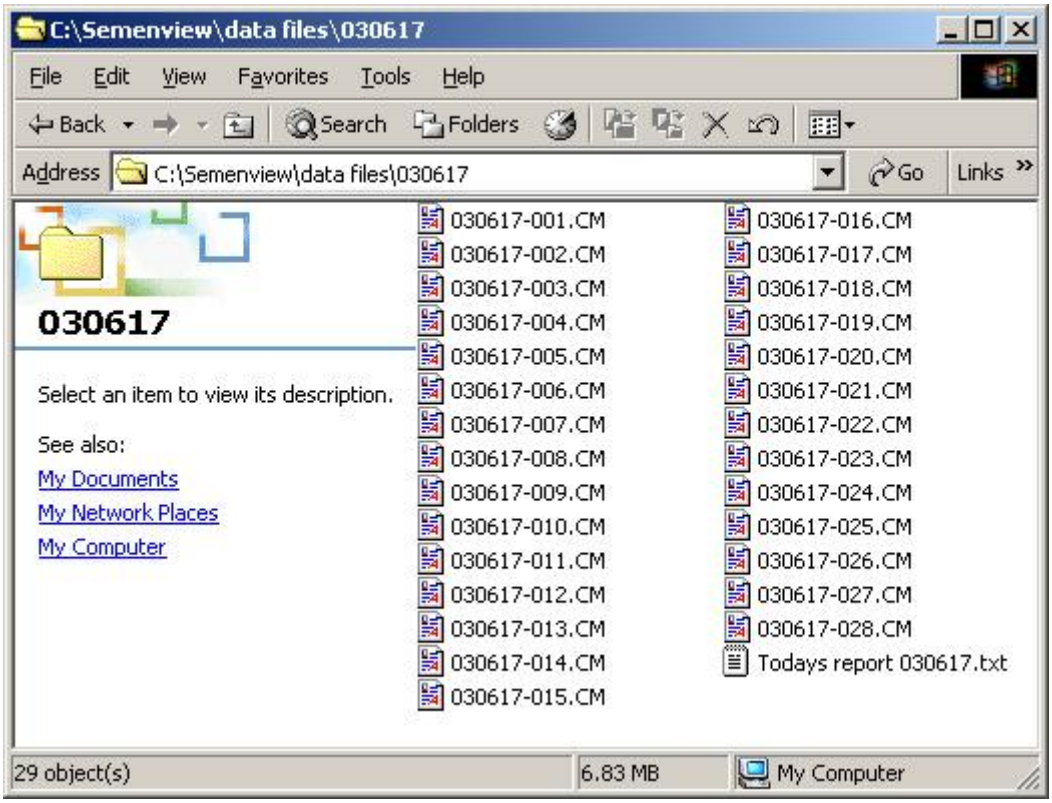

Figure 30 Location of saved data.

Refer to Appendix 1: Printed report list on page 35 to see an example of a Printed report list.

5.2 Correction factor

On the NucleoCounter SP-100 a numerical Correction factor can be entered. The default value is 100.0 %. The present value will be shown in this field.

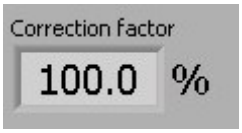

Figure 31 Correction factor

5.3 Setting the language of SemenView.

A list box shows the possible languages for SemenView.

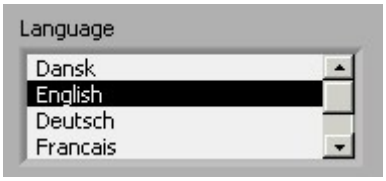

Figure 32 Select language for SemenView

ChemoMetec A/S will implement new languages. Please contact ChemoMetec A/S NucleoCounter SP-100 Technical Support on the address info@nucleocounter.com for any update on available languages.

5.4 Select sound scheme

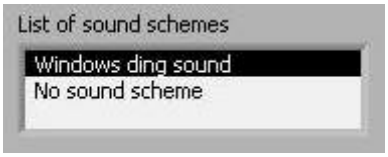

Figure 33 Select a sound scheme

Using this list box you can set a sound[5] to appear whenever a new result is present in SemenView. Every time SemenView is started the "Windows ding sound" is enabled.

5.5 Select text editor

A text editor can be selected in order to print the result list. Either WordPad or Notepad can be configured as text editor.

[5] Requires a soundcard and loudspeakers

Figure 34 Select a text editor

If WordPad is highlighted in the text editor list box it must be located on the hard disk. This will be prompted (Figure 35) for the first time a report will be printed. SemenView knows the location of Notepad. If the location of WordPad is prompted for then follow the directions below to locate its position. SemenView will remember the information of WordPad's location.

Figure 35 Locate WordPad

1. The dialogue shown in figure 36 appears. Locate “wordpad.exe”, highlight it (using the mouse) and press Open.

   Either WordPad or Notepad[6] can be configured as text editors. Therefore, if it is not possible to locate “wordpad.exe”, then:

   a. Select Cancel from Figure 36, press OK when the message box "Printing Report" appears.

   b. Then select Notepad from the text editor list box and press the Print button again.

[6] Before Notepad can be selected as text editor the field “Files of type:” must be changed to “All files (*.*)”.

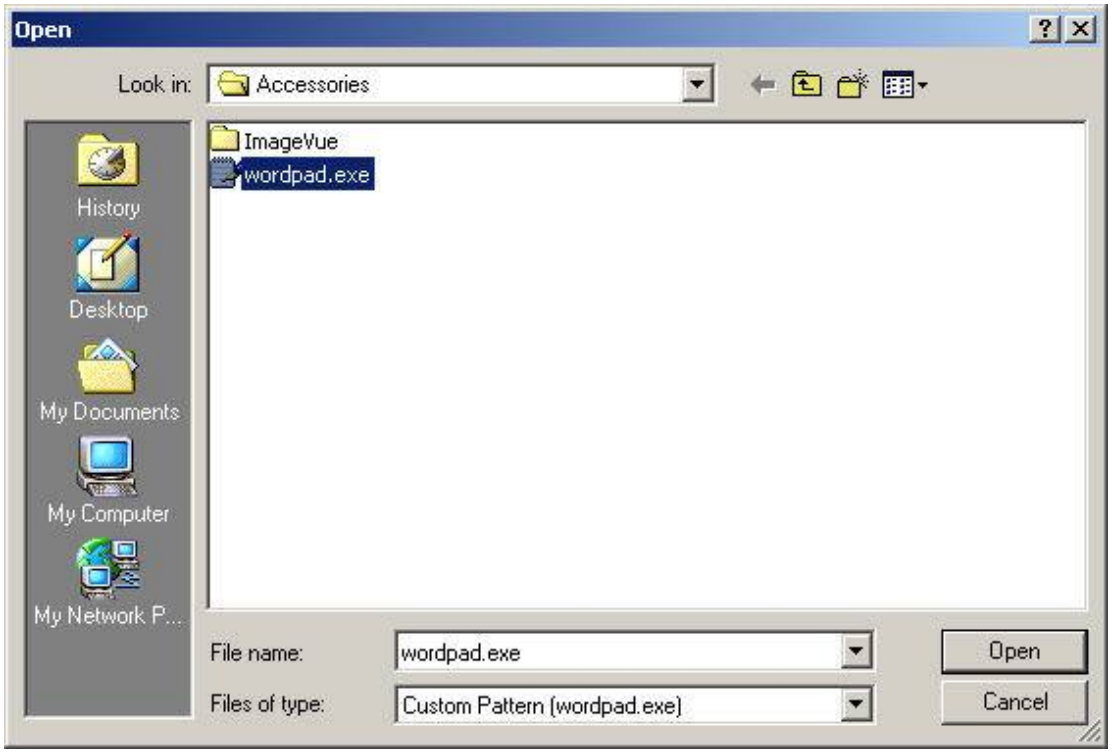

Figure 36 This dialogue appears when WordPad is configured as text editor.

5.5.1 Define font for WordPad

To create reports with results in columns the font for the text editor must be defined. This is done differently for WordPad and Notepad. Follow the directions below to define a font for WordPad.

1. Open WordPad and select “Save as” from the File menu. The dialogue shown in figure 37 appears.

2. Choose the location to save the file to be the SemenView folder (usually C:\SemenView).

3. In the bottom of the dialogue change the “Save as type:” to “Text Document”. Make sure there is a checkmark in the check box to the left of “Save in this format by default”. If there is no checkmark present set it using the mouse.

4. Change the file name to “Document.txt”.

5. Click “Save”.

Figure 37 The dialogue shown when setting up the font for WordPad.

6. After pressing “Save” the dialogue shown in figure 38 appears. Press “Yes” and the font for WordPad is defined. Now WordPad will by default use the font Courier, size 10 regular.

Figure 38 Confirm the setup for WordPad by pressing, “Yes”.

7. Exit WordPad.

5.5.2 Define font for Notepad

Similarly Notepad can be set up for SemenView, follow the directions below.

1. Open Notepad.

2. Choose “Font…” through the Format menu. The dialogue is shown in figure 39.

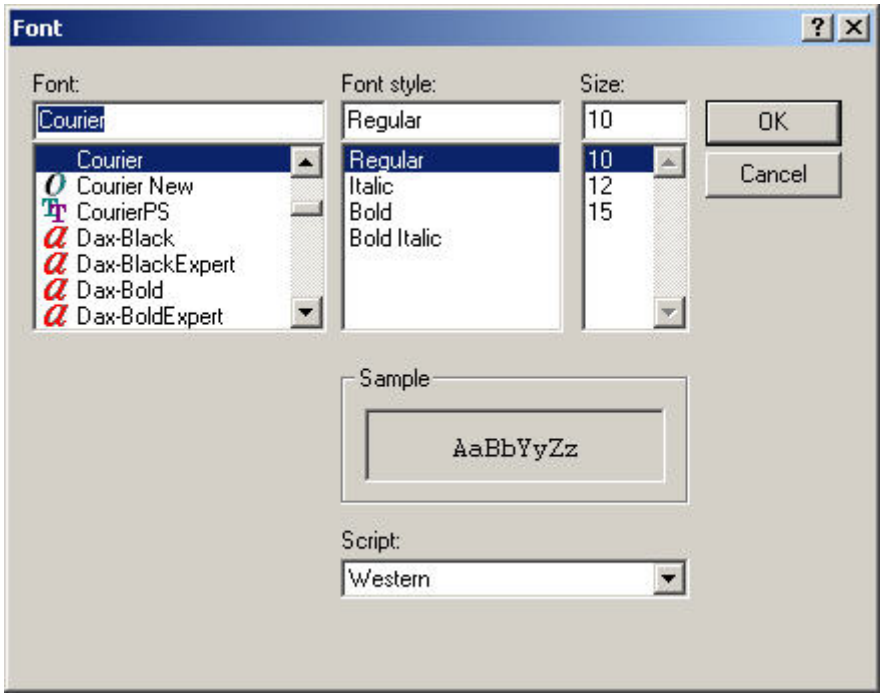

Figure 39 Defining the font for Notepad.

3. Choose the font Courier, Font style Regular and Size 10 as in figure 39. Now Press OK and exit Notepad. Notepad will use the font Courier, size 10 regular.

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6 Troubleshooting

Occasionally difficulties with the SemenView software may occur. In the following a short description and suggested action is given.

6.1 Quality of the sample

Through the CM file image it is possible visually to assess the quality of the sample preparation and thereby the reliability of the measurement by looking at the “starry sky”. The measurement is reliable if the stars or white dots are distributed separately and evenly over the image. Naturally, this rule only applies when a representative sample has been drawn from the original Semen cell suspension.

Be aware of large objects in the image. These objects can be external material, such as dust or a piece of hair. These objects are ignored in the image analysis so the obtained result correctly reflects the number of individual cells in the sample. On the other hand, it is important to be aware of these objects. If it is a cell aggregate or clumps, it may indicate that the sample preparation has been sub optimal and the quality of the estimate of cell concentration may be compromised.

6.2 Data not received

If SemenView does not receive data from the NucleoCounter SP-100, please verify that the USB cable is connected correctly to both the NucleoCounter SP-100 and the computer. Then look at the task bar on the computer to see if the NC Receiver is started.

Figure 40 NC Receiver icon on the Windows task bar

The NC Receiver must be started to receive data from the NucleoCounter SP-100. If the NC Receiver is not open, quit and restart SemenView. NC Receiver should then appear on the task bar.

Generally the NC Receiver has two states in the Info text field when it is started:

- Input open failure
- Input opened

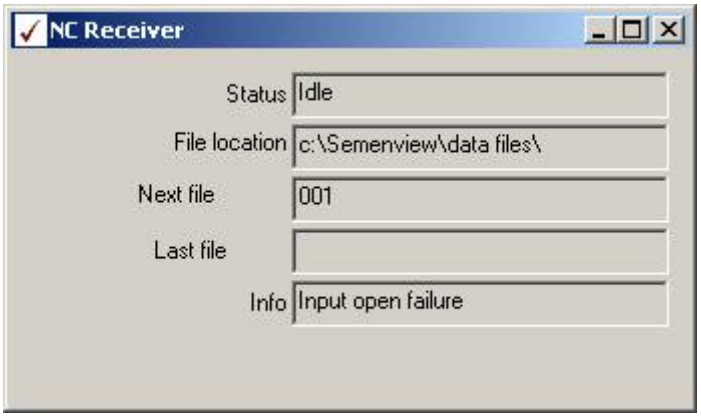

Figure 41 Input open failure

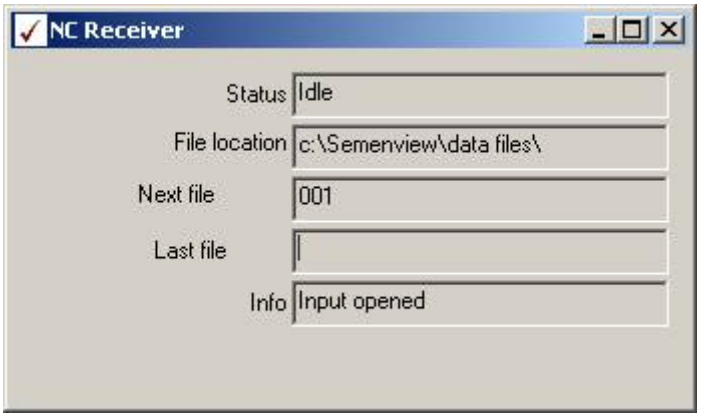

Figure 42 Input opened

If "Input open failure" is stated in the Info field, check the USB cable. Alternative, if the NucleoCounter SP-100 is turned off, “Input open failure” will also appear in the Info field.

If data still is not received quit SemenView and close the NC Receiver. Then open SemenView and check that the NC Receiver is also started. If necessary, restart the computer before opening SemenView again.

The state "Input opened" is present when and only when:

- The NucleoCounter SP-100 is turned On, and
- The USB Cable is properly connected, and
- The NC Receiver is working properly

6.3 SemenView “freezes”

If SemenView ”freezes” or does not respond, quit the program using the “QUIT”-button in the Analysis tab. Close down the NC Receiver. Then restart SemenView and the program should be ready for use again. Any transmission of data from the NucleoCounter SP-100 while the SemenView is disabled is received and stored on the computer, as long NC Receiver is active. Such results can be viewed the next time SemenView is activated. If the

“QUIT”-button does not respond (after only few seconds), you can close SemenView down using the Windows Task Manager. For instructions on the use of Windows Task Manager please refer to the documentation supplied with Windows.

Low resources on the PC running SemenView can cause the result field to show the following message "Not SP-100". You can check your resources on the PC using the Windows Task Manager. Please show **caution** when performing the following or contact your local PC administrator. The Windows Task Manager is activated in the following way[7]:

Press the 3 keys "Ctrl" + "Alt" + "Delete" and the same time, then press the Task Manager button, hit Performance and the following appears:

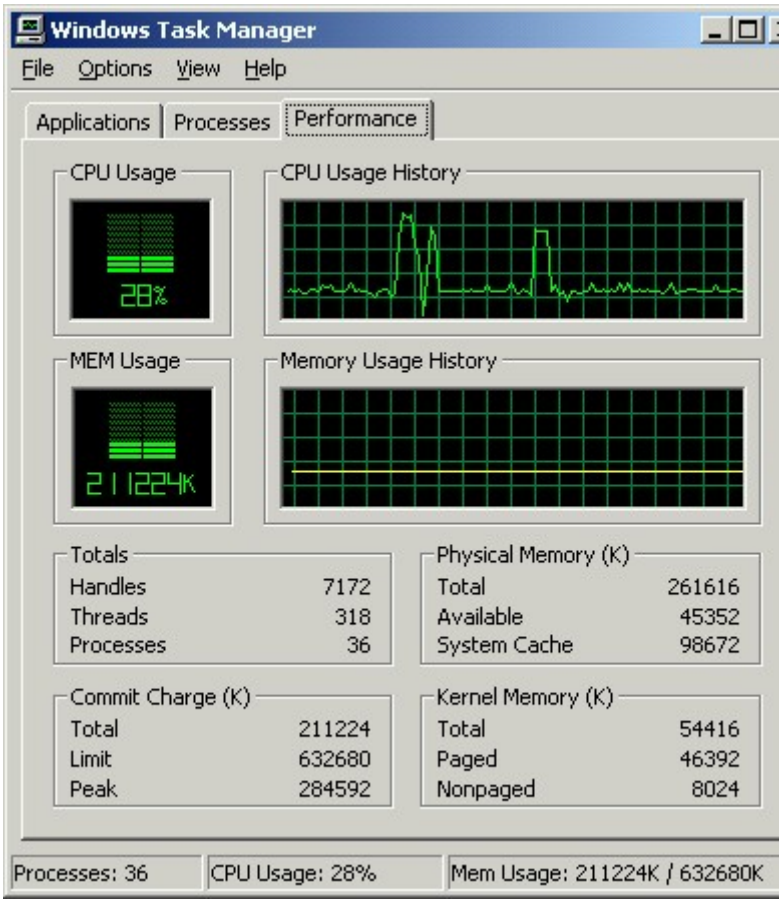

Figure 43 Windows Task Manager – Performance when running SemenView

Figure 43 shows the Windows Task Manager. During normal operation of SemenView the CPU usage will typically be less than 30% however it can peak to 90%, when a new file is received and to 80% when another file from the file list is selected.

[7] This applies only to Windows 2000.

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7 Technical specifications

7.1 SemenView™ software

System requirements — For operating systems see table 1 below. Soundcard and loudspeakers. USB 1.1 port[8]. Display Screen Area: Minimum 1024 x 768[9].

Before installation of SemenView the USB driver for the NucleoCounter SP-100 must be installed (see chapter 1.1 Installation of the USB driver - Windows 2000).

Table 1 Functionality of SemenView and the USB driver on computers running different operating systems.

Operating system	Functionality of application	Installation tested	Installation documented
Win 2000	+	+	+
Win XP/Win 98 2nd edition[10]	+	+	+
Win ME	+	+	-
Win NT/Win 95	-	-	-
Mac OS	-	-	-

When using other operating systems than Windows 2000 the installation procedures can differ slightly from the procedures described in chapter 1 Installation.

[8] The NucleoCounter system does not support all types of USB hubs. Please note that some computers have internal hubs, the NucleoCounter system may not function on such computers.

[9] For Display Screen Area settings refer to the Display option in the Windows Control Panel.

[10] Please note that the Windows USB functionality must be installed manually.

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8 Appendix 1: Printed report list

Below is an example of what the printed and saved report list looks like when it is generated.

Sample ID	Cells/ml Sample	DF	Status
-	496.2 mill.	201	Retest
-	0.000 mill.	201	OK
173	491.6 mill.	201	Retest
-	462.7 mill.	201	Retest
-	570.8 mill.	201	OK
-	525.4 mill.	201	OK
-	556.3 mill.	201	OK
-	550.3 mill.	201	OK
-	1128 mill.	201	OK
-	1063 mill.	201	OK
-	1150 mill.	201	OK
-	1705 mill. T	201	OK
258	363.0 mill. N	201	OK
-	342.9 mill. T	201	OK
-	348.3 mill. T	201	OK
-	362.2 mill. T	201	OK
-	362.2 mill. T	201	OK
-	743.7 mill. T	201	OK
-	700.0 mill. N	201	OK
-	1060 mill. T	201	OK
0997	112.5 mill. N	201	OK
-	117.5 mill.	201	OK
-	106.1 mill.	201	OK
-	132.2 mill.	201	Retest
-	116.9 mill.	201	OK

The Status field reflects whether the sample was recognized as a sample to perform a retest on or not.

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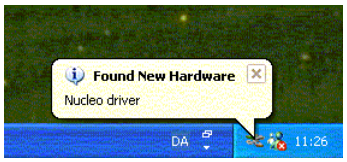
9 Appendix 2: Installation of the USB driver on other Windows operating systems.

Installation Windows XP UK

Installation of the USB driver on a PC with the Windows XP operating system

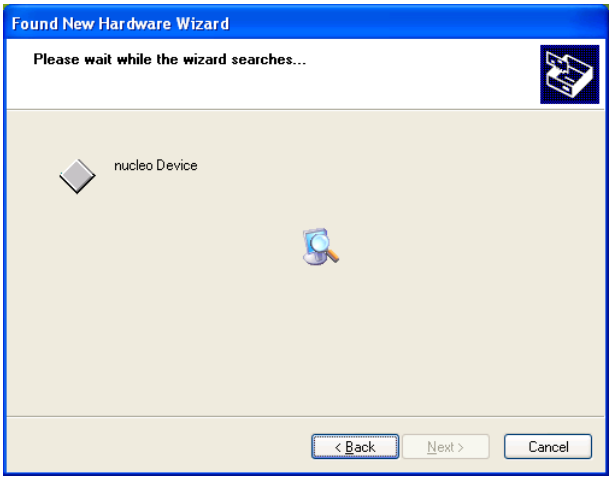
Ensure the computer is switched on, The NucleoCounter properly connected and the Installation CD-ROM is loaded into appropriate drive. When the Instrument is turned on, the Windows XP operating system will usually detect the location of the USB driver and install it automatically.



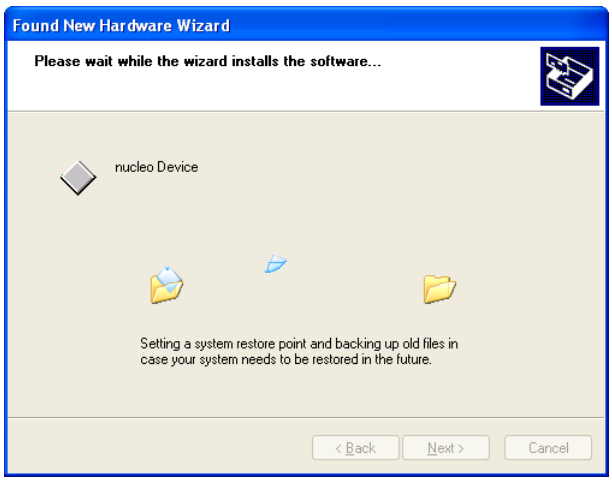
It will display the “Found New Hardware Wizard” that will guide you through the installation of the “nucleo Device” used for the USB driver.

Select “Install the software automatically” option and make sure the Installation CD-ROM is in your CD-ROM drive. Click “Next” and Windows XP will locate the driver on the CD-ROM. If the Installation CD-ROM is not in the CD-ROM drive, then insert it before clicking “Next”.

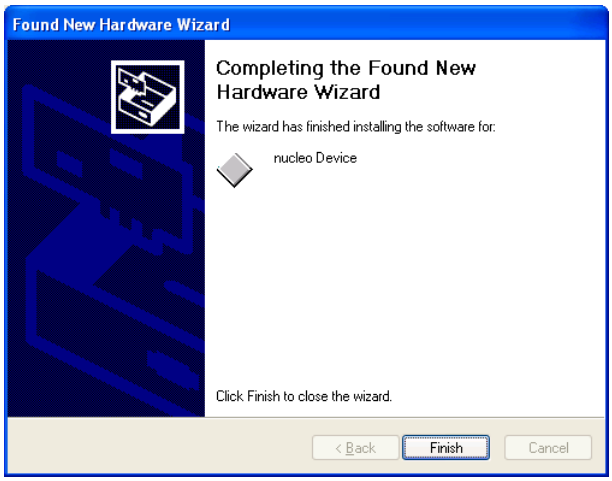
Windows XP will now search for the USB driver. This can take a minute or so, and during the search the message below will appear:



Then Windows XP will install the USB driver. This can take a minute or so, and during the installation a message like the following is displayed.



Clicking “Finish” completes the installation.



Note: The NucleoCounter USB driver does not support all types of USB hubs. Please be advised that some computers feature internal hubs, and the

NucleoCounter system may not function under those circumstances.

This Technical Note assumes that the operating system is intended for and ready for the use of USB Rev 1.1 communication ports.

Application Program

Installing and using the Application program:

The installation, and the use of the Application program will appear as described in the manual. The only change will be that the Windows XP operating system has dialog boxes, windows etc. with different appearance. E.g. rounded corners of the dialog boxes.

Installation Windows 98 UK 2nd edition

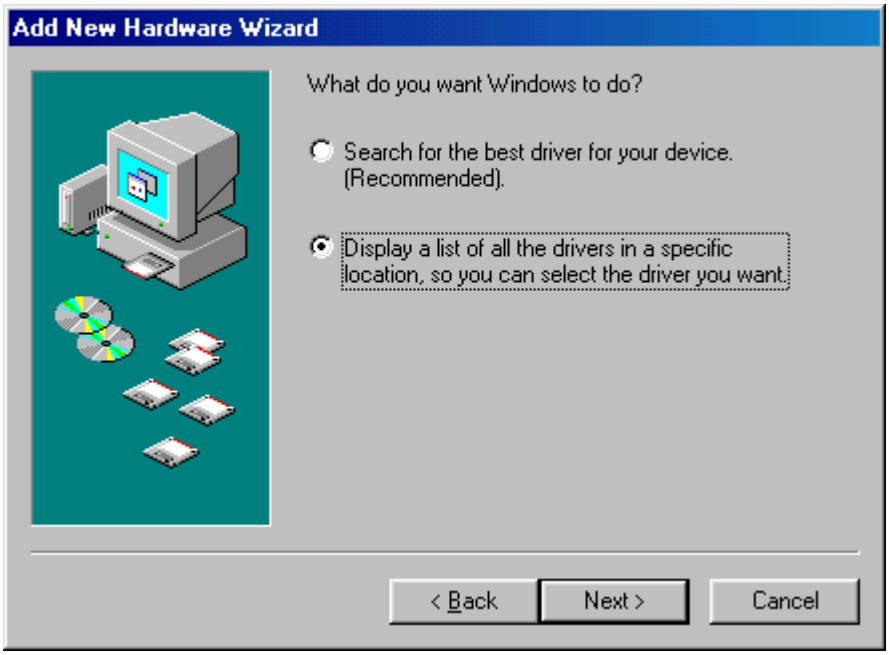
Installation of the USB driver on a PC with the Windows 98 UK 2nd edition (Windows 98) operating system

Ensure the computer is switched on, the NucleoCounter connected to the PC and the Installation CD-ROM is loaded into a CD-ROM drive. Then, when you turn on the NucleoCounter the Windows 98 operating system will identify the NucleoCounter as new USB hardware by displaying the “Found New Hardware” message box and initially it will search for an installed driver. This can take a minute or so, and during the search process a message like the following is displayed:

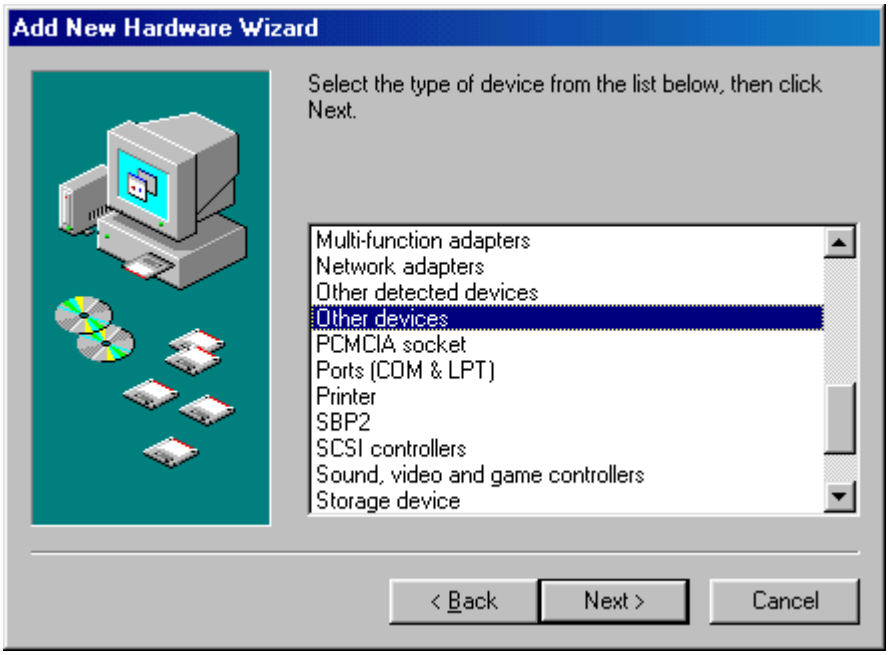
Since this is the first time a NucleoCounter is connected to the computer the system will prompt the user for a device driver. Windows 98 will then activate the “Add New Hardware Wizard” as follows

:

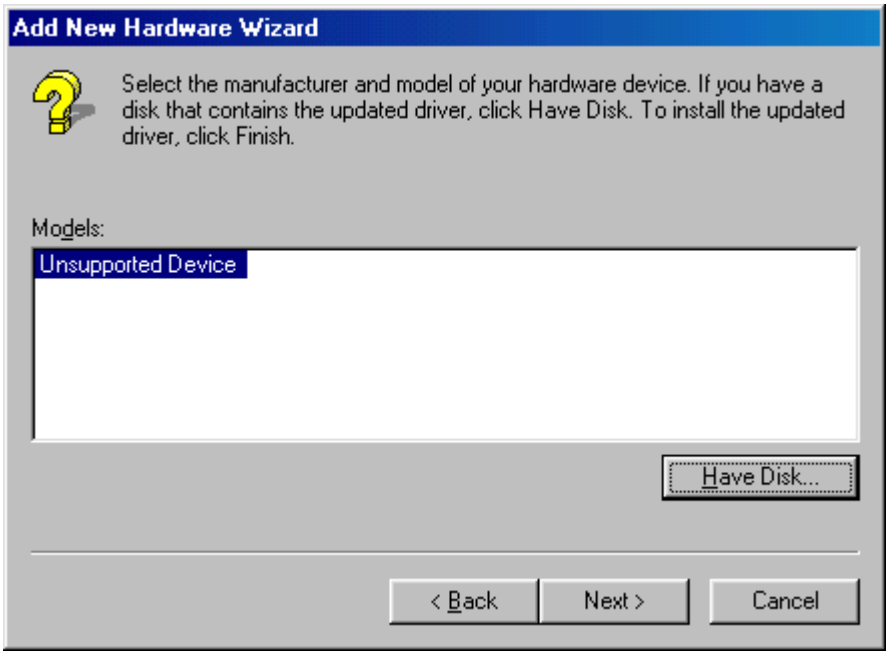
Proceed by clicking “Next”



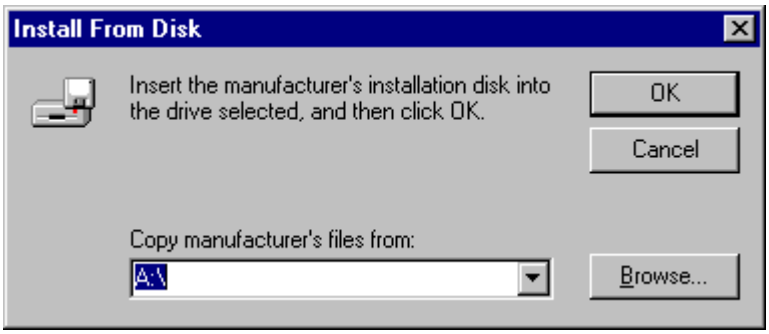
Select the option ”Display a list of all the drivers in a specific location, so you can select the driver you want.” and hit “Next”.



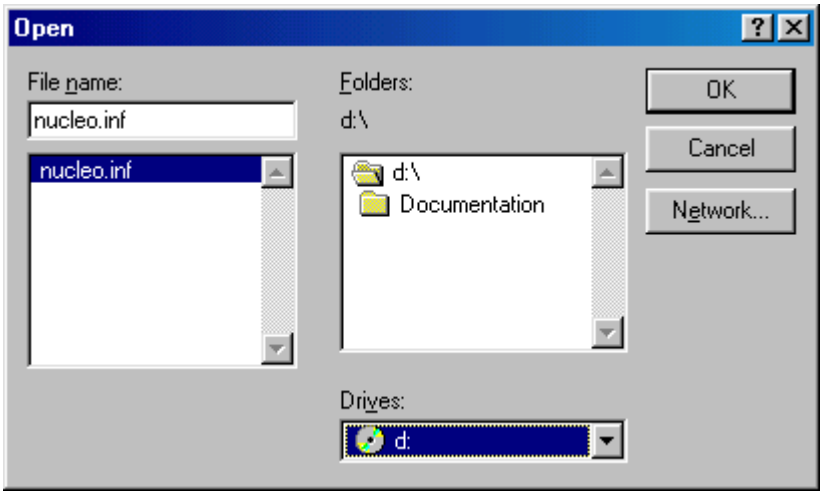
Chose ”Other devices”, and click “Next”.



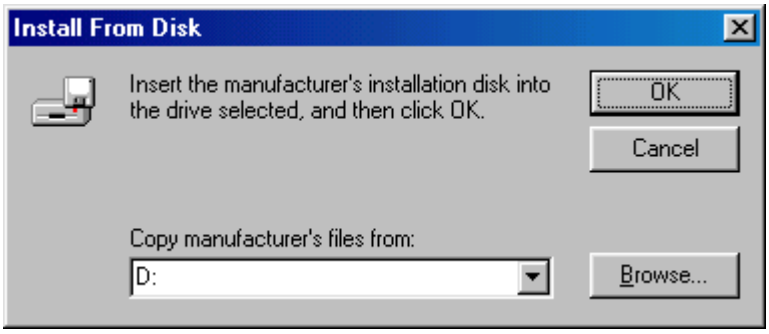
The USB Driver for the NucleoCounter is not supported by Windows 98, therefore you must tell the system where to find the software for it by clicking “Have Disk…”

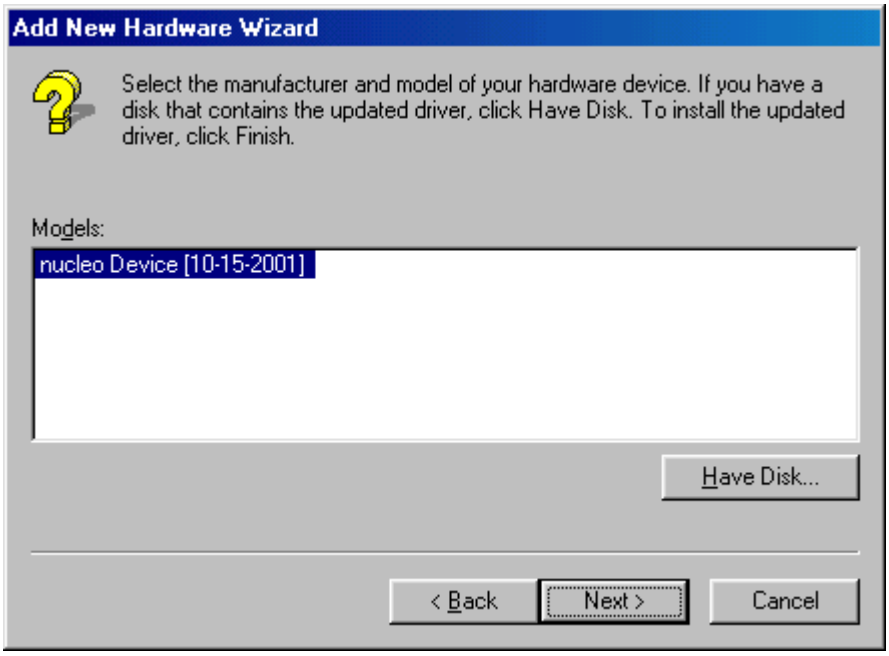


Click on ”Browse…”, and chose the path for the CD-ROM drive having the Installation CD-ROM.

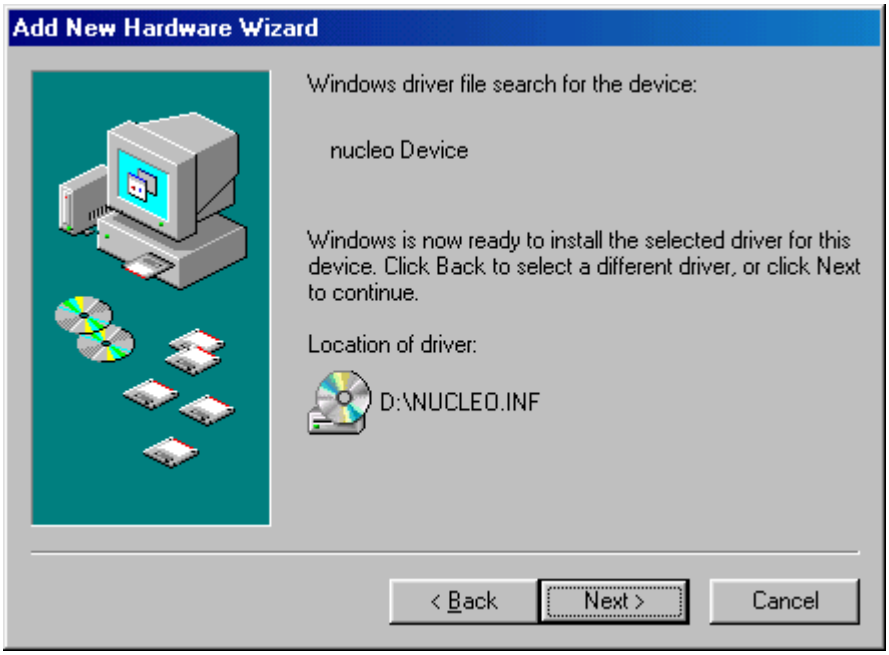


Select the “nucleo.inf” file and click “OK” and click “OK” once more

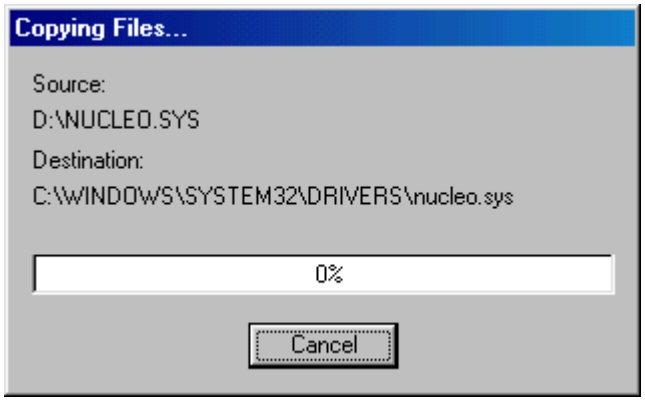




Information about the The USB Driver for the NucleoCounter is now present for Windows 98, click “Next” to proceed.



Accept the location of the USB driver by clicking “Next”



Windows 98 now copies files and installs the USB driver.

Clicking “Finish” completes the installation.

Note:

The NucleoCounter USB driver does not support all types of USB hubs. Please be advised that some computers feature internal hubs, and the NucleoCounter system may not function under those circumstances.

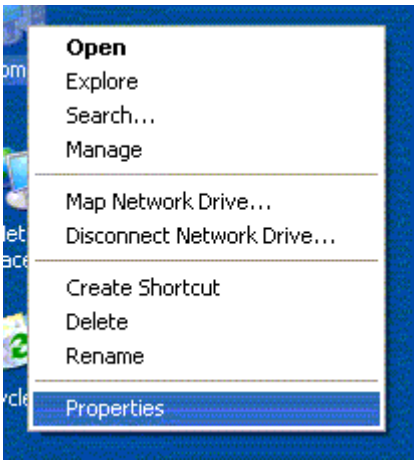
This Technical Note assumes that the operating system is intended for and ready for the use of USB Rev 1.1 communication ports.

Application Program

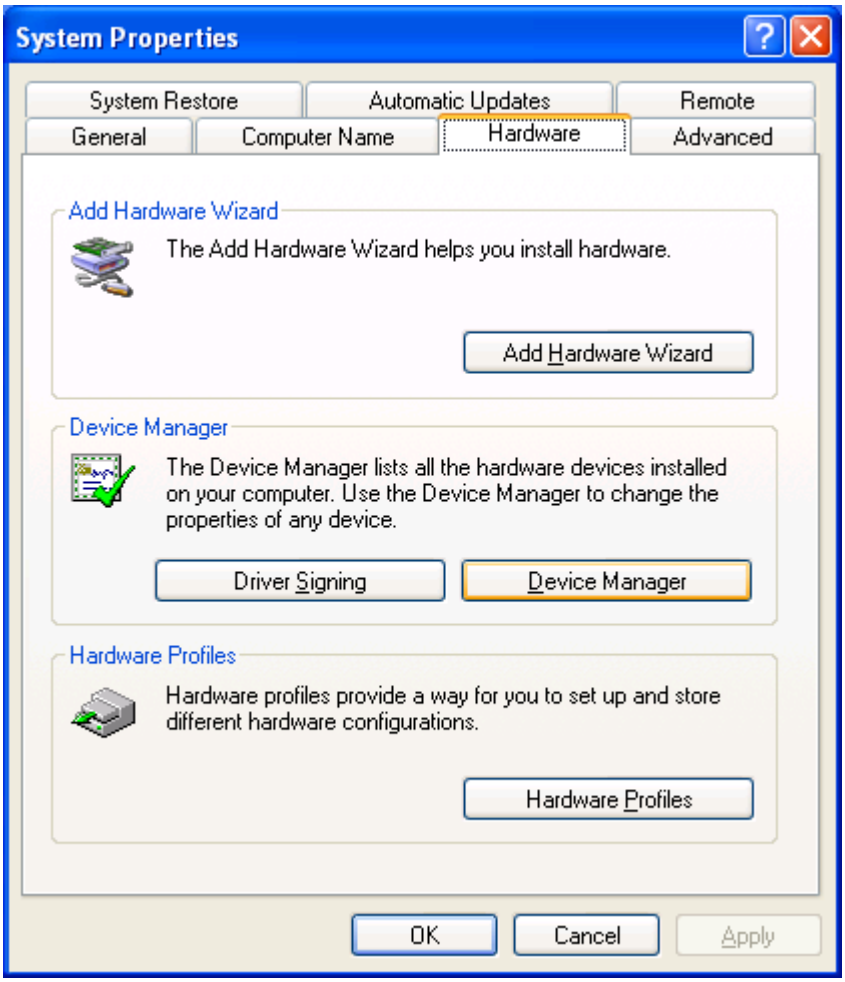
Installing and using the Application program:

The installation, and the use of the Application program will appear as described in the manual.

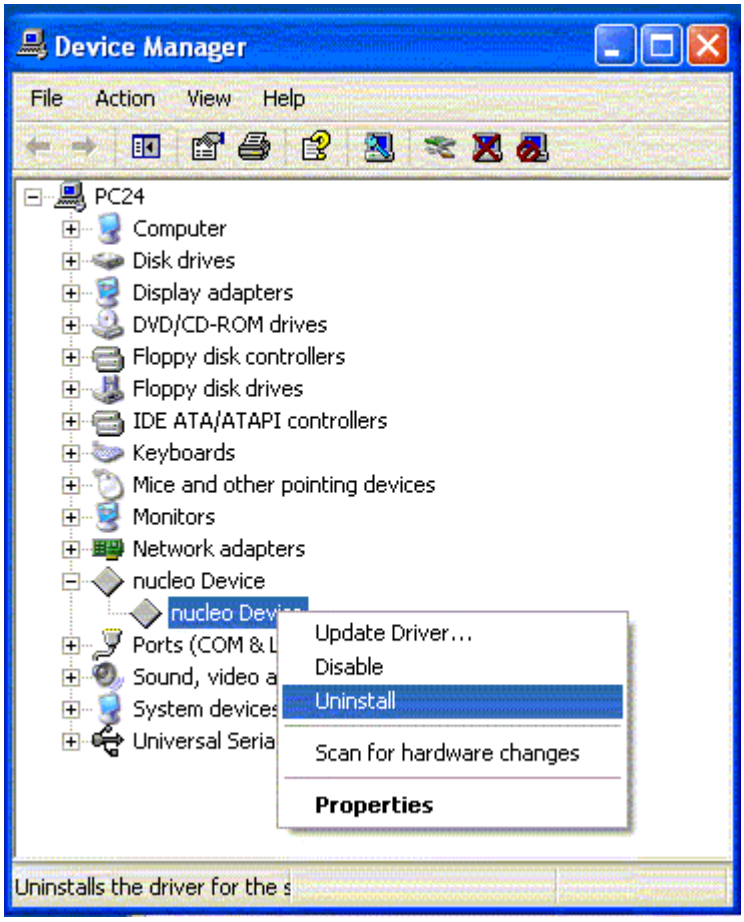
Removal (uninstallation) of the USB Driver Windows XP UK



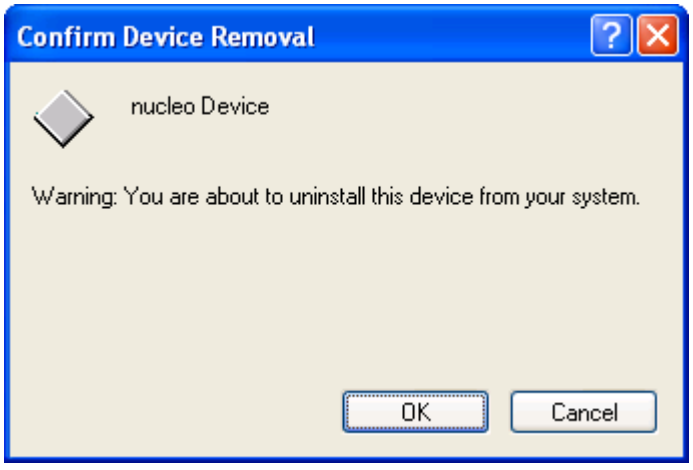
Ensure the computer is switched on and the NucleoCounter properly connected, then use the mouse and right click on the “My Computer” icon, and chose “Properties”.



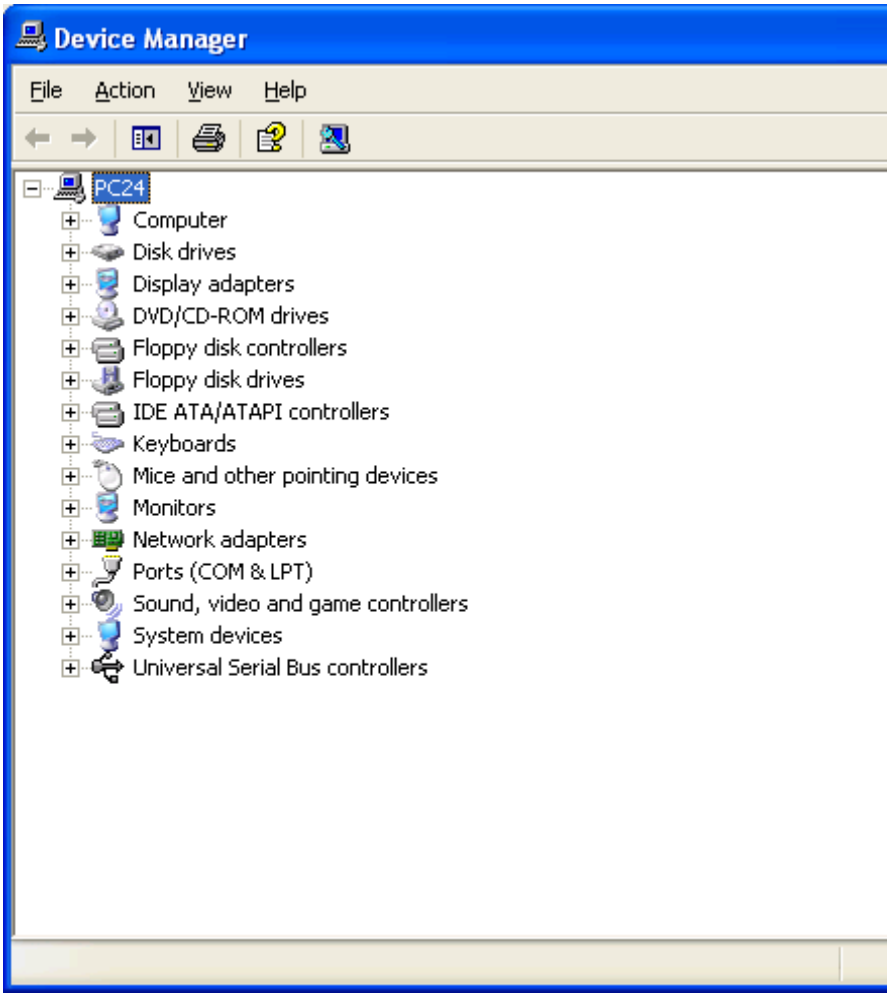
Select the “Hardware” tab, and click on the “Device Manager” button.



On the “Device Manager” list open the “nucleo Device” list, then right click on the “nucleo Device” item, and select “Uninstall”.



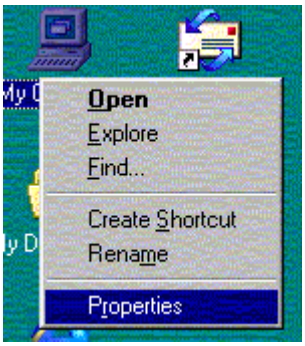
Confirm removal by clicking “OK”



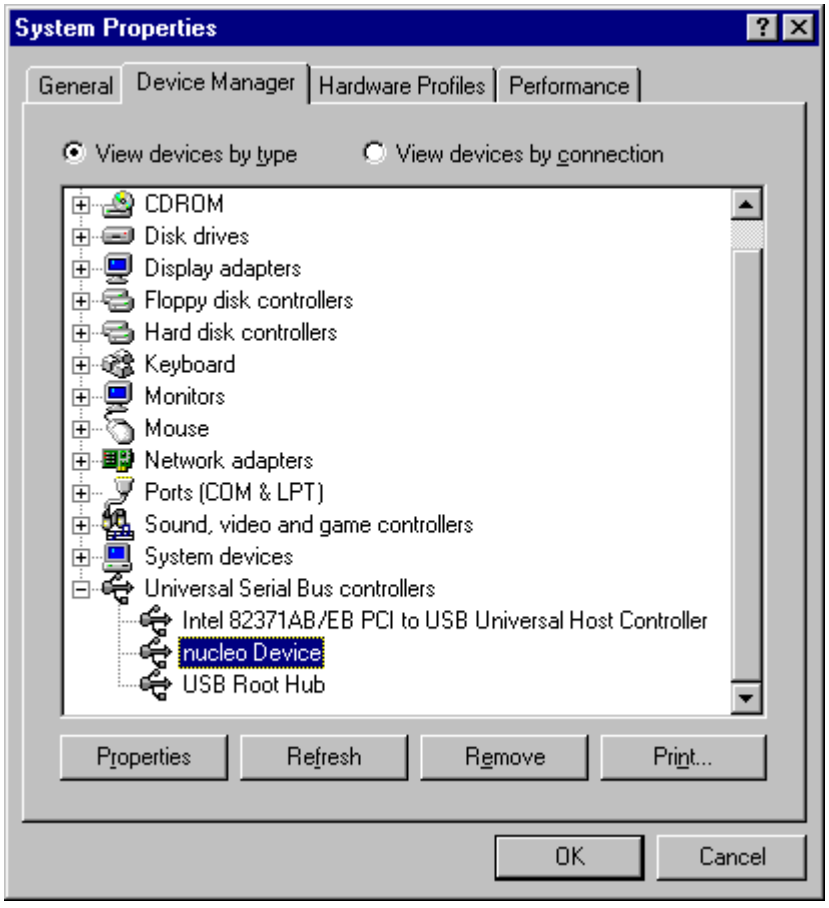
The “nucleo Device” is no longer visible on the “Device Manager” list and the USB Driver is now successfully uninstalled from the system.

Note: This process only removes the “nucleo Device” from the “Device Manager” list, the system files for the USB driver are still present on the PC.

Removal (uninstallation) of the USB Driver Windows 98 UK

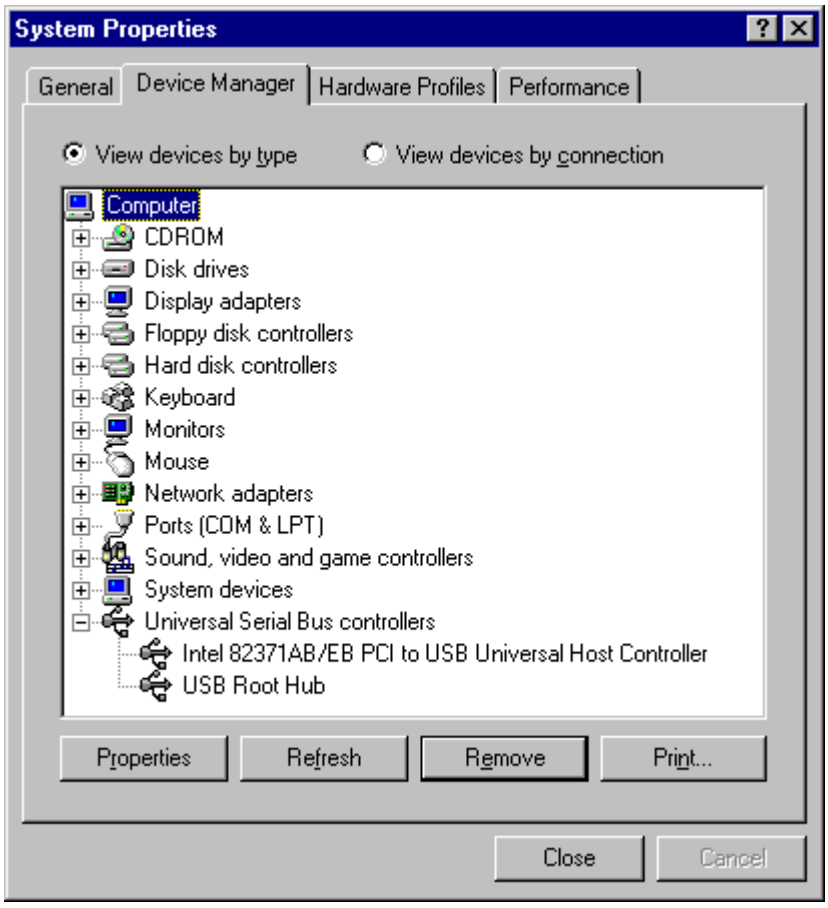


Ensure the computer is switched on and the NucleoCounter properly connected, then use the mouse and right click on the “My Computer” icon, and chose properties. In the “System Properties” dialog box Select the “Device Manager” tab..



On the “Device Manager” list open the “Universal Serial Bus controllers” list, then right click on the “nucleo Device” item, and hit the “Remove” button.

Confirm removal by clicking “OK”



The “nucleo Device” is no longer visible on the “Device Manager” list and the USB Driver is now successfully uninstalled from the system.

Note: This process only removes the “nucleo Device” from the “Device Manager” list, the system files for the USB driver are still present on the PC.

10 Index