HYDROSOFT
Version 1.0.2

INSTALLATION AND OPERATING

Overview

The Hydrosoft software allows HG-302 controller users to monitor pool performance directly from a computer. As many as 32 controllers may be connected to a single computer and 4 pools may be viewed simultaneously. The software allows the user to:

- Maintain a history of the most important conditions in each pool
- Create reports detailing the pool's conditions for during selected times
- Modify main operational parameters, such as Cl set point, directly from the users computer (still password protected)

Minimal Computer Requirements

1. Operating System: Windows 98se, Windows ME, Windows 2000, or Windows XP
2. Available operational COM port or available operational USB port
3. RS485 Converter (one of the following)
    a. RS485 to RS232: ATEN IC 485 SI
    b. RS485 to USB: ATEN Novus

Initial Set-up

Several settings in the HydroGuard controller need to be confirmed before using the Hydrosoft direct connection software.

In the technician menu:

1. Set the Address:
    a. If only one controller is connected, set to **"Address 1"**.
    b. If multiple controllers are connected in series, set the Address of each pool in order starting with 1 (up to 32). For Example:
    Main Pool – **"Address 1"** Spa – **"Address 2"**
2. Set the **"Recording Interval"** to the appropriate frequency (1 to 240 minutes).
3. Confirm that the current date and time settings are correct

On the Control Panel Module (on the door):

1. Connect a two-wire cable to the communication port
Note: As an example, a black & white cable is used.
2. Insert the white wire on top (-) and the black wire on the bottom (+) of the RS485 communication terminal block.
3. If multiple controllers are connect to the same computer, continue the black and white wires from the communication port of the first controller to the communication port of the second controller and so on up to 32

total controllers. (only two wires are needed from the first controller to the computer and between the communication port of each controller)

Installing the Converter

RS485 to USB Converter

1. Connect the black and white wires from the communication port as follows:
    a. Connect the **Black** (+) wire to (+)Tx on the converter
    b. Connect the **White** (-) wire to (-)Tx on the converter

2. Connect the converter to an open USB port on the computer

Figure 1: RS 485 to USB Converter

RS485 to RS232 Converter

The converter has 4 inputs labeled 1 to 4.

1. Bridge the connections on the converter as follows:
    a. **Black** bridge (jump) between **1-4** (to the + connector of the RS485 communication terminal block)
    b. **White** bridge (jump) between **2-3** (to the - connector of the RS485 communication terminal block)

2. Connect the black and white wires from the communication port as follows:
    c. Connect the **Black** wire to input **1**
    d. Connect the **White** wire to input **2**
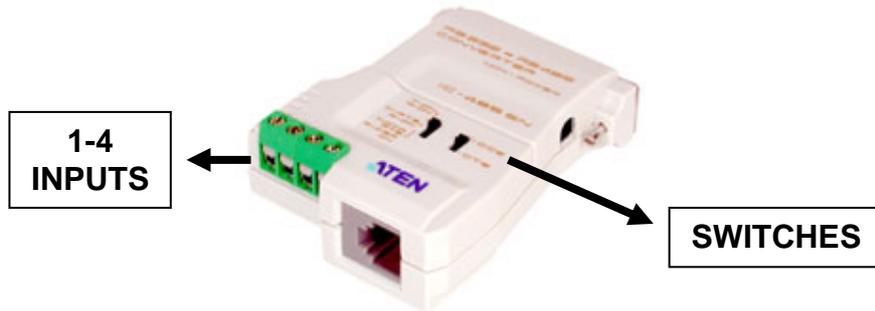
Figure 2: RS 485 to RS 232 Converter

3. On the converter there are two black switches:
   A. Position the right switch to the top **DCE**
   B. Position the left switch it to the bottom **T*-RTS R*ON**

4. Connect the converter to an available port on the computer. A Db25 male-to Db9 female cable may be require to connect the converter to some computers.

Note: It is very important to install the converter before installing the software. Do not start the software unless the converter is attached to an available port. It will

Hydrosoft Interactive Software

The Hydrosoft Software can be purchase from www.blueitechnologies.com or from an authorized Blue I Technologies distributor.

Web site
1. Go to www.blueitechnologies.com and select distributors
   a. In order to access the link, you will need a password. Send an email to info@blueitechnologies.com to have a password sent to you by e-mail
2. Enter the password to enter the distributor section.
3. Click on and **"Save"**: **"Hydrosoft Setup 1.0.2"** and **"Hydrosoft Update 1.0.2"** to the desktop
4. Extract the Hydrosoft Zip File to the desktop
5. Click on the **"Setup"** icon
6. Confirm **"yes"** to all (do not change any settings or directories)
7. Once installation is complete, Click and run the Hydrosoft Update

Using Hydrosoft

Hydrosoft can be found in the programs list in the Hydrosoft folder

First time use:
1. Click on the Hydrosoft Icon

2. An 8 digit number will appear in the upper, right corner of the window (figure 2)
3. Send this 8 digit code to info@blueitechnologies.com. The password will be emailed to you within 24 hours
4. Type the password in the window (as shown in figure 2)
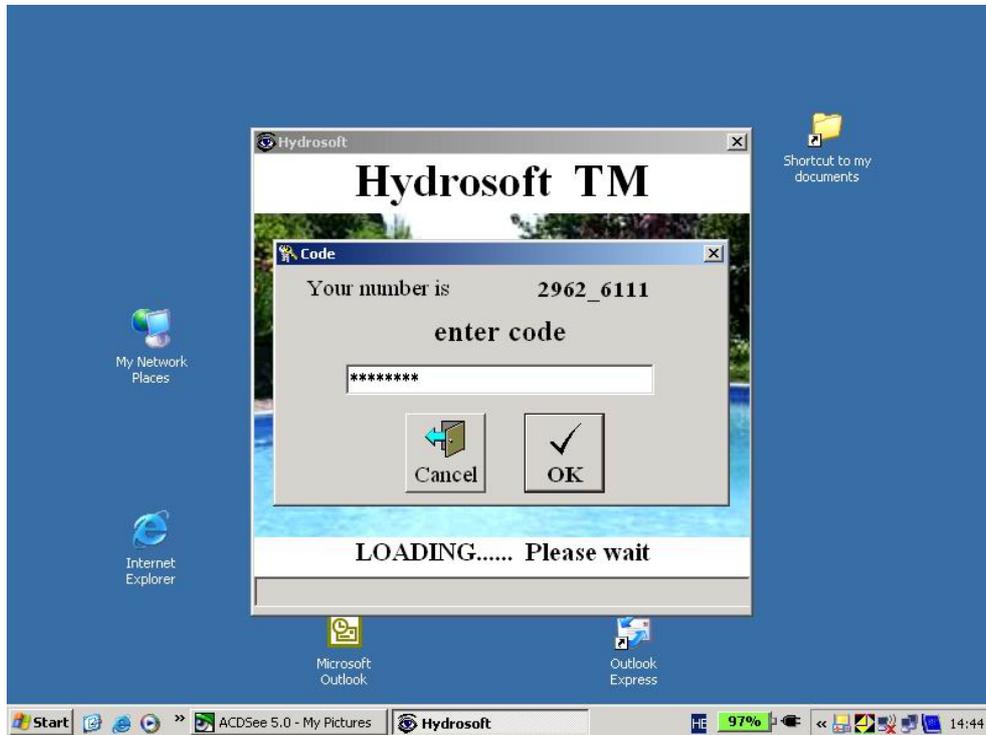
Figure 2: Password Authentication Screen

Future Use:
1. Connect the converter to an available USB or RS232 connection on your computer
2. Click on the Hydrosoft Icon
3. Select the appropriate COM port connected to the converter
4. If you select the wrong COM port:
    a. You will receive an error (figure 3) and in some cases the program may shut down.
    b. Select a new COM port until you select the correct one and the program starts
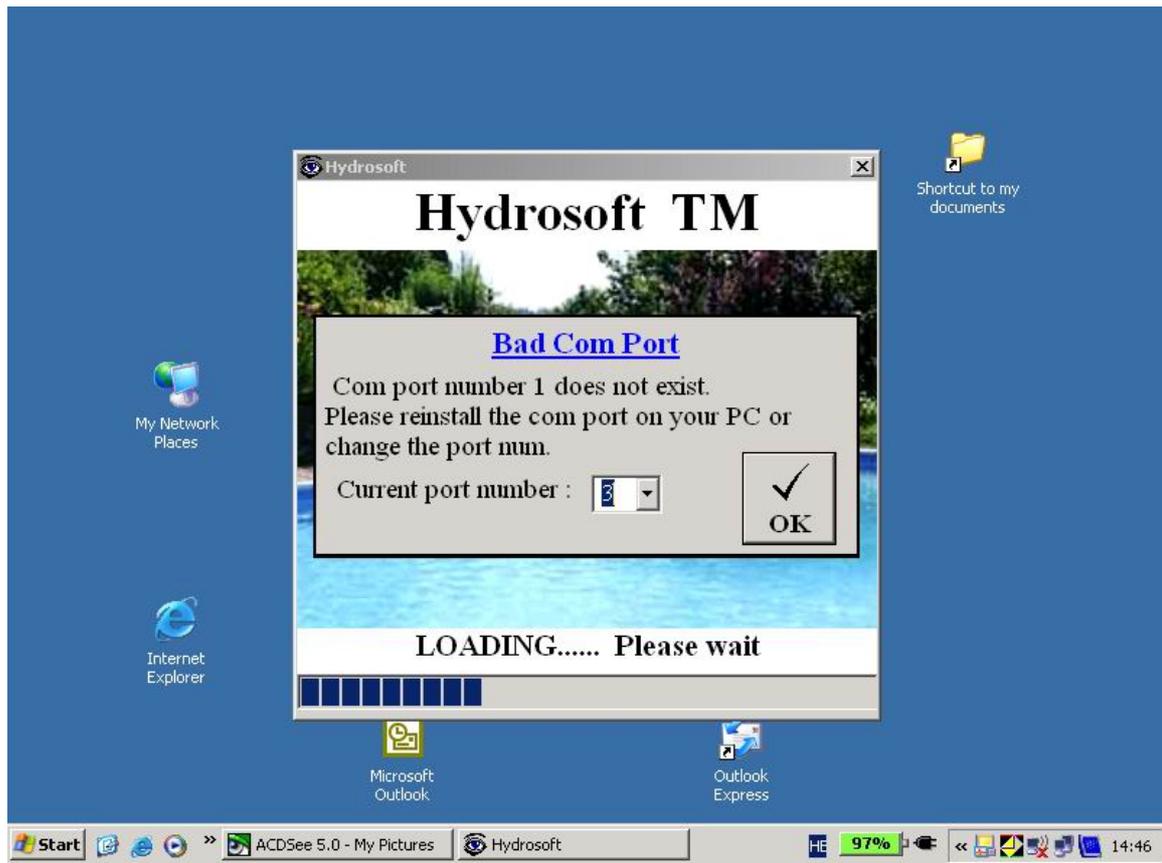
Figure 3: Incorrect COM Port Selection Error

The Hydrosoft Functions

The Hydrosoft functions are accessible by the icons at the top of the main window. The various functions are listed below and shown in Figure 4.

From Left to right:

1. Open the Pool Viewer
2. Modem
3. Web Site
4. Alarm Information
5. Pool History
6. Refresh the Screen
7. Group Organizer
8. Exit the Program
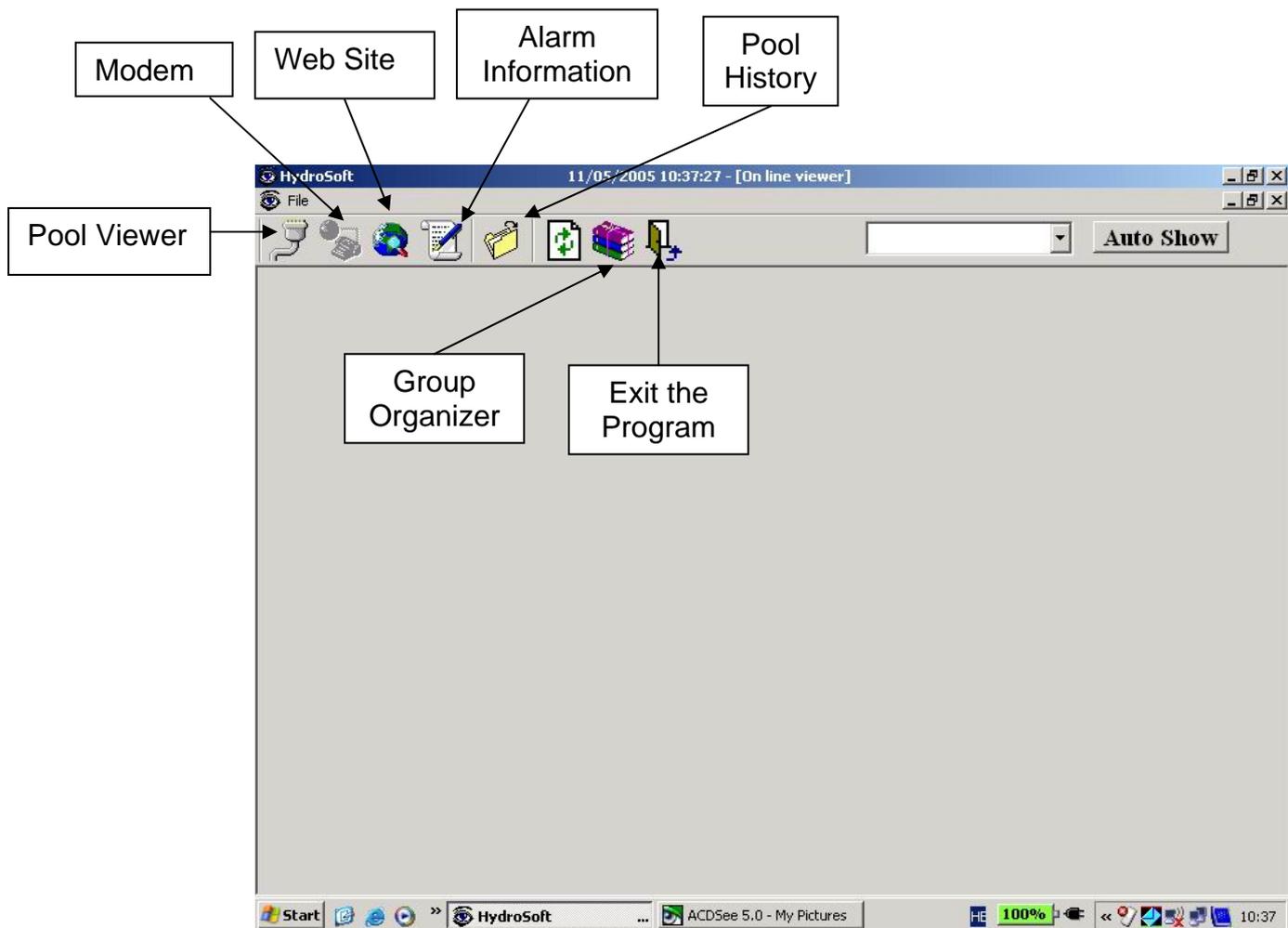
Figure 4: Hydrosoft Icons and Functions

Pool Viewer

The pool viewer allows the user to view up to 4 bodies of water at time up to 32 different bodies of water. Groups, containing up to 4 pools each, are created and the program will automatically switch between the groups allowing for monitoring of all pools from a single screen.

You can watch the most important parameters of your water quality and make the necessary adjustments:
- Change Set Points
- Change low and high alarms

Initial Set-up:

1. Click on the Hydrosoft Viewer Icon (1st Icon at top)
2. A window will appear with pool and group names (Figure 5)
3. Name the Groups and select a group for each pool as appropriate. The pools are currently labeled based on the address assigned in the technician menu and may be changed later
4. If there is more than 1 controller group, set the auto show time. This is the time between cycling to the next group
5. If a controller does not appear, please confirm that all wires were properly connected and the addresses are set in order
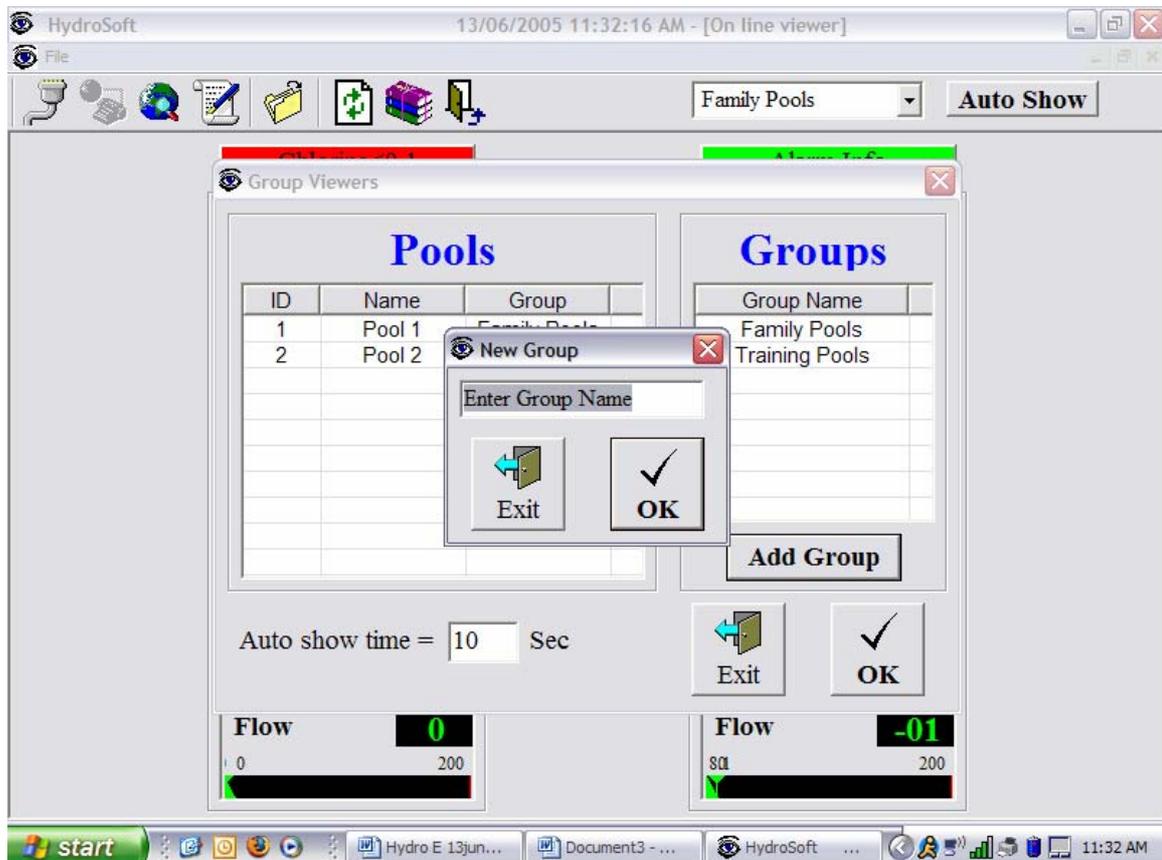
Figure 5: Initial Hydrosoft Screen at First Start Up

Future Operation:

1. Click on the Hydrosoft Viewer Icon
2. The pool(s) in the first group will appear (Figure 6)
3. If you click 'Auto Show' the Viewer will cycle between the various groups (if more than one), with Auto Show off, each group can be manually selected from the pull-down menu.
4. The key variables of each pool in a group will be displayed showing: current value, set point, and low and high alarms.
5. By clicking on an individual variable, the variable properties window will appear (Figure 7)
6. Any number appearing in black (i.e. not shaded) can be changed by either clicking and typing a new number or clicking the plus or minus (+ or -) buttons.

Note: the low alarm cannot be lower than the low scale, and the high alarm cannot be higher than the high scale. The set-point must be between the low and high alarms.

7. Any variable requiring a password at the controller will likewise require the same operator password from the computer. When prompted, type the password to allow access to the variable. (Default Operator Password 123)
8. To change the pool name, click on the current name, enter a new name and click ok.
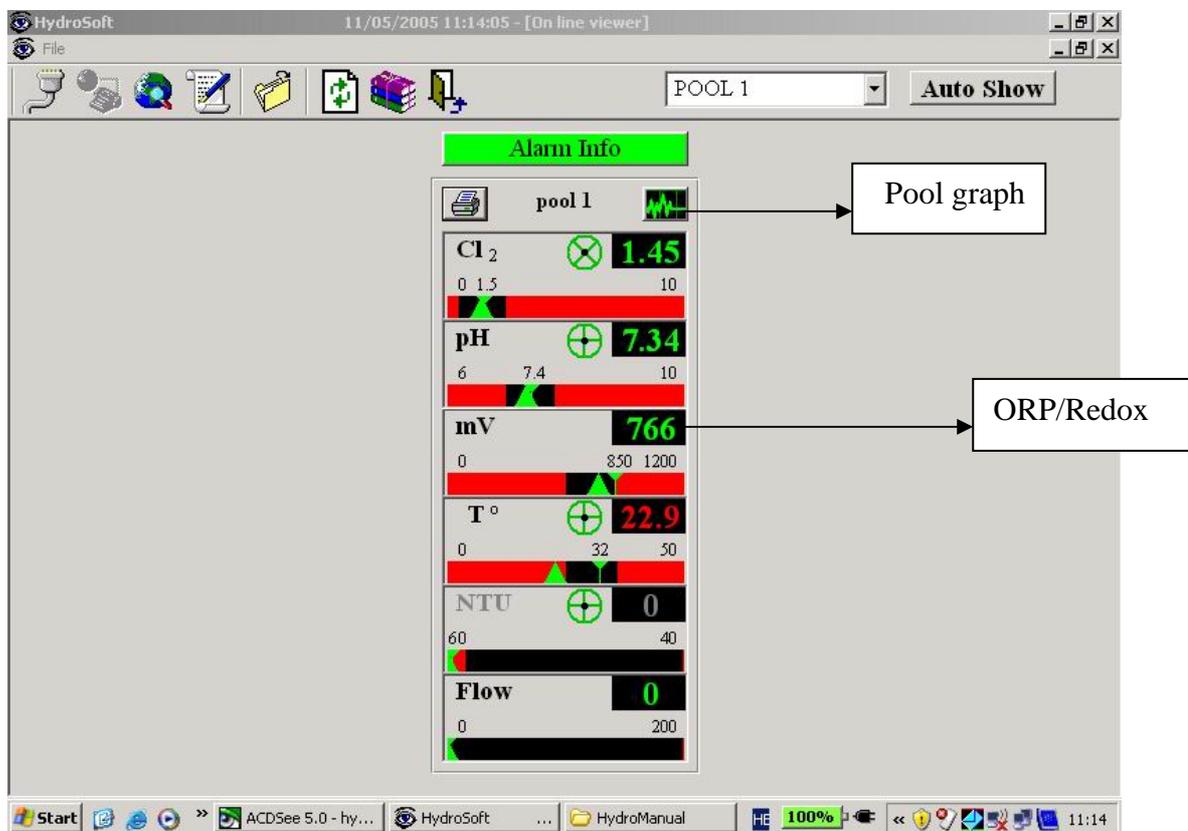
Figure 6: Pool Viewer General Overview
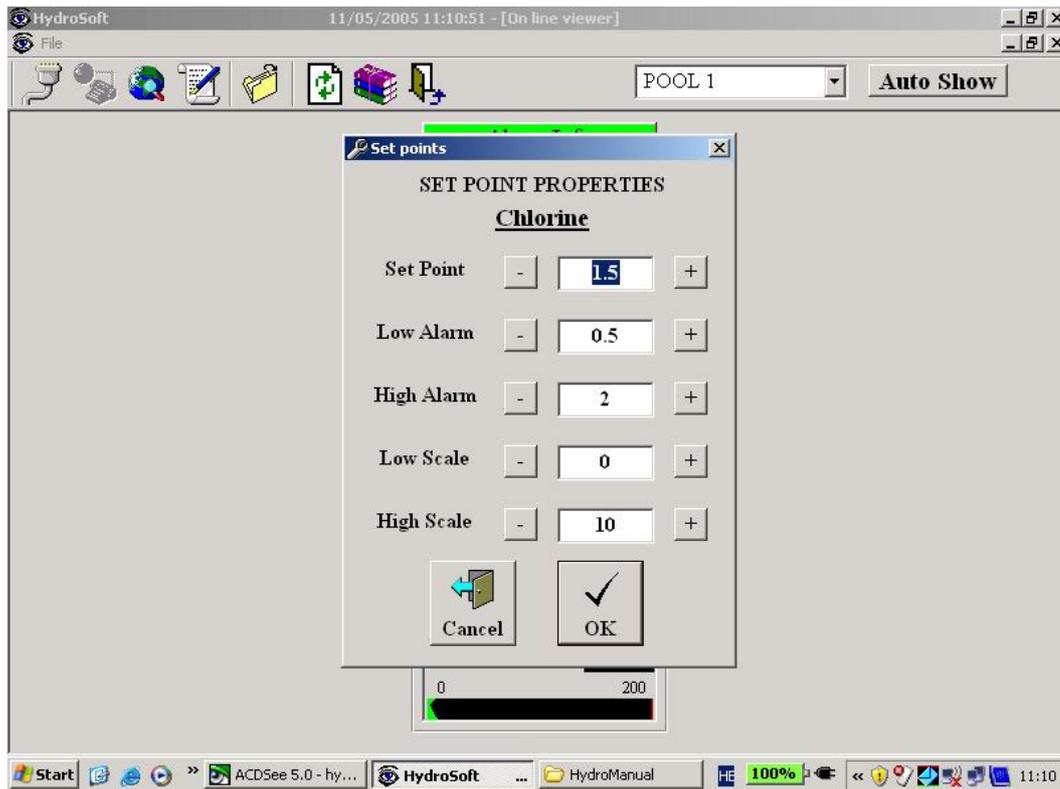
Figure 7: Changing Individual Variable Settings

Pool History

Whenever you would like to view more than the current data, download the pool history (from the controller's on board memory) to allow for the most complete view of the pool.

1. Click the History icon
2. A window will open "Choose Pool to download" (Figure 8)
3. Select the appropriate pool and click **"download"** and **"yes"** (Figure 9)
4. The Hydrosoft will download all the history of the controller from the data logger and use it for the alarm and graph displays (Figure 10)
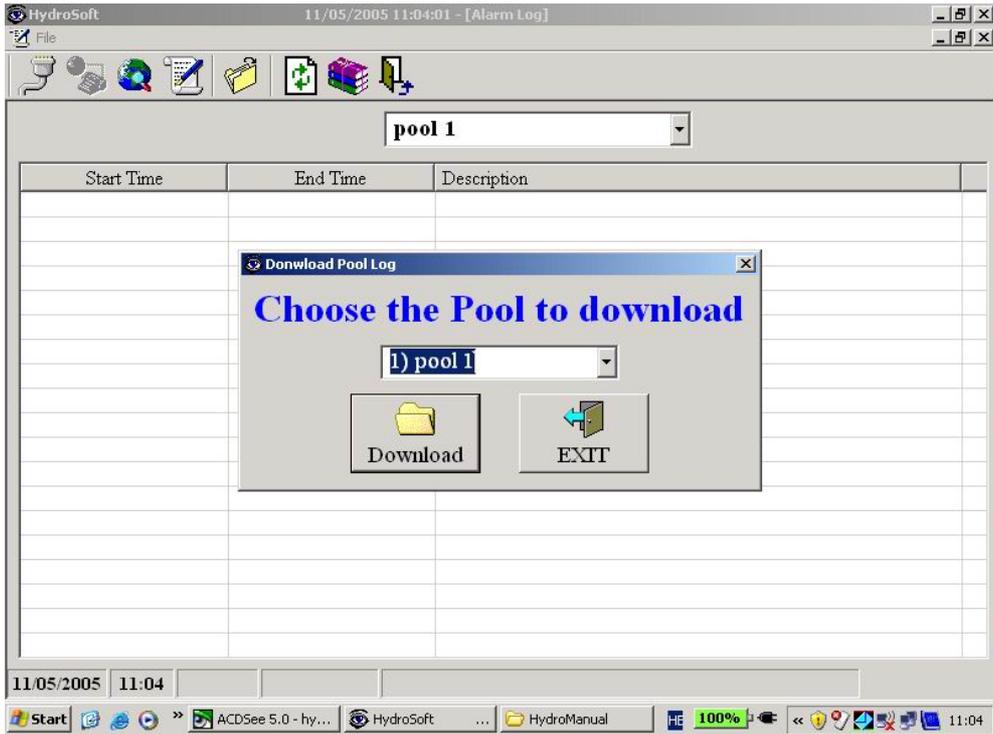
Figure 8: Selecting a Pool to Download History
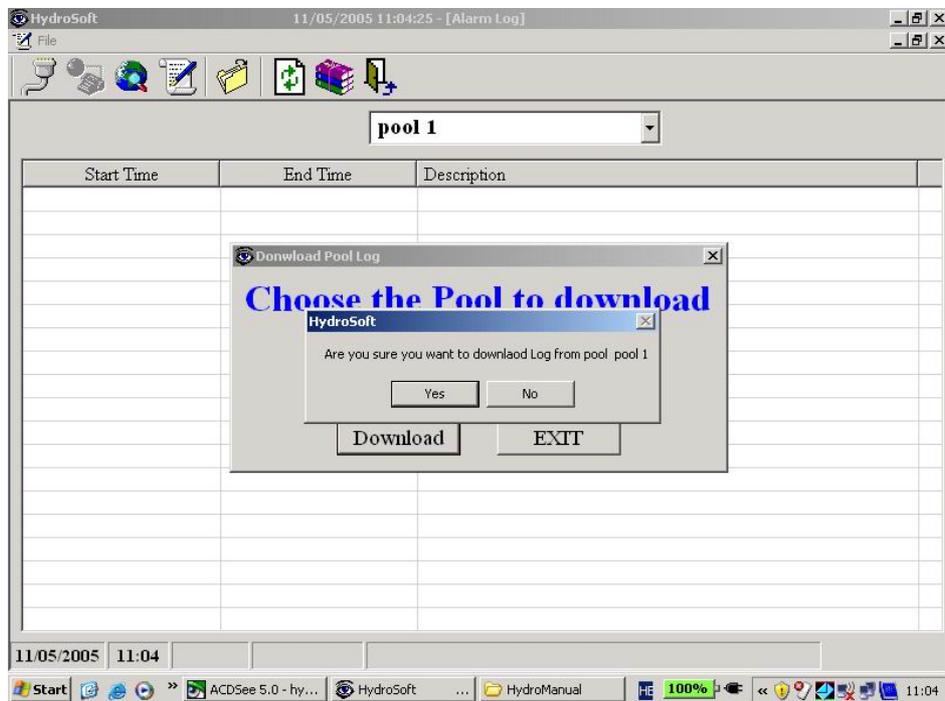
Figure 9: Confirming the History Download from the Selected Pool
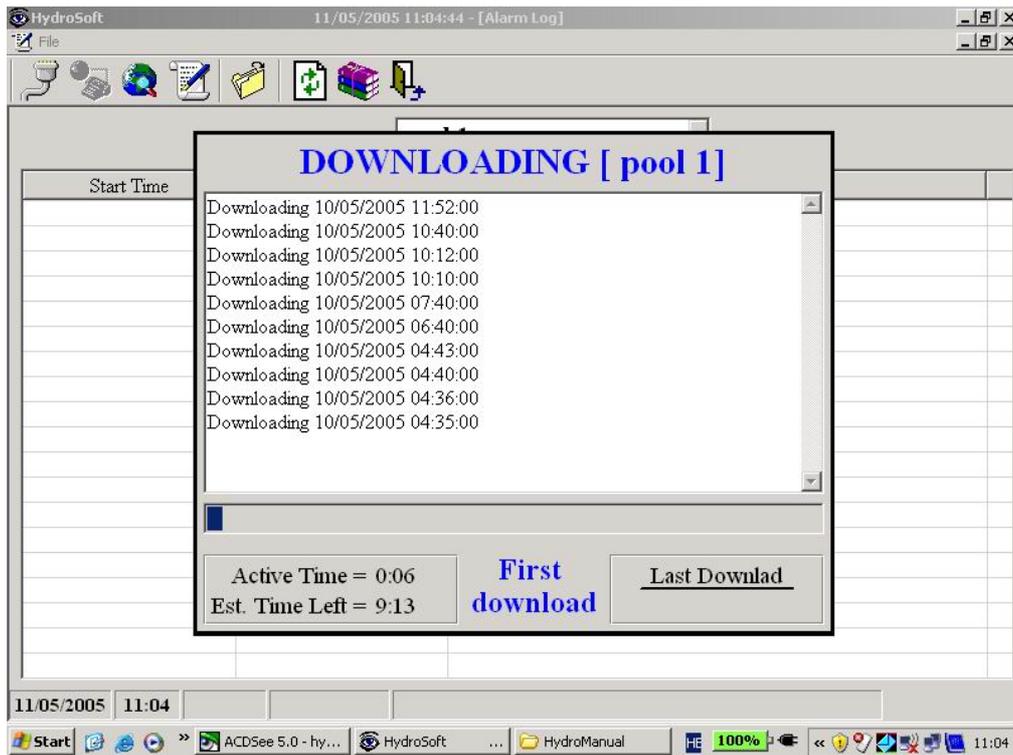
Figure 10: Downloading Data from the Selected Pool

Saving to Excel

From the pool viewer window, click on the print button. Select the dates for which you want to download pool information and press the excel button and save the file.

The data is arranged by date and includes: free Cl, pH, temperature, ORP, Turbidity, flow rate, conductivity, and total chlorine. The data can be viewed and modified as needed using excel.

Pool graph

From the Pool Viewer Window (Figure 6):

1. Clicking on the graph icon and a graph will appear (Figure 11)
2. Select the dates for the start and end (Figure 12)
3. Right click to select the x-axis option of minutes, hours, days, etc (figure 13)
4. Right click and select graph properties to choose which parameter to show on the graph (figure 14)
5. you can either print the history or save it as an image file in one of your files in the computer by clicking on the print or save icons
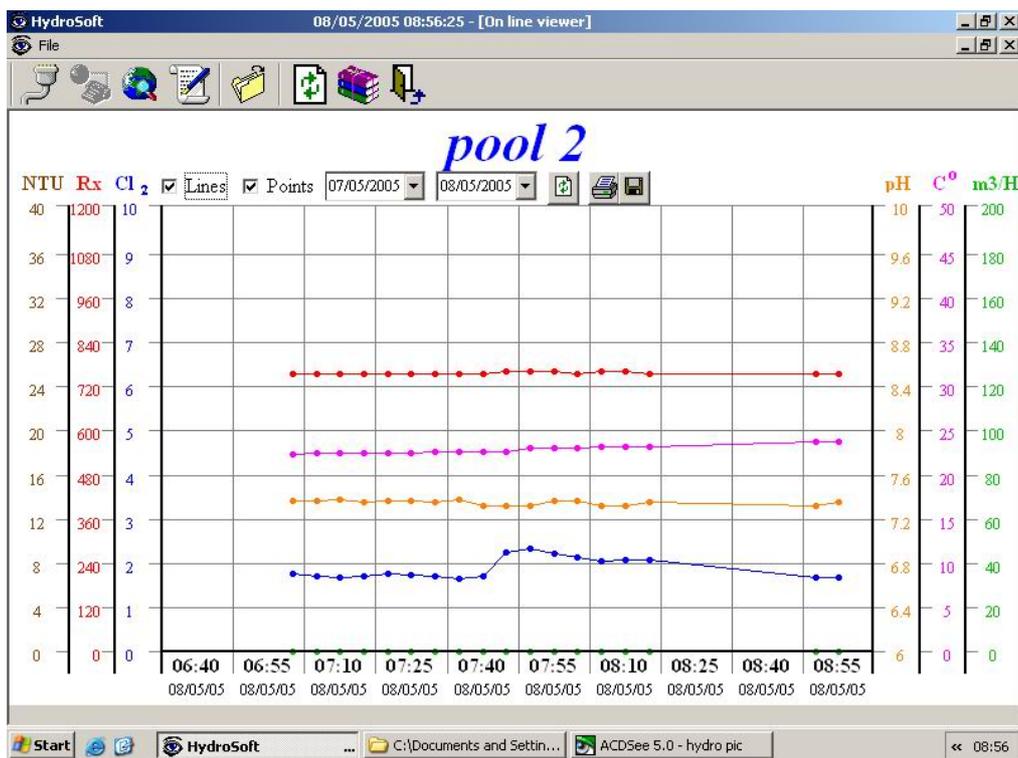
Figure 11: Initial Graph Display
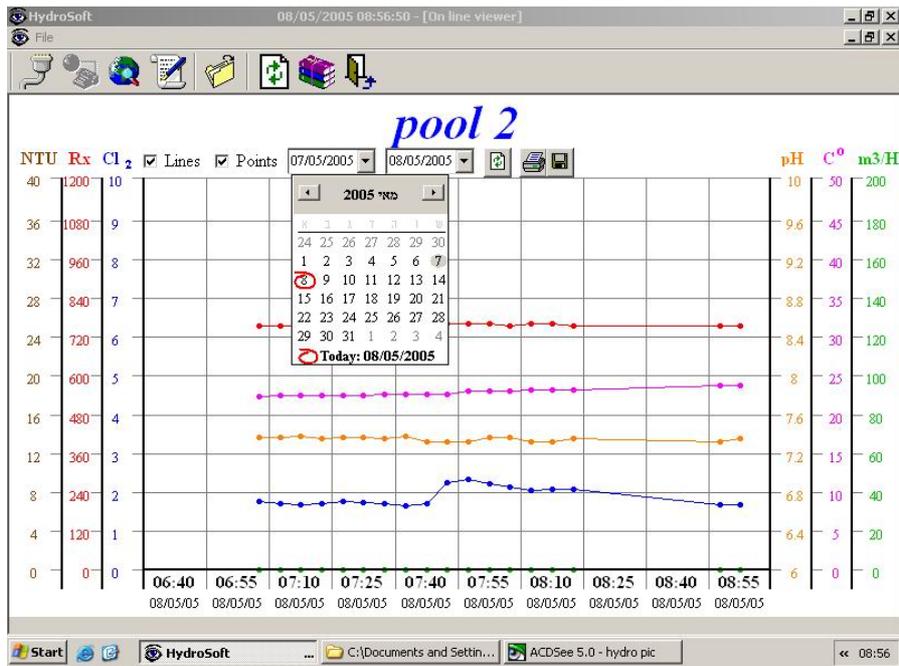
Figure 12: Selecting the Date Range to Display Data
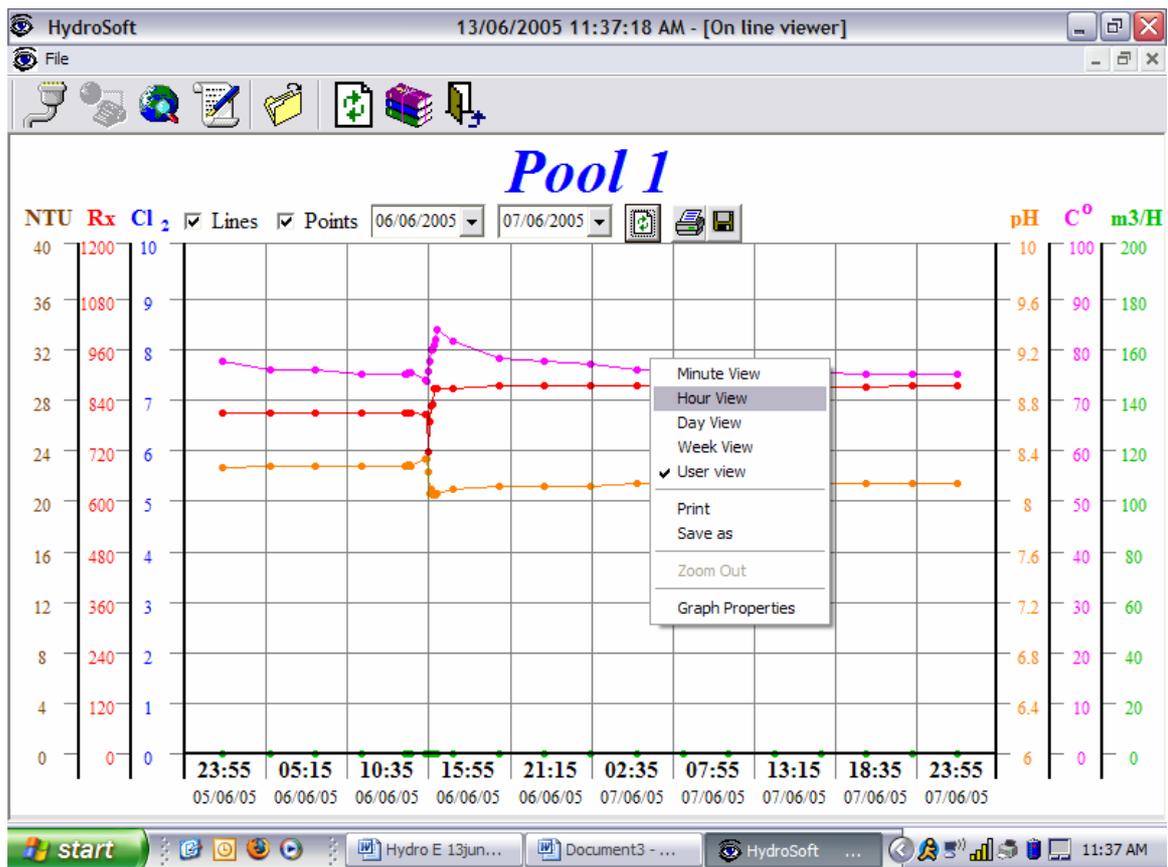
Figure 13: Selecting the Preferred Time View
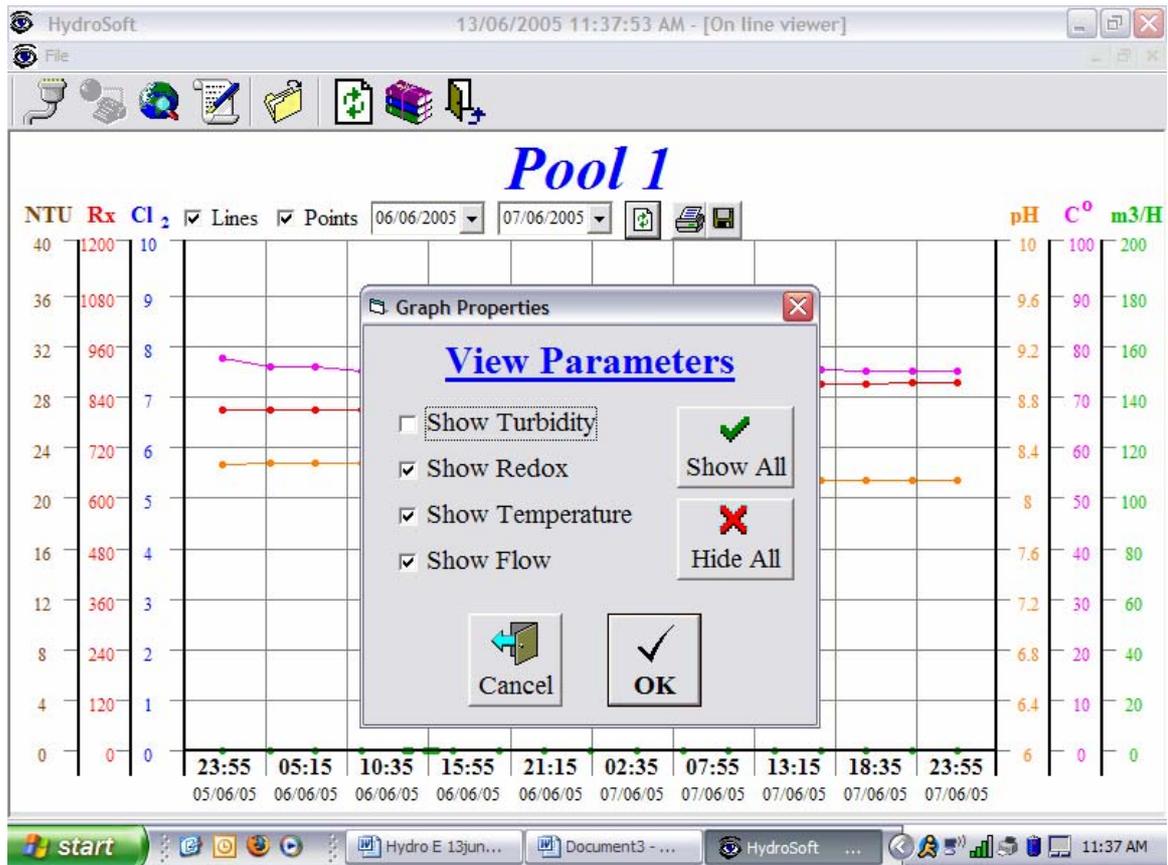
Figure 14: Selecting the General Graph Properties

Alarm info

The alarm info will show the recent alarms from a particular controller, showing: alarm type, starting time, and ending time.

1. Clicking the Alarm icon
2. Select the controller you want to view
3. A table with the alarm information will appear (Figure 15)

Figure 15: Alarm Information

For additional information or troubleshooting please use the "contact us" link on our web site www.blueitechnologies.com.