

## **Manual RAVOL kit with IFT Analyzer V3.4.3**

Date: Saturday, 1 september 2018

<b>0.</b>	<b>Executive Summary</b>	<b>3</b>
<b>1.</b>	<b>Content of the RAVOL kit with IFT Analyzer</b>	<b>4</b>
<b>2.</b>	<b>Installation software</b>	<b>4</b>
2.1	Preparation for installation	4
2.2	What to do when installing IFT Analyzer under Windows Vista	4
2.3	ANMO Dino-Lite software installation	5
2.4	IFT Analyzer software installation	6
2.5	Running IFT Analyzer software from the USB stick	7
<b>3.</b>	<b>Preparing an ink “blot” to be analyzed by IFT Analyzer</b>	<b>8</b>
3.1.	Using the pipette	8
3.2.	Make in 6 steps an ink “blot” of screen roll surface	9
3.3.	Preparing the blot area for measuring	10
<b>4.</b>	<b>Measuring the ink film thickness Using IFT Analyzer</b>	<b>12</b>
4.1.	Start IFT Analyser on your PC	12
4.2.	Create new screen roll or select an existing screen roll	12
4.3.	Adding the screen roll mechanical drawing	13
4.4.	Adding IFT Test Runs	13
4.5.	Taking an IFT Measurement	14
4.6.	View result and save data	16
4.7.	Additional Images	17
4.8.	Measuring cell wall thickness and screen count	18
4.8.1	Measuring cell wall thickness and screen count, Calibration	19
4.8.2	Measuring Cell Wall Thickness	20
4.8.3	Measuring Screen Count	22
4.9.	Reports	23
4.9.1	IFT History Report	23
4.9.2	Cell Wall Thickness History Report	24
4.9.3	Quality Assurance Report	25
4.9.4	Compare Runs report	25
4.10.	Copying graph from main screen	27
<b>5.</b>	<b>Using the USB microscope and “Dino Capture” software for evaluating the screen roll surface</b>	<b>27</b>
5.1.	Measuring the screen roll screen count using “Dino Capture” software	27

5.2.	Measuring the cell wall thickness using “Dino Capture” software	28
6.	Miscellanies	28
6.1.	Sorting and filtering data in main screen	28
6.2.	Editing a screen roll IFT Measurement	29
6.3.	Custom Logo	29
6.4.	Language button	29
6.5.	Import and export test data	29
6.5.1	Export test data from a roll	29
6.5.2	Export selected test data from a roll	29
6.5.3	Import test data	30
6.6.	Set led’s microscope to on	30
7.	Final	32

#### **Disclaimer**

All information in this document has been carefully checked. However, no responsibility is assumed for inaccuracies, nor is any responsibility assumed by BicarBlast B.V. for its use.

There is no legal obligation to document internal relationships between any functional modules, realised in either hardware or software.

BicarBlast B.V. reserves the right to make changes without notice.

## 0. Executive Summary

Thank you for purchasing IFT Analyzer.

Why is it important to monitor the screen roll performance?

- Colour consistency is a key print property on which print is judged today;
- Colour consistency is the “holy grail” for brand colour owners.

The printed colour depends on:

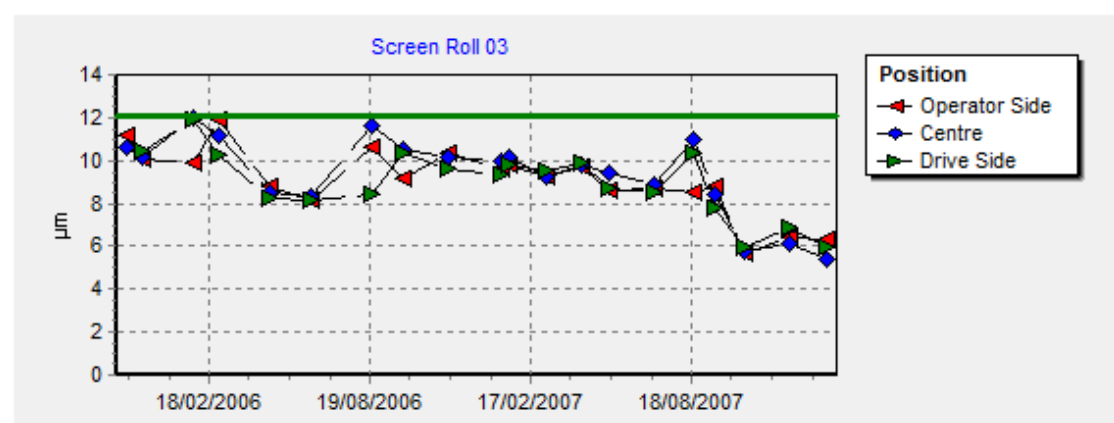
- Substrate printed on;
- Ink formulation;
- Ink film thickness.

**The cleanliness of the screen roll is most likely the major factor during production influencing the ink film thickness transferred to the substrate.**

This manual describes:

- How to install the software;
- Take Ink film thickness measurements;
- How to use the USB print microscope to add screen roll surface images to a measurement;
- How you can measure Cell Wall Thickness and Screen Count in a screen roll surface image taken with the USB print microscope.

Using IFT analyzer on a regular basis will help you to monitor your screen roll performance over time and adept cleaning procedures or decide on replacement so the screen roll will transfer a consistent ink film during its life time.



## 1. Content of the RAVOL KIT WITH IFT Analyzer V3

Following parts you will find in the kit:

- IFT Analyzer software
- RAVOL Test ink
- Digital pipette + 0.1 ml tips
- Doctor blades
- Film with Reference label

## 2. Installation software

Following the instructions for installing the IFT Analyzer software and the ANMO Dino-Lite camera software and drivers on your computer. The users that purchased the USB stick version skip chapter 2.4

### 2.1 Preparation for installation

First you have to check if your computer meets the requirements for running the applications.

The Computer should have the following features:

- Pentium II, 500 MHz, 256MB Memory
- 300 MB free disk space
- Graphics card with 24 or 32 Bit
- USB 2.0 connection

Requirement Operating System:

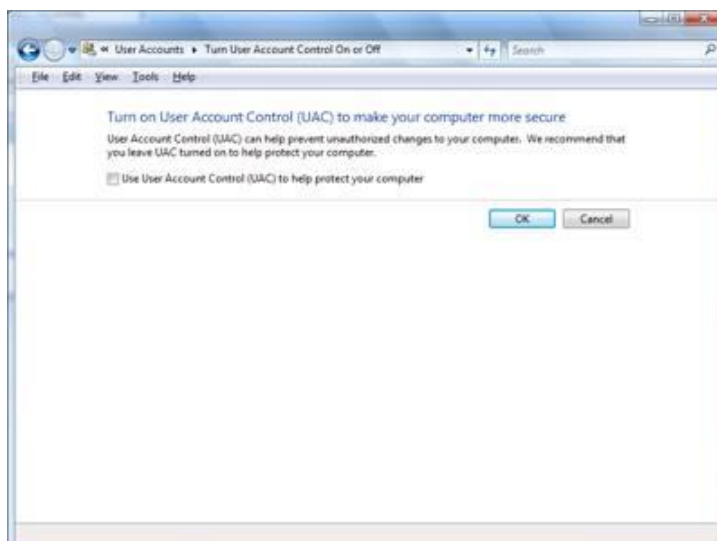
- Windows2000 with Service Pack 3 or higher, Windows-XP, Windows Vista, Windows 7.

### 2.2 What to do when installing IFT Analyzer under Windows Vista

Switch the User Account Control (UAC) off and restart the machine. You need to be administrator of your machine. To switch UAC off do this: Go to “Control Panel” from the start button and click on “User Accounts” click on the bottom text “Turn User Account Control on or off”.

The screen will look like shown on the right.

You can also run applications as Administrator. To do this: right click the application and third line from the top is “Run as Administrator”. You can also set applications to do this by default. To do this right



click the application select “Properties” and click on the “Compatibility” tab at the bottom of the screen is the button “Run this program as an administrator.”

Install the software in the “Program Files” directory and the IFT Analyzer database in: “c:\users\Public\Symbolics\IFT Analyzer folder”.

### **2.3 ANMO Dino-Lite software installation**

The Dino Capture software and the drivers for the USB microscopes are installed in 3 steps from the IFT Analyzer CD or USB stick.

1. Installation controller for special functions: DN\_DS\_Ctrl\_Installer.exe
2. Installation drivers: dnldrv34.exe
3. Installation Dino capture: dnc2\_1.3.8\_U.exe

The installation files can be found on the CD and USB in the directory: [\\Microscope](#)

Start with clicking on the exe “DN\_DS\_Ctrl\_Installer.exe” and follow the instructions.

Next click on “dnldrv34.exe” to install the drivers. IN windows 7 this might need to be repeated depending on settings.

Last step install Dino Capture by clicking on “dnc2\_1.3.8\_U.exe” and follow the instructions.

During the installation you will see a warning screen related to hardware installation. Click on “Continue Installation”.

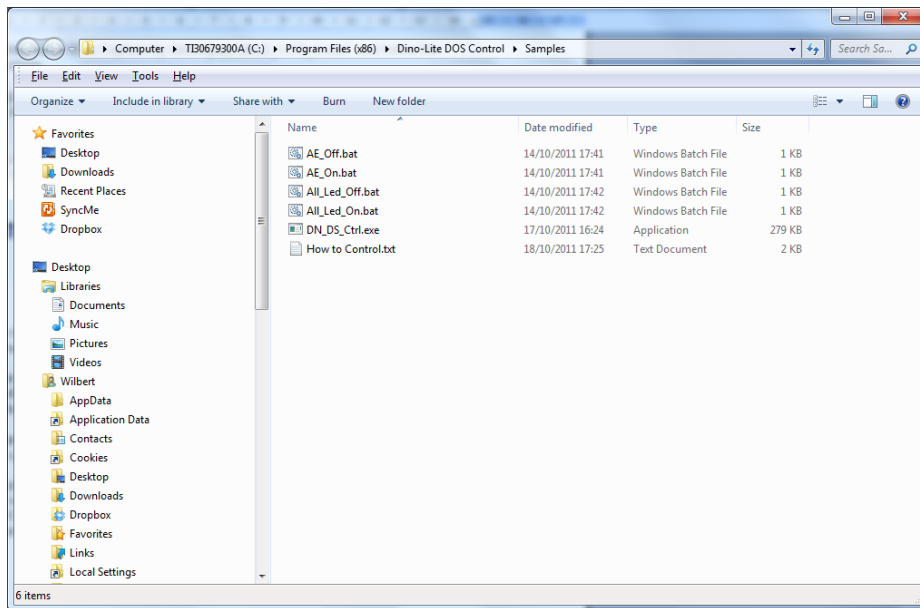
Make sure you have connection to the internet after the installation. The software will automatically check for the latest software update.

On the IFT CD and USB stick you will find a directory “Microscope” in this directory you will find the original manual and the latest installation files. It is also possible to download the latest software versions from: [www.dino-lite.com](http://www.dino-lite.com)

The last step is that you make sure that the led’s of the microscope are switched on when using the microscope in IFT Analyzer.

The following steps need doing:

Click on the windows “Start” button and go to the “All Programs” next click on “Dino-Lite DOS Control”. Select the option “Samples” You will see briefly a dos prompt and this window will be opened:



Double Click on “All\_Led\_on.bat” You will see briefly a dos prompt screen. After this close the “Samples” window.

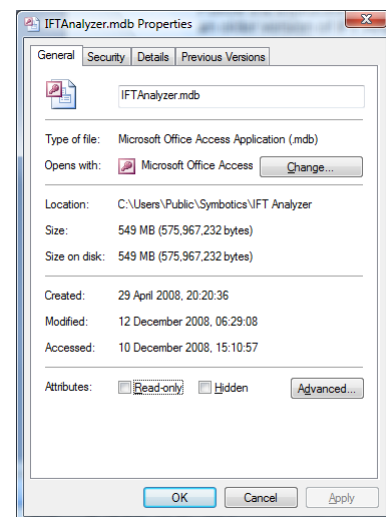
You can repeat this action when you do a measurement with IFT Analyzer and the led’s in the microscope are not on.

## 2.4 IFT Analyzer software installation

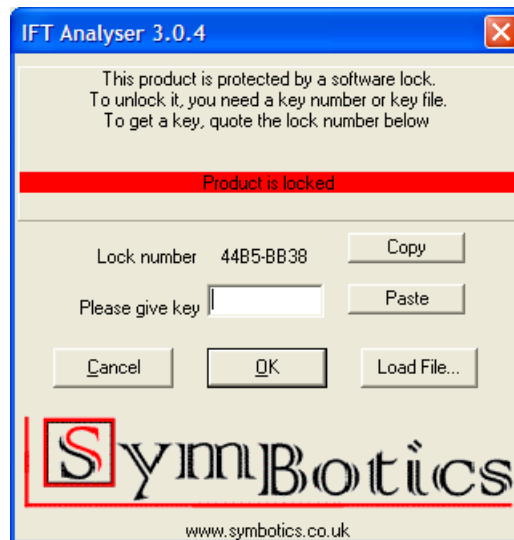
To install the IFT Analyzer software you need to have administrator rights. If so then run the “setup.exe” program on the IFT Analyzer CD.

Follow the instructions on the screen when installing the software. If you are running an older version of IFT Analyzer then you will be asked to uninstall it first.

Please check if the IFT Analyzer.mdb database is not set “read only” after installation of IFT Analyzer. To do this go to the directory where you installed the IFT analyzer database or search for “IFT Analyzer.mdb” on your computer. Right click the database with your mouse. Click on properties. You see the screen on the right. Check if there is no tick next to “Read-only” at the bottom under attributes.



IFT can be used without a license key for viewing data and importing exporting data to other IFT users. When you measure with IFT Analyzer it will show the screen below.



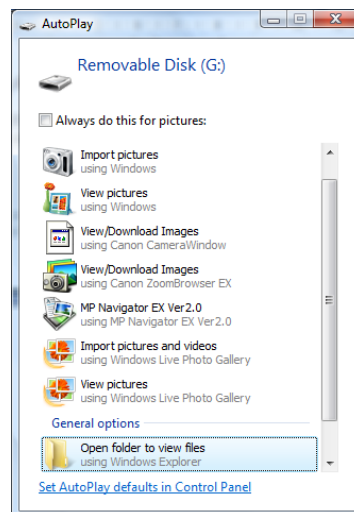
Send the lock number by e mail to [info@tcbvba.be](mailto:info@tcbvba.be). After invoice payment a perpetual key will be released.

The “Lock” screen will show every time you start the measuring option in IFT Analyzer until you have entered a perpetual key.

To allow using the “Native Dino-Lite driver” also install DNVideoX by running “setup.exe” in the folder \DNVideoX.

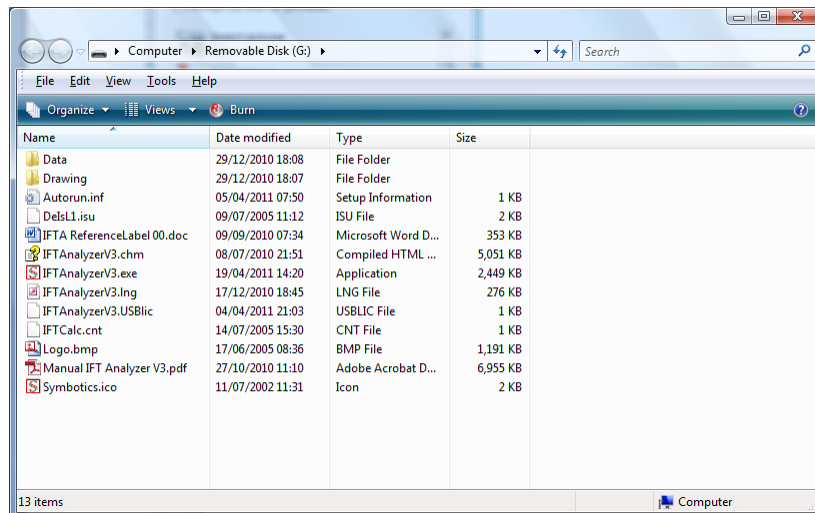
## 2.5 Running IFT Analyzer software from the USB stick

IFT Analyzer USB stick users can use the USB stick on any fat windows PC. Simply plug in the USB stick. Windows will show the following screen:



Click on “Open folder to view files”

It will show a screen like this:



Click on the “IFT AnalyzerV3.exe” program to start IFT Analyzer.

#### Following needs to be noted:

- The IFT Analyzer license is uniquely linked to the provided USB stick and can't be transferred to another stick or PC. Losing the stick means losing the license
- The IFT Analyzer software and database are stored on the USB stick. It is important to make regular back-ups of the stick to avoid losing your data when losing the stick
- The IFT Analyzer can be installed on the hard disk. Viewing of data is then possible and also printing of reports but the program will work only allow measuring when the USB stick is plugged in
- If you have an IFT Analyzer version installed on your computer then the database location is stored in the computer registry. The IFT Analyzer version on the USB stick will always first look if there is an database stored on the PC and use this database by default before using the database installed on the USB stick
- The dino lite microscope drivers need to be installed before being able to use the microscope. The drivers and Dino-Capture programs are included on the USB stick. This is done by running: “dnldrv34.exe” which you can find in the directory “\microscope” on the USB stick
- DNVideoX needs also to be installed. This is done by running “setup.exe” which you can find in the directory “\DNVideoX” on the USB stick

### 3. Preparing an ink “blot” to be analyzed by IFT Analyzer

Before using the IFT Analyzer software you need to make an ink “blot” from the screen roll surface. We will describe how to make in 6 steps an ink “blot”. First is explained how the pipette is used.

#### 3.1. Using the pipette





1. When you have put the tip on the pipette you use the “filling lever” to fill the tip with ink. It is like a syringe a doctor uses for providing an injection. You fill the pipette always completely
2. You see the value blinking on the display.
3. By pushing the “operating lever” once you calibrate the pipette so it know its position and is ready for use.
4. The display will stop blinking.
5. Using the blue volume selection dial on the side allows to set the volume you will apply every time you push the dispense handle completely down.
6. The display will show the ink volume you dispense every time you push the dispense handle.

The following table shows the recommended ink volume to use for measuring:

IFT Range	Ink volume applied
2-4 $\mu\text{m}$	3 $\mu\text{l}$
5-8 $\mu\text{m}$	5 $\mu\text{l}$
8-10 $\mu\text{m}$	8 $\mu\text{l}$
10-15 $\mu\text{m}$	10 $\mu\text{l}$
>15	15 $\mu\text{l}$

### 3.2. Make in 6 steps an ink “blot” of screen roll surface



**Step 1:** Clean screen roll surface (using your standard detergents for cleaning).



**Step 2:** Dry screen roll surface.



**Step 3:** Apply with the pipette a known amount of ink on the surface of the screen roll (e.g. 10 $\mu$ l).



**Step 4:** Doctor the ink over the surface of the screen roll with the doctor blade.



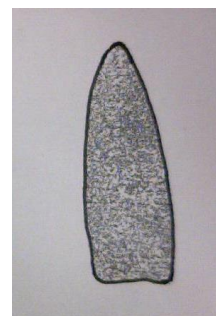
**Step 5:** Blot the ink off the surface of the screen roll with paper.



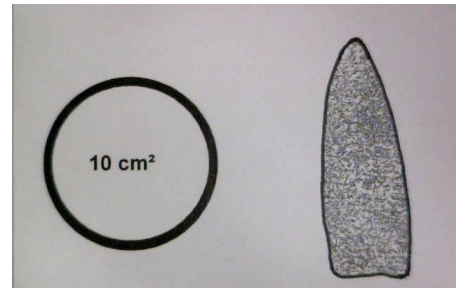
**Step 6:** Clean ink off the surface of the screen roll (using your standard detergents for cleaning screen rolls).

### 3.3. Preparing the blot area for measuring

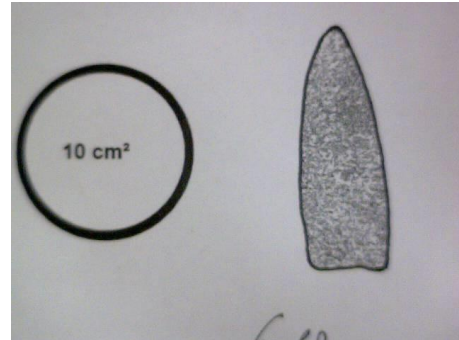
Draw a line around the blot area with a 0.5 mm fine liner.



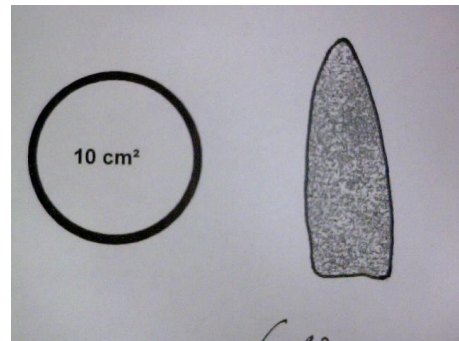
Place a reference label **left** of the blot area (you also can print a sheet with the reference area). This step is not needed when using the IFT Analyzer pad. Note that the size of the circular reference area on the IFT Analyzer block is 8.8 cm<sup>2</sup>.



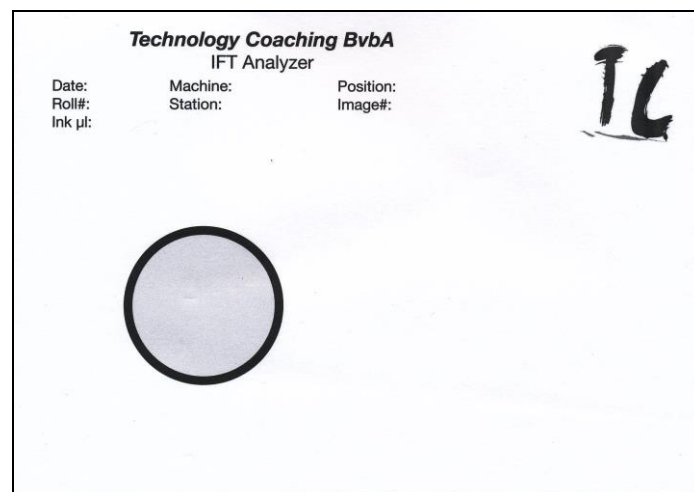
Place the paper with reference circle and blot under the USB microscope standard with extension pole and use the USB print microscope 20-200x.



Focus the USB microscope at 20x so that the reference circle and blot area both sharp and visible (The image will be visible on your PC when using IFT Analyser).



You also can use the IFT pad for making the reference blot. The block looks like this:



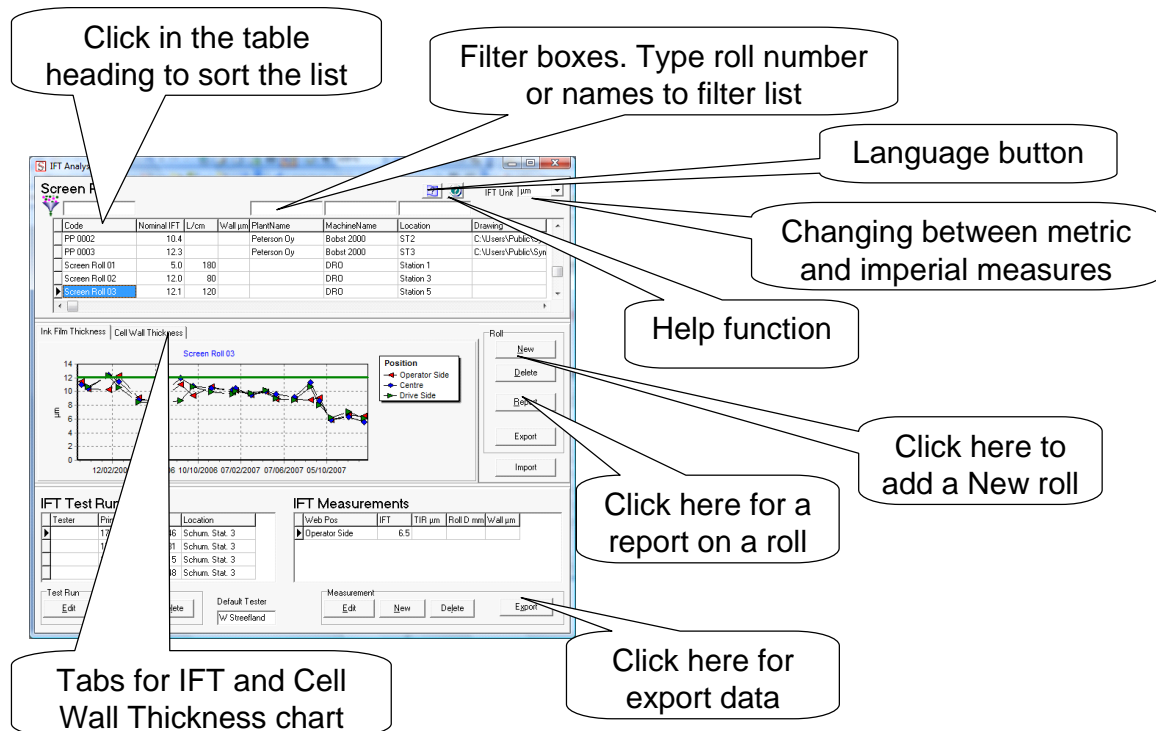
**Note that the area of the reference circle is 8.8 cm<sup>2</sup> on the “IFT Analyzer PAD”!**

## 4. Measuring the ink film thickness Using IFT Analyzer

The following chapter describes how to use the IFT Analyzer software.

### 4.1. Start IFT Analyser on your PC

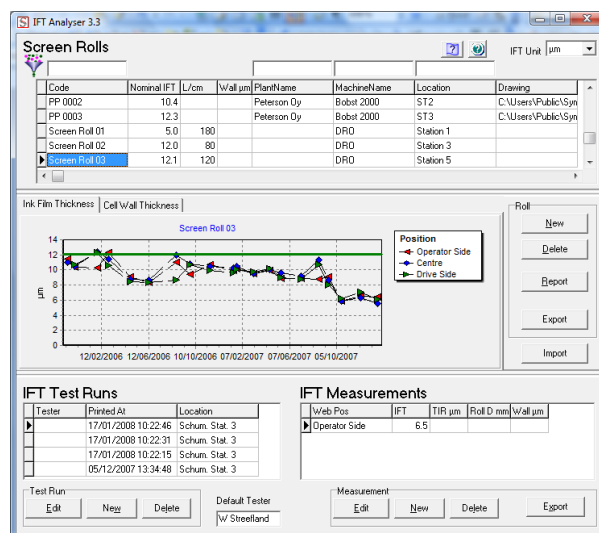
When starting IFT Analyzer you see the main screen. This screen looks as below. It shows how to use the main functions.



### 4.2. Create new screen roll or select an existing screen roll

To create a new roll click in the "Roll" section on "New". You will get, in the screen roll window on the left an, empty space where you can enter or measure:

- Roll number
- Nominal IFT
- Screen count (See paragraph 4.8.2 for measuring screen count)
- Cell wall thickness (See paragraph 4.8.3 for measuring cell wall thickness)
- Plant name
- Machine name
- Location of the roll (e.g.: Machine and print station)
- Add the mechanical drawing of the screen roll
- Enter the name of the default testing person



In the top of the screen filter boxes are available for filtering on: Code, Plant Name, machine name and Location.

You can click in the bottom in the “IFT Test Runs” on “New” to add a test run. In the section “IFT measurement” you click on “New” to start a measurement.

The Next screen shows more explanation on about the functions on the main screen.

The screenshot shows the main interface of IFT Analyzer 3.3. Callouts point to the following elements:

- Selected screen roll:** Points to the 'Screen Rolls' table at the top.
- Tabs for IFT and Cell Wall Thickness chart:** Points to the 'Ink Film Thickness' and 'Cell Wall Thickness' tabs.
- Click here to add a Test Run:** Points to the 'New' button in the 'IFT Test Runs' section.
- Click here to edit a Test Run:** Points to the 'Edit' button in the 'IFT Test Runs' section.
- Click here to edit a measurement:** Points to the 'Edit' button in the 'IFT Measurements' section.
- Click here for a new measurement after selecting or creating a roll:** Points to the 'New' button in the 'IFT Measurements' section.

#### 4.3. Adding the screen roll mechanical drawing

The screenshot shows the main interface of IFT Analyzer 3.3. A callout points to the 'Drawing' field in the 'Screen Rolls' table, stating: "You can add a file showing the drawing of the screen roll. This will avoid searching for it when you need to order a new or refurbish the screen roll." Another callout points to the 'Drawing' field in the 'IFT Test Runs' table, stating: "You are able to select the drawing file location when you click in the field."

#### 4.4. Adding IFT Test Runs

In order to allow reporting by day you first have to generate a test run. This can also be used during manufacturing or cleaning of rolls. It means that you generate a test run before and after the cleaning process or screen roll manufacturing step. Note that the last test run is at the top of the list. Older test runs are at the bottom.

The close-up shows the 'IFT Test Runs' table with the following data:

Tester	Printed At	Location
W Streefland	25/07/2008 16:23:44	Station 5

Below the table are buttons for 'Edit', 'New', and 'Delete'. To the right is a 'Default Tester' field with the value 'W Streefland'.



To generate a test run click on “New”.

You can add change the name of the person testing and also the location the roll was in when testing.

After this you can take measurements for this test run. You can also add later measurements to a test run by selecting this test run.

**Note that IFT Test Runs are displayed in reverse order. The latest IFT Test Run is at the top.**

#### 4.5. Taking an IFT Measurement

To take a measurement you select the test run to witch you want to add the measurement and click on “New” in the measurement section at the bottom.

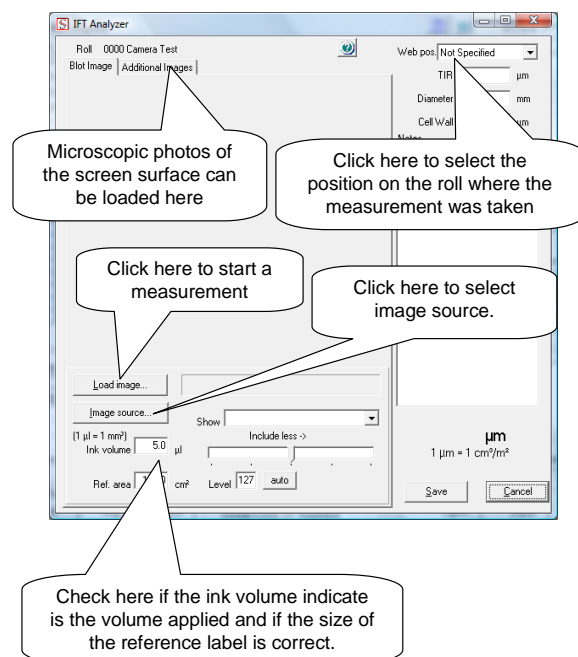
IFT Measurements				
Web Pos	IFT	TIR $\mu\text{m}$	Roll D mm	Wall $\mu\text{m}$
▶ Operator Side	6.88			

Measurement

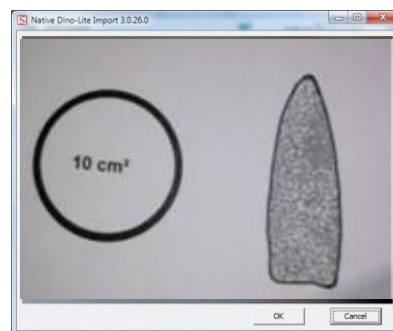
Select the device to use for loading the images by clicking on “Image source”.

For the Dino-Lite microscope select: “Native DinoLite Driver”

The next screen shows the functions of the different sections and to measure the IFT of a “blot” The working is explained by using the USB microscope and its stand with extension pole to load the image.



1. Use the USB print microscope 20-200 and place it in the microscope standard with extension pole (see page 3);
2. In the main IFT Analyser screen click on "New" in the "IFT measurements" window at the bottom of the screen;
3. Click on load image;
4. Position the reference circle and blot area in the camera window as shown below. Check if the image is in focus;
5. Reference circle needs to be left of the "blot";
6. "OK"

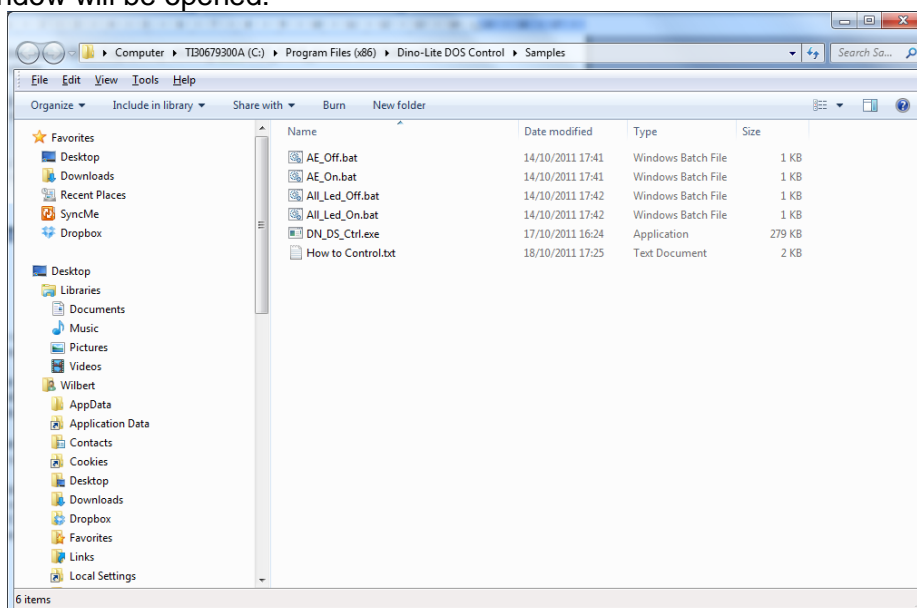


In this screen you can also enter values measured for TIR and roll diameter.  
Remember:

- To check that the Ink volume applied on the roll for making the "blot" is identical to the value in the bottom left of the screen
- To check the size of the reference area corresponds with the size indicated. The value is found below the value for the ink volume applied. In the example the value is set to 10 cm². When using the IFT Analyzer pre-printed post-it note blocks the value needs to be set to 8.8 cm²
- Indicate on the top left the web position on the roll where the measurement was taken
- Indicate the location the roll was positioned (machine and print station) when the measurement was made

If the led's in the microscope are not on when taking an image do the following:

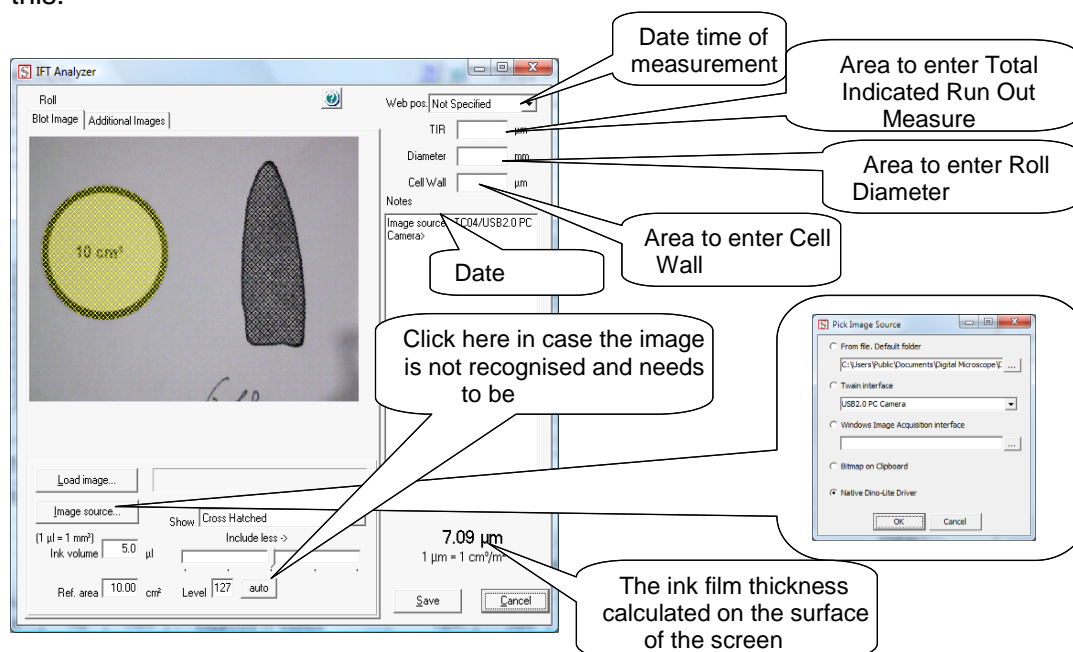
Click on the windows “Start” button and go to the “All Programs” next click on “Dino-Lite DOS Control”. Select the option “Samples” You will see briefly a dos prompt and this window will be opened:



Double Click on “All\_Led\_on.bat” You will see briefly a dos prompt screen. After this close the “Samples” window.

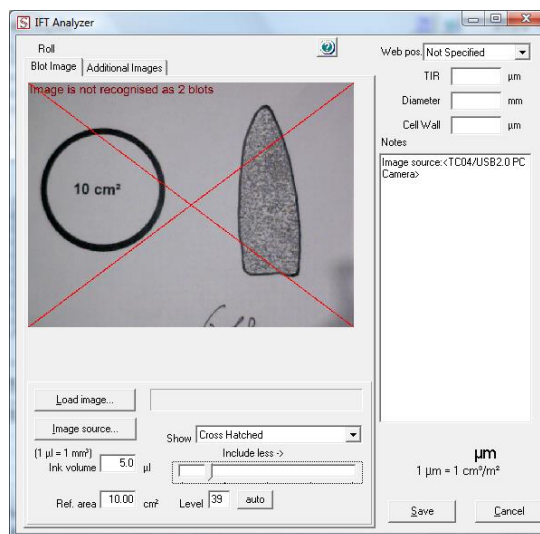
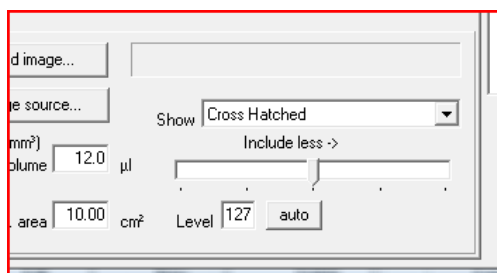
#### 4.6. View result and save data

After you have clicked on snapshot the image is loaded in the screen and it looks like this:





If the blot area is not recognised, often due to too much or to little light, like shown in the image on the right then at the bottom of the screen you will find a “slider” and “auto” button. Click on the auto button to allow IFT to analyse the area again. You can also do this manually by moving the slider.



#### 4.7. Additional Images

The USB microscope with 500 times magnification can be used to take a photograph from the screen roll surface and store the image with the IFT Analyzer measurement.

You can add an image to a screen roll measurement.

In chapter 4.5 is described how to make a measurement.

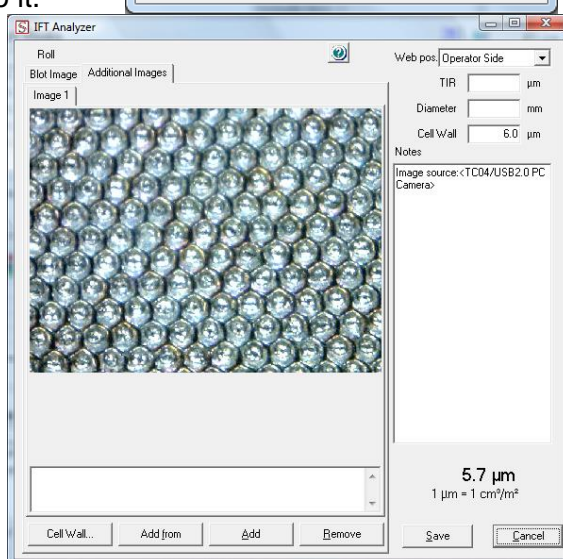
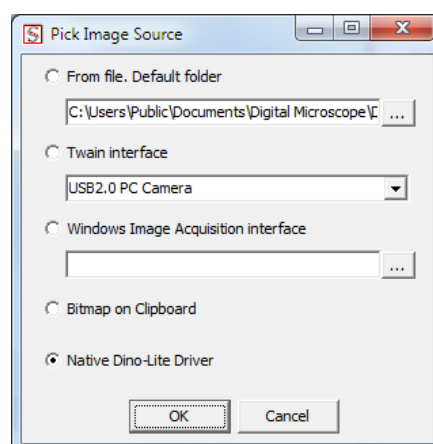
Best is to use a laptop and connect the USB Print microscope with 500 times magnification to it.

To add an image of the screen roll surface using the USB Print microscope with 500 times magnification you need to click on Additional images the screen looks as shown.

Make sure that the image source is selected correctly. This can be changed using the “Add from” button at the bottom.

Select the device to use for loading the images by clicking on “Image source”.

For the Dino-Lite microscope select: “Native DinoLite Driver”



Click on “Add” to add an image. It will open the microscope camera view window.

Adjust the microscope so that the image is sharp and in focus.

Click on “Snapshot” to import the image.

You can add any number of images to a measurement.

To copy an image from this section you place the cursor on the image and click on the right mouse button to copy. The image is stored on the clip board and can be pasted in any other document.

To measure the cell wall thickness in this screen click on the bottom left button “Cell Wall...”

#### 4.8. Measuring cell wall thickness and screen count

The cell wall thickness is measured using an overly grid.

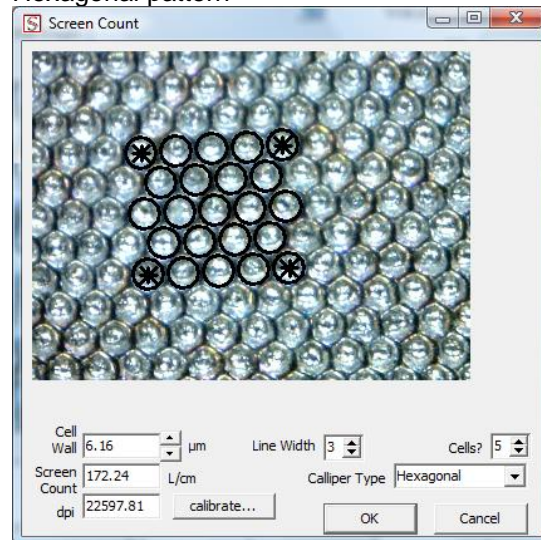
There are 3 options for the overly grid to measure screen count and cell wall thickness.

The following three images show the 3 overly grids:

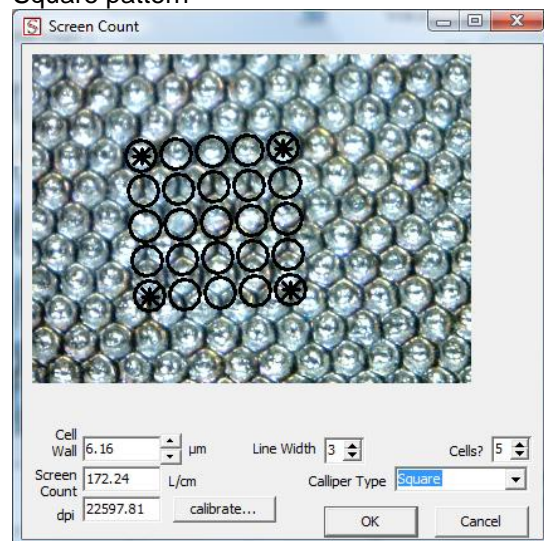
1. Hexagonal
2. Square
3. Linear

The grids can be rotated and stretched in order to align it with the cells on the surface of the screen roll.

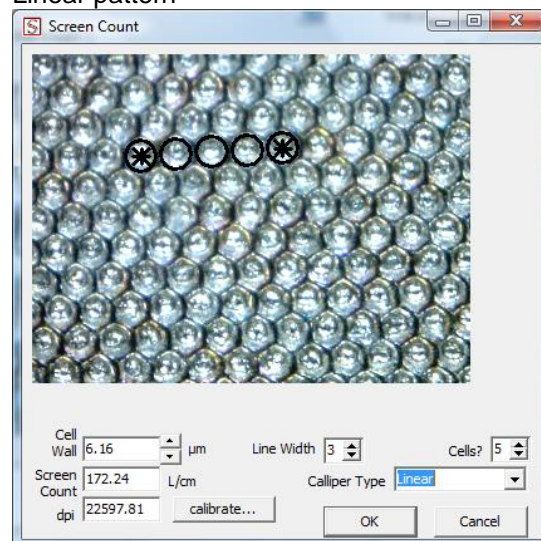
Hexagonal pattern



Square pattern

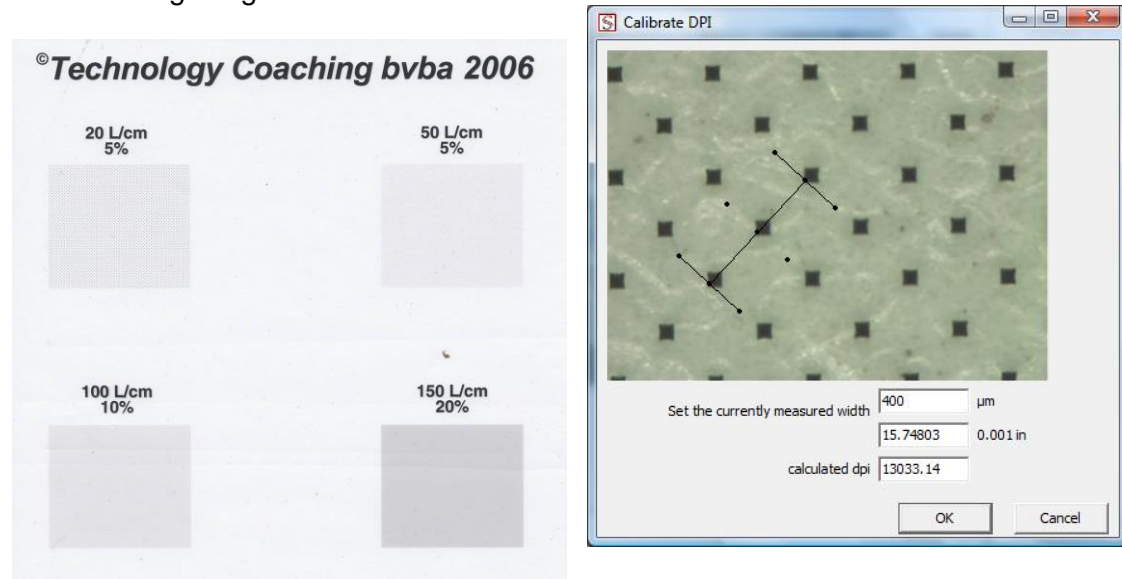


Linear pattern



#### 4.8.1 Measuring cell wall thickness and screen count, Calibration

The following images show the calibration sheet and screen.



In the windows for measuring Cell Wall Thickness and Screen Count click on the button: “calibrate...”

The “Pick image source” screen pops up.

**Always use the same device for the calibration procedure as is used for making the screen roll surface image.**

If you use the USB 500 times microscope select the “USB 2.0 Images Camera”.

Put the microscope on the 50 lines/cm, 5% area on the calibration sheet. Adjust the camera until it is sharp and in focus and click on “snapshot”.

The window “Calibrate DPI” will show.

You can pick up the line with your mouse and move it over the image in the window by holding down the left mouse button.

For **metric** measure. Position the line as shown over 2 dots. (The shortest distance between two dots). For two dots in a 50 lines/cm screen this distance is 400 μm. Enter the value 400 in the box next to: “Set the currently measured width”.

Using **imperial** measure select the 40 lines/inch field at the bottom right. The distance between 2 dots is 1/40 inch is 0.025 inch. Measure the distance over 2 lines (0.050 inch). Enter the value 50 in the box next to: “Set the currently measured width”.

Click on “OK” and the calibration is completed. This value is recorded with the current measurement and used as the default measurement for new images.

Calibration is only needed if you use a different imaging device or enter the image following a different procedure e.g. from the “clip board”.



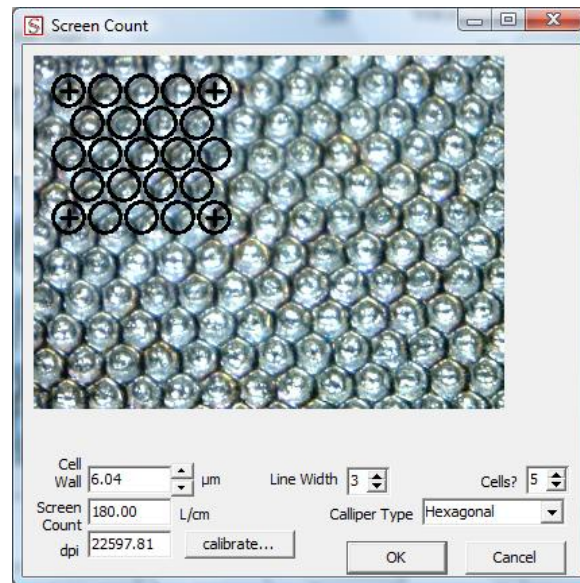
## 4.8.2 Measuring Cell Wall Thickness

Measuring cell wall thickness will be explained in 6 steps. In these steps will be explained how the overlay grid is aligned with the image showing the cells on the surface of the screen roll.

### Step 1:

In the "Screen count" window you can set line thickness and calliper type.

To move the overlay grid move your cursor to one of the corner circles with a "+". Position the cursor on the "+", click on the left mouse button and hold the button down to pick up the grid. It hangs on your mouse cursor so you can move it.



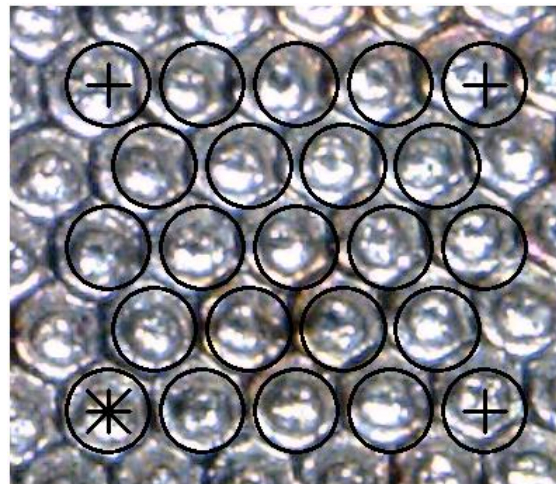
### Step 2:

You can start with aligning in any corner.

In this example we started by align of the grid corner "Bottom Left" with a cell on the surface of the screen roll.

Notes that the "+" in the corner circle has changed to "\*". This is done by double clicking the "+". It fixes the corner to the image.

Now the next corner can be aligned.

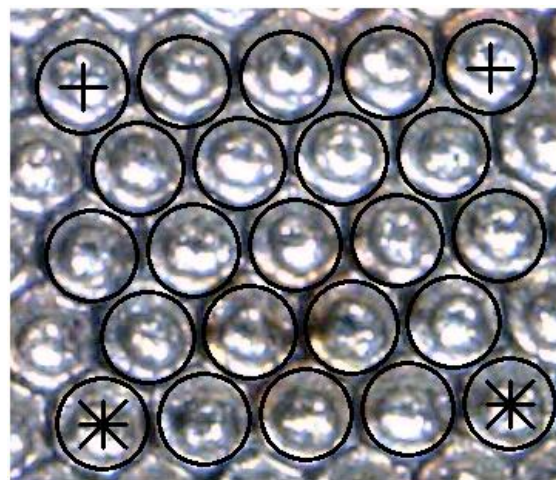


### Step 3:

Align overlay grid in second corner (Bottom Right) with the cell in the image of the screen roll surface.

Notes that the "+" in the bottom right corner circle has changed to "\*". This is done by double clicking the "+". It fixes the corner to the image.

You can at any time release a corner cell by double clicking the "\*". It will change to a "+". The corner can be moved again.



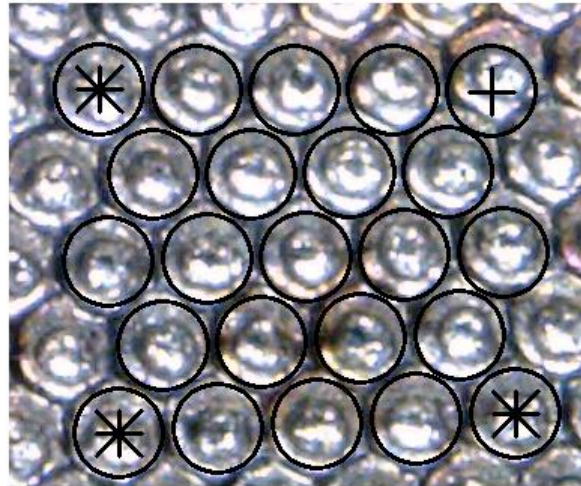
Now the next corner can be aligned.

**Step 4:**

Align overlay grid in the top left corner with the cell in the image of the screen roll surface.

Notes that the “+” in the bottom right corner circle has changed to “\*”. This is done by double clicking the “+”. It fixes the corner to the image.

Now the last corner can be aligned.

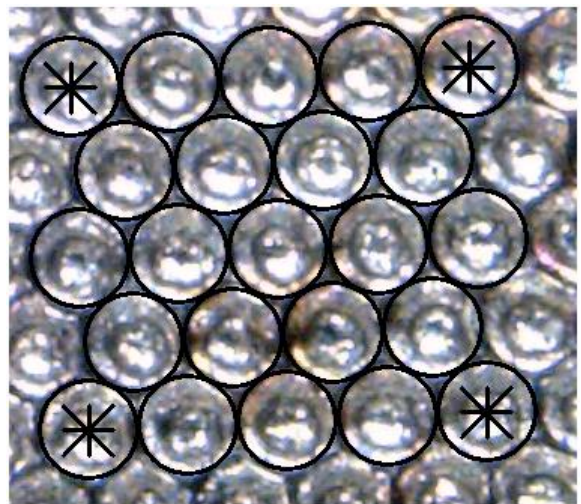


**Step 5:**

Align overlay grid in the top right corner with the cell in the image of the screen roll surface.

Notes that the “+” in the bottom right corner circle has changed to “\*”. This is done by double clicking the “+”. It fixes the corner to the image.

Next we show how to resize the circle diameter of the overlay grid. The circle diameter is linked to the cell wall thickness which is the distance between the circles.



**Step 6:**

Adjust diameter of the overly grid circles.

Move the curser to one of the circles with an “+” or “\*”. Position the cursor on the circle edge and click on the mouse and hold the button down to pick up. The edge of the circle hangs on your mouse and you can change the diameter. Align the circle edge so that you can see all walls of the screen roll cells covered by the overlay grid.



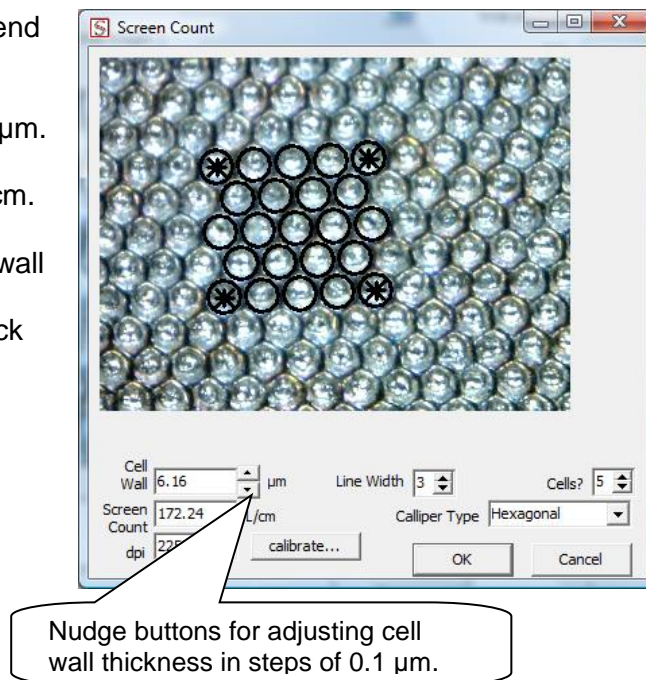


The image on the right shows the end result

The value for the Cell wall is: 6.16  $\mu\text{m}$ .

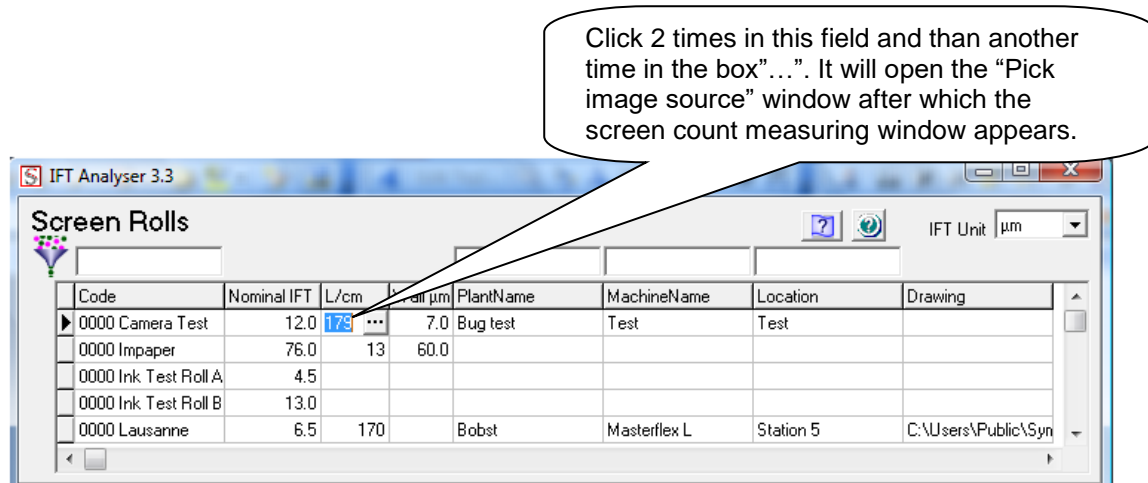
The screen count is: 172.24 lines/cm.

The window is closed and the cell wall thickness value is copied to the measurement screen when you click on "OK".



### 4.8.3 Measuring Screen Count

The measuring of the screen line count of a screen roll only needs to be done once. It would be strange if it changed over the screen roll life time. The measuring and recording of the screen count measurement is done from the main window. First select the screen roll you want to measure the screen line count of.



If the USB image has not been calibrated than click on the button "Calibrate" and follow the procedure described in paragraph 4.8.1.

In paragraph 4.8.2 the procedure for aligning the grid with the cells on the surface of the screen roll needs to be followed. In the bottom left of the window you see the screen count value.

Click on "OK" to store the screen count value in the main screen for the selected screen roll once the alignment procedure is completed as explained in paragraph 4.8.2.

## 4.9. Reports

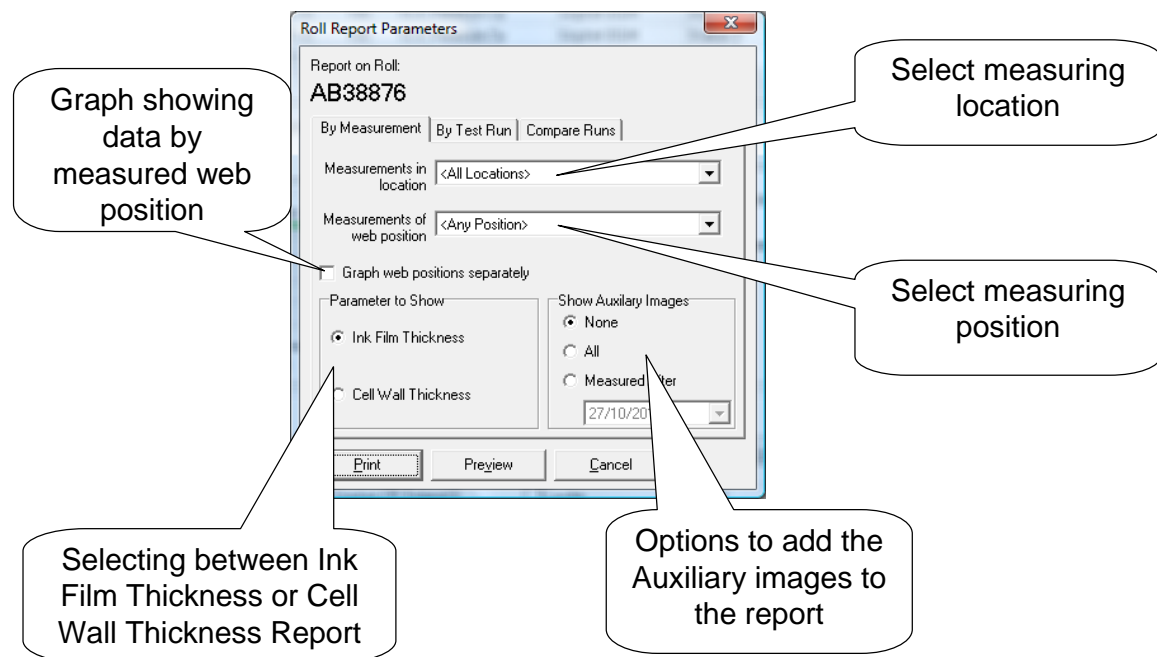
This chapter describes how to generate a report for a screen roll.

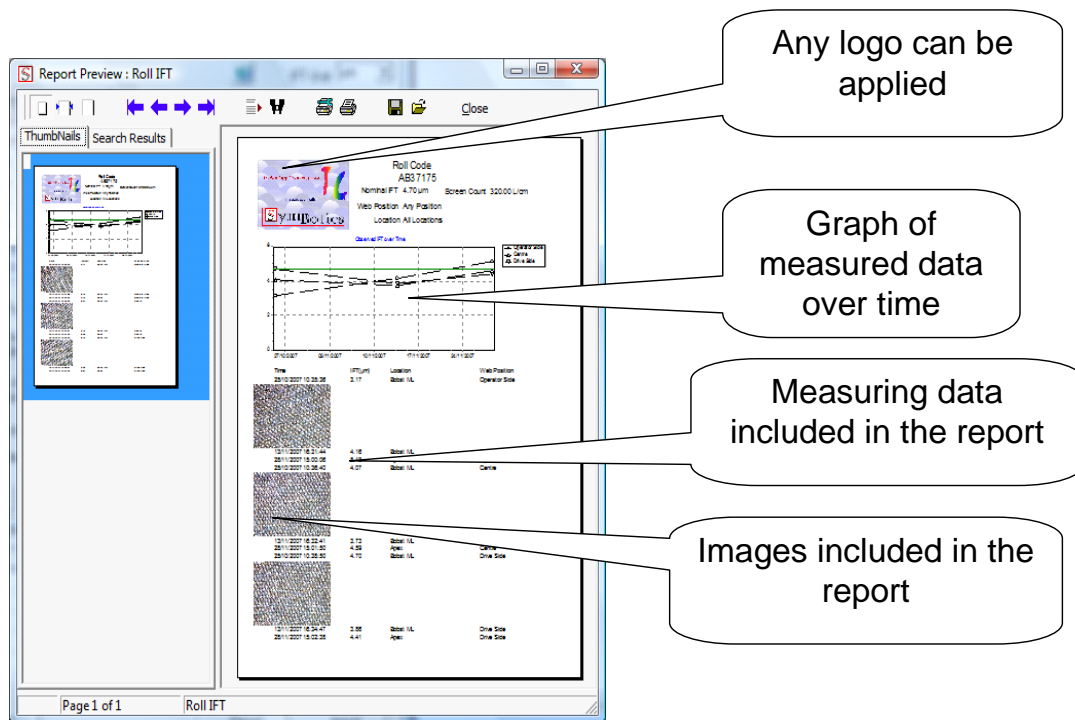
There are 3 types of reports:

- History report showing the IFT history of the roll. This report has options to add images and select how the measured data is shown in the graph;
- History report showing the Cell Wall Thickness history of the roll. This report has options to add images and select how the measured data is shown in the graph;
- Quality Assurance report. This report shows the status of a roll for a particular date. This report can be used by roll manufacturers or cleaners;
- Report comparing two test runs.

### 4.9.1 IFT History Report

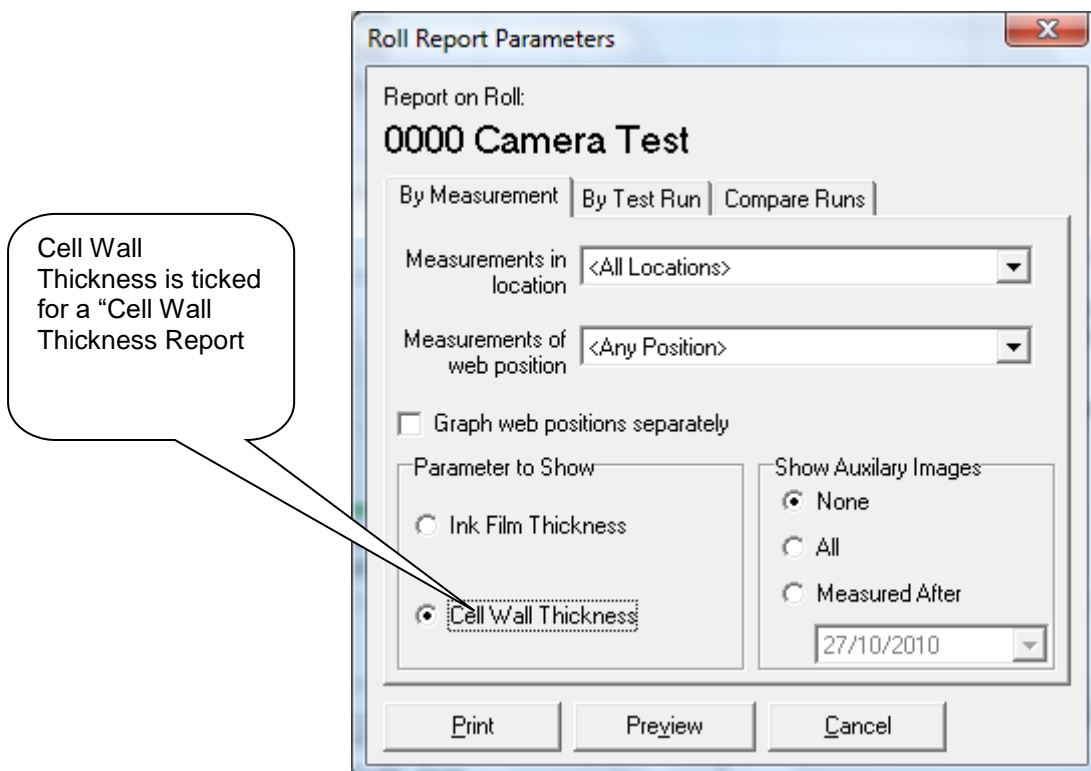
You start with selecting the screen roll you would like to have a report for and click on “Report” in the “Roll” section top right of the screen. You select the tab: “By Measurement.





#### 4.9.2 Cell Wall Thickness History Report

The cell wall thickness report can be generated by ticking “Cell Wall Thickness” in the report screen. It is also possible to add images to this report.

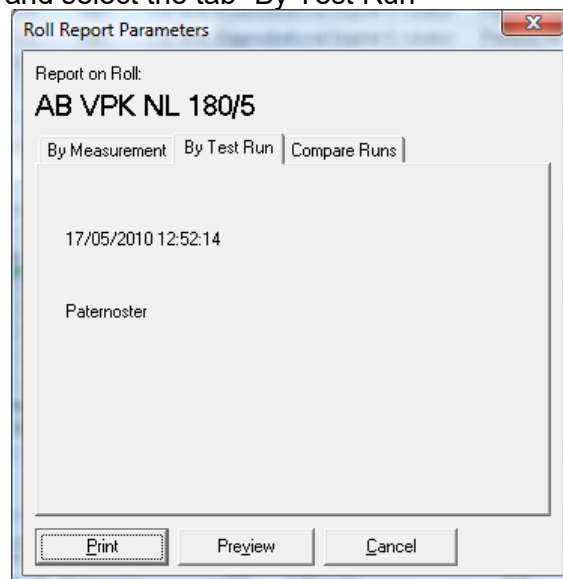




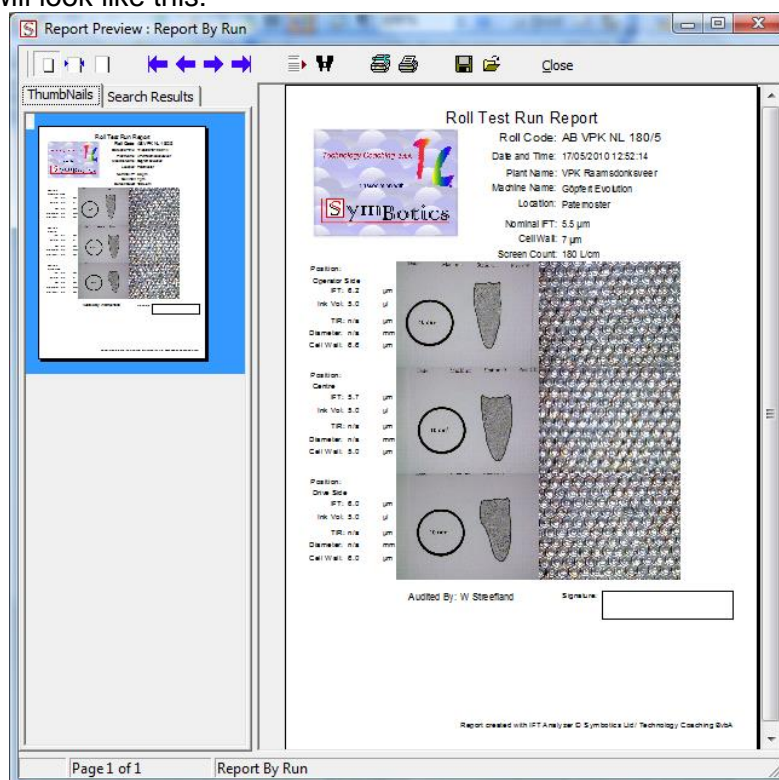
### 4.9.3 Quality Assurance Report

You start this report by selecting the test run from which you want a QA report.

Then click on report and select the tab “By Test Run”



The report will look like this:



### 4.9.4 Compare Runs report

This report is specially designed for showing the impact of cleaning screen rolls.

You start this report by selecting the “Test run” you measured after cleaning the roll

**Roll Report Parameters**

Report on Roll:  
**AB38874**

By Measurement | By Test Run | Compare Runs

After: 25/11/2009 14:14:24

Before:  
16/12/2008 16:42:41

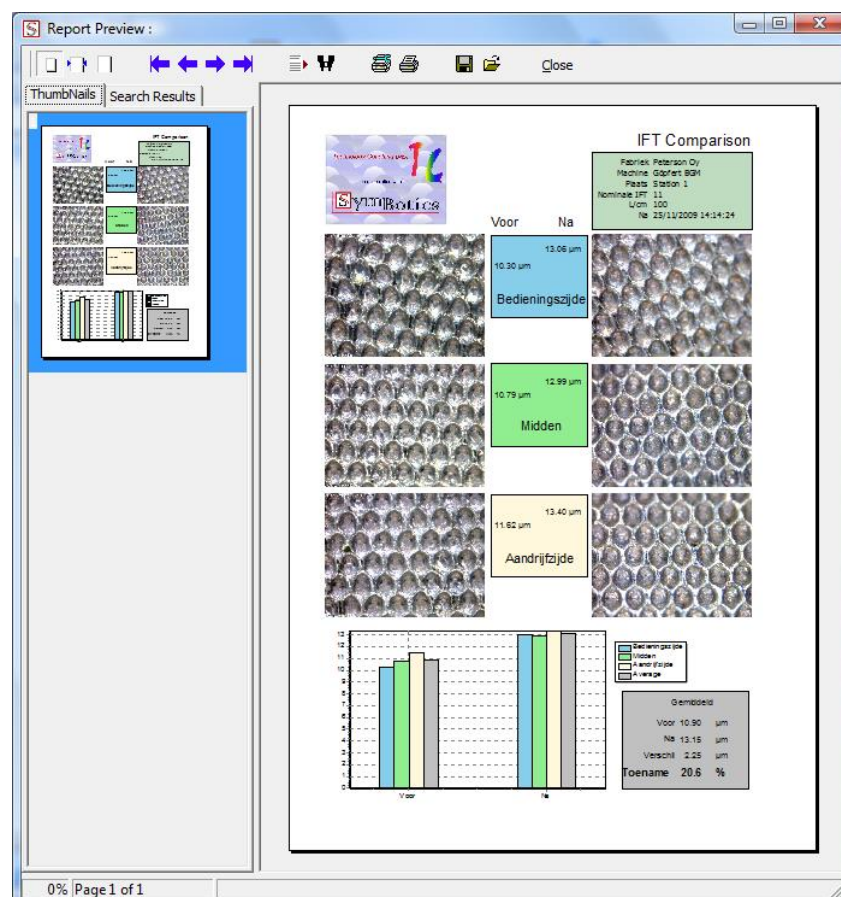
Report Title  
IFT Comparison

Print Preview Cancel

In the report screen you select the test cycle you want to use before cleaning the roll to show how it compares with the values and images after cleaning the roll.

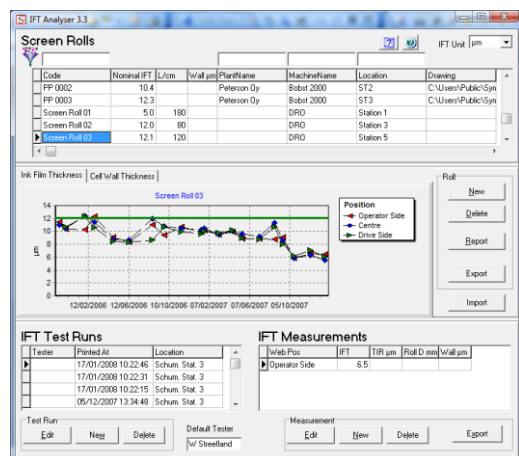
The text in the report tile can be changed. It is free text. So you can change "IFT Comparison" to "Deep Cleaning".

Click on the "Preview" button will show the next screen. The screen provides all roll data for the 2 selected runs and shows the images on the 3 positions before and after cleaning and provides a bar chart comparing the results.

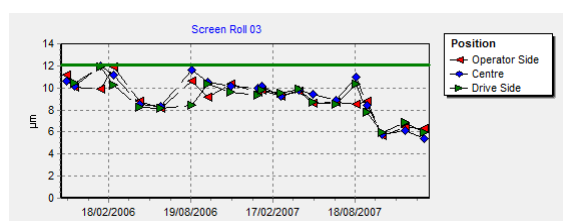


#### 4.10. Copying graph from main screen

It is very easy to copy the graph from the main screen to a word document or an e-mail using the Windows “Clip board”.



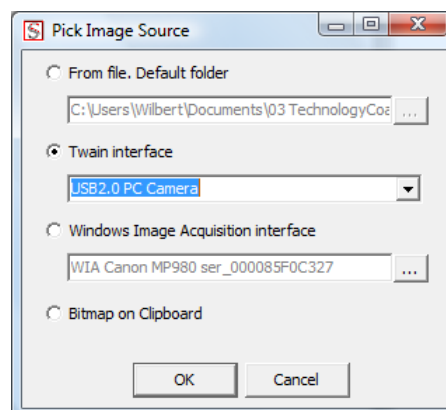
1. Select the screen roll from which you want to copy the graph;
2. Select if you want to copy the IFT or Cell Wall Thickness graph;
3. Use the right mouse button to click on the graph and click on “Copy”;
4. Open the document you want to copy the graph to;
5. Paste the graph in the document (ctrl C).



Using this method any image can be copied also the blot image or the additional images.

#### 5. Using the USB microscope and “Dino Capture” software for evaluating the screen roll surface

The USB microscope with 500 times magnification can be used to take a photograph from the screen roll surface and store the image with the IFT Analyzer measurement.



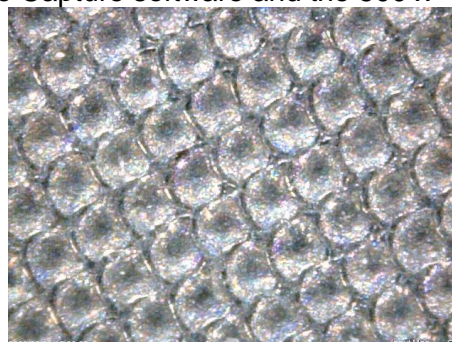
It is also possible to use the Dino capture software and measure the cell wall width and screen count.

##### 5.1. Measuring the screen roll screen count using “Dino Capture” software

The screen count can be measured using the Dino Capture software and the 500 x magnification microscope.

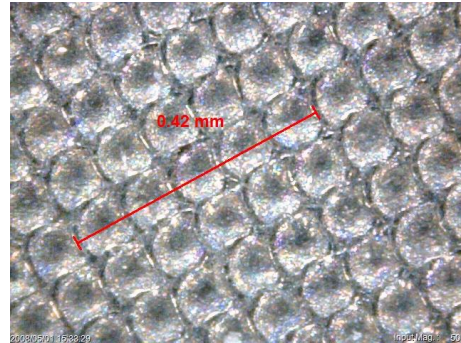
The screen count can be recorded with the screen roll in the main IFT Analyzer screen. Following the procedure:

- Take an image of the screen roll (Top image)
- Open the image and set the magnification on: 500x
- Select the option of measuring using a



- line;
- Draw a line over a number of cells as shown in the bottom picture
- The screen count: Number of lines measured divide by the distance measured. For the metric system this needs to be multiplied by 10 to get Lines/cm
- The image in the example has:  

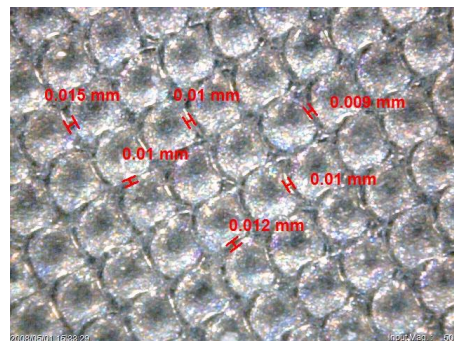
$$5 \times 10 / 0.42 = 118 \text{ Lines/cm}$$



## 5.2. Measuring the cell wall thickness using “Dino Capture” software

The cell wall width is measured using the Dino Capture software and the 500 x magnification microscope. Following the procedure:

- Take an image of the screen roll (Top image)
- Open the image and set the magnification on: 500x
- Select the option for measuring using a line
- Draw a line over a cell wall as shown in the bottom picture
- Repeat this to get an idea of the average cell wall thickness. Notice it is around 0.010 mm which is equal to 10 µm



## 6. Miscellanies

Following some additional explanations to individual parts and settings that can be made in IFT Analyzer.

### 6.1. Sorting and filtering data in main screen

You can sort the screen rolls so that e.g. you have all the screen rolls for a particular machine and plant next to each other.

To do this click with the mouse in the name field of the column you want sorted.

Filtering of the list is possible by typing part of the roll number, plant name etc in the boxes above the header.

IFT Analyzer 3.3

Screen Rolls

VPK Raasdonksvee Göpfert Evolution

IFT Unit µm

Code	Nominal IFT	L/cm	Wall µm	PlantName	MachineName	Location	Drawing
AB VPK NL 01	11.0	100		VPK Raasdonksvee Göpfert Evolution		Station 1	
AB VPK NL 02	11.0	100		VPK Raasdonksvee Göpfert Evolution		Station 2	
AB VPK NL 03	11.0	100		VPK Raasdonksvee Göpfert Evolution		Station 3	
AB VPK NL 04	11.0	100		VPK Raasdonksvee Göpfert Evolution		Station 4	
AB VPK NL 05	11.0	100		VPK Raasdonksvee Göpfert Evolution		Station 5	

Filtering of the list is possible by typing in these boxes

Click here to sort the data on plant name



## 6.2. Editing a screen roll IFT Measurement

Select the screen you want to edit. Next select the test run to edit and the Measurement.

In the main screen click on the bottom right on “Edit” to edit an IFT Measurement. You will be able to:

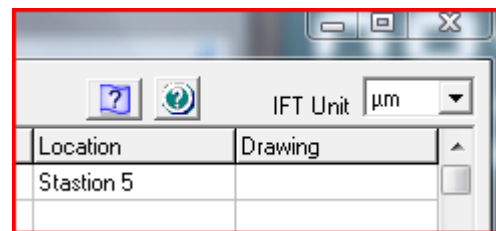
- Redo a measurement
- Add an image in the “Additional Images” tab
- Redo the cell wall thickness measurement
- Add notes in the text field on the right
- Change the date and time
- Change the locations
- Change the position on the roll

## 6.3. Custom Logo

Users can have their own logo present in the IFT Analyzer main screen. To do this you have to put an image file named “Logo.bmp” of your own logo in the IFT Analyzer program directory where the file “IFT Analyzer.exe” is located.

## 6.4. Language button

The tab in the main screen showing a flag with question mark is for changing language. This tab is only visible if you have the file “IFT Analyzer.lng” in the same program directory as “IFT Analyzer.exe” this file contains the language data. Click on the tab and select your language. Some language options show question marks this is depending on the set-up of your computer. Inform us if you have suggestions or improvements for the language translations.



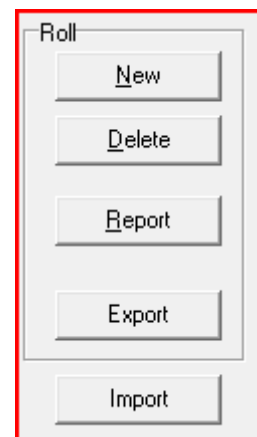
## 6.5. Import and export test data

It is possible to export and import test data. This as complete roll or a selection of measurements from a roll.

### 6.5.1 Export test data from a roll

Select the screen roll you want to export.

To export all data linked to the roll click on the export button in the “roll” section top right.

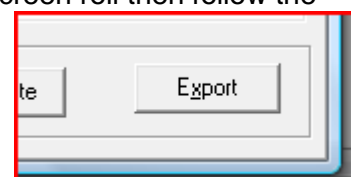


### 6.5.2 Export selected test data from a roll

If you only want to export part of the measurements of a screen roll then follow the next steps.

Select the screen roll you want to export data from.

Select the first measurement you want to export of that



screen roll. Hold the “Shift” and use the “Down arrow” to select the measurements you want to export.

Click on “Export” in the “Data transfer” section bottom left. The file generated holds all IFT data including the attached images.

This way you can attach the test data of a test as file to an e-mail and send it to your supplier for sharing the results. You can also send it to BicarBlast B.V. if you need help with interpreting the results.

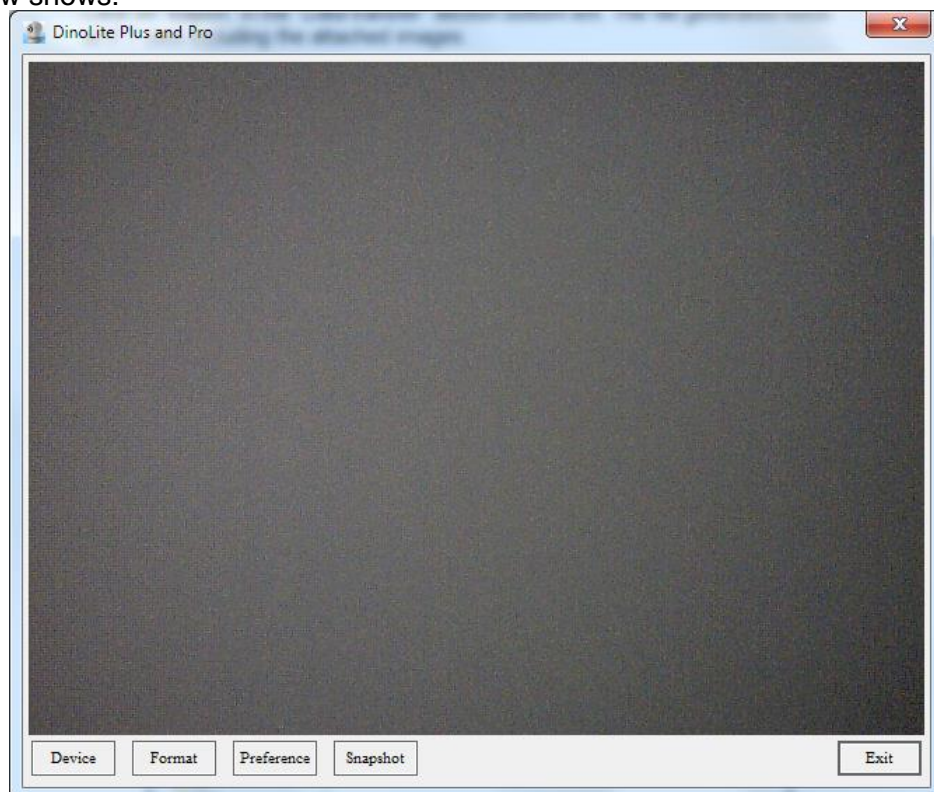
### 6.5.3 Import test data

To import a file with screen roll data you receive you can use the import button or simply double click the file. It will open IFT Analyzer and import the measurements. If a roll does not exist then this roll will be created in your database.

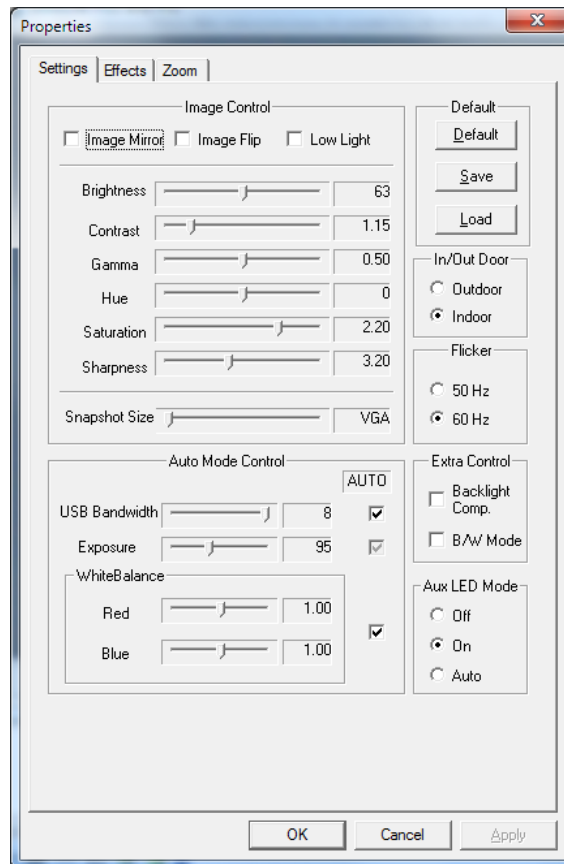
### 6.6. Set led’s microscope to on

**The following is not applicable when using the “Native Dino-Lite driver” when importing images.**

For newer Dino-lite microscope it might be that led’s are not switched on when taking images using the “USB2.0 PC Camera” input driver. This is when the following window shows:



For Some cameras switching on the led’s can be don by clicking on “Preference”. The following window shows:

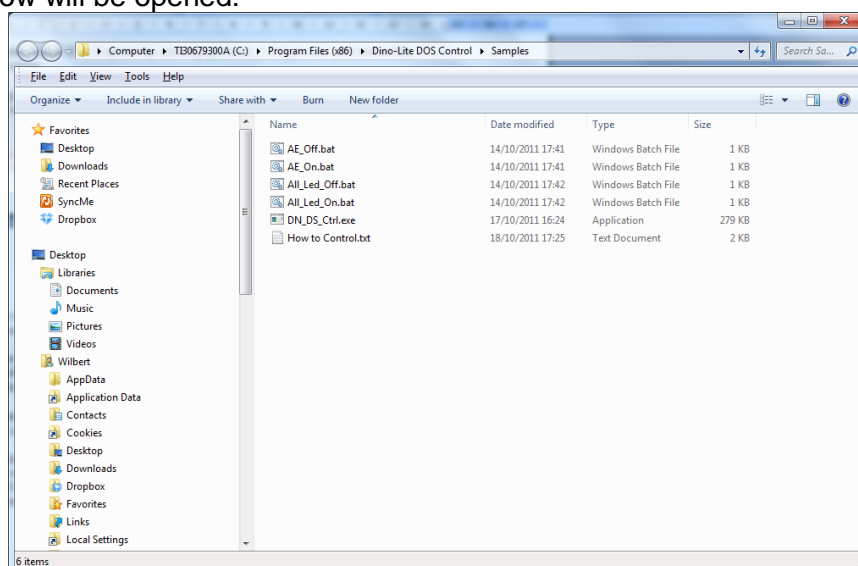


The led's can be switched on and off in the box "Aux LED mode"

For some cameras this box is not shown in that case you need to make sure that the program "DN\_DS\_Ctrl\_Installer.exe" is installed . You find it in the directory "Microscope" on the IFT Analyzer CD or USB stick.

After the program is installed the following steps are needed.

Click on the windows "Start" button and go to the "All Programs" next click on ""Dino-Lite DOS Control". Select the option "Samples" You will see briefly a dos prompt and this window will be opened:



Double Click on "All\_Led\_on.bat" You will see briefly a dos prompt screen. After this close the "Samples" window.

## **7. Final**

If you have any question about IFT Analyzer then please don't hesitate to contact us.

Regards,

Niels Gerrits

BicarBlast B.V.  
Sigarenmaker 2  
5521 DJ Eersel  
The Netherlands

Phone: +31 (0)497 330032  
E-mail: [niels@bicarblast.com](mailto:niels@bicarblast.com)  
Website: [www.bicarblast.com](http://www.bicarblast.com)