Sentinel Scale™

Weighing System

Programming Manual

O P T I L I N K 7.0.0

HOW TO PROGRAM YOUR PC
IN CONJUNCTION WITH
THE BE-SSC-101

People. Products. Solutions.

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SYSTEM REQUIREMENTS

To successfully run this program, your computer will need the minimum following requirements:

1) A PC or Laptop computer with a CD Rom drive.
2) Windows operating system of at least Windows 98 or better, Windows 2000 or Windows XP Professional edition.
3) A Pentium 3 or better processor
4) A high resolution monitor
5) A mouse
6) 8 MB of Ram or better
7) 10 MB Hard-disk space or better
8) Microsoft Office Suite (MS Word, Excel etc.)

This program is not compatible for network use.

On the mouse there are two buttons, one to the left and one to the right. Most times you'll be using (clicking) the left button. The instructions will tell you which button to click, e.g. the phrase "left click" means click on the left button; "right click" means right click on the right button.

The screen shots (graphics) within this manual are captured using Windows XP and may look different than your screen if you are using an earlier Windows version.



O P T I L I N K 7.0

I N T R O D U C T I O N

The OPTILINK 7.0 is a software program designed for your PC to give you insight into your poultry management systems.

The OPTILINK 7.0 software program enables you to call up via modem or directly to your SENTINEL SCALE BE-SSC-101 on your PC thus allowing you to program, edit and download information about your flocks. This management tool gives you the opportunity to track your flock from start to finish.

Once programmed, the OPTILINK 7.0 will generate graphs which allow you to monitor House Temperatures, Weight Gain, Bird Weighings, Metered Water and much more (depending on what sensors are attached to the BE-SSC-101). By expanding the graphs you can pinpoint with great accuracy any problems that may arise and take corrective action before the problem becomes serious.

User pages can be generated from the data buffers that are continuously collected by the program and printed which gives you numerical information about each house in operation.

GETTING STARTED

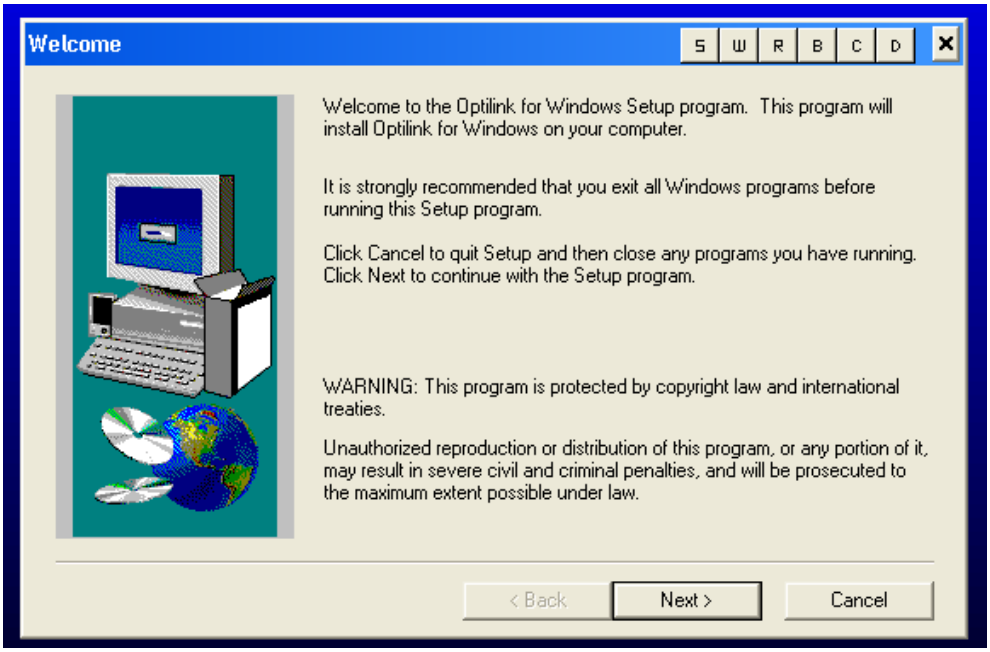
PERFORMING A NEW INSTALLATION

During the setup process, the **OPTILINK** program will provide information as well as ask you for information. Just follow the instructions and you'll soon be set up and running this program.

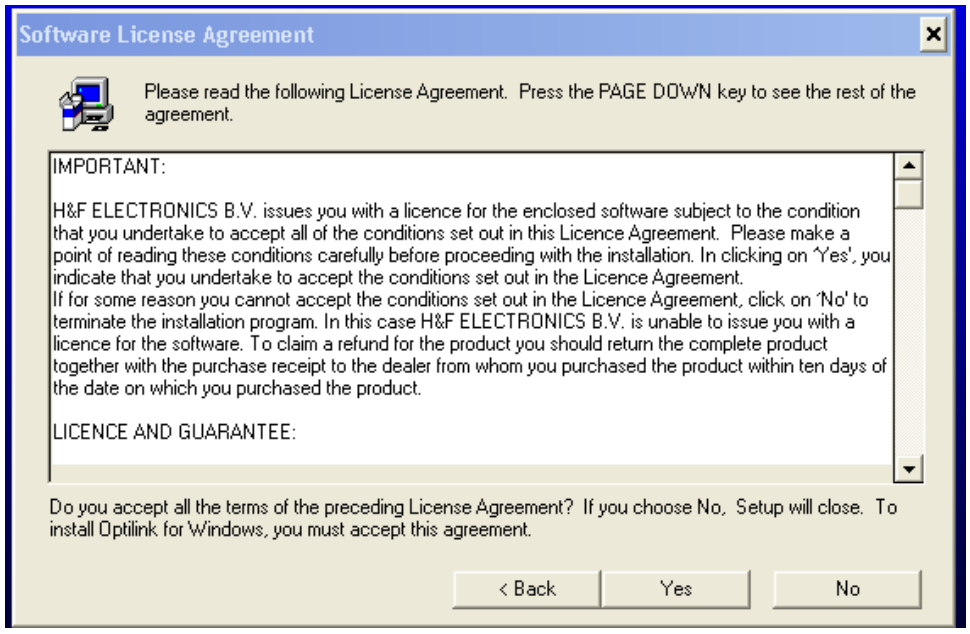


1. Insert the **OPTILINK** CD into your computer CD drive.
2. When this image appears, select English.
3. In the space for the CD Code, type in **03 0579.**
4. Next, left click on the **Install** button. This will start the setup of the program.

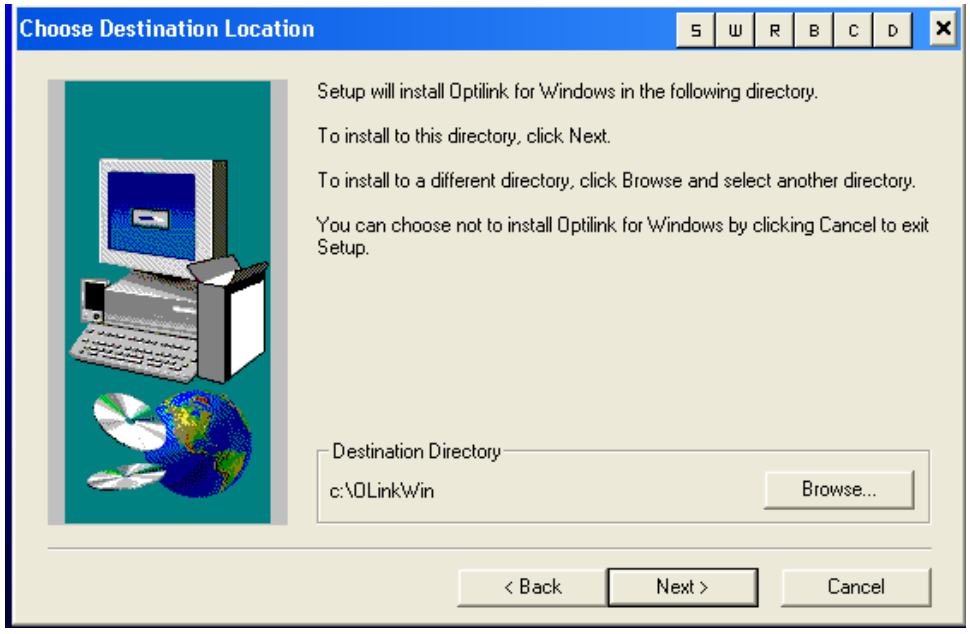
The next window is shown below. With your mouse "left click" on the **next** tab.



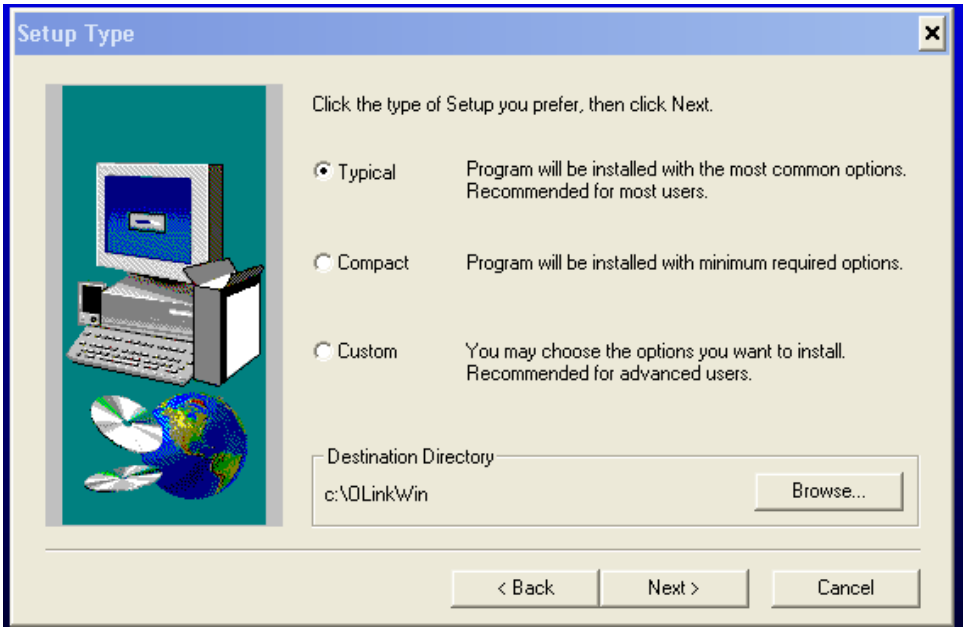
Next window, with your mouse “left click” on the **yes** tab.



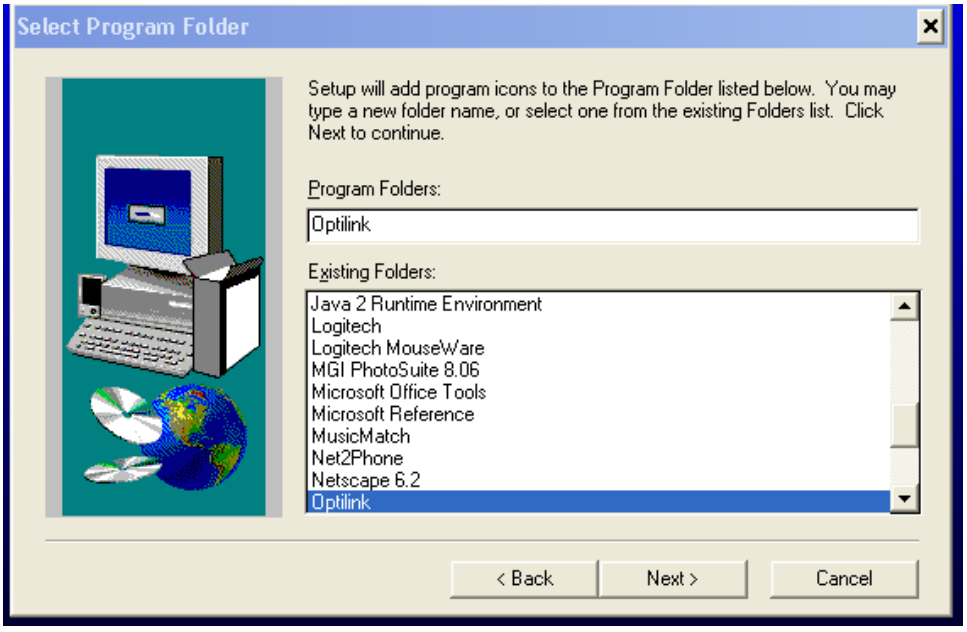
Next window, with your mouse “left click” on the **next** tab.



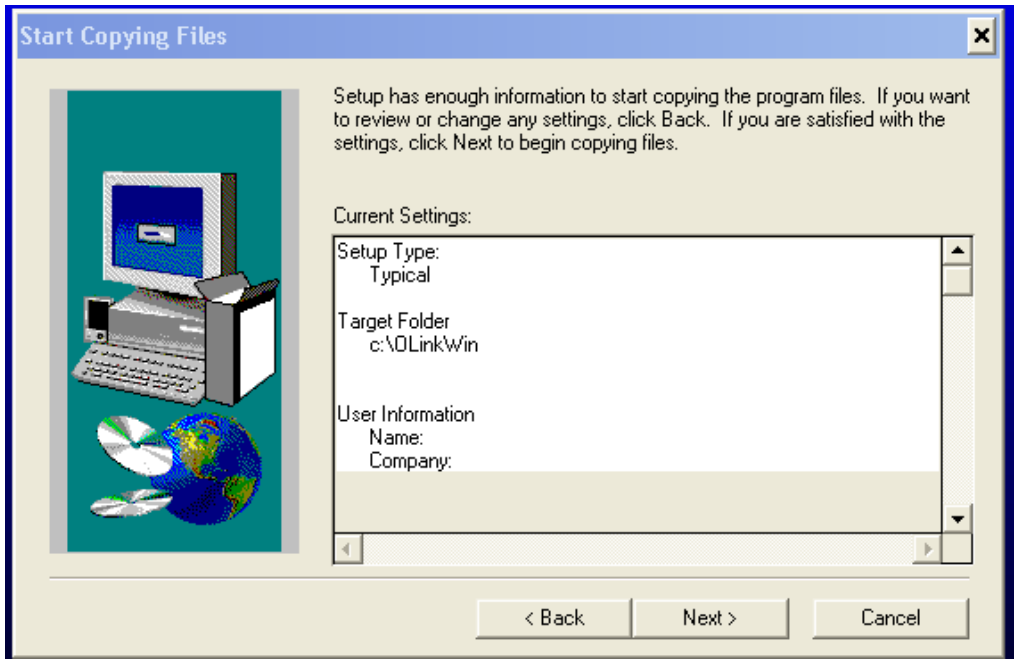
In this window, **Typical** is the default and no action is required.
With your mouse "left click" on the **next** tab.



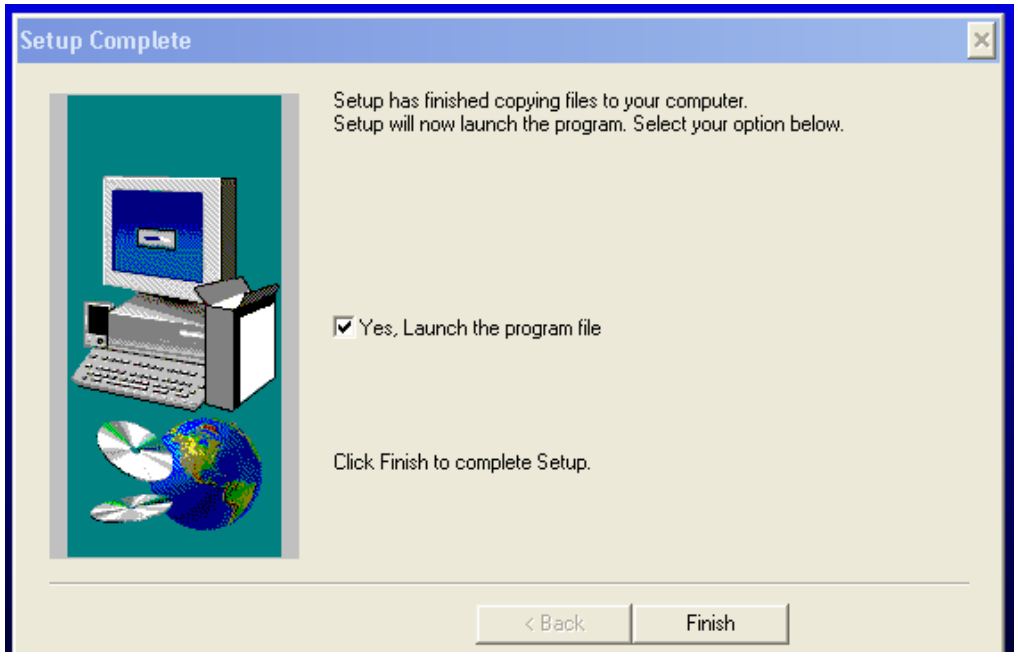
In this screen the program is getting ready to build a program folder called **Optilink.**
With your mouse, "left click" on the **next** tab.



In this window, with your mouse “left click” on the **next** tab.

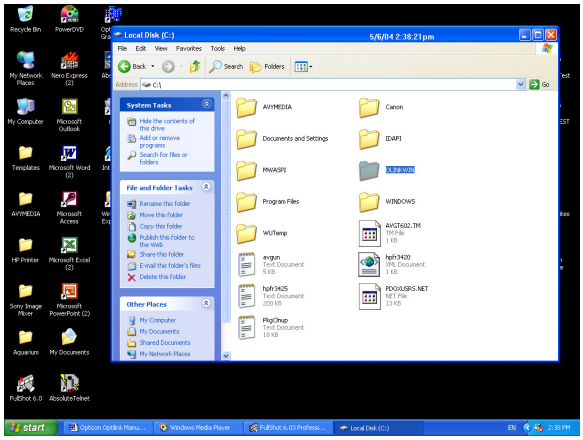


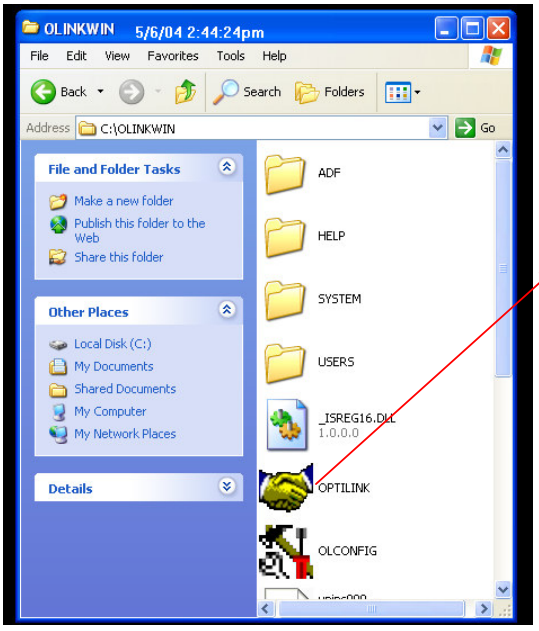
In this window, “left click” in the square beside “**Yes, Launch the program file**”
Next, “left click” on the **Finish** tab.



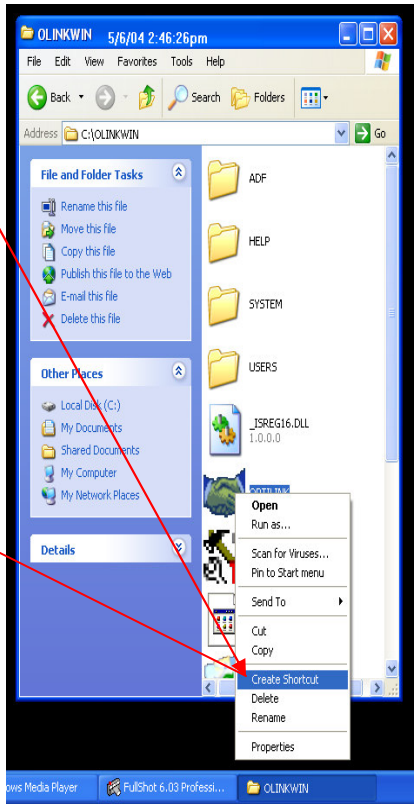
This part of the installation setup is almost done.

On your computer desktop, double “left” click on the “My Computer” icon. Open “C” drive. Within the group of folders there is one called “**Olinkwin**”. Double “left” click on the folder and within you’ll see the “Optilink” handshake.





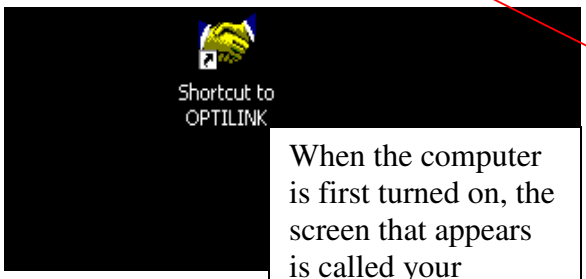
“Right” click on the “Optilink” handshake and a dialogue box opens. “Left” click on “Create Shortcut” and a new icon will appear.



“Left” click on the new icon, hold and drag the new icon onto your desktop

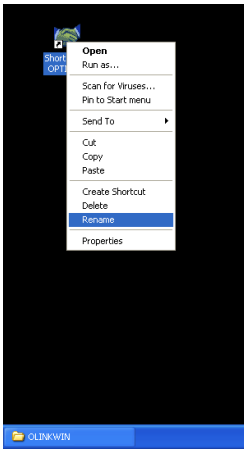


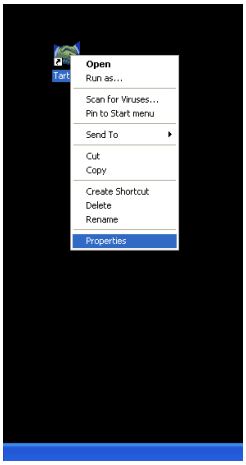
Shortcut to OPTILINK.lnk

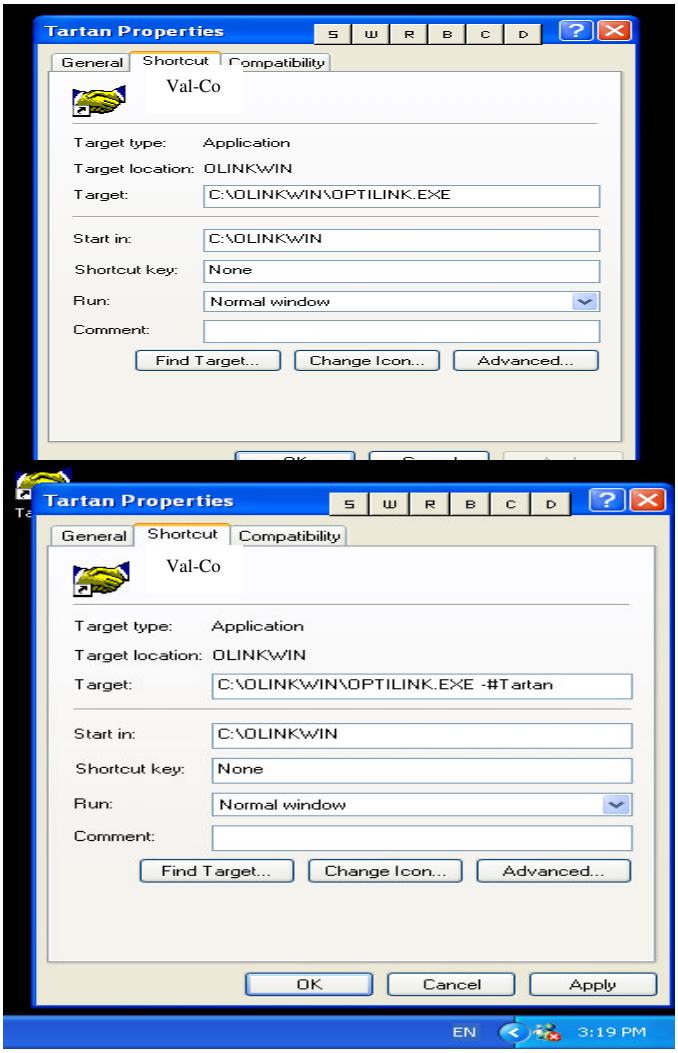


When the computer is first turned on, the screen that appears is called your desktop. If you have successfully dragged your Optilink icon to your desktop, it will appear there, as in this screen shot.

"Right" click on the new icon and choose "Rename" Give the icon whatever name you choose and press "Enter". Now, "Right" click on the icon once more and choose "Properties". A new window appears. The "Target" **line** shows the following:
C:\OLINKWIN\OPTILINK.EXE







Place the cursor right behind EXE and click once. Press the "Space Bar" once then type in -# (EXE -#). Behind the # type in a name, usually the farm name. The name cannot be any more than 6 letters long, so you may have to abbreviate the name. So the extension may look like this: **C:\OLINKWIN\OPTILINK.EXE -#Tartan** "Left" click on the "Apply" tab and then "left" click on "OK". The "**Optilink**" program set up is now complete. To open the program, double "left" click on the "Optilink Hand Shake".

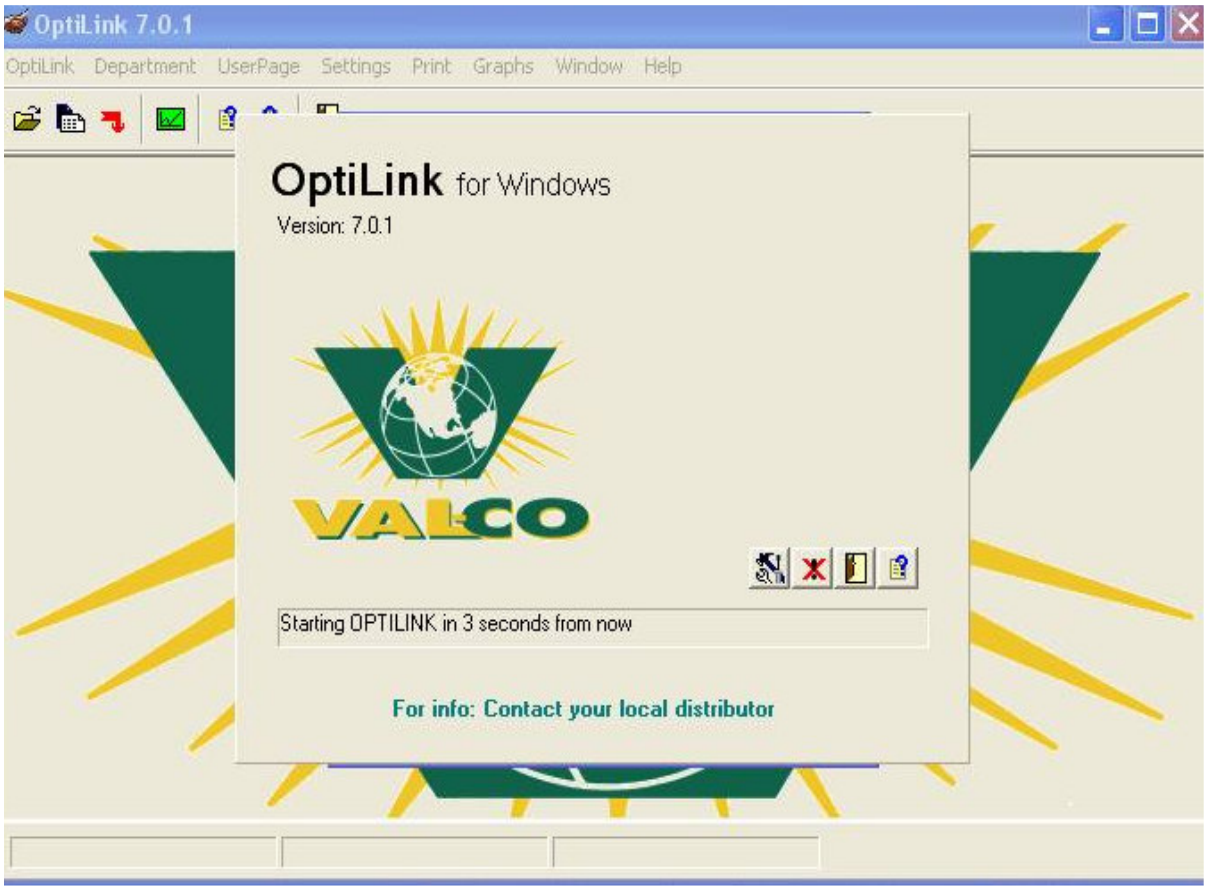
In some cases you may have more than one site and this will require the creation of one or more icons to access these sites. Follow the above instructions being sure to give each new site a new name or extension (no more than 6 letters) after the **C:\OLINKWIN\OPTILINK.EXE -#**

Starting OPTILINK

Because this is your first time with the program, a bit more information is required.

Make sure all other windows are closed. You should be back to your desktop screen. Locate the Optilink icon  and double "left click" on the icon to start the program.

The following page will appear.

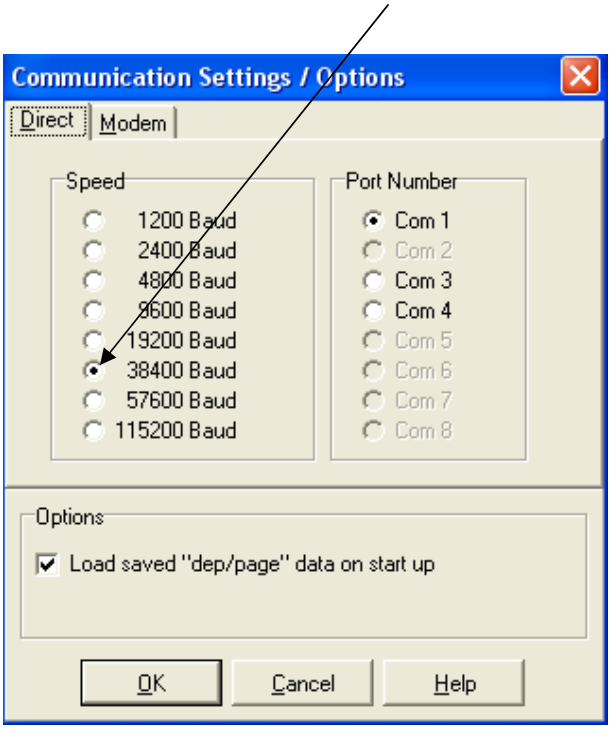


To set the parameters for your computer, "left click" on the **tool icon**  before the computer starts the dialling process.

DIRECT SERIAL PORT OPTIONS

The **Direct Serial Port Options** allows the user to be connected directly to the PC, usually in the same location as the BE-SSC-101.

The program defaults to the **Modem** tab, so for now "left click" on the **Direct** tab. The **9600 Baud** rate is a default setting and must be changed to **38400 Baud** rate. Move the mouse down to the **38400 Baud** circle and "left click" to change it.

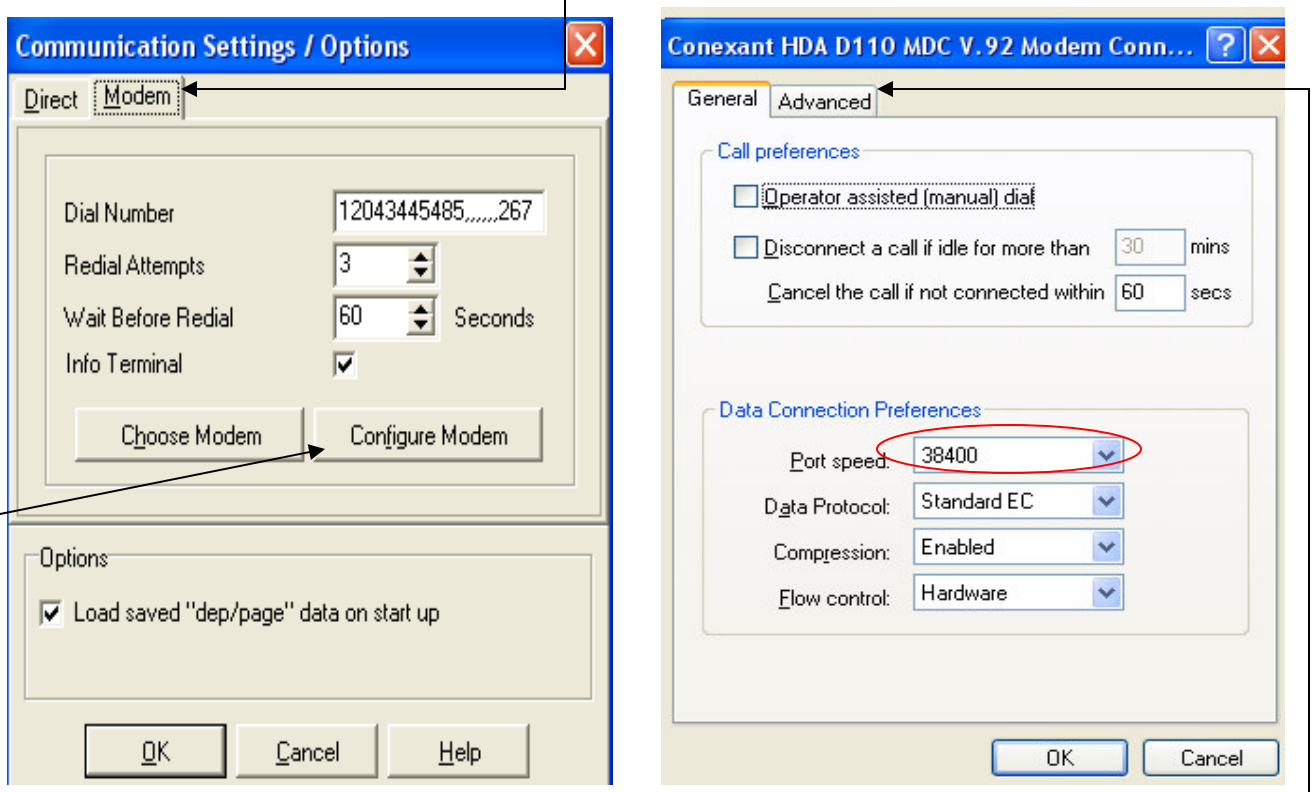


The **Com Port Number** is detected automatically by the computer. If the correct Com port is not detected, then try selecting one of the others that are in bold. If neither of these work, it may be necessary to install a US Robotics modem as well as and extra Serial Port if only one is available on your computer. (Refer to your computer dealer.)

MODEM SERIAL PORT OPTIONS

The **Modem** is used to communicate with the BE-SSC-101 from a remote location. You may have your computer in your house or in another location.

If this is the case, click on the **Modem** tab.

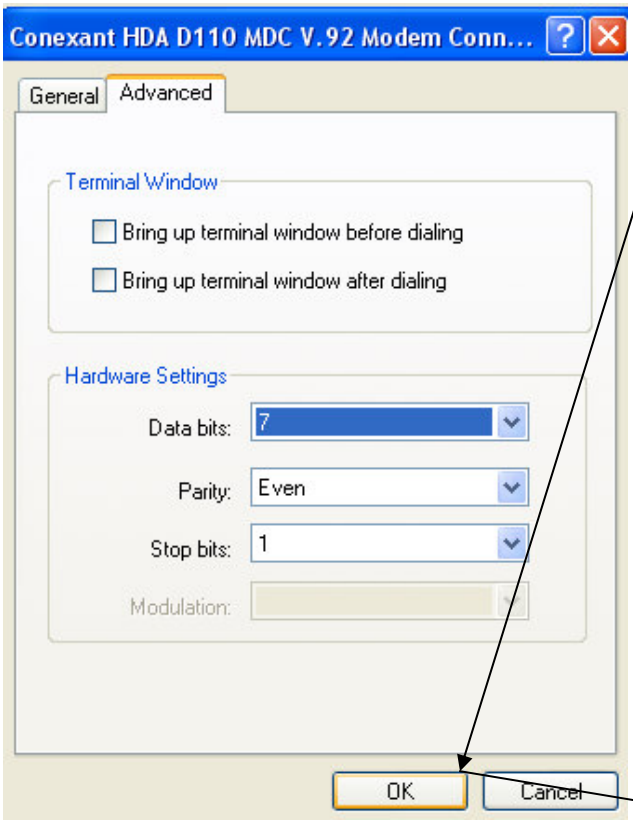


Type in the site telephone number into the **Dial Number** box. Do not leave spaces between the numbers. If it is a long distance number be sure to include 1 and the area code. If there are 0's in your number, be sure to use **number "0"** and not the letter **"o".** If you need to dial an extension, add a number of pauses between the phone number and the extension by inserting commas. Each comma represents a small pause. You will have to adjust how many commas you insert based upon how long it takes your phone system to answer.

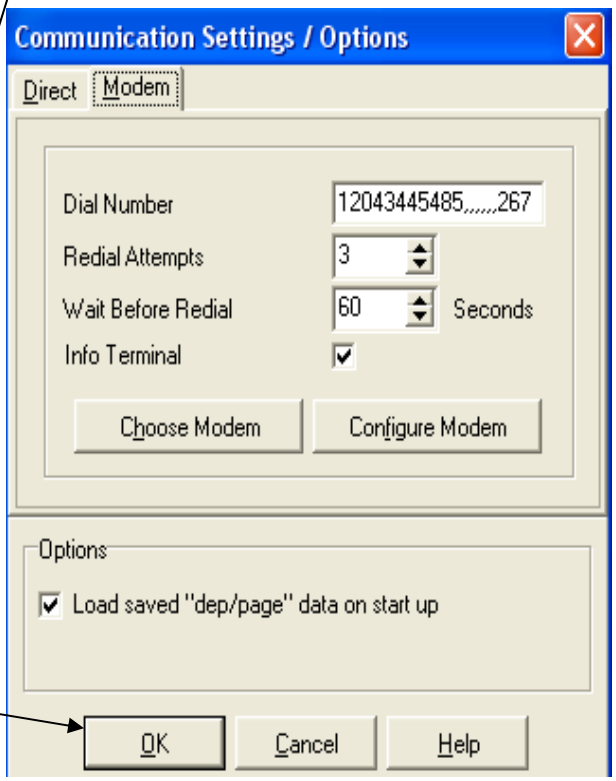
"Left click" on **Configure Modem;"** the above right box will open. Make sure that the **38400 Baud** (in the red oval above right) is activated.

"Left click" on the **Advanced** tab. The screen on the next page is opened.

"Left click" on the scroll bar and change the **Data bits** to **7** and the **Parity** to **Even**.



"Left click" **OK** to return to the first modem screen:



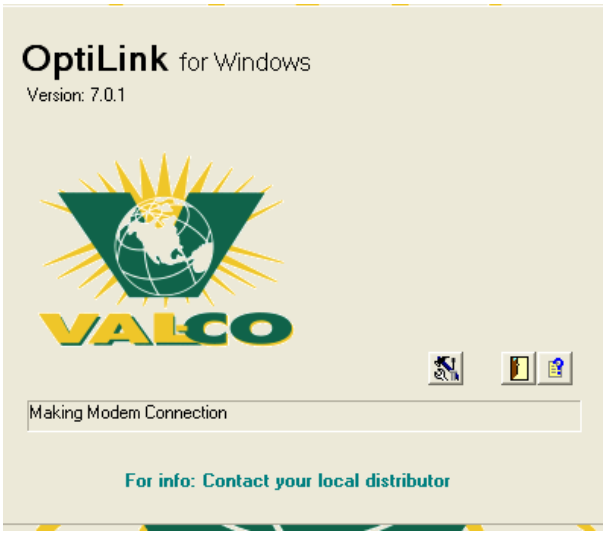
"Left click" **OK** again to begin dialling out to the remote BE-SSC-101

You are now dialling into the **OPTILINK** system. Once connected you will be asked for the access codes, which follow on the next few pages.

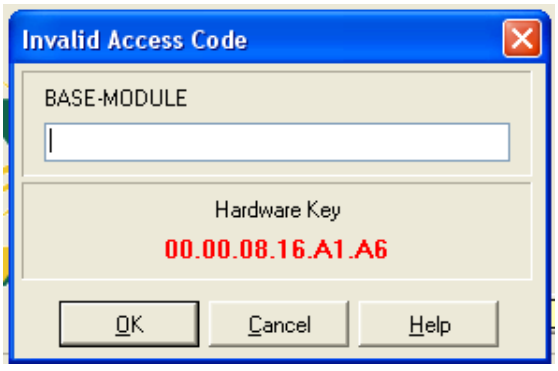
ACCESS CODES

When the **SENTINEL SCALE BE-SSC-101** was supplied to you, there was an envelope with an access code provided. These codes only have to be entered once. Keep these codes in a safe place along with your installation disks and manuals for future reference if required.

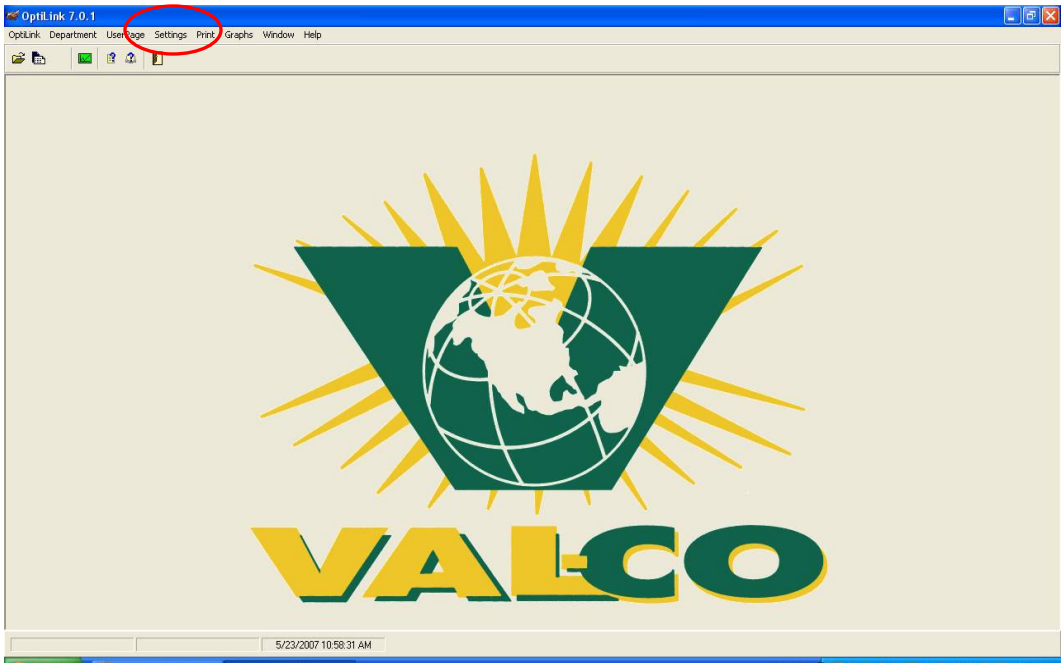
When your computer dials the number you've entered, this screen will appear.



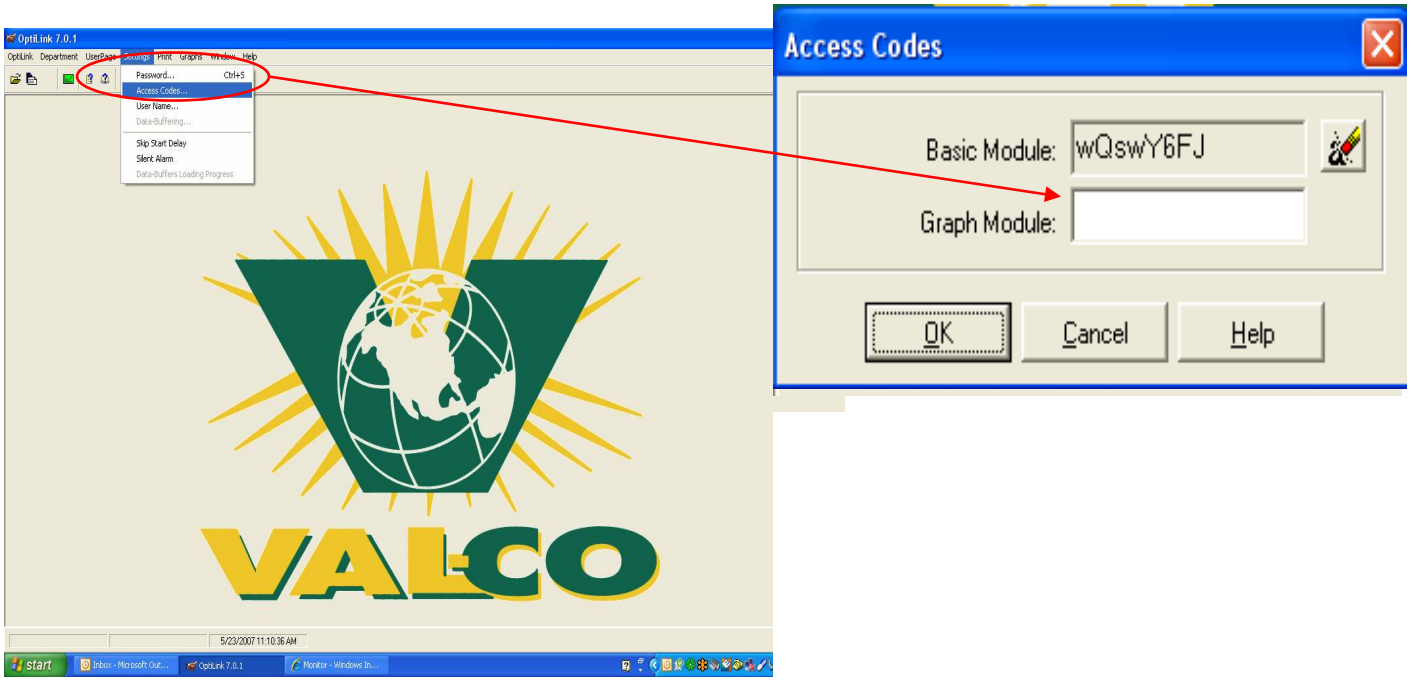
When the number has been successfully dialled, the **Invalid Access Code** box will appear. Be sure to type in the code numbers and letters as exactly seen in you document, otherwise it will be invalid. After the third incorrect attempt, the Optilink will shut down. **NOTE: all 0 are zero, not the letter o**



Once the **Base Mode** is in correctly and the program has successfully dialled in, the **VALCO** page will appear. Scroll to the **Settings** tab and "left click".



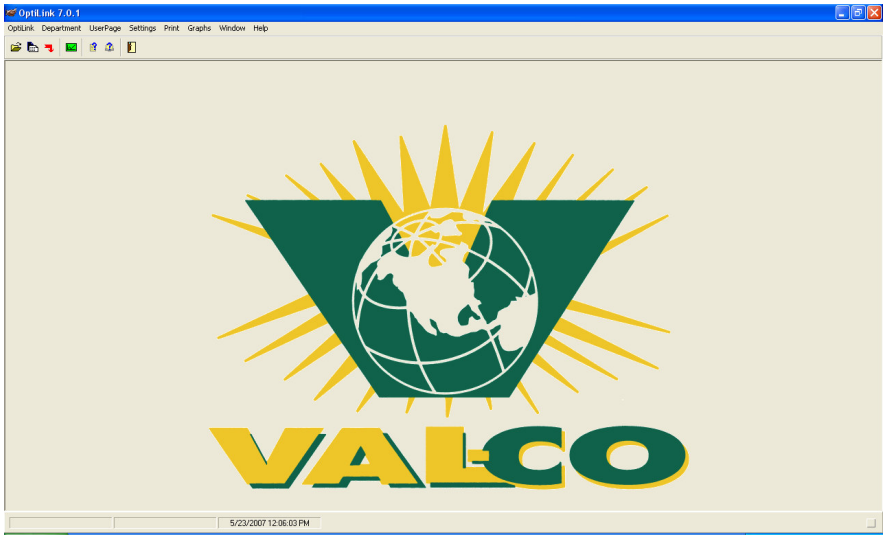
A drop down menu will appear. Scroll down to the **Access Codes** tab and "left click". The **Access Codes** box will appear. This is where you'll place the required codes.



NOTE: If codes are entered incorrectly the system will not be available for graphing!

THE VALCO PAGE

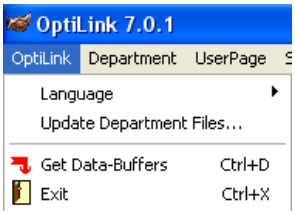
Once you have successfully entered the codes, the **Access Codes** dialogue boxes will disappear and the **VALCO** page will appear.



There are several tabs across the top of the page to work with.



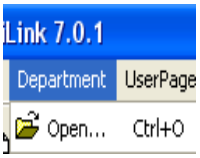
The first one is the **OptiLink** tab. "Left click" on the tab and it will open like this:



When you "left click" on the **Get Data-Buffers** tab, a green square appears down in the bottom right hand corner of the page. This means that the data buffers are being down loaded from the BE-SSC-101 to the computer for use when needed. When you "left click" on the **Exit** tab, the program ends.

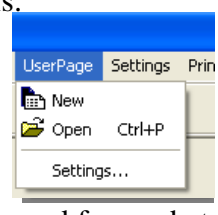


Next is the **Department** tab. "Left click" on the tab and it will open like this:



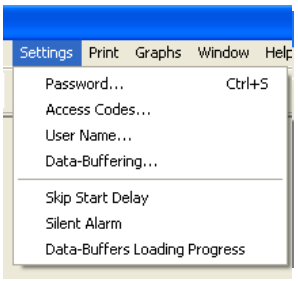
When you "left click" on the **Department** tab, the **Open** tab appears. This will open a dialogue box with all of the various departments.

Next is the **User Page** tab. "Left click" on the tab and it will open like this:



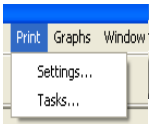
When you "left click" on the **User Page** tab, the **New, Open and Settings** tabs appear. When you "left click" on the **New** tab, a window opens for you to set up a new user page. The **Open** tab lets the print page appear, collects data and then can be printed. The **Settings** tab allows you to have print options such as the number of print pages per day and from what hour as well as the layout of the page.

Next is the **Settings** tab. "Left click" on the tab and it will open like this:



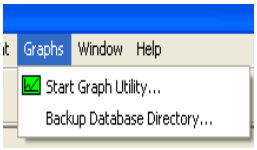
As you can see, this tab has many options. The first one is the **Password** tab, which allows the user to enter a password to prevent unauthorized people from entering the system.
NOTE: Once you've entered in a password, do not forget it or lose it, as you *will not* be able to get into the system!
Next is the **Access Codes** tab which you've already worked with.
Next is the **User Name** tab. This allows you to enter a user name which further enhances system security.
Next is the **Data-Buffering** tab. This allows you to specify the hours that you want to collect data from.
The next three tabs are the **Skip Start Delay**, **Silent Alarm and the Data-Buffers Loading Progress**. When you "left click" on each one, a check ✓mark will appear. This allows you to turn these options on or off. The default is off.

Next is the **Print** tab. "Left click" on the tab and it will open like this:



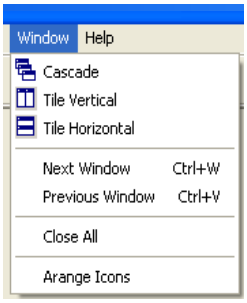
When you "left click" on the **Settings** tab, you will be able to designate the **Print Setup** for your printer.
Next is the **Tasks** tab. This is a dialogue box telling you what the printer is doing.

Next is the **Graphs** tab. "Left click" on the tab and it will look like this:



Start Graph Utility opens the Graphics Viewer.
Backup Database Directory lets you specify where you wish to save a backup copy.

Next is the **Window** tab. "Left click" on the tab and it will look like this:



As you can see, this tab has many options. All of these tabs allow you to arrange the various pages on your computer by "left clicking" on any one of them while you are working with the pages. You can work with multiple pages at once, but it can get confusing, but by arranging them to suit your purpose it keeps everything in its proper order.

The last tab is the **Help** tab. "Left click" on the tab and it will look like this:



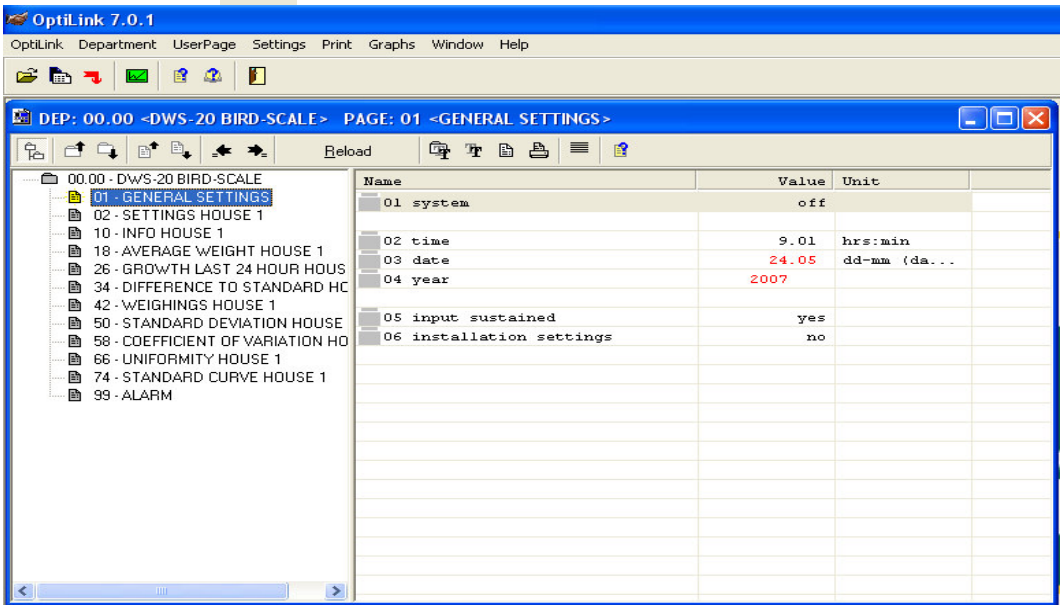
When you "left click" on the **Contents** tab, a full **help menu** appears that you can scroll through with explanations to guide and help you.
The **About** tab is a dialogue box that tells you about the system.

WORKING WITH SINGLE AND MULTIPLE PAGES

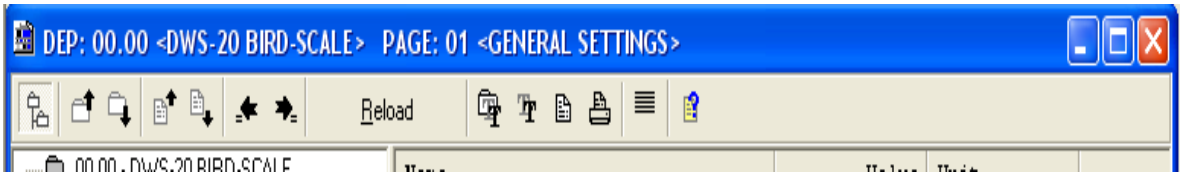
PAGE 01 GENERAL SETTINGS

Once all of the setup is done, it is time to start working with the **OPTILINK** program.

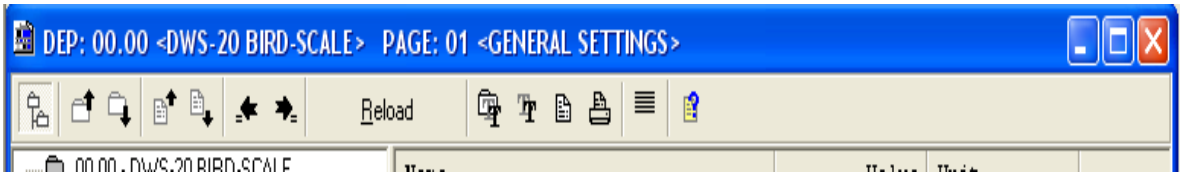
To get going, "left click" on the **Department** tab and select **Open…** or "left click" the **"Open Page"** icon. The following screen will appear:



The screen is divided into two areas; the left side of the screen shows the Department View where you can select which page you wish to view. The pages will be discussed in individual detail in the following sections. The right side of the screen shows the detail view of the page selected in the left side. Values in red are calculations or readings, and are unable to be changed by you. Values in black are user-inputs, changeable by you to adjust the operation of the scale. You can manoeuvre around the page with the mouse, "left clicking" where you want, or with the arrow keys.



The buttons across the top of the Department Window are explained in detail on the following page.





Show/Hide Department View: Opens or closes the left hand screen showing the pages.



Department Up/Down Buttons: Lets you scroll between multiple scales if more than one is present.



Page Up/Down Buttons: Move between the various pages within a department, for example from 01 General Settings down to 02 Settings House 1.



Previous/Next Equal Buttons: Move between similar pages of different scales, letting you quickly compare apples to apples between houses to see how one set of birds compares to another.



Reload: Lets you reload the latest information from the scale.



The Font Buttons: Allow you to customize the page by altering the font to make the text look how you wish it to look.



The Notes Button: Allows you to enter notes for the department. You press the notes key once to open the notes window, type your note, and then press the notes button again to return to the system.



The Print Button: Allows you to print the page you are viewing.



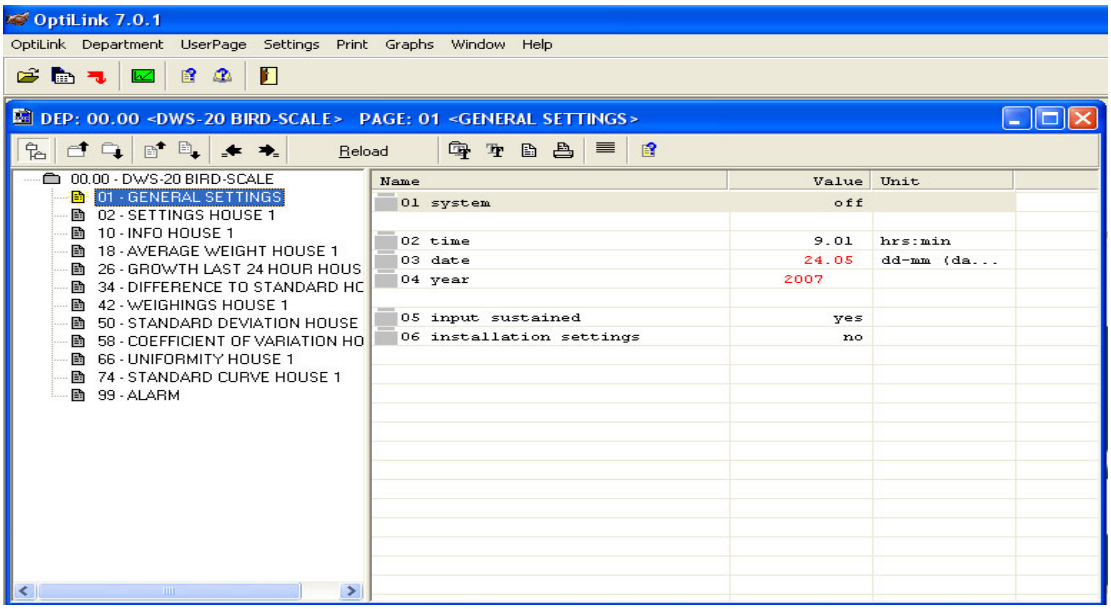
The Show/Hide Blank Lines Button: Lets you clean up the pages you are viewing if they contain too many blank lines.



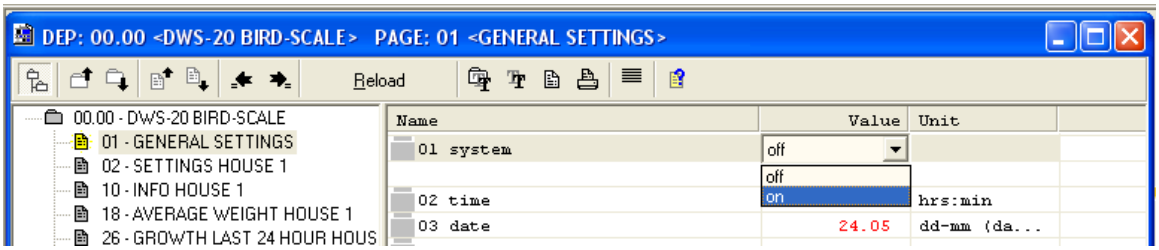
The Help button: Opens a new window containing a very valuable help file built into the program. It is your first stop for questions you may have about using the system.

01 GENERAL SETTINGS

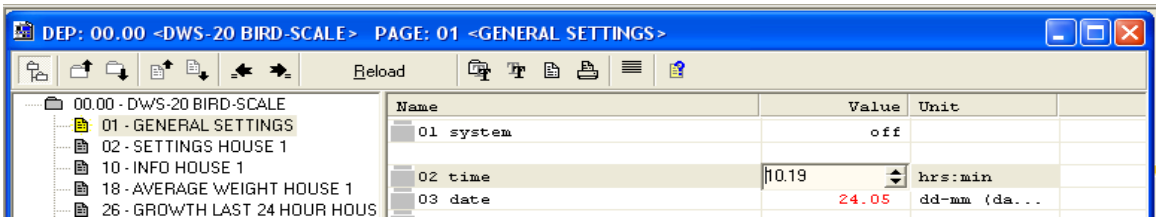
The **"01 GENERAL SETTINGS"** page is where the **OPTILINK** is linked with the **SENTINEL SCALE** in the poultry house(s). From here you can program the **SENTINEL SCALE** and download the information gathered by the **SENTINEL SCALE** for use within the **OPTILINK** program.



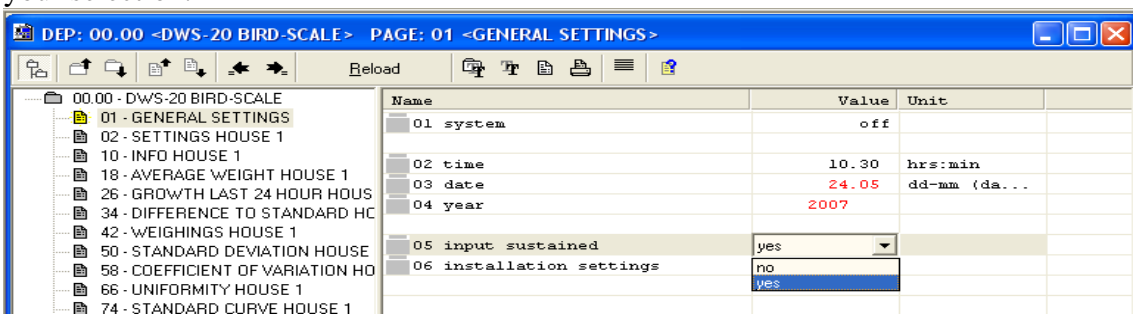
Line 01 System:
This setting can be changed by double "left clicking" on the box under "**Value.**" This opens a drop down bow containing the two choices "**on**" and "**off**." Move the mouse over the selection you want and "left click" to select it.



Line 02 time:
To set or change the time "double left click" on the box under "Value" in **line 02;** in the space provided, change the time and then hit enter and the new time will be activated.

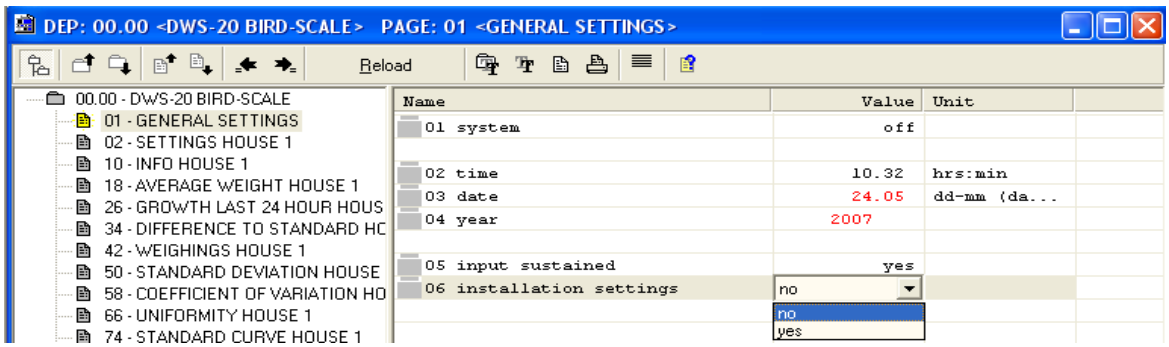


Line 03 date:
Line 04 year:
These two lines are factory settings and cannot be changed.
Line 05 input sustained:
To change the input sustained function "double left click" on the value box for line 05. This will display a drop down menu. Choose yes or no, as appropriate, by "left clicking" your selection.



Line 06 installation settings:
Line 06 is very important because once it is turned on you only have approximately 30 minutes to program the rest of the system before it shuts down.

To change the setting, "double left click" on the **"no"** tab and a drop down menu is displayed. Select "yes" by "left clicking" it.



CHANGING DEPARTMENT NUMBER (S)

The factory default for Department is **99 BE-SSC-101 BIRD – SCALE.** This is normally changed before the BE-SSC-101 is sent out. When there are more than one BE-SSC-101's installed and attached to an BE-SSC-201, then the Department numbers have to be changed. This can only be done on the BE-SSC-101 unit, not via the computer.

To start this process, be sure you are on page **"01 GENERAL SETTINGS".** Using the **INFO** tab, scroll down to **line "06 installer settings"** and then press the **"SETTINGS +"** tab once to **"1> yes".**

Using the **"MENU +"** tab, scroll down to open page **"97 INSTALLER SETTINGS"** and **line "01 department number".** For a stand alone BE-SSC-101 this must be set to **"0".** By pressing the **"+ or – SETTINGS tab"** to set the required department number. If more than one BE-SSC-101 is used in an installation, then each BE-SSC-101 will be assigned a department number. Be sure to turn the BE-SSC-101 off and then on again for this to take effect.

CHANGING BAUD RATE (SPEED)

The Baud Rate is a factory default of **"38400 bps"** and normally this is left at this speed. There may be times when this has to be changed and again this can only be done on the BE-SSC-101 unit.

To start this process, when instructed to change the bps rate, go to page **"01 GENERAL SETTINGS".** Using the **INFO** tab, scroll down to **line "06 installer settings"** and then press the **"SETTINGS +"** tab once to **"1> yes".**

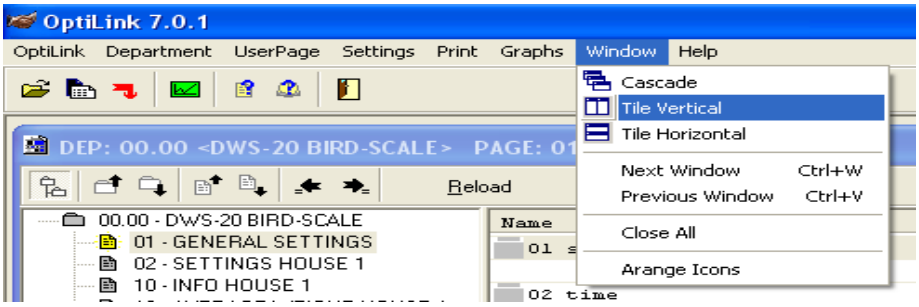
Using the **"MENU +"** tab, scroll down to open page **" 97 INSTALLER SETTINGS"** and **line "02 speed com 1"** then press the **"+ or – SETTINGS tab"** to go to the instructed bps setting.

PAGE 97 – INSTALLER SETTINGS

Now that you've turned the installation settings on to **"yes"**, it would be a good idea to have two pages open and on the screen at the same time. You should already have the **01 GENERAL SETTINGS** page open. Now you are going to be opening page **97 INSTALLER SETTINGS**.

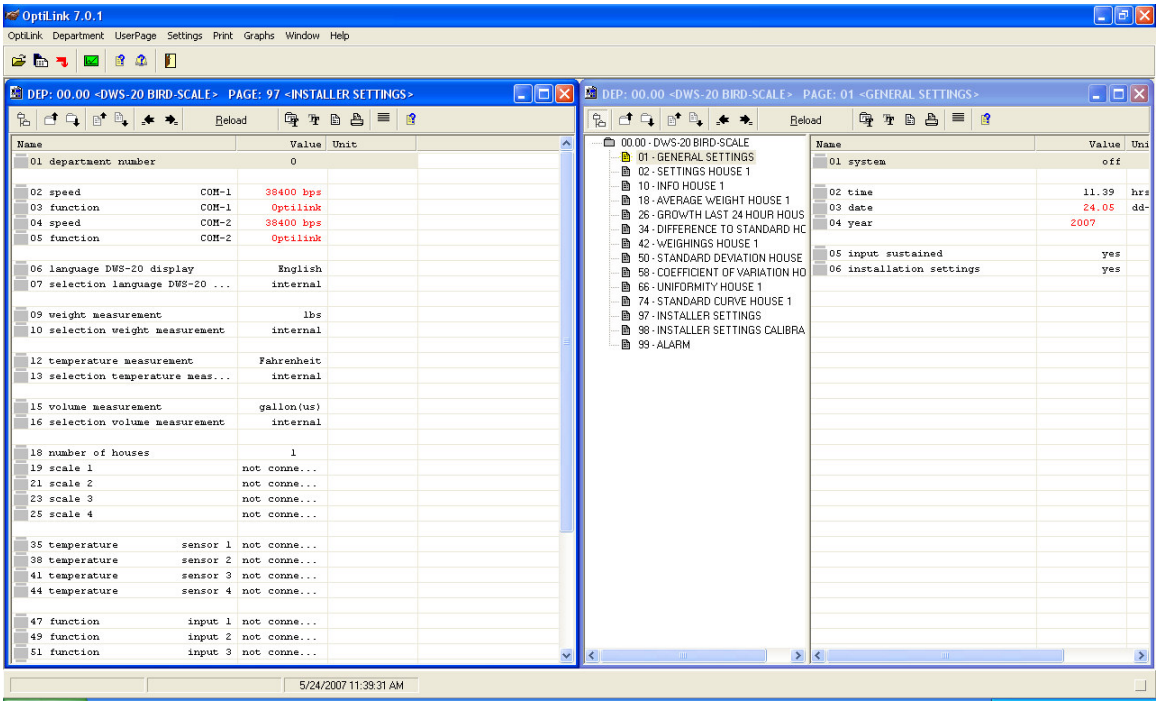
Before page **97 INSTALLER SETTINGS** will display, you must first reload the screen by "left clicking" the **Reload** button (Refer to page 19). The left side department screen will now show page **97** as an option.

To have multiple pages open and on the screen at the same time, place your cursor on the **"Open Department"** icon (refer to page 18) and "left click" the icon to open a new window. In the second window, select page **97 INSTALLER SETTINGS.** Scroll up to the tool bar at the top of the page and "left click" on "**Window"**. A dialogue box will appear with some options. "Left click" on **Tile Vertical.** Both pages will be centered on the page and both can be worked on. Remember that the installation setting is only operational for approximately 30 minutes.



Because this is your first time on the system, it may take you longer to put in the required information. If the time runs out, page 97 will disappear, but all you have to do is go to **line 06 GENERAL SETTINGS** and change the setting back to **"yes"** and reload page 97.

Both pages are now centered and workable on the screen.



Once open, page **97 INSTALLER SETTINGS** will look like this. Here information is input to activate the scales, water meters, temperature sensors etc.
Click on  to open to a full page view. Click on  to revert back to a split screen

01 Displays the number the BE-SSC-101 has in the communication loop.

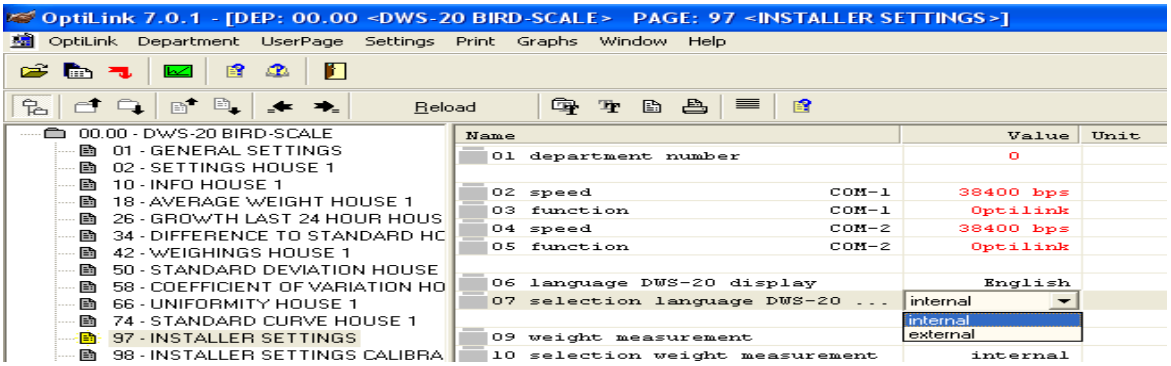
The factory setting is "0" with a stand alone BE-SSC-101 connected.
If two or more BE-SSC-101 communication via BE-SSC-201 interface will require the department number to be changed e.g.: Dept 1 and Dept 2 etc.
If you have changed the department number you have to switch off the power. After 15 seconds turn the BE-SSC-101 on.

The settings 02-05 are only available in the stand-alone mode of the BE-SSC-101.

02 Factory setting is **38400 baud**
03 Factory setting is **OPTILINK**

Function 04 and 05 will only be available if you have 2 COM-30 PCB in your BE-SSC-101

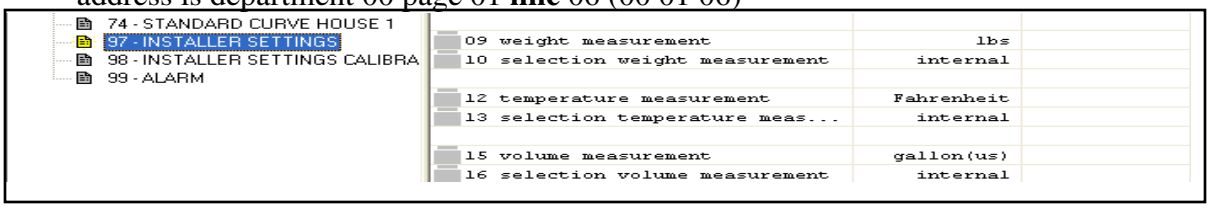
04 Factory setting is **38400 baud**
05 Factory setting is **OPTILINK**



06 Select the language to be displayed on the BE-SSC-101.

07 **<u>Selection language display</u>** :
Internal: used in a single BE-SSC-101 installation
External: used in a multiple BE-SSC-101 installation, connected to a BE-SSC-201

08 Address language display – please select the address. The address consists of department number: page number: **line** number. (dd pp ll) For the BE-SSC-201 the address is department 00 page 01 **line** 06 (00 01 06)



09 Select the weight measurement: Grams/pounds

10 Selection weight measurement:
Internal: used in a single BE-SSC-101 installation
External: used in a multiple unit installation.

11 Address weight display – this setting is automatically chosen by the BE-SSC-101 with external setting above.

12 Select the temperature measurement: Celsius/Fahrenheit

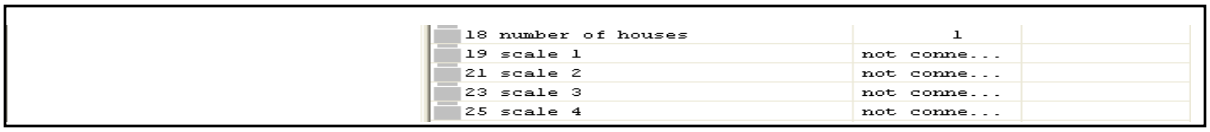
13 Selection temperature measurement:
Internal: used in a single BE-SSC-101 installation
External: used in a multiple unit installation.

14 Address temperature display – this setting is automatically chosen by the BE-SSC-101 with external setting above.

15 Select the volume measurement: Litre/Gallon US/Gallon UK

16 Selection volume measurement:
Internal: used in a single BE-SSC-101 installation
External: used in a multiple unit installation.

17 Address volume display – this setting is automatically chosen by the BE-SSC-101 with external setting above.



18 Enter the number of houses you want to work with. **(maximum is 4)**

19 Select **connected** if a scale is connected or **not connected** if the scale is not connected.
20 This **line** shows the actual weight on the scale if calibrated.
21 /23/25 see **line** 19.
22 /24/26 see **line** 20.

35 temperature	sensor 1	not conne...	
38 temperature	sensor 2	not conne...	
41 temperature	sensor 3	not conne...	
44 temperature	sensor 4	not conne...	

35 Select **connected** if a temperature probe is connected or **not connected** if the temperature is not connected.
36 This **line** shows the actual temperature of sensor 1
37 With the function you can adjust the temperature sensor 1 -- plus/minus 1 degree
38 /41/44 see **line** 35.
39 /42/45 see **line** 36.
40 /43/46 see **line** 37.

47 function	input 1	not conne...	
49 function	input 2	not conne...	
51 function	input 3	not conne...	
53 function	input 4	not conne...	
55 function	input 5	not conne...	
57 function	input 6	not conne...	
59 function	input 7	not conne...	
61 function	input 8	not conne...	
63 use DWS-20 clock		yes	
64 date		24.05	dd-mm (da...
65 year		2007	
66 real-time clock		on	

There are 8 input ports 46-61 that can be designated either water or feed input counters.
44 Select the function for input 1: not connected/water counter/ feed counter
45 Enter how many litres or kg one input pulse represents.
49 /51/53/55/57/59/61 see **line** 47.
50 /52/54/56/58/60/62 see **line** 48.
63 Select if you want the BE-SSC-101 to use the **internal** or **external** (BE-SSC-201) clock.
64 Enter the current date.
65 Enter the current year.
66 Real time clock **on** (If you power up the system real time clock will be switched on.)

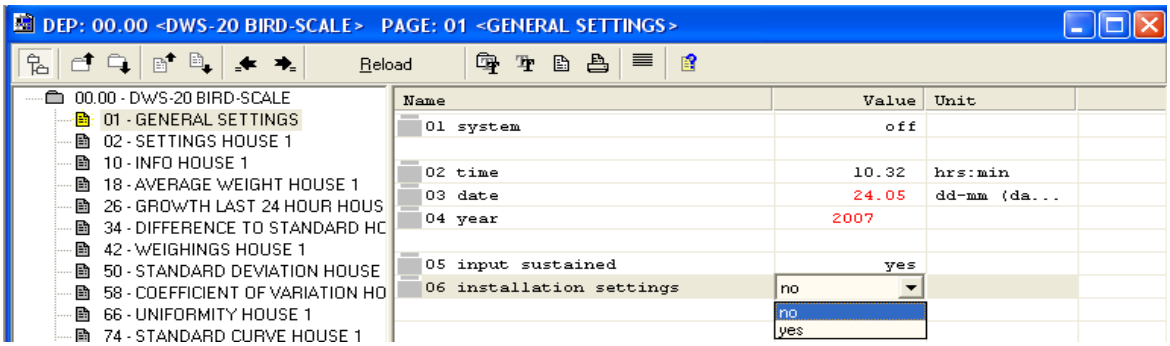
SCALE CALIBRATION PROCEDURE

Prior to Calibration, certain installer settings steps need to be followed. Some of these settings may have already been done but we are presenting this material to you on a step by step basis.

The scales must be calibrated in order to start the weighing process. Scale accuracy depends on accurate calibration of the scales with the process being user-friendly.

We recommend calibration of the scales prior to each flock.

Go to **01 General Settings, line 01.** Ensure that the system is turned on.



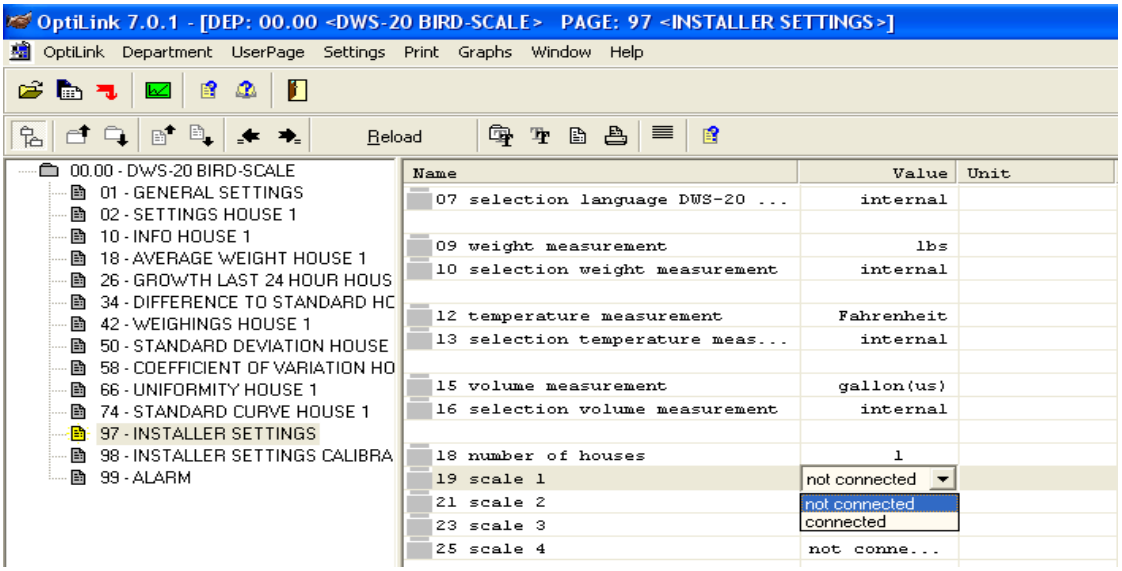
To change the setting, “double left click” on the **“no”** tab and a drop down menu is displayed. Select “yes” by “left clicking” it.

You have approximately 30 minutes before this function reverts back to **no.** If it does shut down while performing the calibration, go back and turn it back on again.

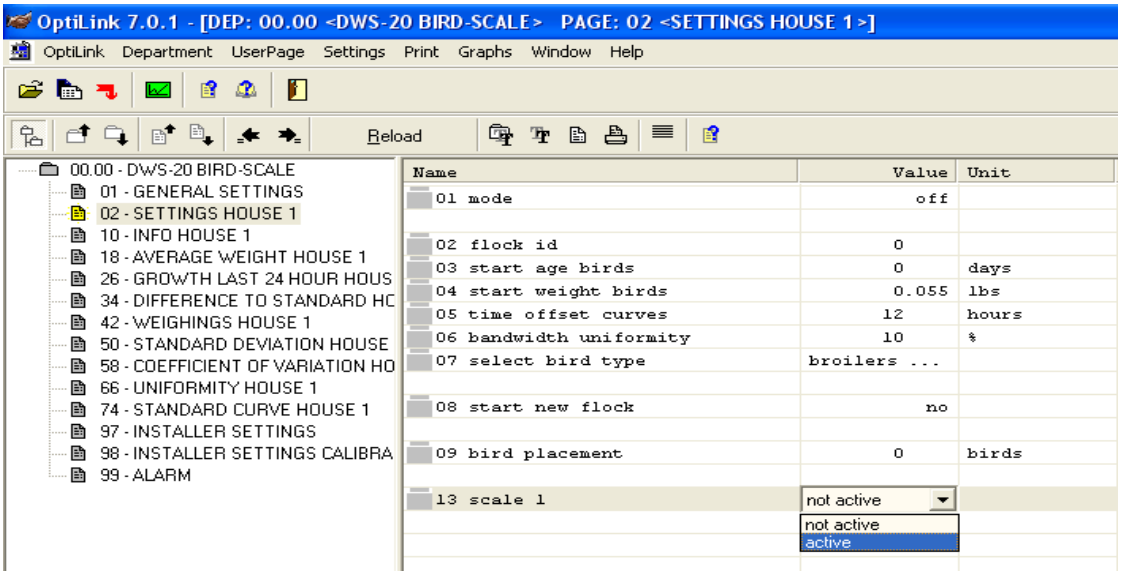
INSTALLER SETTINGS – PAGE 97
Put Required Scales Into Operation as Follows:

Go to **97 Installer settings** and scroll down to **Line 09 weight measurement** and select **grams** or **lbs**. This is a one time only operation.

Line 19 scale 1 should indicate that scale 1 is connected. If it isn't, double "left click" on **not connected** to open the drop down menu and "left click" on **connected**. Repeat for scales 2, 3 & 4 if these are being used.



Open **Page 02 Settings House 1** and scroll down to **Line 13, scale 1 - not active**. Double "left click" click on **not active** to open the drop down menu and "left click" on **active**.

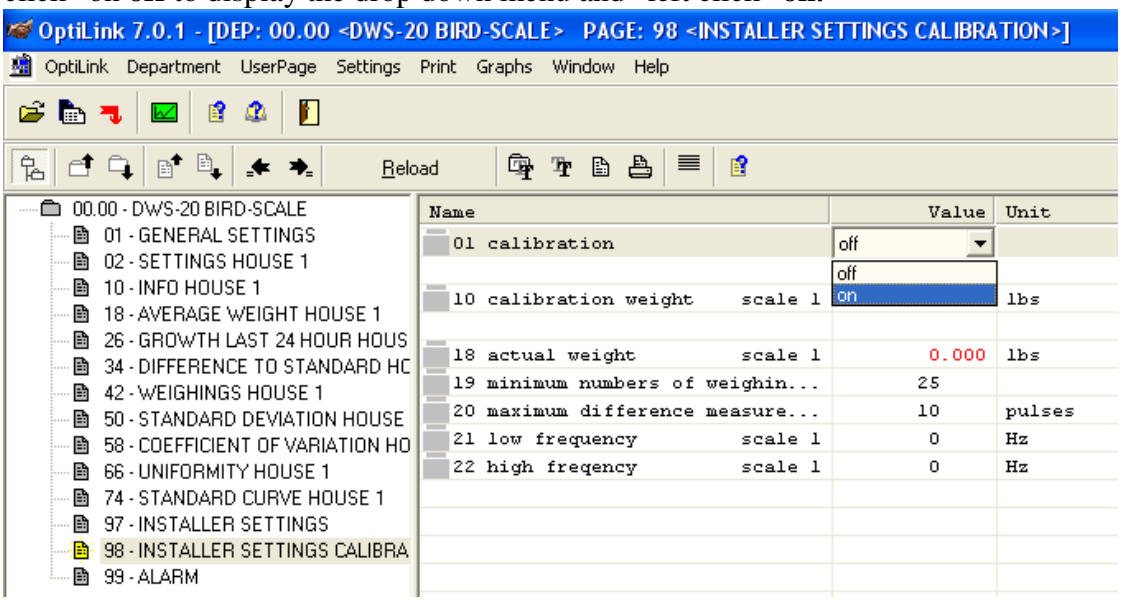


Activate each scale required to the respective house*.

*You can activate more than one scale to a house and they will work together to average the bird's weight.

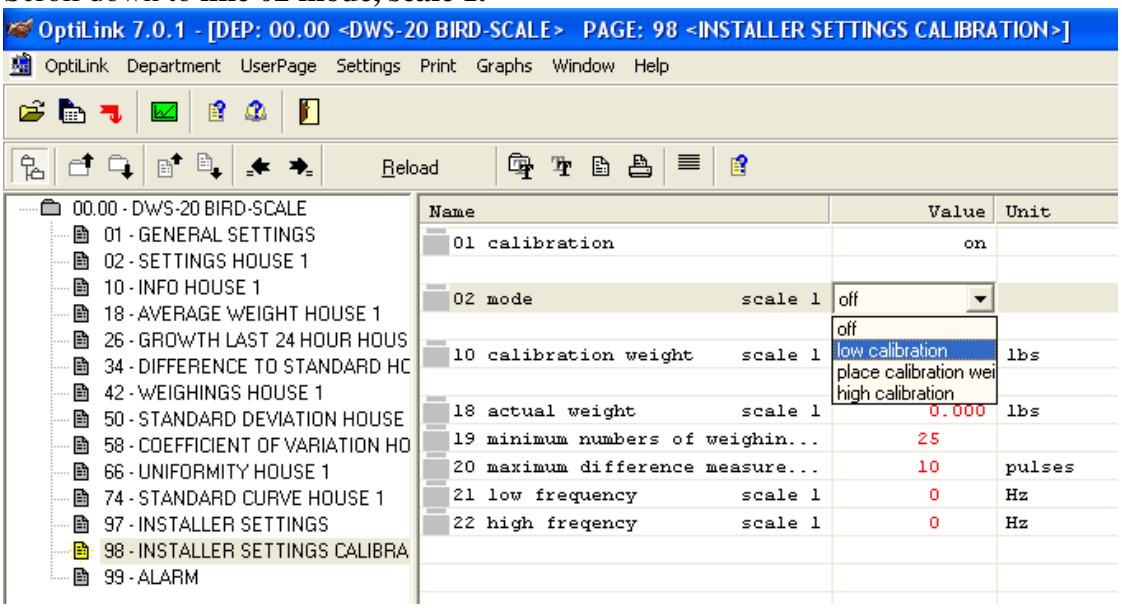
CALIBRATION – PAGE 98

Open **page 98 Installer Settings Calibration** and scroll down to **line 01.** Double "left click" on **off** to display the drop down menu and "left click" **on.**



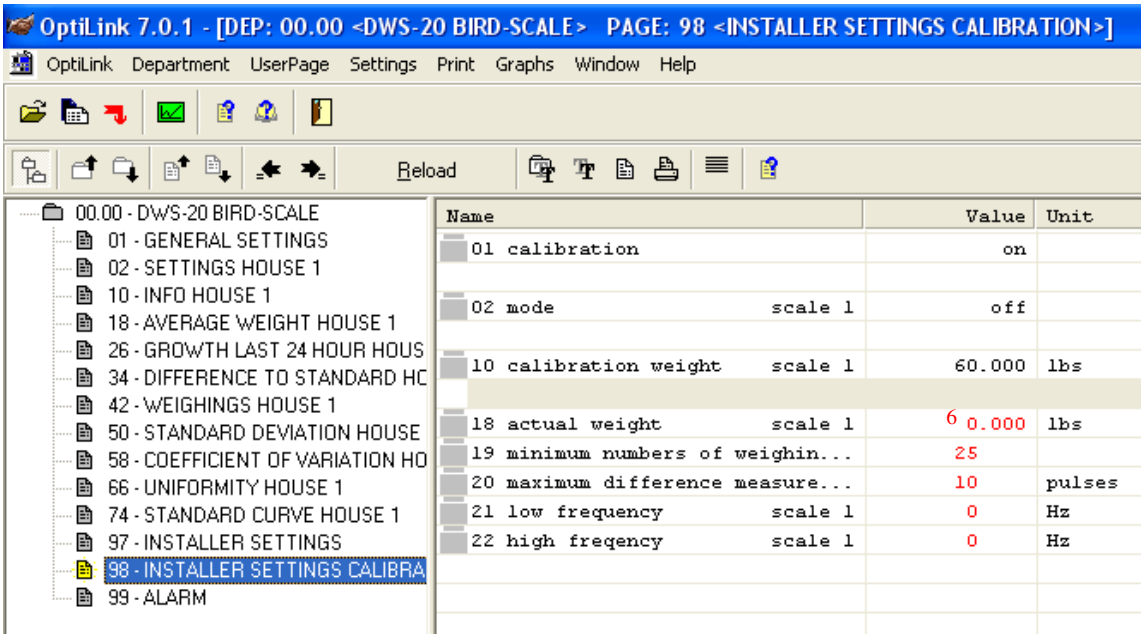
Scroll down to **line 10 calibration weight.** Double "left click" to open the dialogue box. Enter the calibration weight to be used and press enter.

Scroll down to **line 02 mode, scale 1.**



Double "left click" on the **off** tab to open the drop down menu. "Left click" on **low calibration**. When **low calibration** changes to **place calibration weight**, have someone place the calibration weight onto the scale. Make sure that the scale is not moving. Then click on **high calibration.** The display will revert back to **off** indicating that the procedure for scale 1 is complete.

To be sure that the calibration sequence was successful, scroll down to calibration weight, **line 18.** There will be some fluctuation of weight + or – from "0". This is normal. This line will show the actual weight on the scale and should be **30 lbs** if you are using the 30 lb weight. Scroll down to lines 21, low frequency and line 22, high frequency. There should be an approximate difference of 15,000 to 20,000 Hz between the two. Scale 1 is now calibrated. If more than one scale is required, repeat this process for each one.



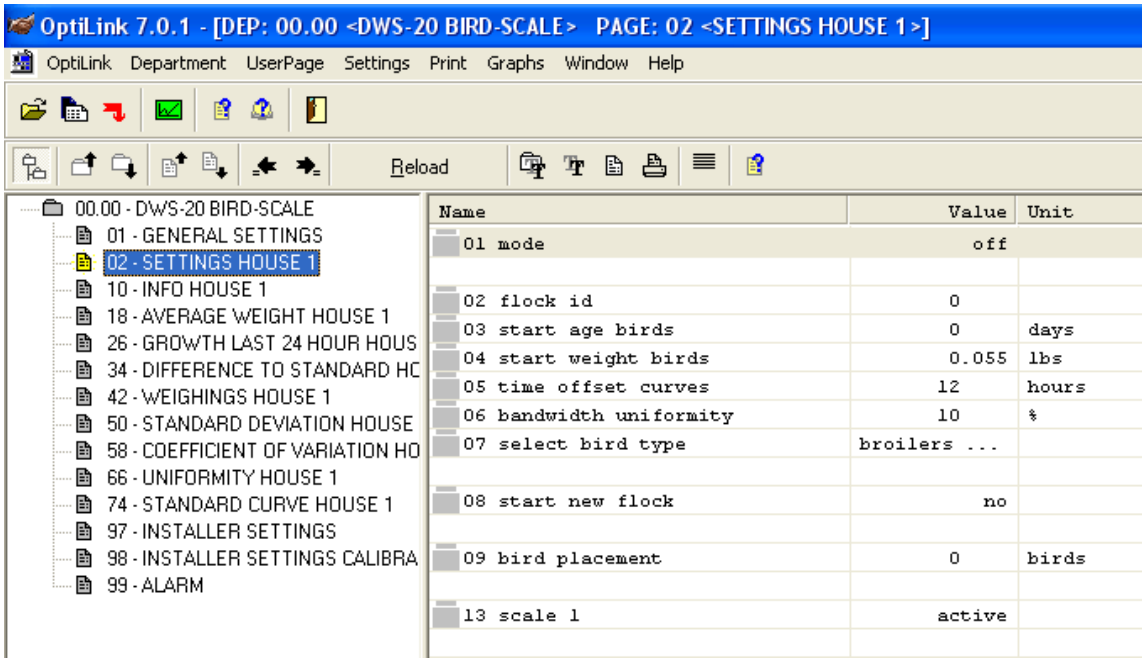
TROUBLE SHOOTING: If at step 8 the calibration hangs up on **"empty scale"** & will not advance to "**put weight"** then the BE-SSC-101 is not communicating with the load cell for the scale you are trying to calibrate.

1. Check all wire connections (BE-SSC-101 & Load Cell) for crossed wires.
2. Check the BE-SSC-101 & load cell to make sure that the red light is on.
3. If the red light(s) are not on, there is a short in one of the load cell wires. Undo the load cell wires and reconnect properly.
4. In the event the calibration sequence was interrupted or an error occurred, then go back to **line 01** and turn it off. Turn it back on as this resets the system and start over.

STARTING A NEW FLOCK
PAGE 02 SETTINGS HOUSE 1-4

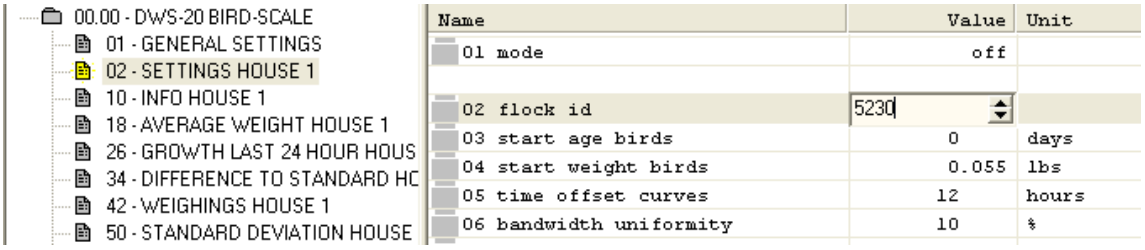
You are now at the stage to start your house(s). This is an important step which leads into the graphing.

In the left side of the screen, "left click" on **02 SETTINGS HOUSE 1.** The following should be displayed:



Line 01 mode—<u>leave off for now!</u> It will be turned on between lines 08 and 09.

Line 02 flock id is where you give your flock an identification number. It will not accept letters. "Double left click" on the value box for flock id. When it is open, it will be blank. Type in the number(s) that you want as your flock id and press enter.

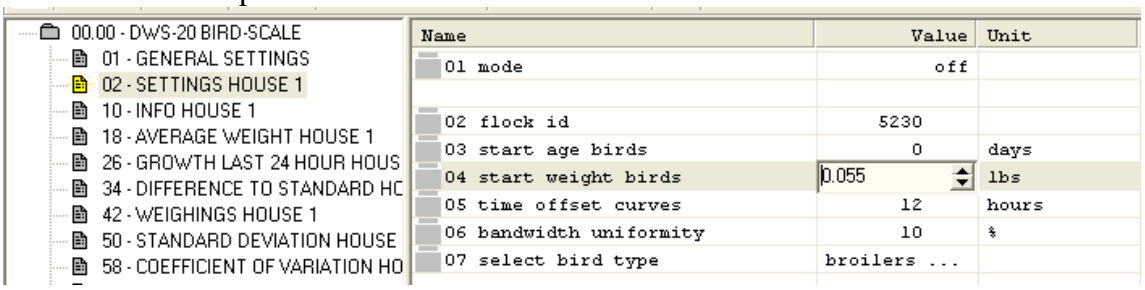


In this illustration, the flock id was 5230

Line 03 start age birds: This line is defaulted to **"0"** as the day that the flock arrives is usually considered **"day 0"**.

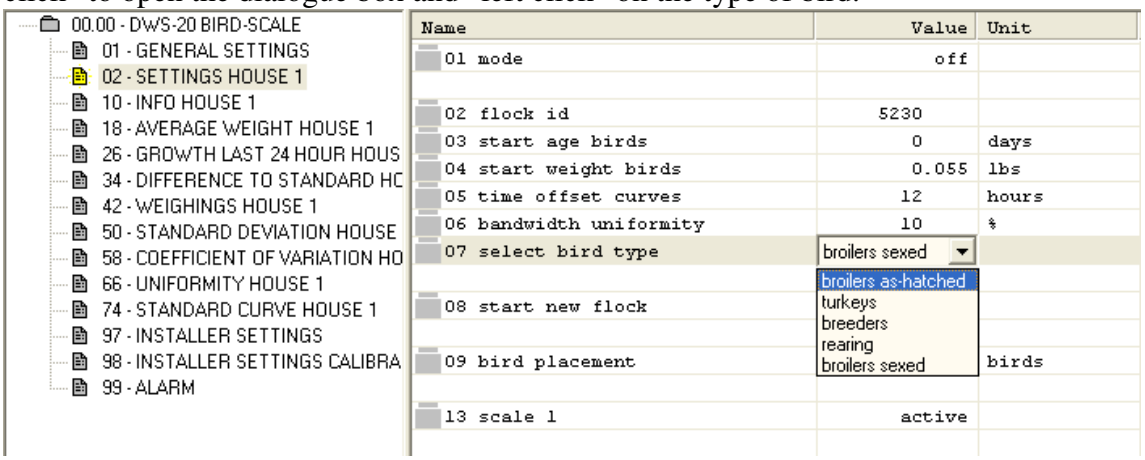
There are times when the flock is not started when they arrive and then the number of days from the time they arrive to the start day will be entered here by "double left clicking" to open the dialogue box and entering the appropriate numbers. Press enter.

Line 04 start weight birds is where you enter the start weight of your birds. Use the data sheets given to you by your bird supplier as this number may vary depending on the breed of bird. "Double left click" to open the dialogue box and enter the appropriate numbers and then press enter

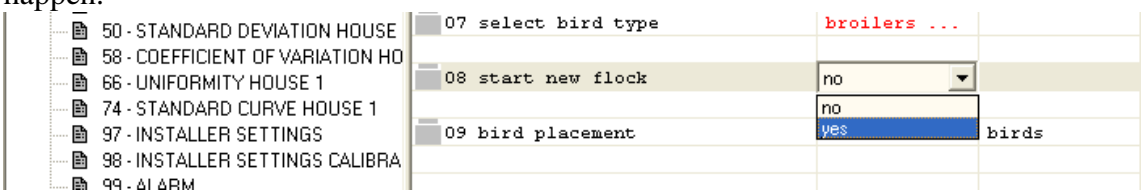


Line 05 time offset curves and **line "06 bandwidth uniformity"** are defaults and no action is required.

Line 07 select bird type is where you select the type of birds you have. "Double left click" to open the dialogue box and "left click" on the type of bird.

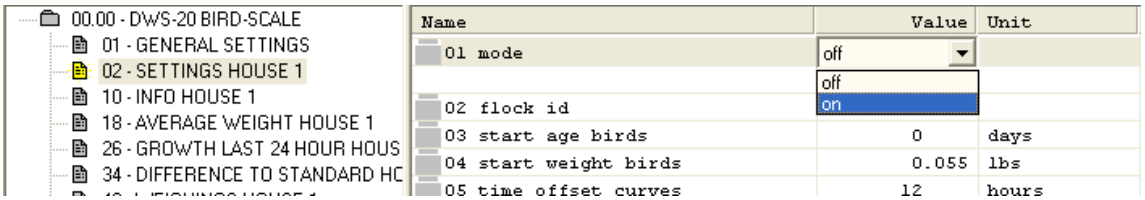


Line 08 start new flock is very important. All of the above information must be entered before and correctly before this function takes place. Once all of the information is entered correctly, "double left click" on the **line** to open the drop down menu and "left click on **"yes."** In a few seconds **"yes"** will revert back to **"no".** This is supposed to happen.

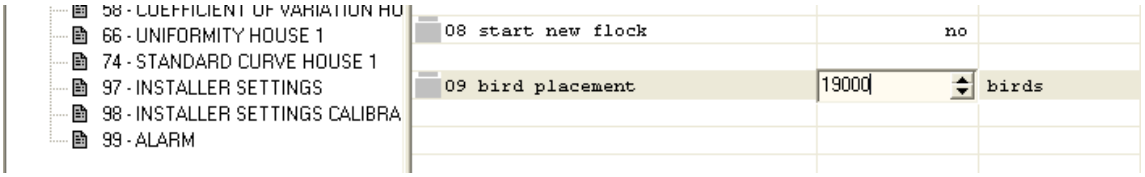


Now proceed with the rest of the information input.

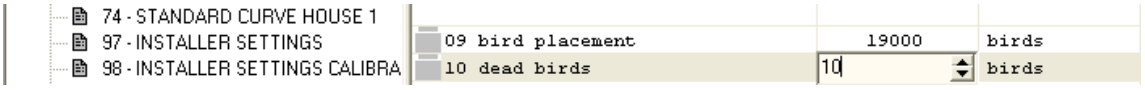
For the graphing to work, **line 01 mode** must be turned **on**. If it is **off**, "double left click" on the **line** to get the drop down menu and "left click" on the **"on"** selection.



Line 09 bird placement is where you input the number of birds in the flock for this house. "Double left click" on the **line** to open the dialogue box and enter the number of birds and press enter. In this case there were 19000 birds in House 1.



Line 10 dead birds is where you enter the number of dead birds on a regular basis. . "Double left click" on the **line** to open the dialogue box and enter the number of birds and press enter.



IMPORTANT: See NOTE on the following page!

TRANSFERRING BIRDS BETWEEN HOUSES

To continue he flow of information when a house is transferred into another house it is important that the flock ID remains the same and that the scale in the house that the birds are moved from is turned off and the scales in the transfer houses are turned on and the house(s) are started.

Original Setting: **(Starting your flock)**

House1
Flock ID # 101 } **always stays the same and follows the birds'/flock to the end.**
Scale #1

Birds are split and transferred to other barns/houses:

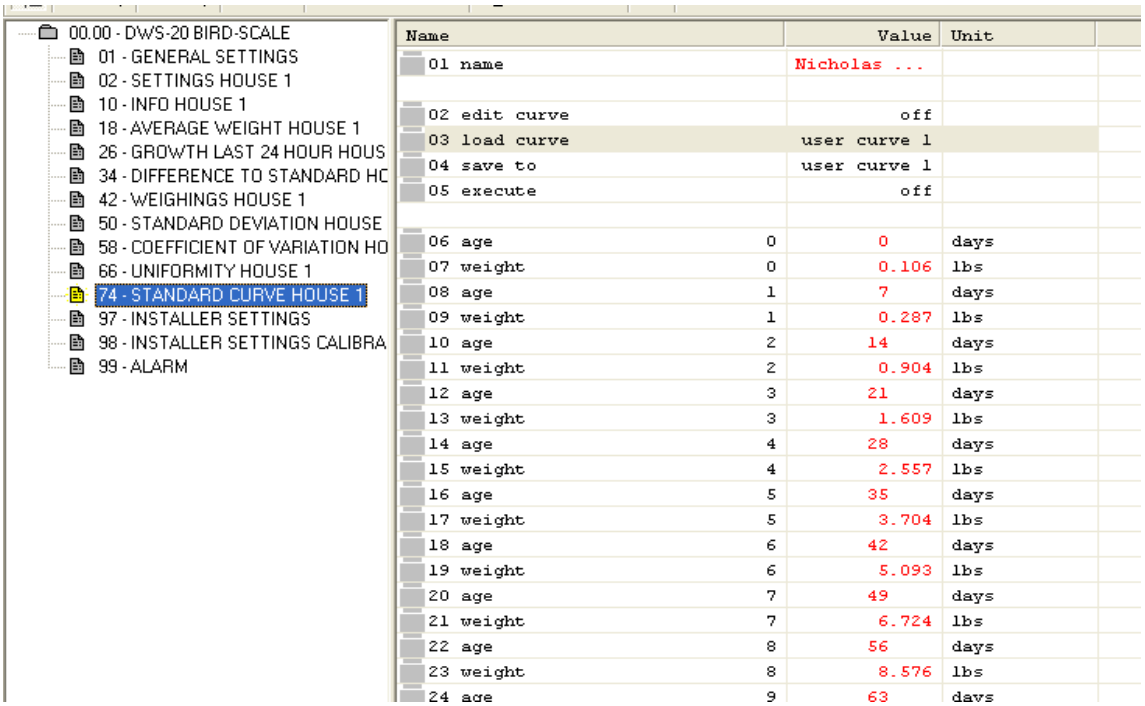
Turn Scale 1 "off"

House 1
Flock ID #101
Scale 2 "on"
→ if more than one barn is filled from the brooder complex, subsequent barns need to be started as a new flock
House 2
Flock ID #101
Scale 3 "on"

LOAD CURVES 74-76-78-80 HOUSE 1-4

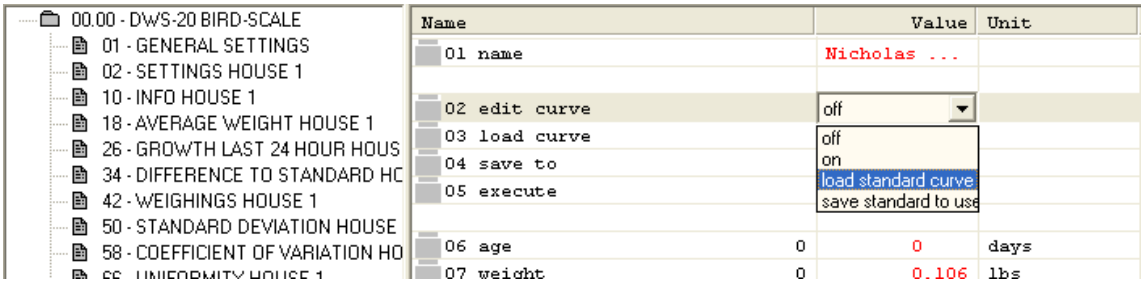
In order for the graph to function, information must be put into the Page **74 STANDARD CURVE HOUSE 1.** You are given a weight chart from your poultry supplier. The information from that sheet will be placed into the computer on this page in three day intervals.

"Left click" on **line 74 STANDARD CURVE HOUSE 1** in the left side of the screen. The following screen should be displayed:

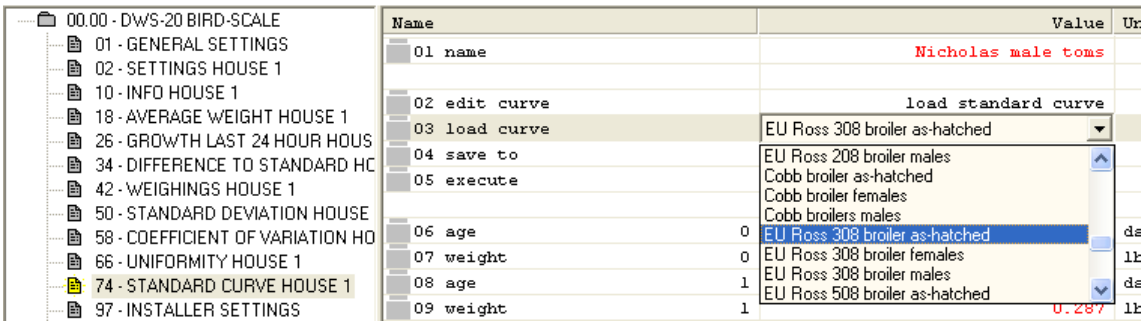


The following describes how to load a standard curve already on the system which may be applicable to your breed type:

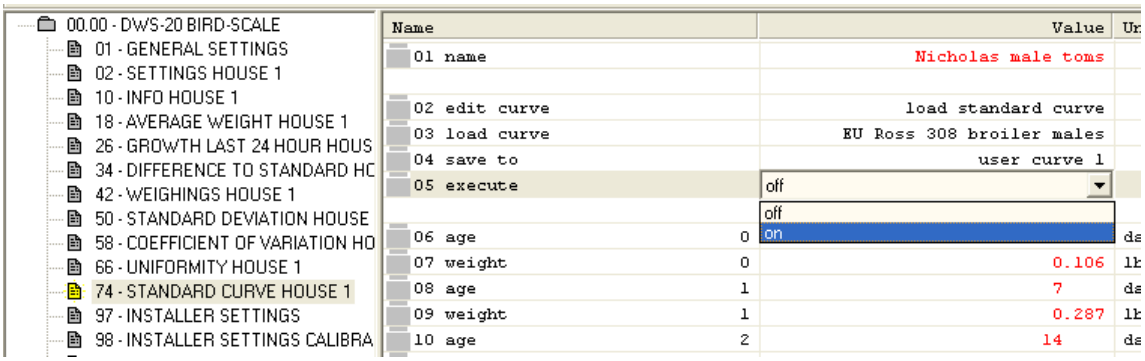
"Double left click" on **line 02 edit curve.** The drop down menu opens. "Left click" to choose **"load standard curve".**



"Double left click" on **line 03 load curve.** The drop down menu opens. There are many to choose from. Choose what is applicable to you, as an example **"EU Ross 308 broiler as-hatched".**



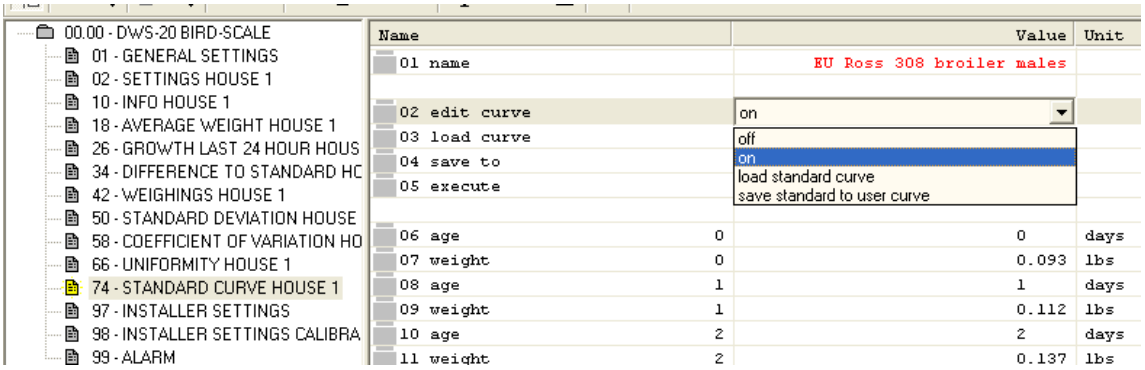
Next, "double left click" on **line 05 execute** to open**.** "Left click" "**on**". The data that is saved within the program will now appear as a **line** of vertical **red** numbers. This may take a few minutes to execute. Once the data has been loaded, "**execute"** will turn off. If you have more than one house, then repeat the process for each house. If you have different breeds in different houses, then select the correct breed curve for the house.



Building Your Own Breed Curves

In many cases, you'll be supplied with weight data sheets from your pullet supplier. Their breed curves are different that those pre loaded into the program. The breed curves will have to be built only once and then they can be saved and the loaded into other houses.

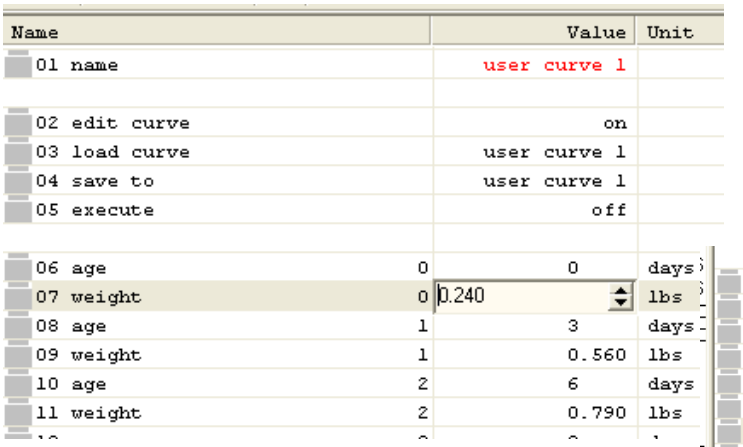
The **"74 STANDARD CURVE HOUSE 1"** page will be missing the numbers required to make the graphs work. To enter the numbers, "double left click" on **line 02 edit curve.** It is defaulted to **"off".** "Left click" on **"on".** The box will close and all of the **"0's"** below will turn **black** from red which means that they can now be edited.



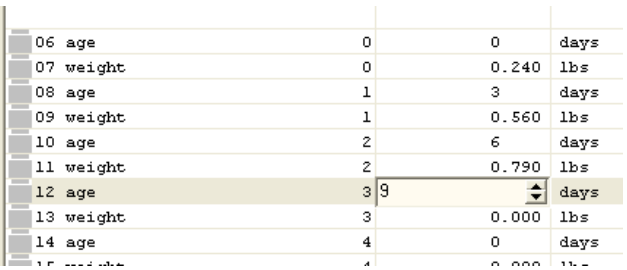
Scroll down to **line 06 age**. Double "left click" to open the input box. Enter **0.** The day that he pullets arrive is considered **Day 0!**

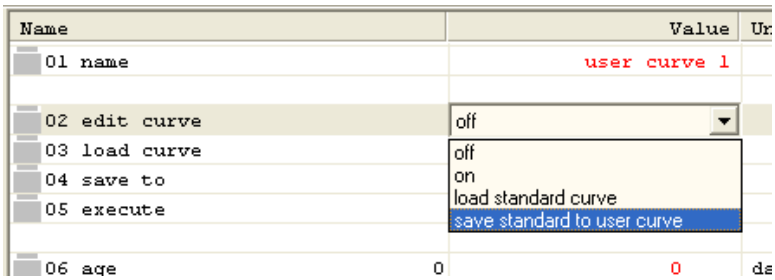
Scroll down to **line 07 weight**. Double "left click" on the **line**. Using your chart, enter the weight given. In this case it was **0.240.**

From this point until **day 40** or the required number of days for your breed curve, the information is put in for three day intervals for broilers, seven day intervals for turkeys and breeders.

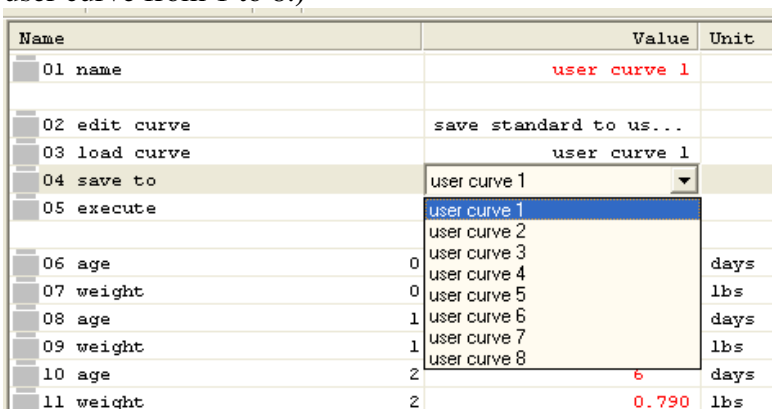


Once the information has been entered, scroll back up to **line 02 edit curve**, double "left click" to open the drop down menu and "left click" on **"Save standard to user curve"** to save your modified curve.

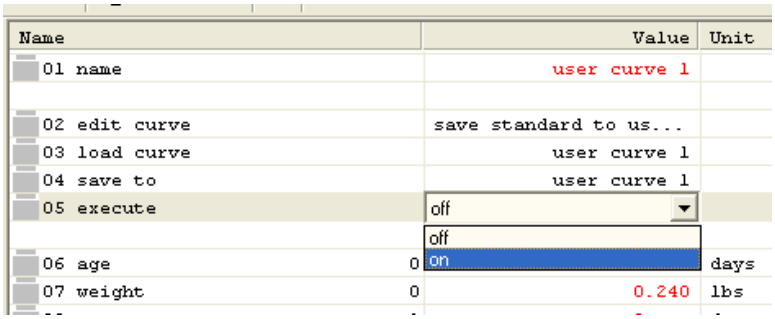




Next, "double left click" on **line 04 save to** and left click on **user curve 1** (or select a user curve from 1 to 8.)



Next "double left click" on **line 05 execute.** Select on. The load curve will turn **red.**



To implement your curve to **line 01 name** go back to **line 02 edit curve** and "double left click" to open the drop down menu and "left click" on **load standard curve.** "Left click" on the curve you used from 1 – 8 and then "left click" on **line 05 execute.** The load curve for house will now be implemented. When you look at **page 10 info house 1** you will see that on **line 07 standard curve** will show as in this case **user curve 1.**

In many cases there may be more than one house. It is time consuming to re-enter all of the numbers for the standard curve. This information can be copied from one house to another. Now that you've loaded and saved the initial data, it is a simple process to transfer the data to other houses.

To transfer your curve:

To transfer and implement your curve go to **line 02 edit curve** and "double left click" to open the drop down menu and "left click" on **load standard curve.** Go to **line 03 load curve** and "double left click" on the curve you used, in this case **user curve 1** and then "double left click" on **line 05 execute** and click on **"on".** When done both **line**s **02 edit curve & 05 execute** will revert to **"off".** The load curve for house will now be implemented. When you look at **page 10 info house 1** you will see that on **line 07 standard curve** will show as in this case **user curve 1.** **This procedure is the same as on page 40.**

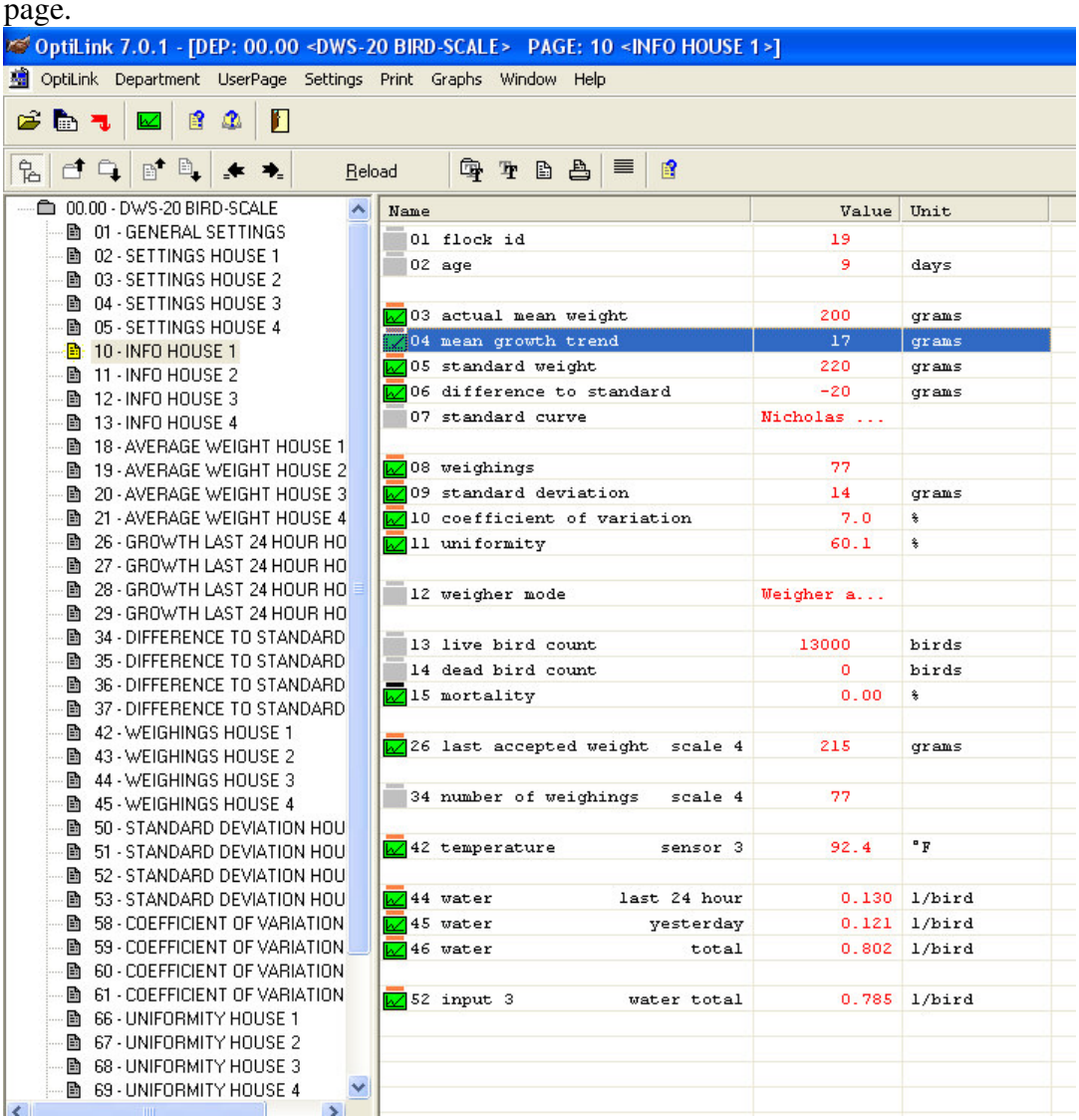
You've now had the computer load your **user curve** into the desired house.

To modify a load curve for a house but not copy it to another house:

Follow the instructions on pages **41 and 42.**

10 INFO HOUSE 1-4

10 Information House is an information page that tells you what is happening in that house, e.g. the age of the birds, how many weighings, the number of live birds, temperatures, water consumption, etc. The information on this page can not be changed by you but will change automatically at time progresses. Each house will have its own page.



The green icons to the left of the page indicate that these are graphs. These will be explained shortly.

Lines 16 – 22 do not show up on the page as it is only available for breeders.

Line 39: displays the average temperature which is only available if two or more sensors are activated to that house.

Line 40: displays the temperature sensor 1

Line 41: displays the temperature sensor 2

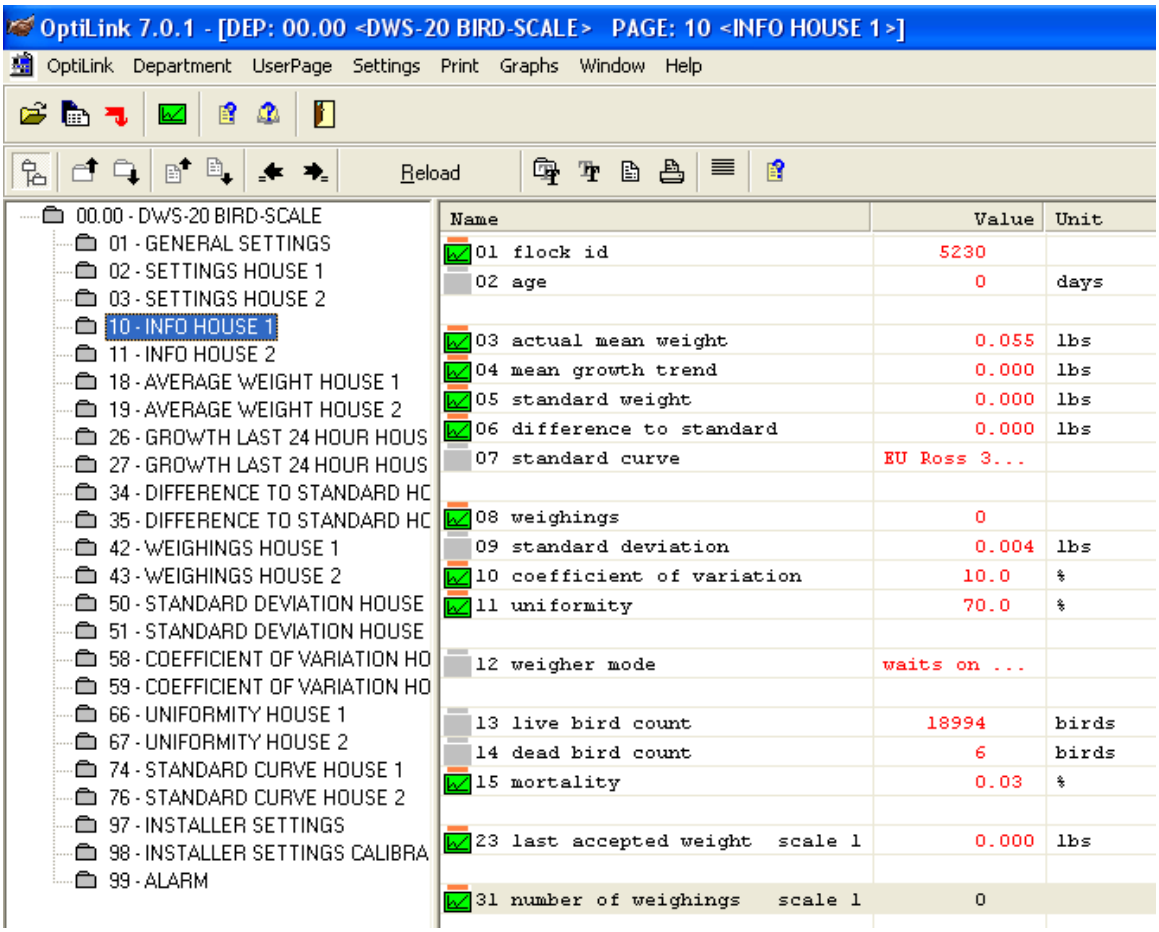
Line 42: displays the temperature sensor 3

Line 44: Displays the water consumption per bird over the last 24 hours
Line 45: Displays water consumption per bird yesterday
Line 46: Displays the total water consumption per bird for the flock
Line 50: Displays the total water consumption recorded by the input sensor.
Line 52: Displays any additional inputs to the scale.

SETTING UP THE GRAPHS

A big part of the **OPTILINK / SENTINEL SCALE** system is graphing used in tracking and diagnosing any problems that may occur within the flock so that corrective action can be taken before major problems arise.

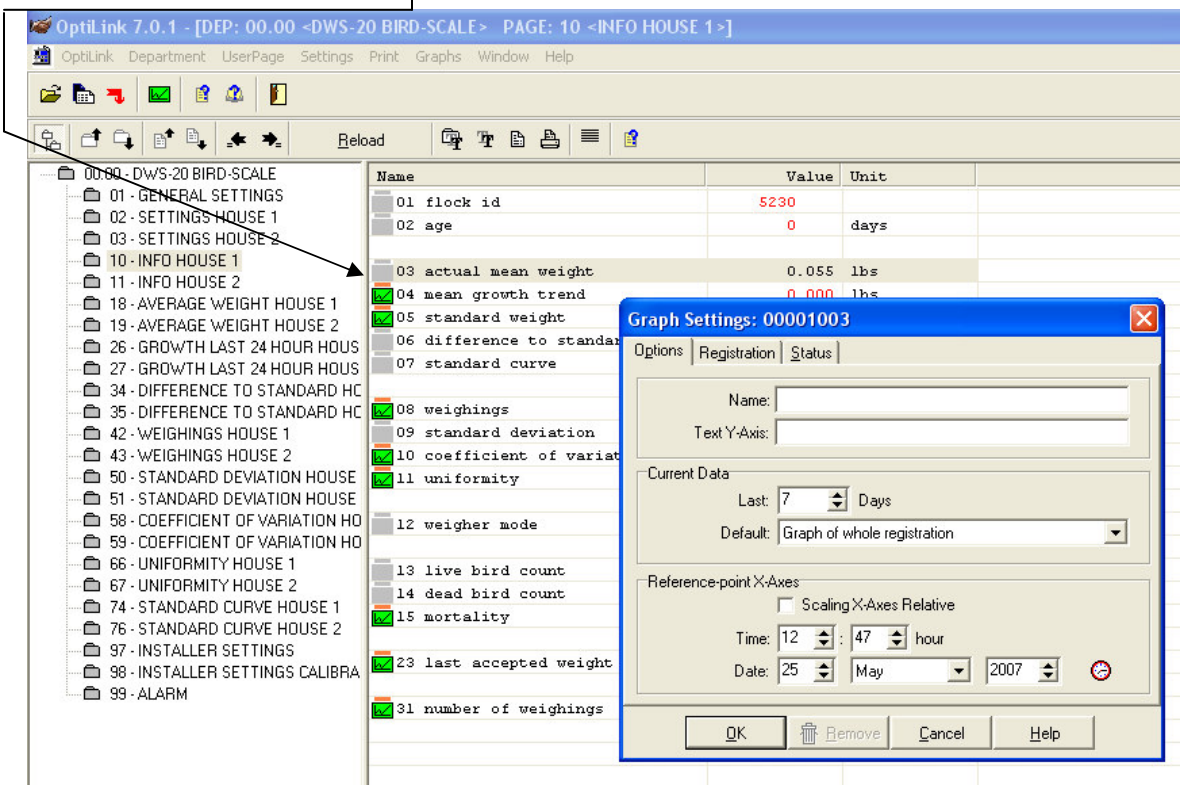
To start the graphing, scroll up to the **"open department"** icon and "left click". When the dialogue box is finished loading, "left click" on **10 INFO HOUSE 1.** A page similar to this one will appear without the green boxes. These boxes mean that the system has already been set up for graphing. Not everything needs to be graphed.



Here is how to graph a line:
"Right click" on the gray box at the left side of the line to be graphed and a **"Graph Settings"** box will appear. This will have to be filled in.

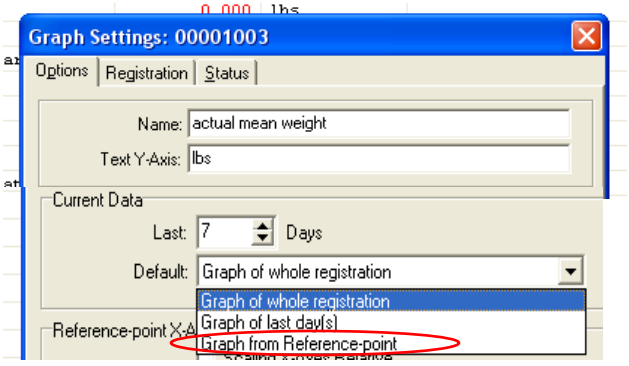
Lines 01 flock id and **02 age** do not need to be graphed.

Line 03 actual mean weight:
"Right click" on the little grey square to the very left of the line to open the **"Graph Settings"** dialogue box.



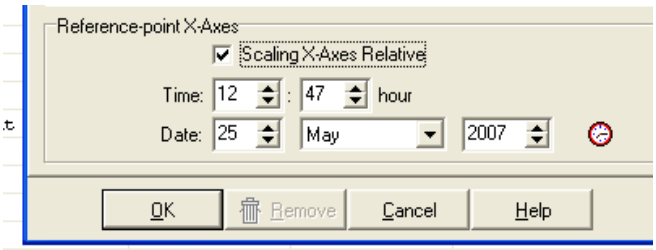
The dialogue box appears as above.

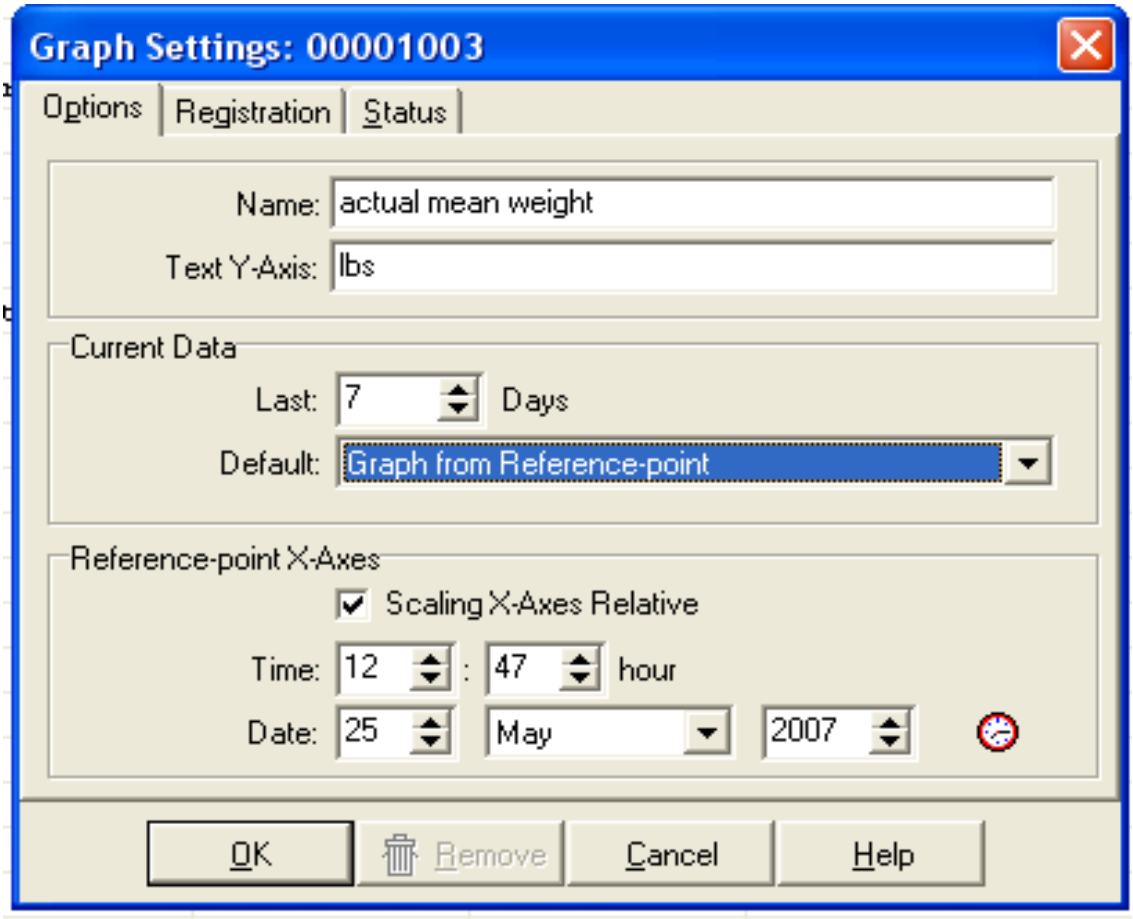
The **"Graph Settings"** box is ready to be filled in.
At first line **"Name"** type in "**actual mean growth"** and in the **"Text Y-Axis" line** type in **"grams" or "lbs"**.



For the **"Current data"** line leave as **7 days.** For the **"Default"** line, if you "left click" on the scroll bar, it will open up with three options as seen below.
Choose **"Graph from Reference-point"**

For the **"Reference** point **X Axes"** "left click" to check ✓ **"Scaling X-Axes relative"**
In the **"Time" and "Date"** line check to make sure that the time and dates are correct. If not, use the scroll bars to adjust them.





To start the flock automatically, "left click" on the **"Internal Clock"**  icon.
The current time and date will be displayed and registered as the start time of the new flock. However, by using this feature, if you had previous information typed in, it will be lost and will have to be re-entered.

Before you finish this, "left click" on the **"Registration"** tab next to the **"Options"** tab.

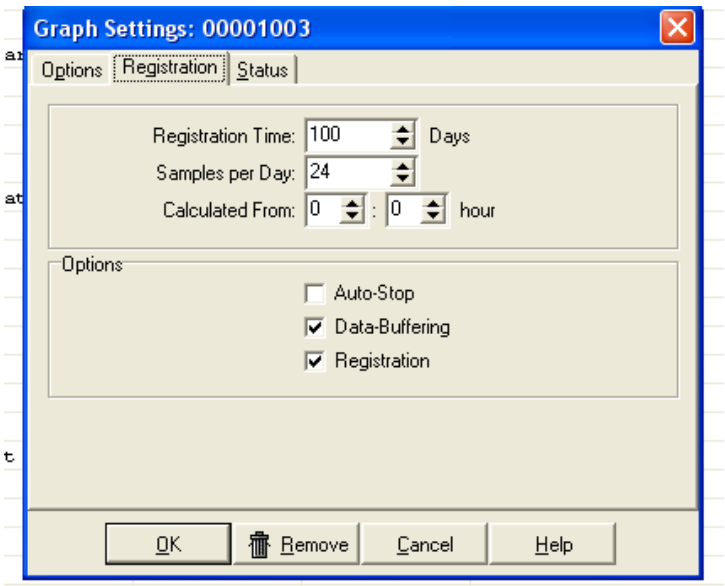
In the **"Registration Time" line** type in **"100"** days.

In the **"Samples per Day" line** type in **"24".**

In the **"Calculated from"**: The default is **"0"** but can be changed to suit your needs.

Do not check ✓the **"Auto-Stop" line**.

"Left click" to place a ✓ mark in the **"Data-Buffering and Registration"** boxes.



When finished, "left click" on the **OK** box.

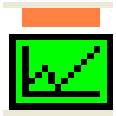
You have now finished the graph process for **line 03 actual mean weight.**

This process will have to be repeated for each line that you want graphed. The most common lines to graph are **lines 03, 04, 05, 06, 08,10,11, 15, 23, 31, 39, 40, 44, 45, 46.**

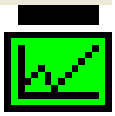
If you no longer want or need a graph, "left click" on the **"Remove"** tab and it will be deleted from the system.

GRAPH PROGRAM INDICATORS

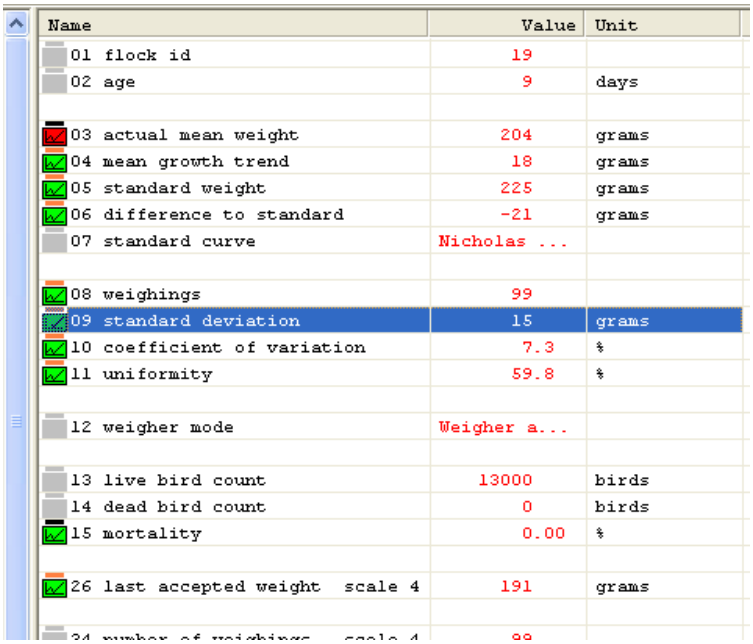
When the left hand column shows coloured boxes and bars on various lines, this indicates that graphing has been activated.



Green box & Peach bar indicates that:
-Data Buffering is Activated
-Registration is Activated
-Normal Status



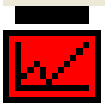
Green box & Black bar indicates that:
-Data Buffering is Deactivated
-Registration is Activated
-Use this setting when connected to a dedicated P/C



Name	Value	Unit
01 flock id	19	
02 age	9	days
03 actual mean weight	204	grams
04 mean growth trend	18	grams
05 standard weight	225	grams
06 difference to standard	-21	grams
07 standard curve	Nicholas ...	
08 weighings	99	
09 standard deviation	15	grams
10 coefficient of variation	7.3	%
11 uniformity	59.8	%
12 weigher mode	Weigher a...	
13 live bird count	13000	birds
14 dead bird count	0	birds
15 mortality	0.00	%
26 last accepted weight scale 4	191	grams



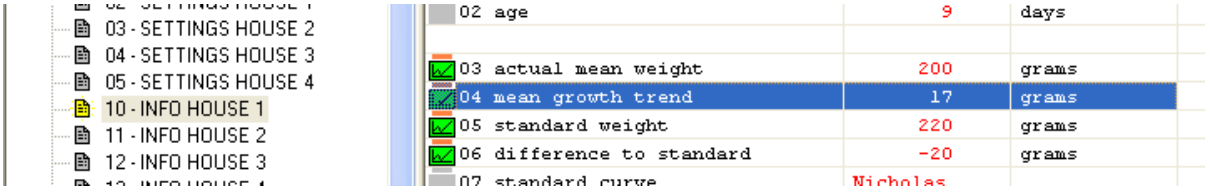
Red box & Peach bar indicates that:
-Data Buffering is Activated
-Registration is Deactivated



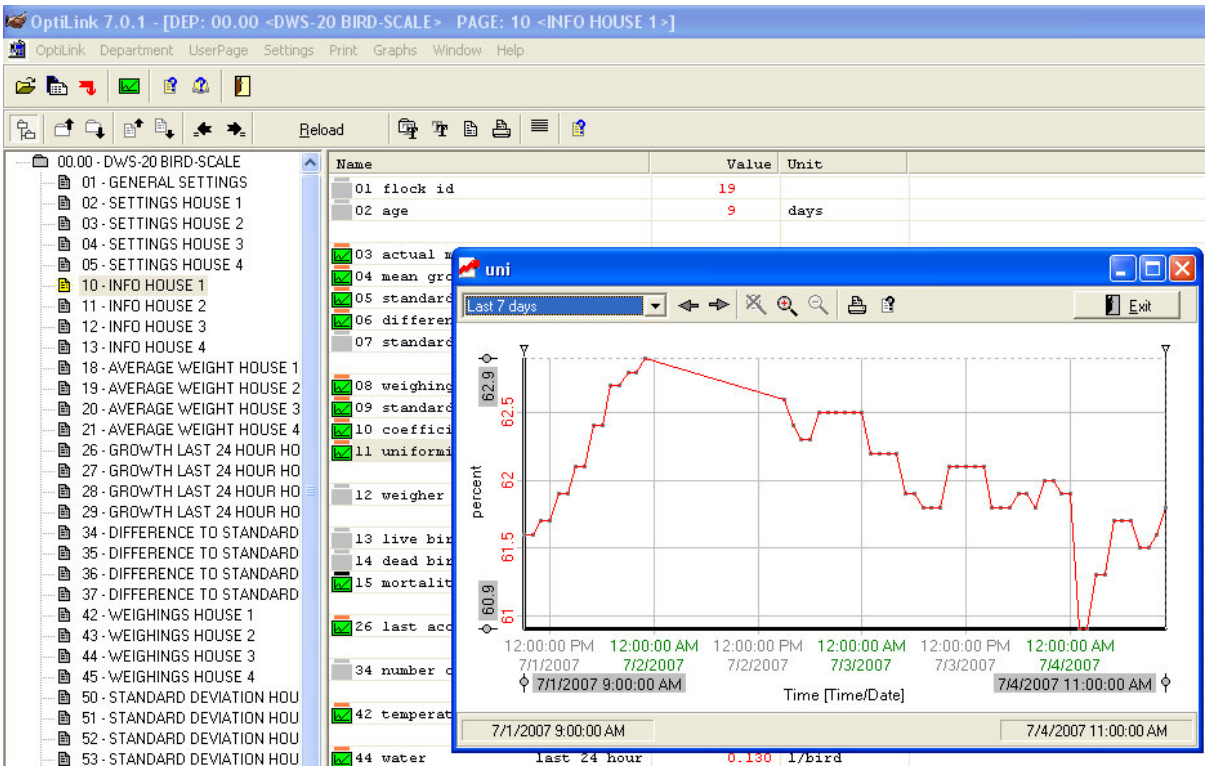
Red box & Black bar indicates that: -Data Buffering is Deactivated.
-Registration is Deactivated.

GRAPHS

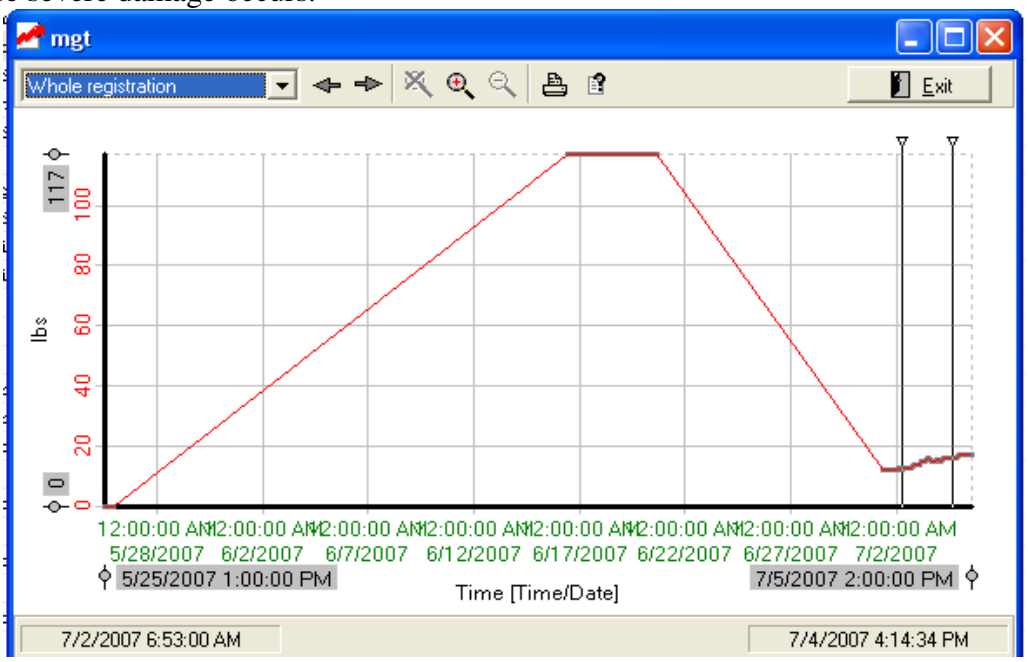
After 24 hours of operation, the **SENTINEL SCALE** will have gathered enough information to show on a graph. To look at a graph, choose the line that you want to see a graph of and "left click" on it so that it turns blue.



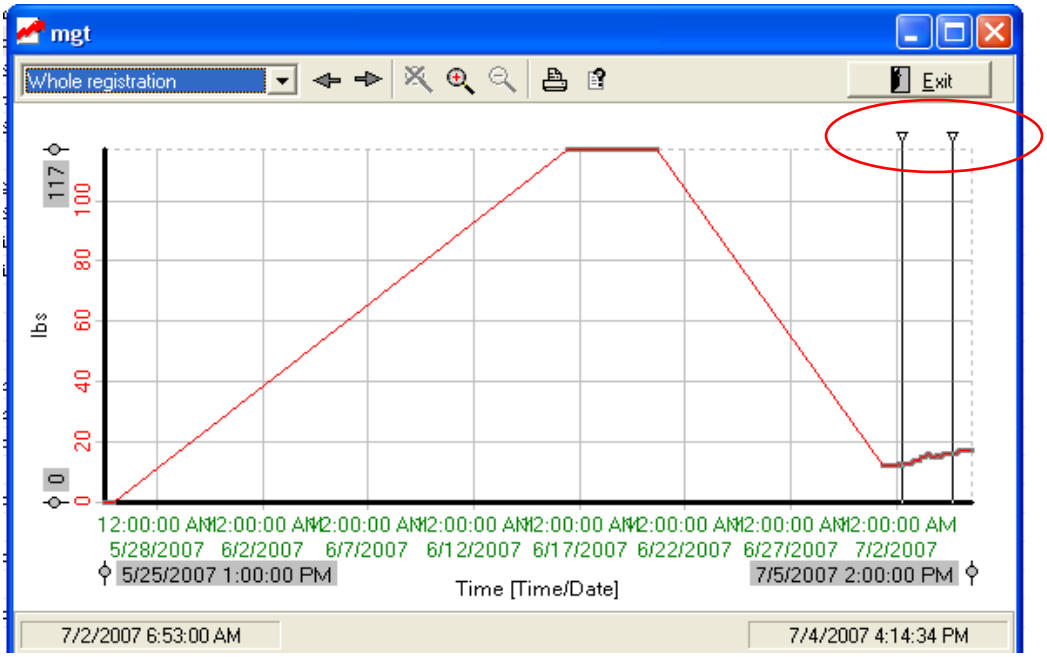
Next scroll over to the green icon and "left click" on it. A graph will appear such as the one below:



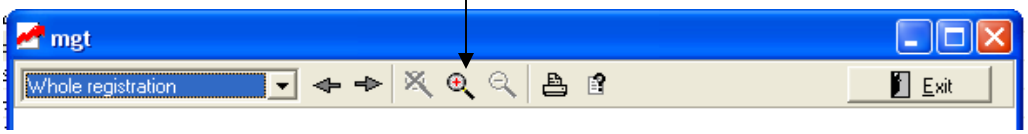
It is possible to examine various parts of the graphs. Because the graphs gather information from the start of the flock to the finish of the flock, you may want to look at a specific time or day within the graph. This can be opened up and expanded to give you a better look at this specific data to help you diagnose any problems and make corrections before severe damage occurs.



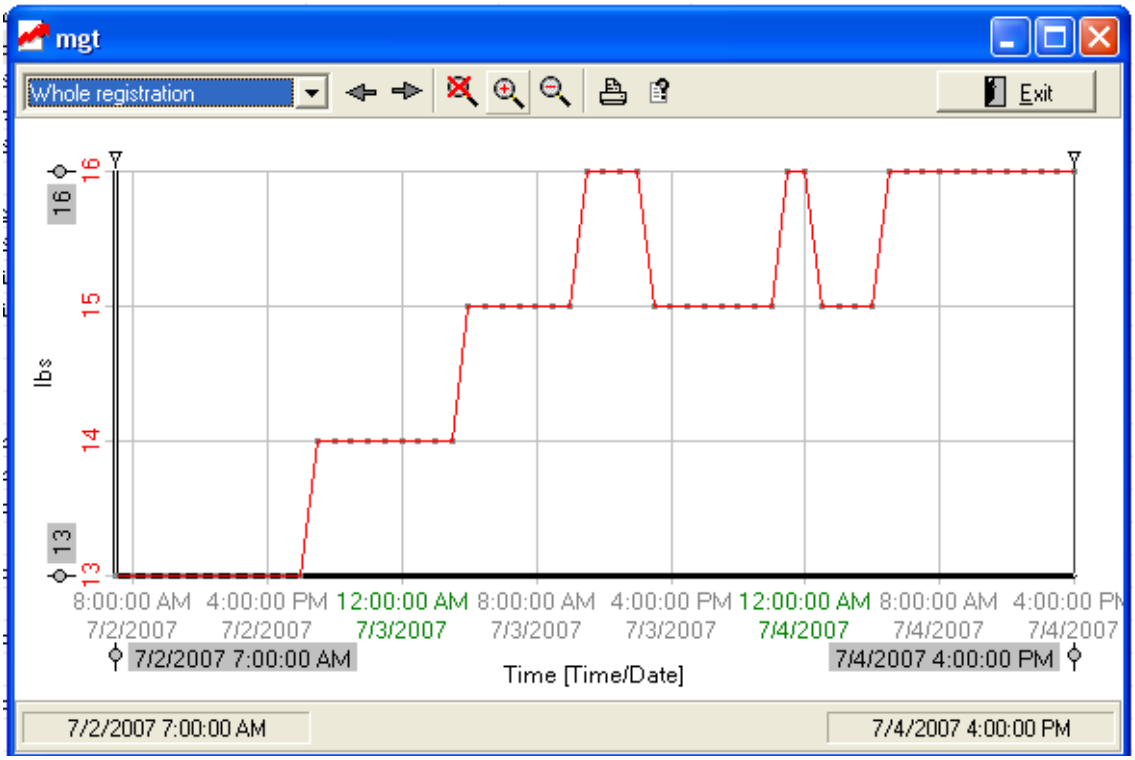
This is what the whole graph looks like. This graph has a time frame of **May 25, 2007 at 1 PM to July 5, 2007 at 2 PM.** To look at the time frame of July 2 to July 4, position the cursor over the first triangle ▼ at the top left corner of the graph. The cursor will turn to a vertical double line when placed correctly over it. "Left click", hold and drag the mouse to the point that you want. Repeat the process for the right triangle ▼.



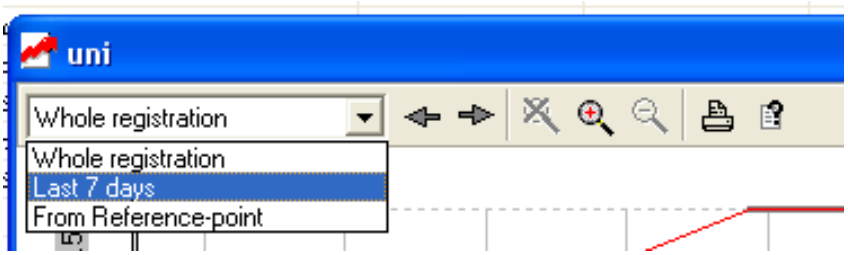
To zoom in on the graph for the time selected, "left click" on the "**Magnifying Glass with the + in the middle"**



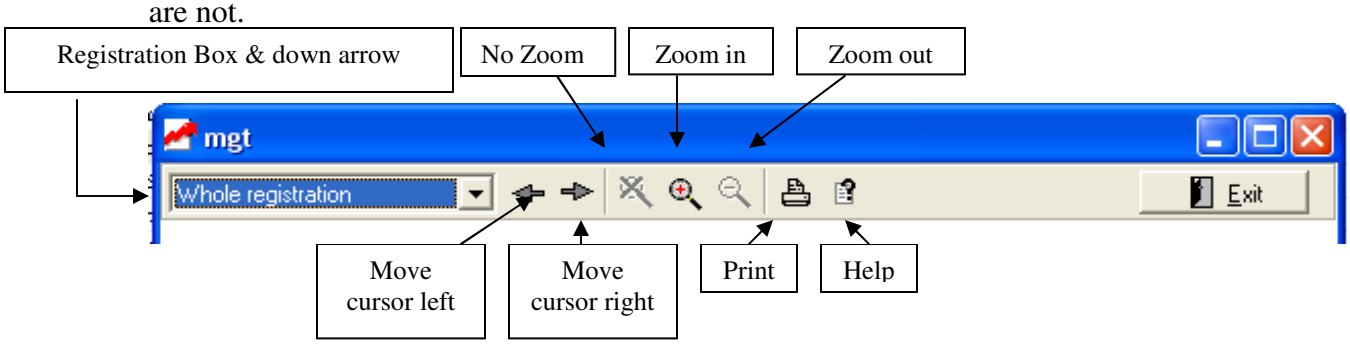
This will open the graph to the designated area:



This is for the whole registration. To see the **"Last seven days**" or from **"From reference point"** "left click" on the **Whole registration** tab and it will open up to give you the options. This will change the graph to show the last week of data or from whatever reference point you select.



The tool bar for graphing has other functions as well. Some icons are active and others are not.

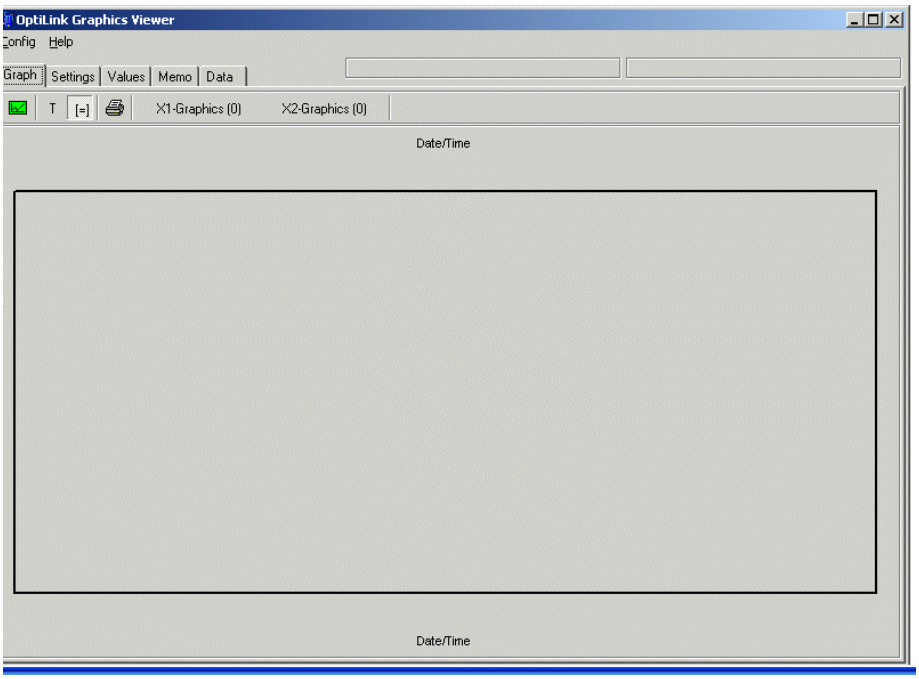


The **"No Zoom"** icon is not active. The **"Zoom Out"** icon is only active when an area has been selected and the **"Zoom In"** icon has been used. Then the **"Zoom Out"** icon will be active to return to the original graph.

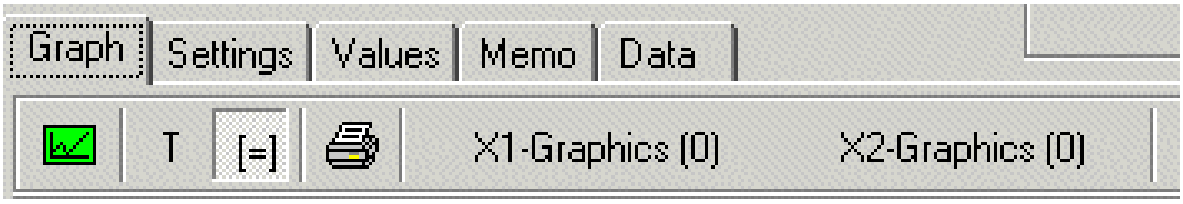
Any line that has been activated for graphing will work with his process.

FURTHER GRAPHING

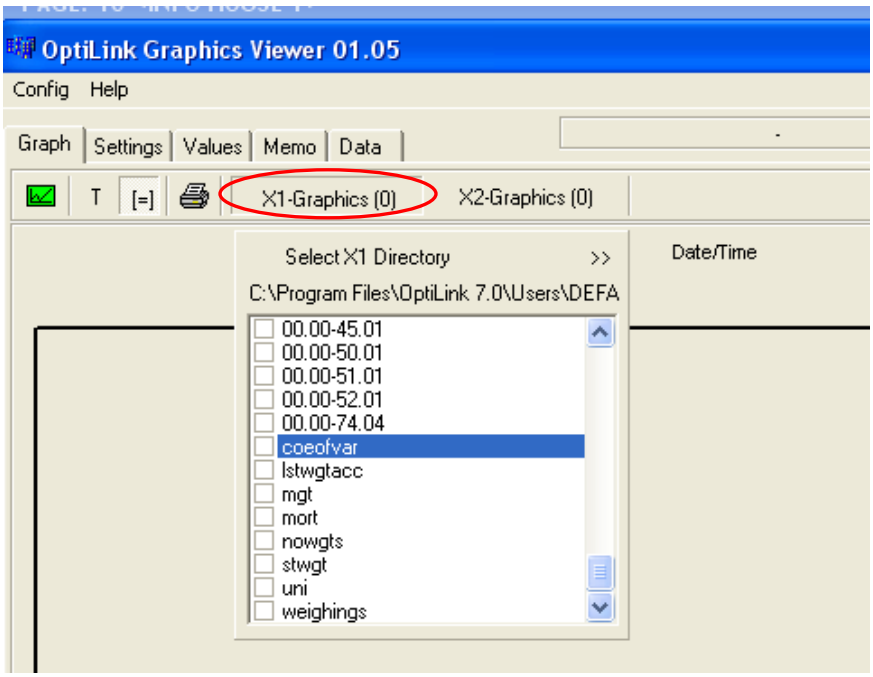
Another Graphing Utility exists to allow you to compare two or more graphs at once. It is accessed by "left clicking" the green icon **Graphing Utility**  The following screen opens:



Across the top of the screen are the following tabs which will be described in more detail later:



To create a graph "left click" on the **X1-Graphics** tab.



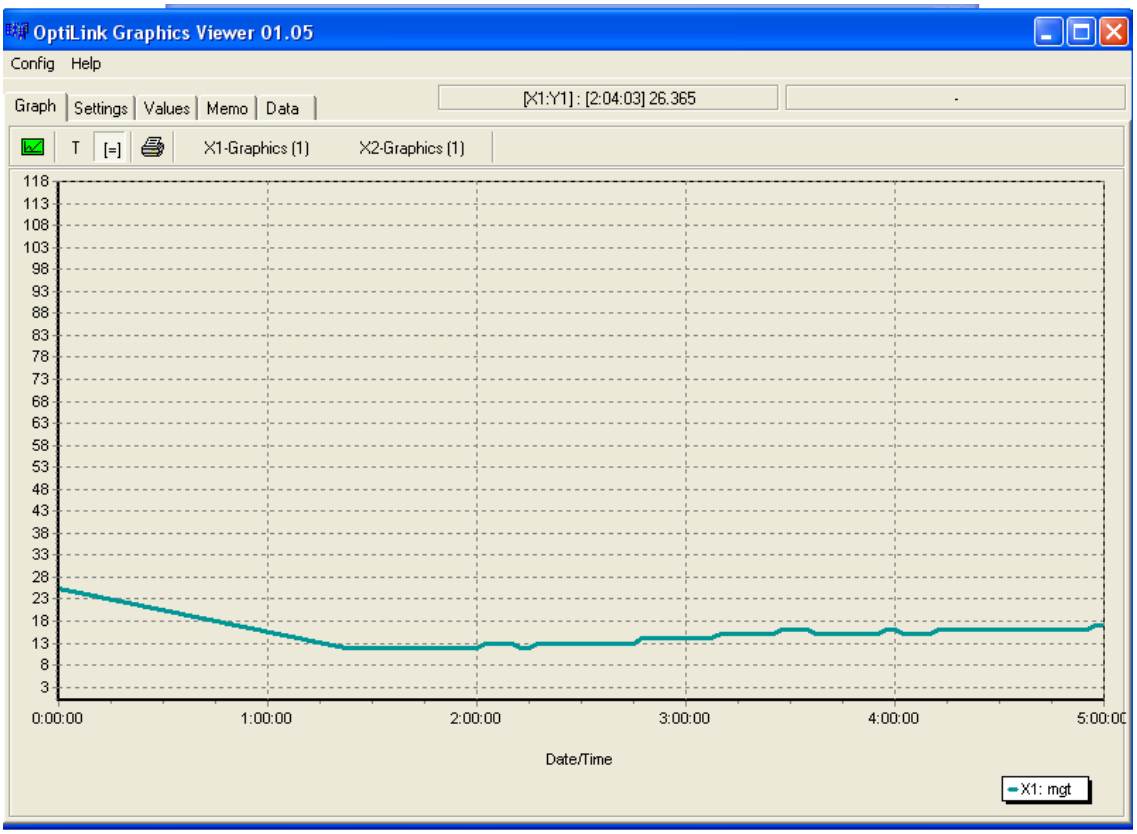
"Left click" the box to the left of what you want to graph. A checkmark will appear in the box and a line will appear on the graph.

Most of the options in the **X1-Graphics** drop down menu are numbers. The main graphs of interest are found by scrolling down to the bottom of the list. The abbreviations are:

coeofvar: Coefficient of Variation
lstwgtacc: Last weight accepted
mgt: Mean growth trend
mort: Mortality
nowgts: Number of weighings
stwgt: Standard weight
uni: Uniformity
weighings: Weighings

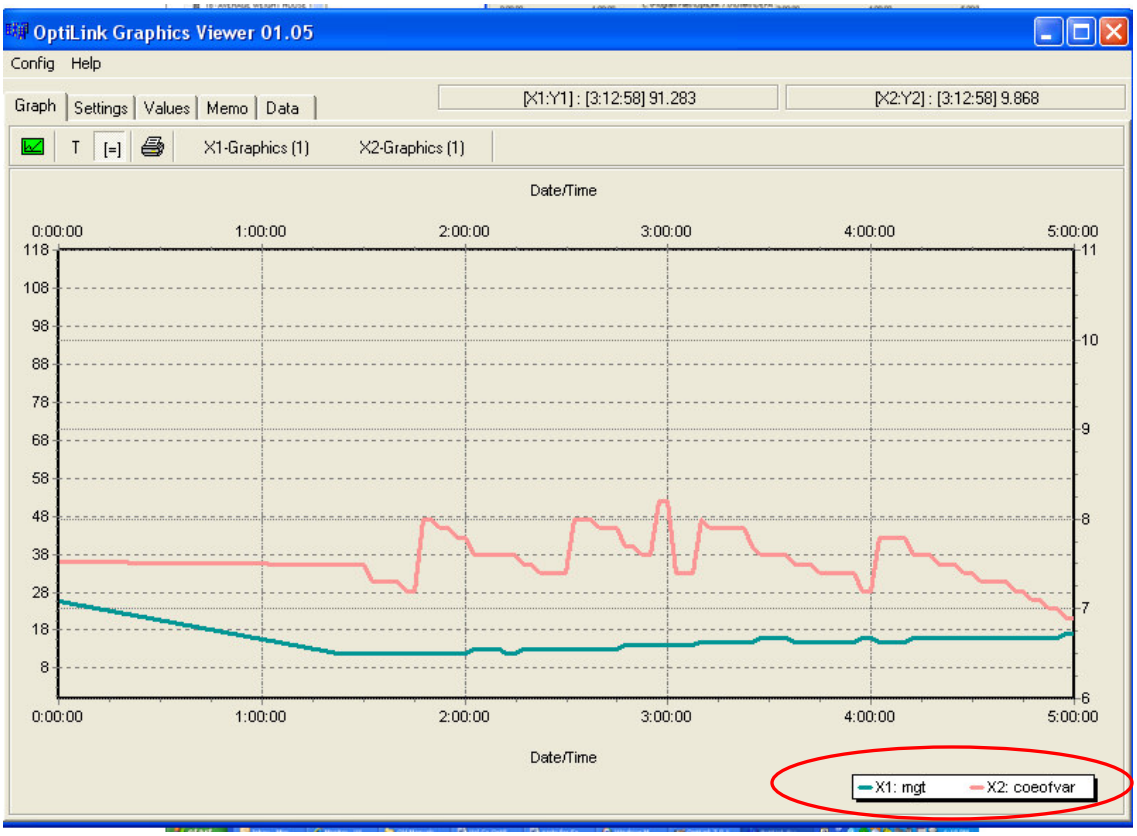
You will also find the names of any graphs that you set up before in the section on Setting Up the Graphs. The name you input will be available as a choice here.

In this example we have selected **mgt** for mean growth trend



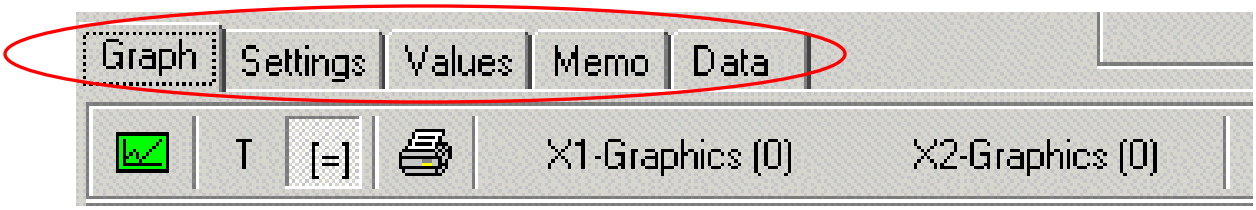
To create the second overlay graph "left click" on the **X2-Graphics** tab. A similar drop down menu to **X1-Graphics** will appear. The selections are the same. "Left click" the box to the left of the graph desired. A checkbox will appear in the box to indicate your selection and a line will show up on the graph.

In this example we have selected **coefovar** for Coefficient of variation:



The label for the Y-axis for X1 is on the left hand side of the graph. The label for the Y-axis for X2 is on the right. A legend describing which color line is which appears in the bottom right hand of the window.

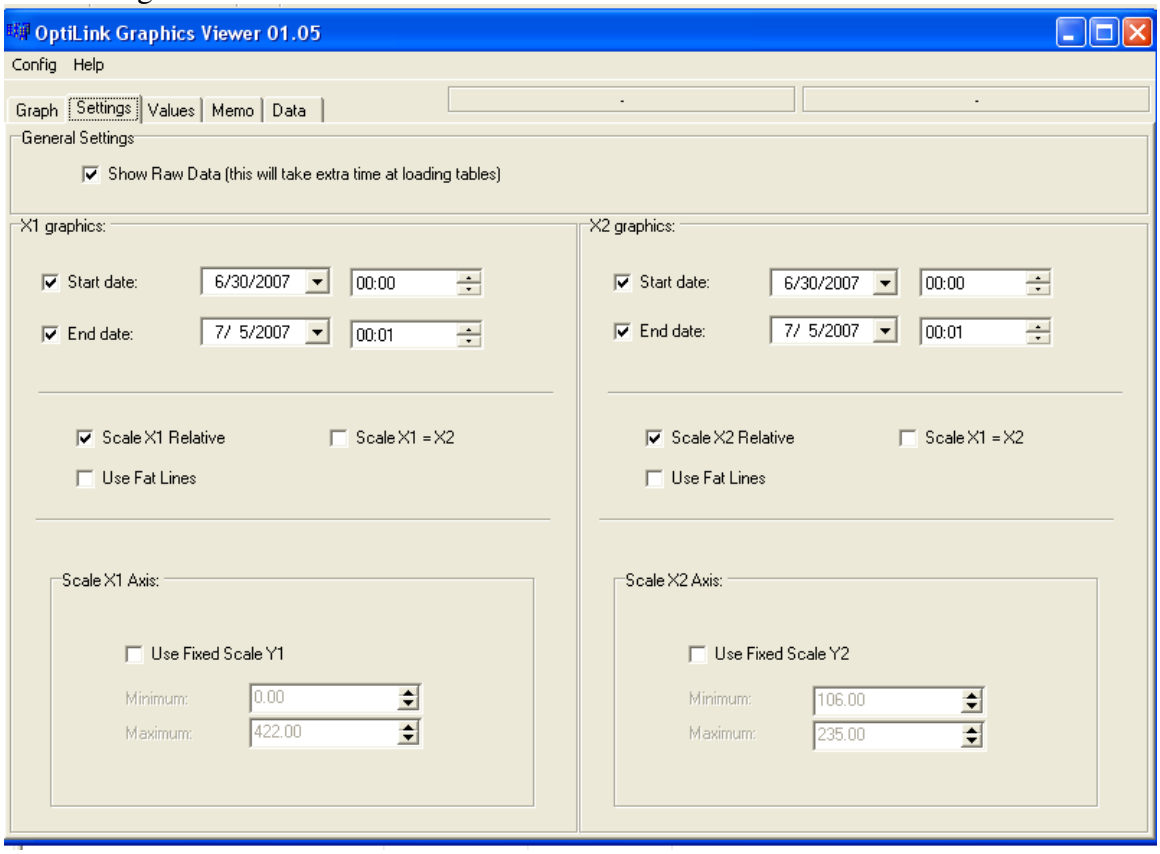
The following tabs now come into play:



The **Graph** tab shows the pane with the created graphs.

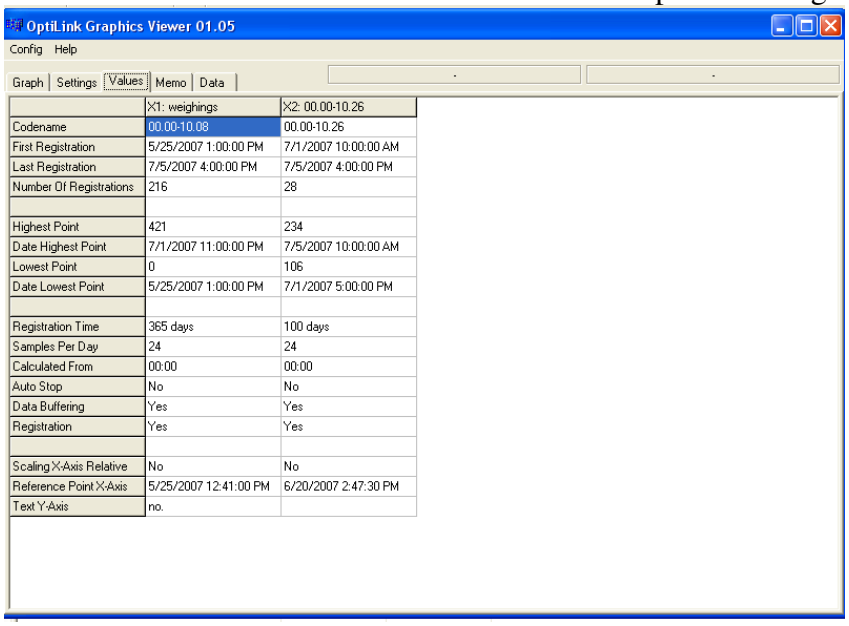
The **Settings** tab allows you to make changes to the graphing utility, an example of the **Settings** view is on the next page:

The Settings view:



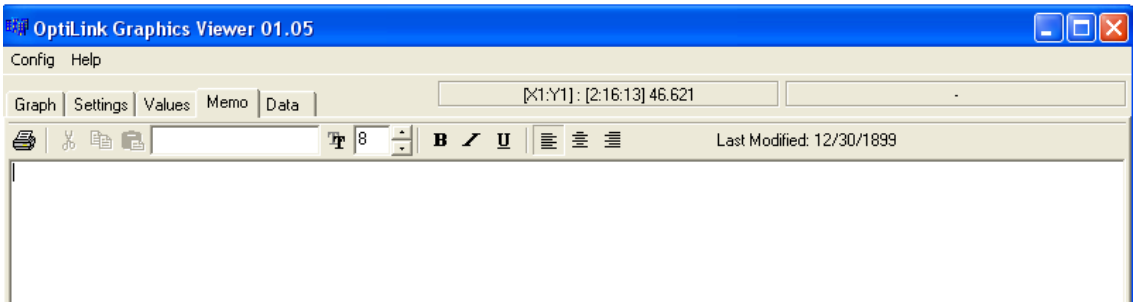
In this view you can change the range of the graphs and adjust the thickness of the lines and scale of the axes. Experiment with the settings to find what looks best to you.

The Values tab shows in numerical format a description of the graphs for X1 and X2:

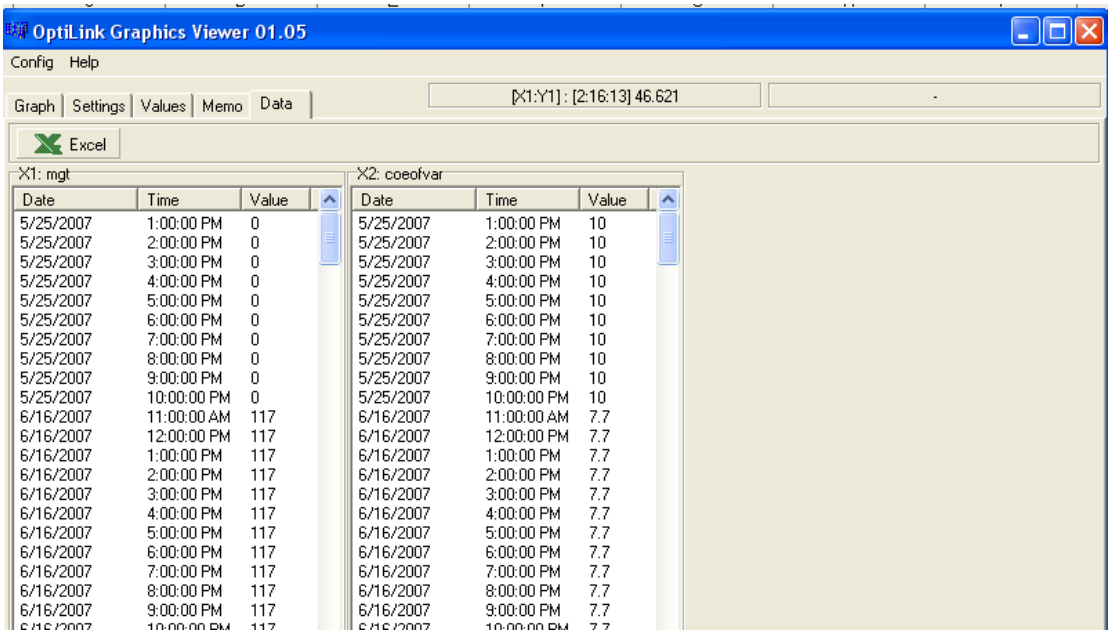


	X1: weighings	X2: 00.00-10.26
Codename	00.00-10.08	00.00-10.26
First Registration	5/25/2007 1:00:00 PM	7/1/2007 10:00:00 AM
Last Registration	7/5/2007 4:00:00 PM	7/5/2007 4:00:00 PM
Number Of Registrations	216	28
Highest Point	421	234
Date Highest Point	7/1/2007 11:00:00 PM	7/5/2007 10:00:00 AM
Lowest Point	0	106
Date Lowest Point	5/25/2007 1:00:00 PM	7/1/2007 5:00:00 PM
Registration Time	365 days	100 days
Samples Per Day	24	24
Calculated From	00:00	00:00
Auto Stop	No	No
Data Buffering	Yes	Yes
Registration	Yes	Yes
Scaling X-Axis Relative	No	No
Reference Point X-Axis	5/25/2007 12:41:00 PM	6/20/2007 2:47:30 PM
Text Y-Axis	no.	

The **Memo** tab is similar to the Notes button in the main Optilink page in that it allows you space to record notes and review them later.

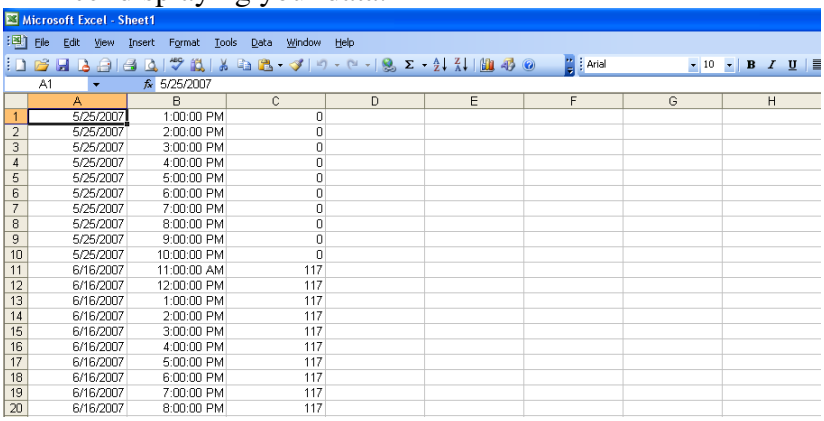


The **Data** tab lets you see the actual numbers making up the points of the graph(s) and export the data to an Excel spreadsheet.

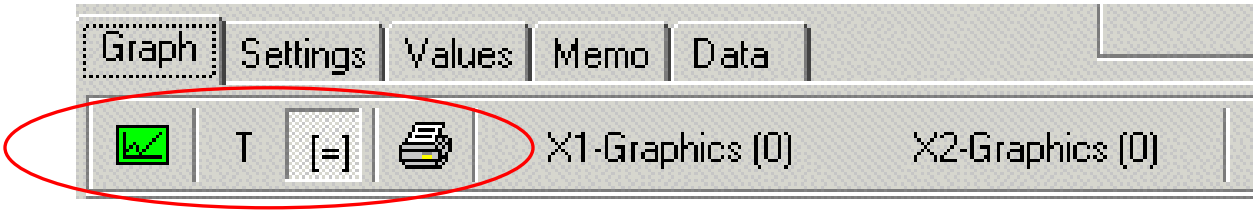


To export the data “left click” the Excel icon: 

This will open a new window in Excel displaying your data:



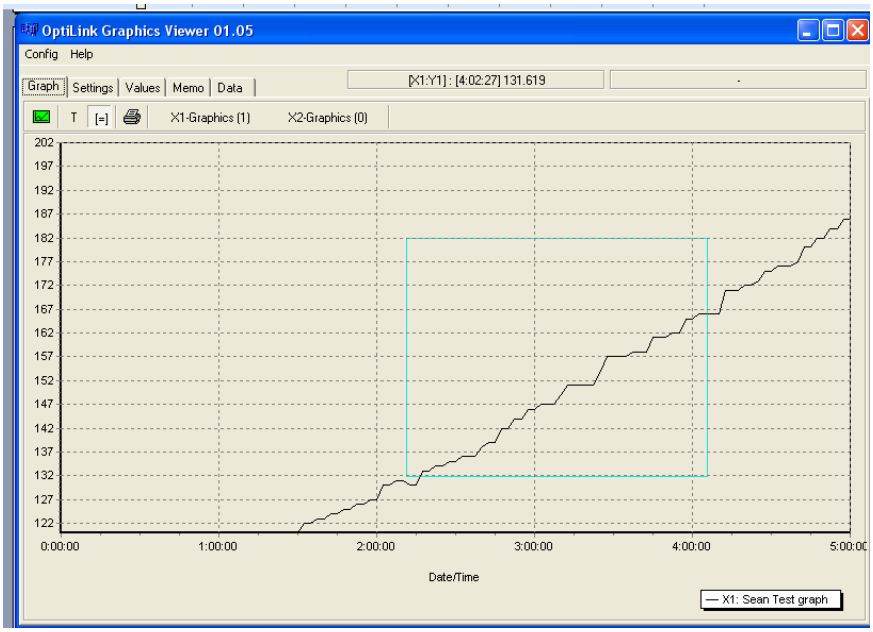
With the graphs set up as you wish, there are a few buttons left to be explained:



The  icon is the **Unzoom All** button. "Left clicking" this button will return the graph to the original viewing size.

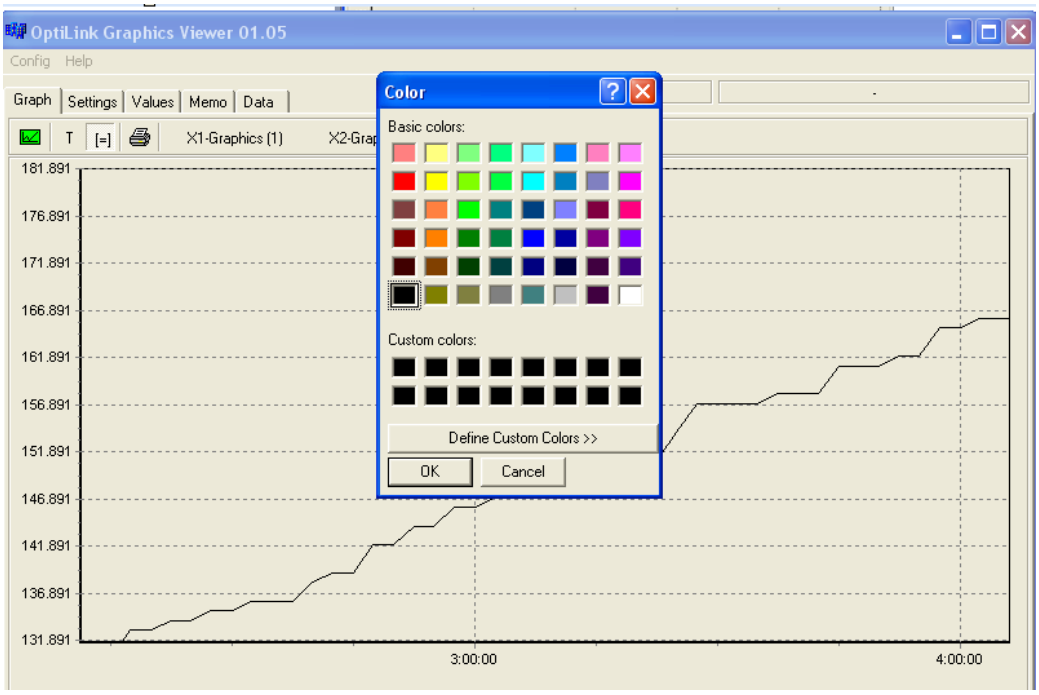
The  icon is the **Zoom Horizontally** button. After "left clicking" this button, position your cursor anywhere on the graph that you wish to zoom in on and "left click". You will see the graph zoom in and the x-axis will spread to reflect the zoom.

The  icon is the **Zoom Window** button. After "left clicking" this button, "left click and hold" on the graph area and drag the mouse to create a box over the area you wish to zoom in on. When you release the left mouse button, the area that you selected will now show as zoomed in:

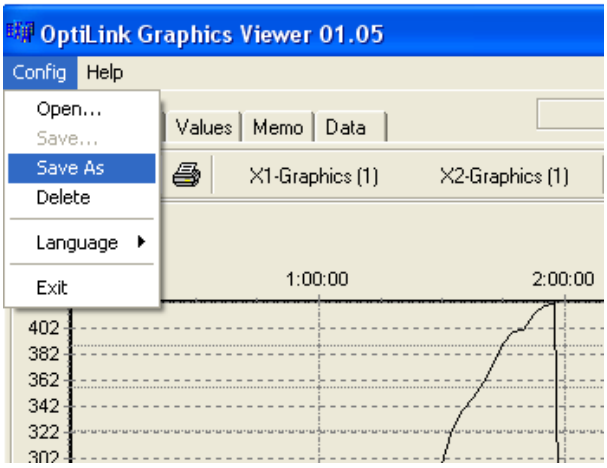


The  icon is the **Print Graph** button. "Left click" this icon to print the graph you have created.

You may also change the color of the lines of your graphs by “left-clicking” the line itself. Doing so will open a color box in the graph so that you may select a color:



Once you have created your graph you may save it for future reference by “left clicking” on the **Config** button in the upper left screen and selecting **Save as…** and then naming and saving your graph. You may open any saved graphs at a later time by selecting **Open…** from the **Config** menu:

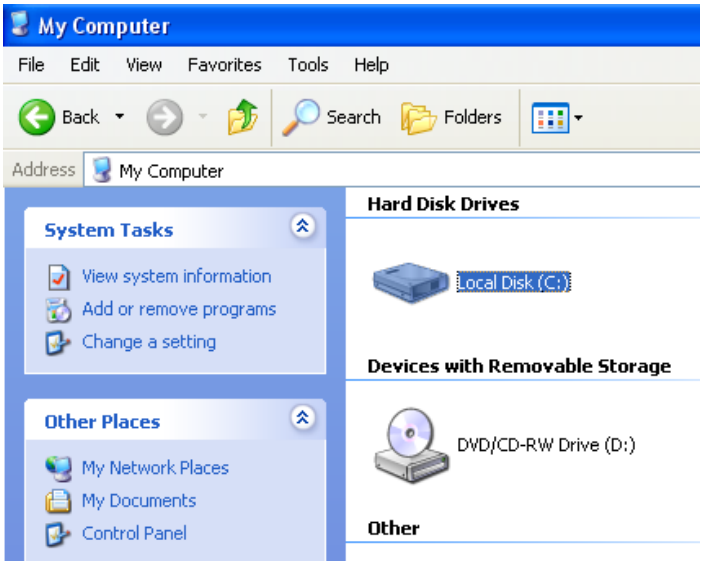


When finished with the graphing utility, select **Exit** from the **Config** menu.

ACCESSING DATA WITHOUT BEING CONNECTED TO THE SCALE

The graphing utility also allows you to view all of the gathered data when disconnected from the scale. To do this, you must first set up the Graph Config file in the default folder of the Optilink program.

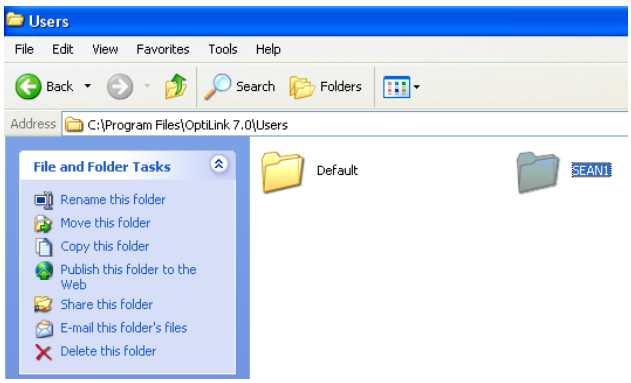
Before disconnecting from the scale, select all of the data that you wish to analyze offline by checking the boxes in the X1 and X2 menus (see prior). Save the Config as a name you will remember. Exit from Optilink and disconnect from the scale.

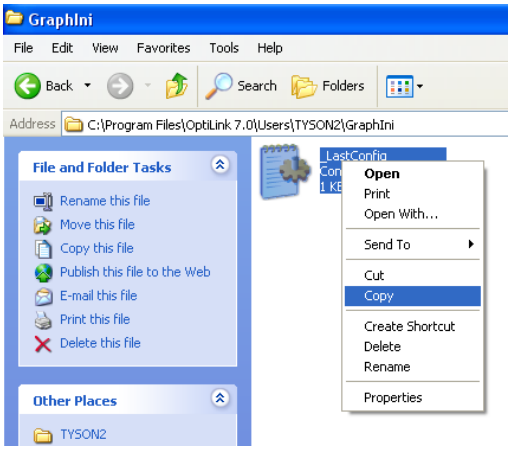


"Left click" on the start menu, "Double left-click" **My Computer.** (NOTE: My Computer may be found as an icon on the desktop). "Double left-click" **Local disk (C:).**

"Double left-click" **Program Files.** "Double left-click" **Optilink 7.0** "Double left-click" **Users.**

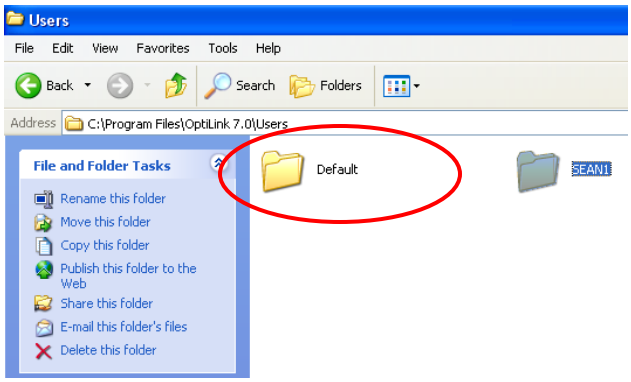
"Double left-click" the folder of the farm that you just were connected to, then "double left-click" **GraphIni.**

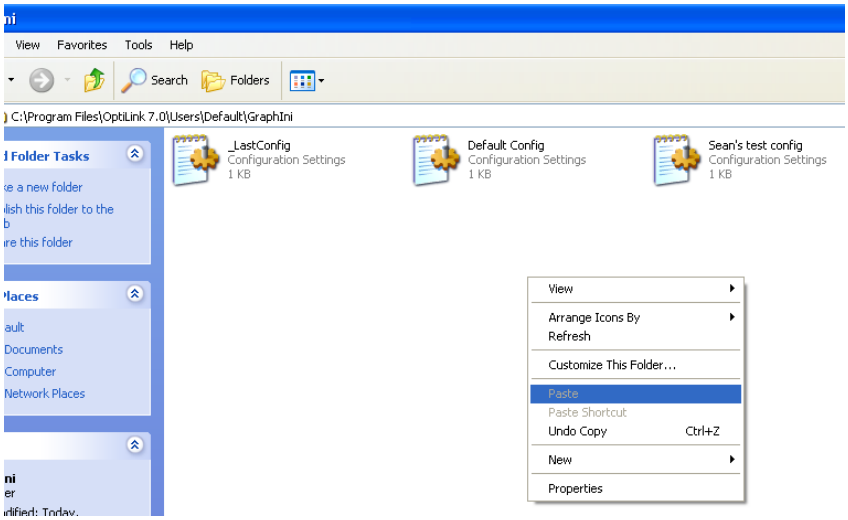




In this folder you will see a file with the name of the Config graph file you just saved. "Right-click" on this file and "left-click" **Copy**.

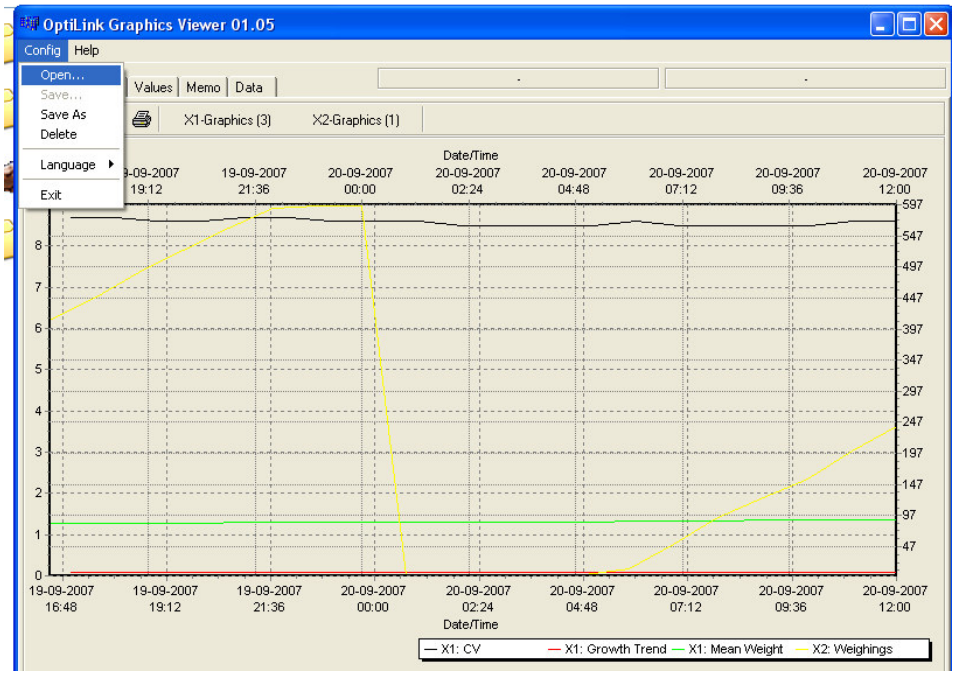
Next go back up one level to where you saw your farm folder in the Users file. You will also see a folder labelled **Default**. "Double left-click" **Default** and "double left-click" **GraphIni.**





Right click on a blank space and "left-click" **Paste**. You should now have a copy of your graph file saved in the Default Users folder.

Now you may open the Optilink Graphics viewer by going up until you see **OL_Graph**, it will be in the **C:\Program Files\Optilink 7.0** folder. "Double left-click" on it to open the Graph program independent of the main Optilink program. Now "left-click" the **Config** menu, and "left-click **Open…**

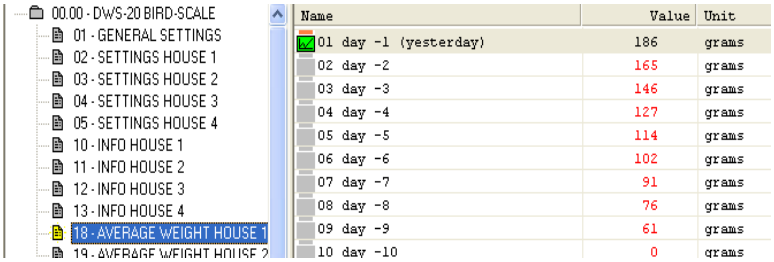


Select your file from the list and click OK. You may now view all of the data from the scale just accessed. Every time you reconnect to the scale this graph will automatically update itself with the latest data.

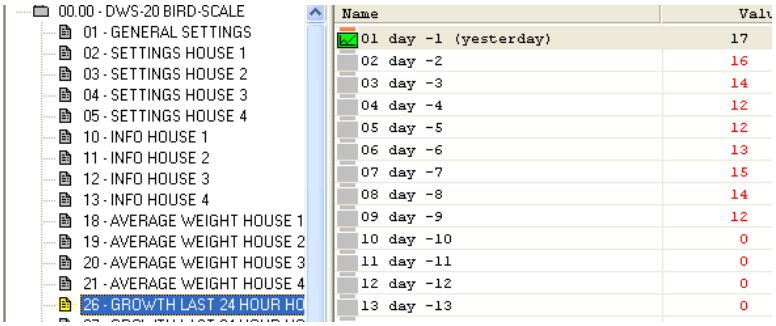
HISTORY PAGES

History Pages keep track numerically for up to fifty days back in time. Each page will change at midnight with new data.

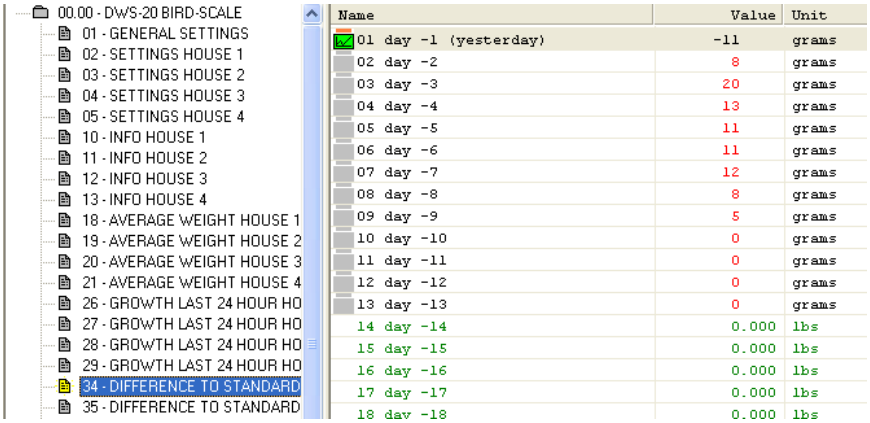
Average Weight House 1-4 (page 18 - 21)
01 day -1 yesterday at midnight
02 day -2 2 days back
⇩ down to
50 – day 50
50 days back in time.



Growth Last 24 Hour House 1-4 (page 26 - 29)

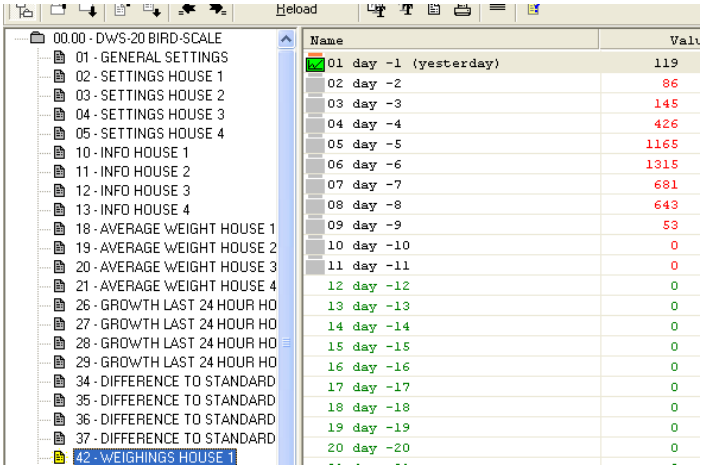


Difference To Standard House 1-4 (page 34 – 37)

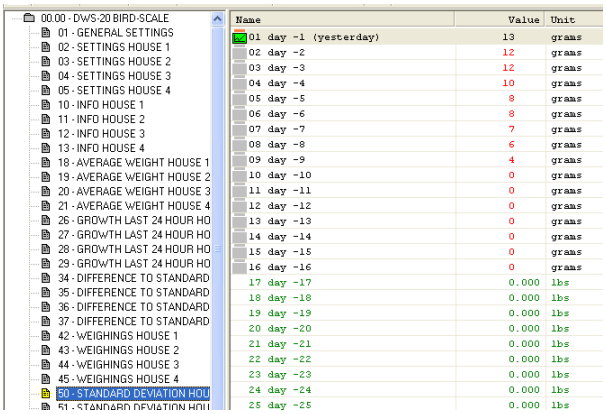


All of these are history pages and will change at midnight of each day a long as the house is turned on.

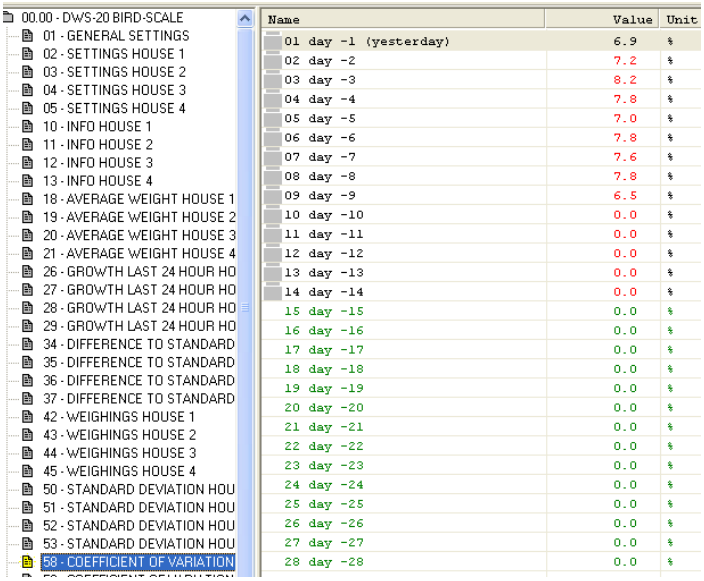
Weighings House 1-4 (page 42 – 45)



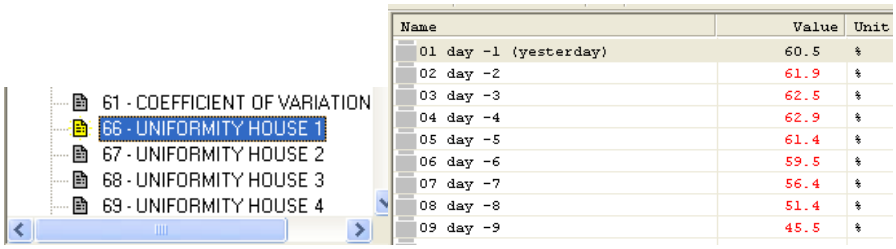
Standard deviation House 1-4 (page 50 – 53)



Coefficient of Variation House 1-4 (page 58-61)



Uniformity House 1-4 (page 66 – 69)

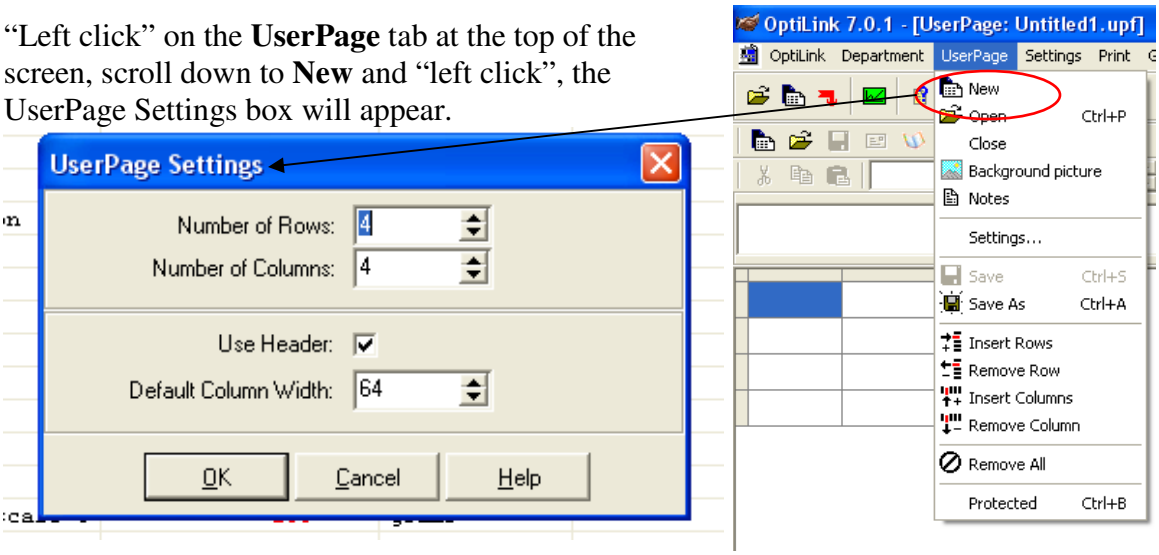


USER PAGES

User Pages are tools that can be used by the end user to compile important data automatically so that customized reports are available anytime. User pages can even be set to email or print automatically.

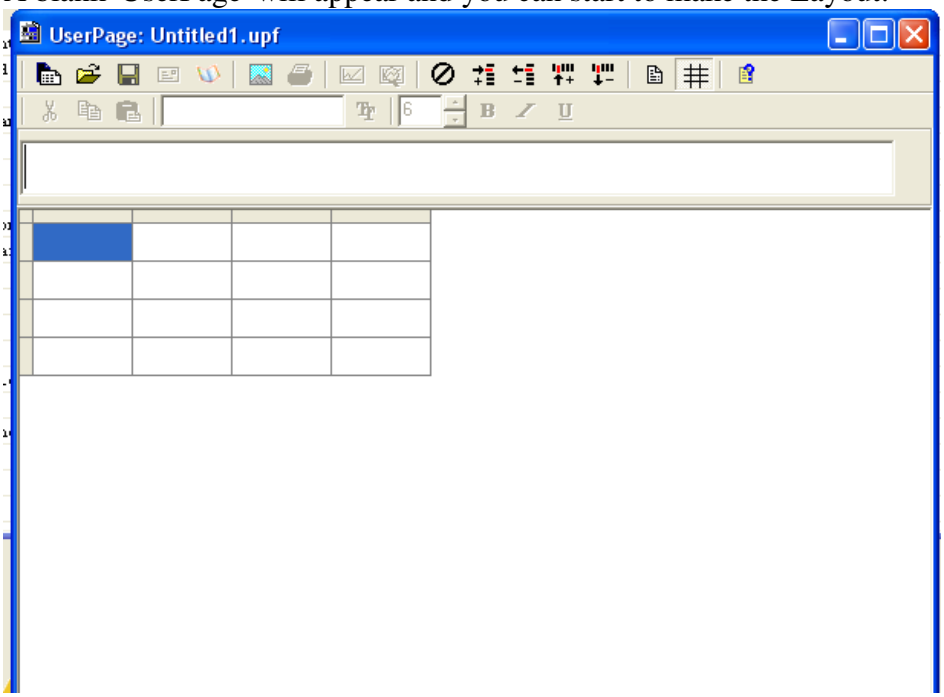
You can make your own 'UserPage' as follows:

"Left click" on the **UserPage** tab at the top of the screen, scroll down to **New** and "left click", the UserPage Settings box will appear.

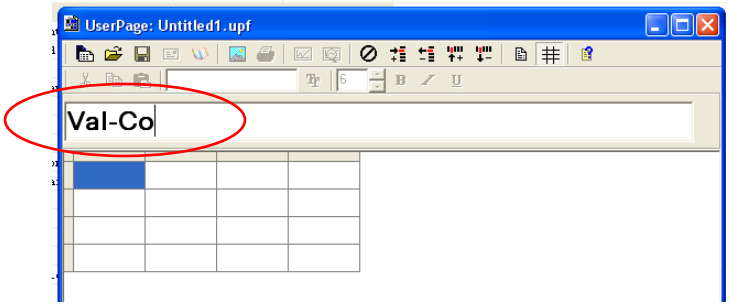


Select how many rows and columns you desire based on the amount of data you wish to compile. Click OK when all settings for the 'UserPage' are done.

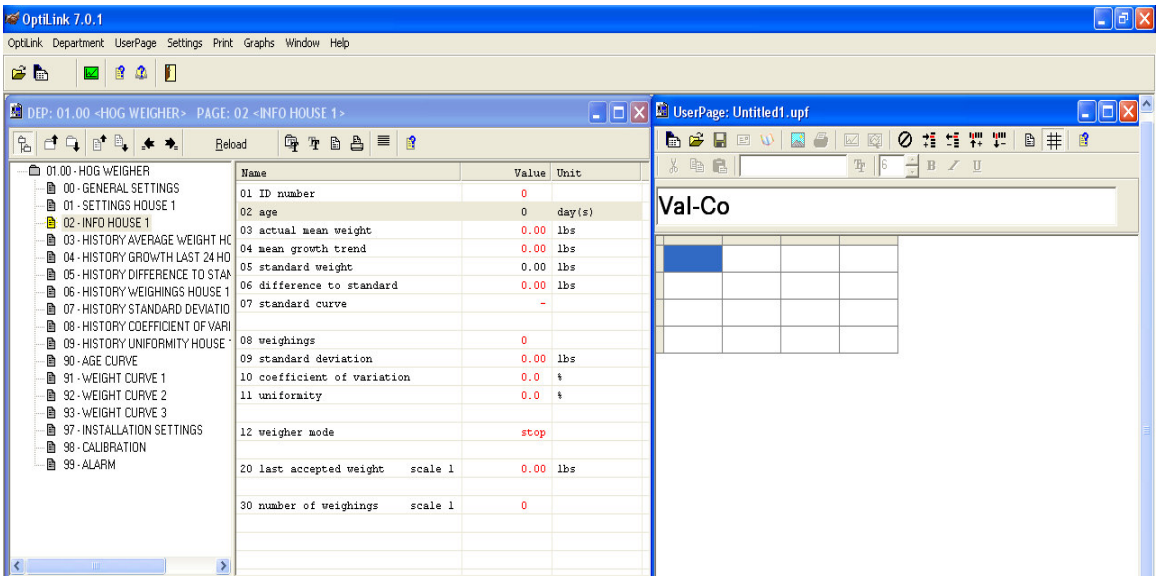
A blank 'UserPage' will appear and you can start to make the Layout:



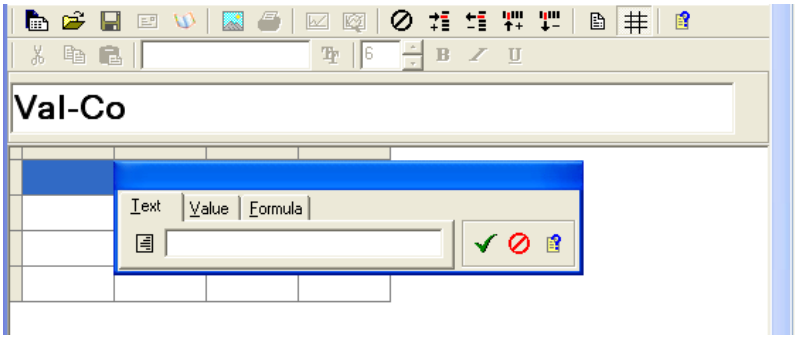
To fill in a UserPage, first “left click” on the header and type in the name for your page:



Then begin to compile your page. It is handy to have two windows open at this point: the UserPage, and the Dept page that you will be getting data from.

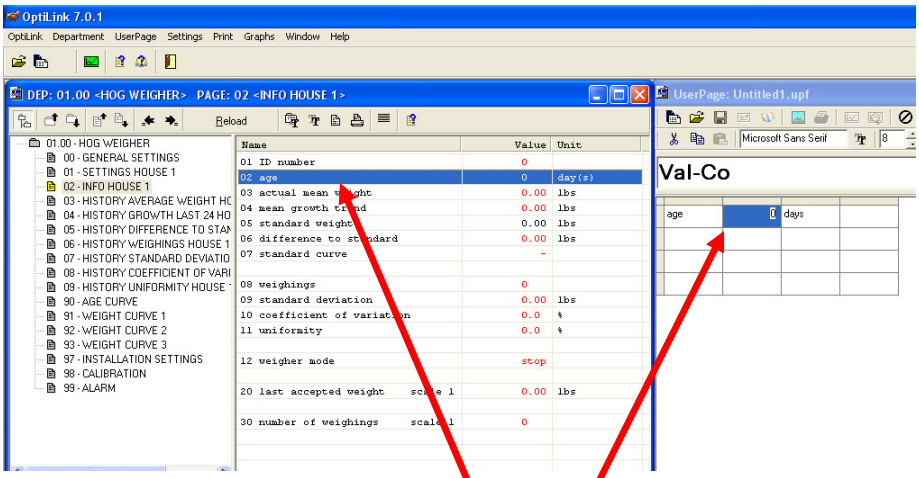


In the UserPage, “double left click” the cell that you wish to begin with. In this example we will start with the top left cell. This will bring up the text entry box:



Enter the label desired and “left click” the green check mark button.
To enter a value into the next cell, “left click” on a line (setting, measurement or calculation) in the Department/Page window and hold down the left mouse button; drag

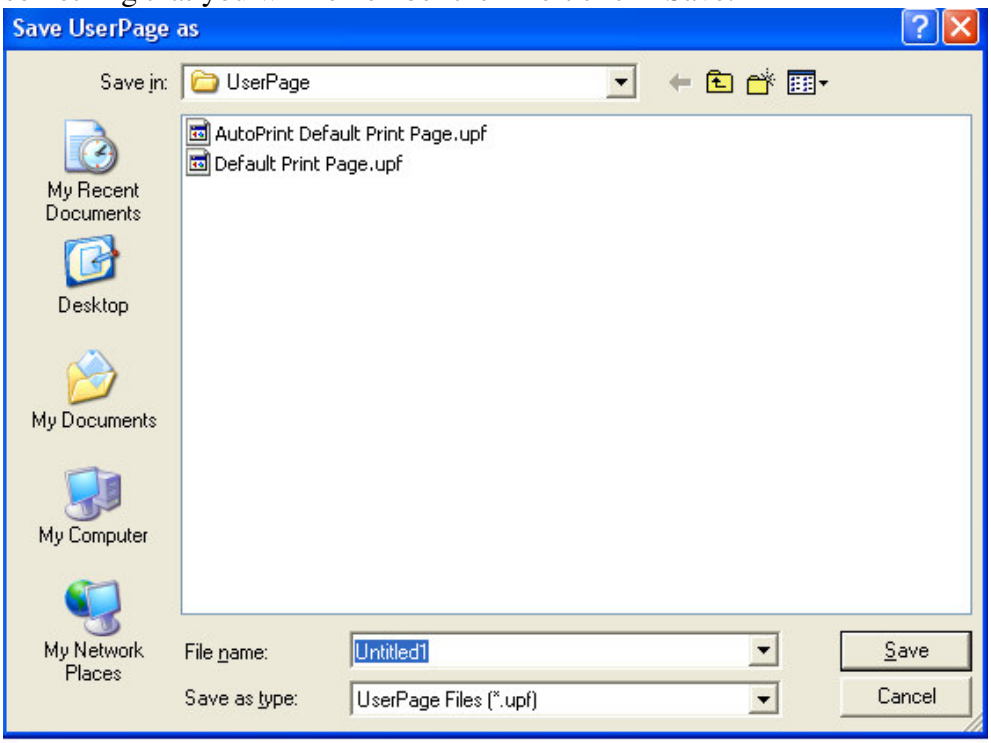
the data to the desired cell in the 'UserPage' and release the mouse button. See example below:



"Left click & Hold" and drag from here to here then release the mouse button.

The data will automatically populate in the UserPage. Continue to fill in the remainder of the page with the desired data until satisfied.

When finished, "left click" the  icon to save your work. Make sure to name the file something that you will remember then "left click" Save.

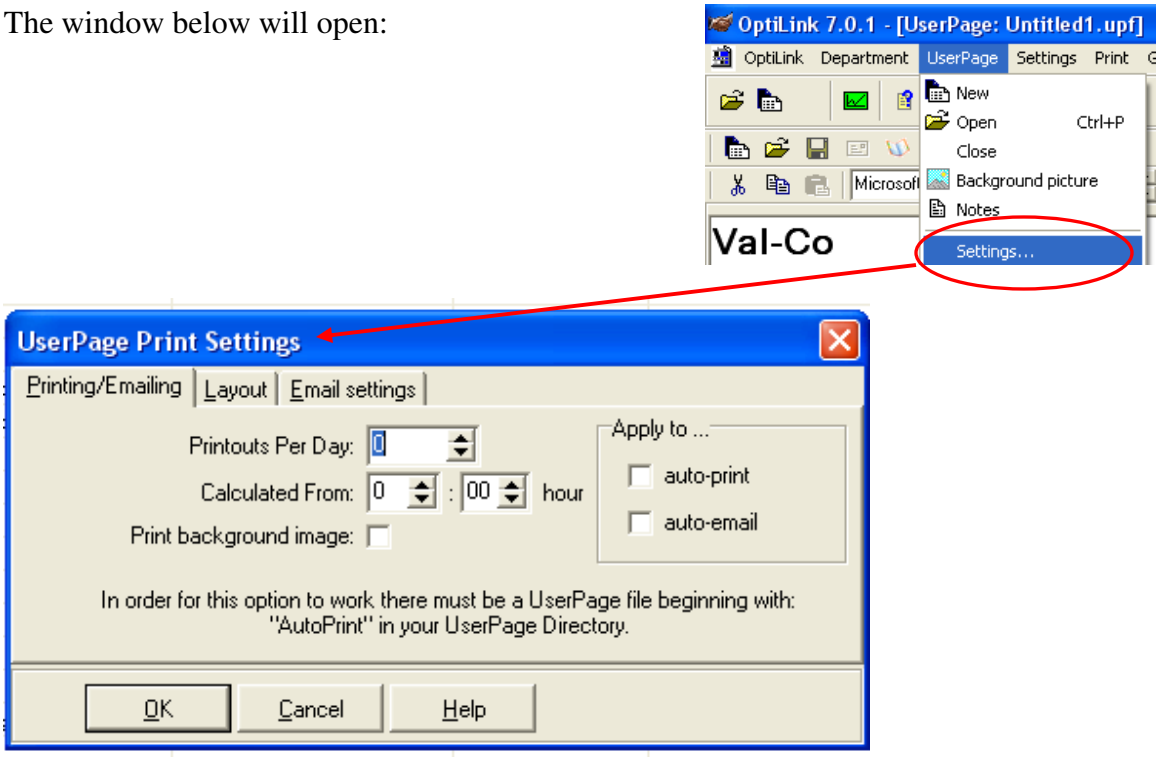


Note: If you wish to use the AutoPrint feature, you MUST name your file "AutoPrint <insert site or barn name here>" (do not include the quotation marks in the name)

The last thing to be done on a UserPage is to adjust the Settings.

"Left click" The **UserPage** tab and scroll down to **Settings…** and "left click."

The window below will open:

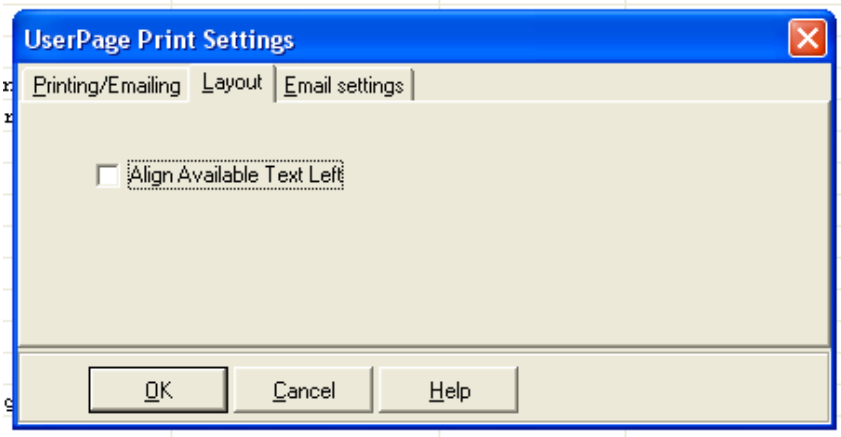


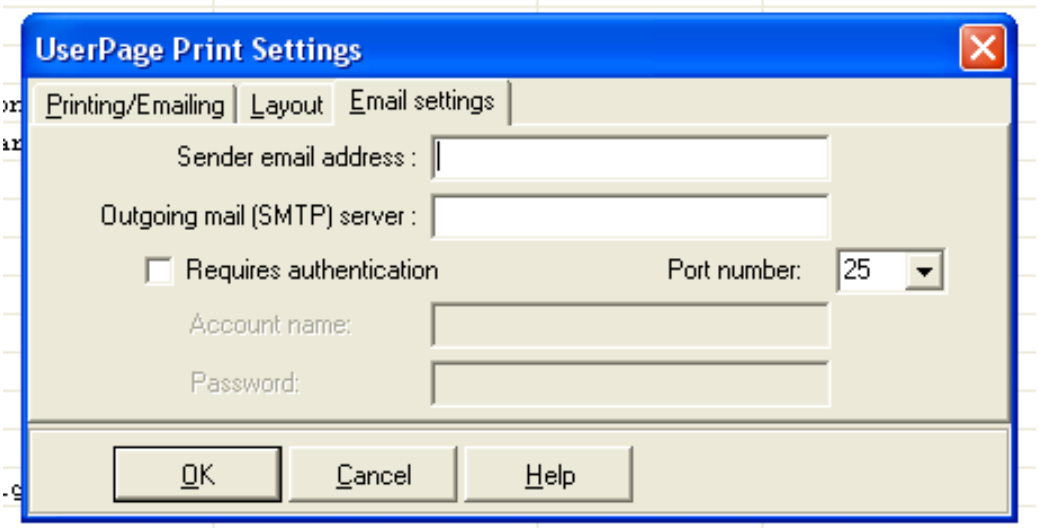
In this page you may choose how many printouts per day you wish (0-1440) and the time of day it will start from. A background image can be incorporated into your UserPage to customize the look to your farm. You may choose to have the image printed or not for clarity and to save ink. If you wish your reports to auto-print or auto-email you must "left click" in the boxes above corresponding to your desire.

When finished inputting settings to this page, "left click" on the **Layout** tab at the top of this window. The following view will appear:

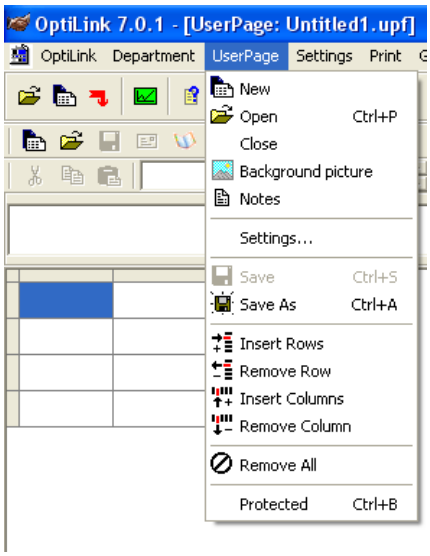
There is only one selection here, depending on how you want the text to appear on your UserPage. Toggle between selections by "left clicking" the checkbox.

Then "left click" the **Email settings** tab.





Fill this page out with information provided by your internet service provider or email provider. Val-Co and your local dealer do not have access to this information as it is individual to your internet and email company.



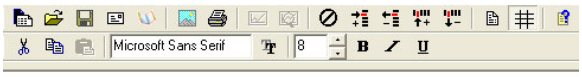
"Left click" **OK** when finished.

There are other options in the **UserPage** tab. These are defined below.

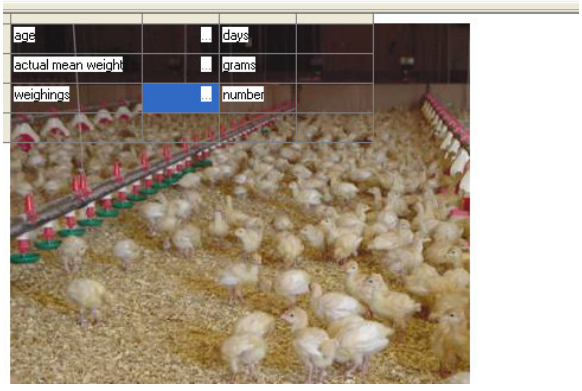
New This icon allows you to open a new UserPage.

Open This icon opens the list of all previously saved UserPages.

Close shuts down the current UserPage.



Background picture Lets you add or change the background of your UserPage. An example of a UserPage with a background picture is seen here:



Notes Lets you add a note to the UserPage or read previous notes made.

Save As If you make changes to a UserPage and want to save the changes as a

new page, use the Save As function to give the changed page a new name.

 Lets you add a row to your UserPage. "Left click" the existing row that you would like to add a row above or below and then click this icon. You will be prompted to enter the number of rows desired to add as well as above or below the current row selected.

 If you find that you inserted too many rows or no longer need a row, use this icon to delete the row and all its contents.

 Lets you add a column to your UserPage. "Left click" the existing column that you would like to add a column left of or right of and then click this icon. You will be prompted to enter the number of rows desired to add as well as left or right of the current column selected.

 If you find that you inserted too many columns or no longer need a column, use this icon to delete the column and all its contents.

 This icon removes **all** data from the UserPage. Before erasing all data you will be prompted to verify your decision.

Protected keeps the contents of the UserPage inviolate and greys out a lot of the editing tools. It is indicated by a check mark to the left of the word **Protected**.

ALARM PAGE 99

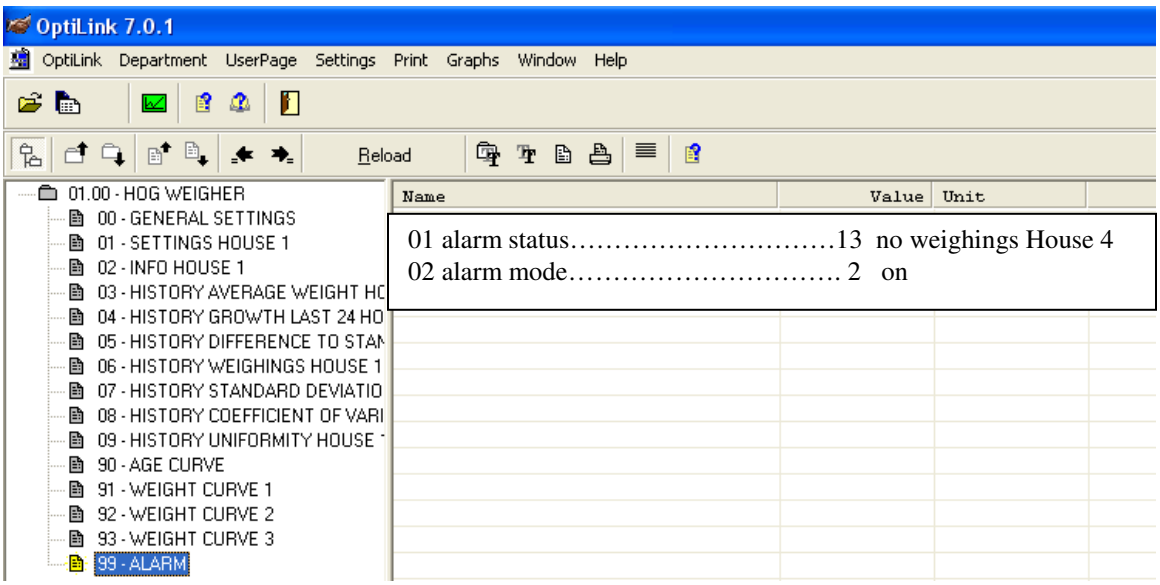
Occasionally the **Alarm** will activate.
If you have a set of speakers connected to the PC, you'll hear a "ponging" sound to alert you when the alarm activates. As well, a red message box will appear down in the left corner of your screen with any one of the following messages:



0> No alarm
00> Alarm on: This alarm will activate when the Settings House 1-4, Mode is turned on.
1> Memory Alarm: This alarm will occur when the BE-SSC-101 is powered up for the first time. Press the **F1** button on the BE-SSC-101 and set the **alarm mode** to **reset.**
2> Alarm Scale 1
3> Alarm Scale 2
4> Alarm Scale 3
5> Alarm Scale 4
} no weighings have occurred on the scales for a period of time

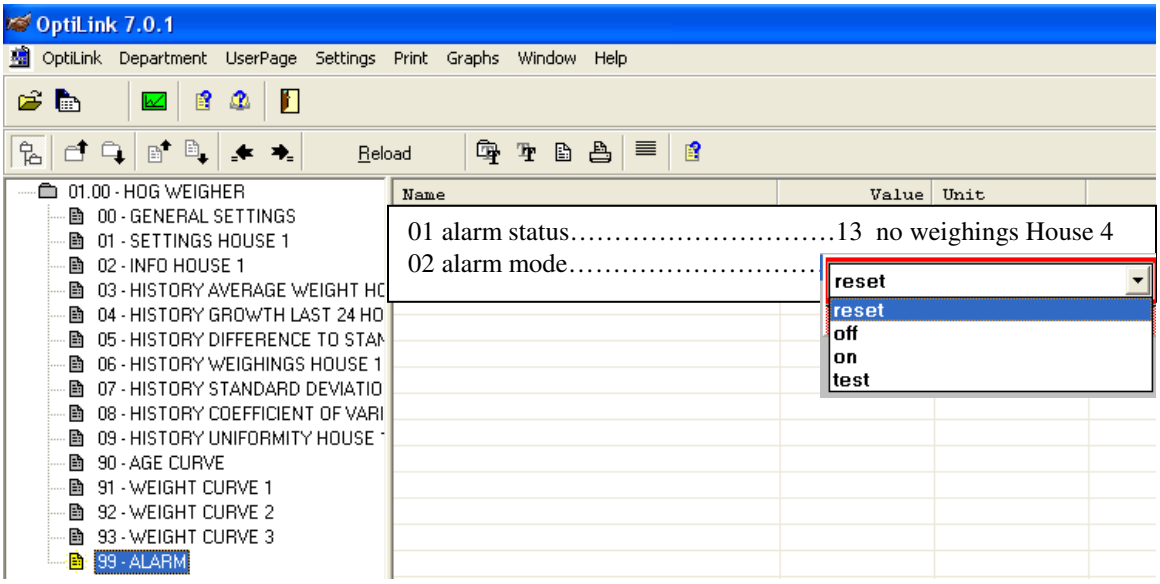
10> No weighings in house 1
11> No weighings in house 2
12> No weighings in house 3
13> No weighings in house 4
} no weighings were recorded from any scale in that house. I.E. the house was not turned off when the birds' were shipped.

To shut the alarm off, open page **99-ALARM**



In the above example, the **alarm status** tells us that there are **no weighings in house 4.** The **alarm mode** is **on.** The reason for this alarm was because the scale in house 4 was not activated. Once the scale is activated, the alarm will go off.

To turn an alarm off, double “left click” on **line 02 alarm mode** to open the drop down menu box.



When the selection box opens there are four options. In this case **reset** was chosen. Note that **line 01 alarm mode** will now show that there is no alarm once the selection is made.

: Reset → the alarm will be reset
: Off → the alarm relay will be switched off
: On → the alarm will be reactivated if an alarm situation arises
: Test → the alarm message <u>test</u> will show up and the alarm system will be tested

Other reasons for an alarm could be a damaged load cell (water/moisture damage) or a short (crossed wires) in either the load cell or BE-SSC-101. Ensure that the wires are not crossed when installing. Also ensure that the grommet at he top of the load cell is tightened according to instructions provided with the load cell to ensure a water tight seal.

NOTE PAGE: