

# Panther

probe

PERFORMANCE – DRIVEN INNOVATION

**ROCK**

DATA SERVICES LTD.

User's  
Guide

V2.2

## *Panther Combined Software*

The screenshot displays the Panther Probe Software Application window. The title bar reads "Panther Probe Software Application - [Panther1]". The menu bar includes "File", "Edit", "View", "Window", and "Help". The toolbar contains icons for file operations and help. The main window is titled "Panther Probe Sub/Surface Pressure Survey" and contains the following fields:

- Company:
- Wellname:
- Location:
- Well License Number:
- Field:
- Top Interval (mKB):
- Pool:
- Bottom Interval (mKB):
- Mid-point Perfs (mKB):
- KB Elevation (m):  0
- CF Elevation (m):  0
- Datum Depth (mKB):  0
- Status:
- Top Run Depth (mKB):  0
- Bottom Run Depth (mKB):  0
- Header Comment:

Below the input fields are two sections for recorders:

- Top Recorder:** File Name:
- Bottom Recorder:** File Name:

At the bottom of the window are two buttons:  and .

### UTILIZING FIELD SOFTWARE

- How to download tools
- How to program tools
- How to input, view, and save test data in different formats
- How to do a static gradient report
- How to calculate a fluid level

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## 1.0 System Requirements:

### Minimum:

Microsoft® Windows XP SP2  
266 MHz CPU  
256 MB Memory  
10 GB Free drive space  
640 X 480 Resolution Display Card  
USB 1.0

### Recommended:

Microsoft® Vista SP2 or better  
Dual Core 2.0 MHz CPU  
2GB Memory  
10 GB Free drive space (160+ GB HD 7200rpm)  
1024 X 768 Resolution Display Card  
USB 2.0  
Mouse  
Color Inkjet Printer

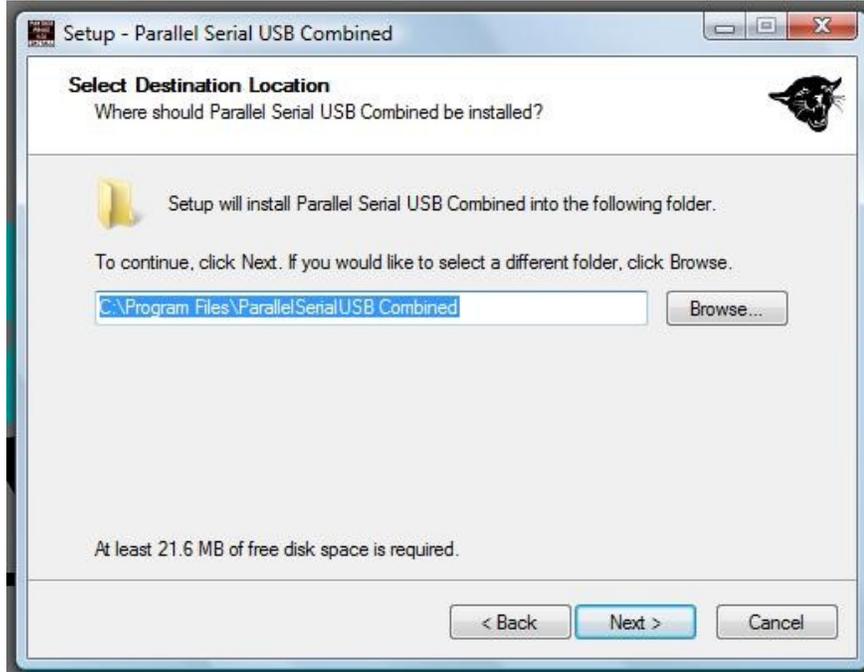
\*The latest version of the Panther Combined software is available at [www.rockdataservices.com/support/](http://www.rockdataservices.com/support/)

\*\* Call (403) 340-3311 for further assistance or email [support@rockdataservices.com](mailto:support@rockdataservices.com)

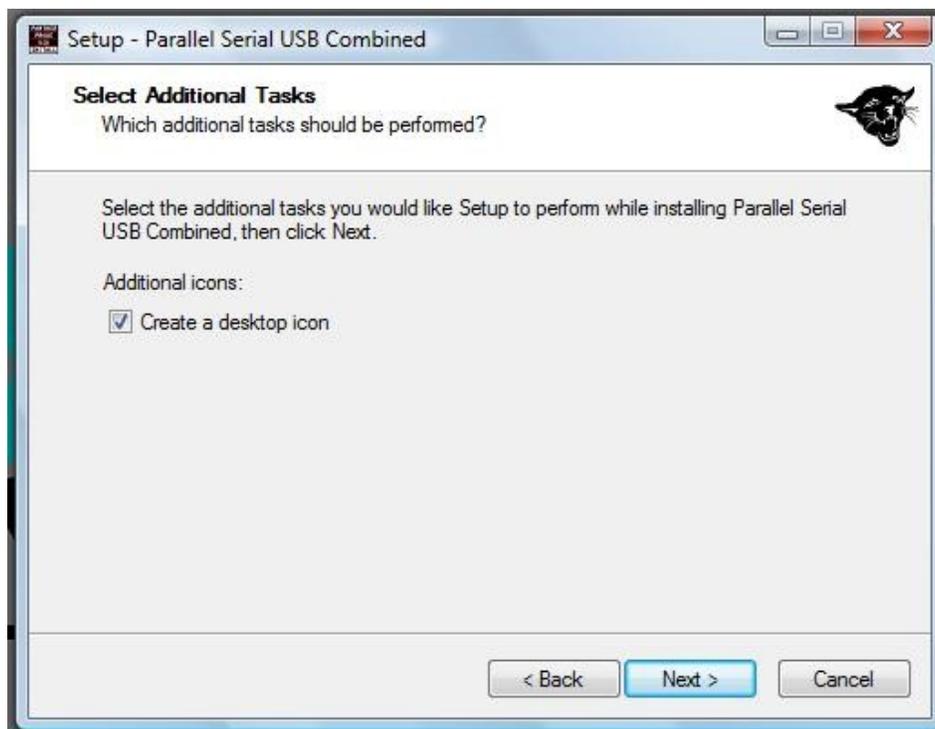
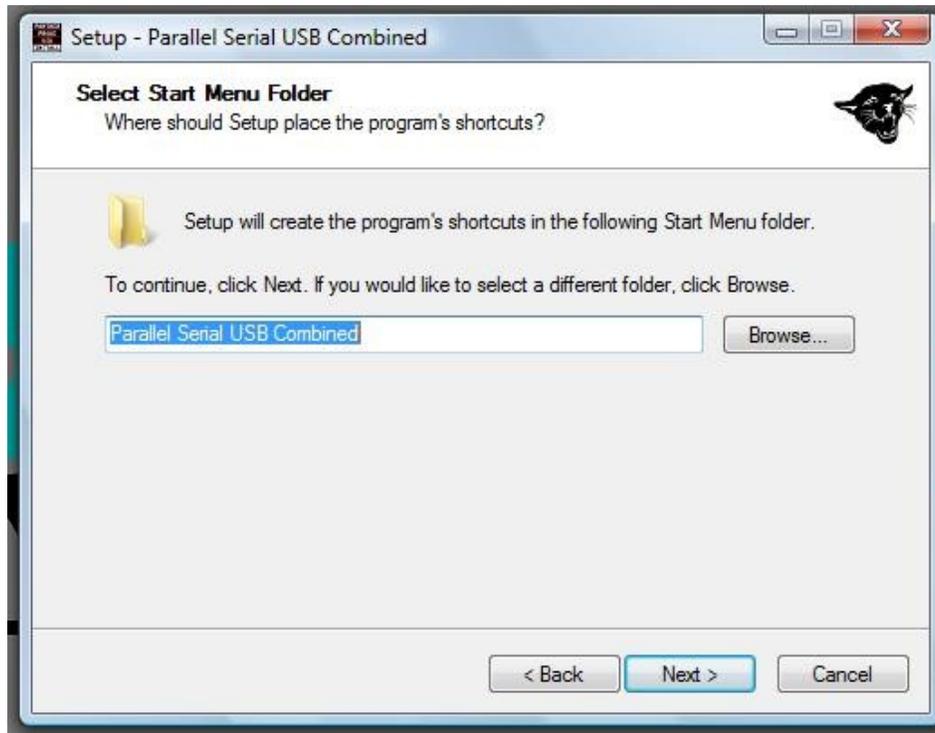
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## 2.0 Software Installation

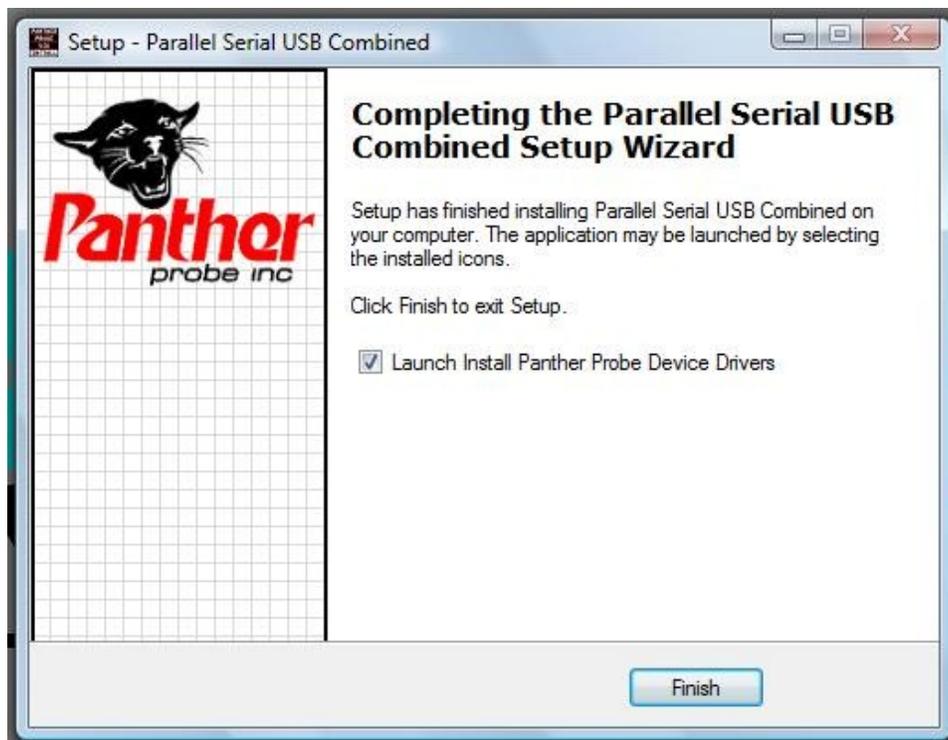
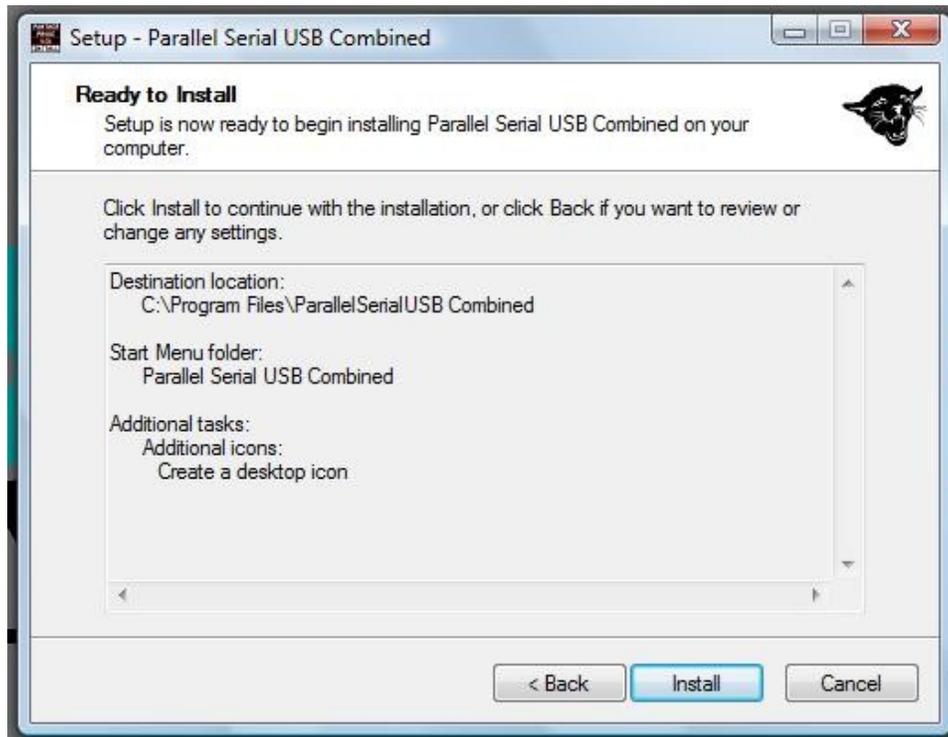
To install the Panther software, browse to the install CD drive and double-click “ParallelSerialUSBCombined-Setup.exe” or go to our website at [www.rockdataservices.com/support/](http://www.rockdataservices.com/support/) and scroll down to the Software section and click on the latest version of the “Panther Combined v#.#... item and select run. The installation will start and proceed with the screen prompts below:



## Software Installation continued



### Software Installation continued



Software installation is now complete and USB driver installation will begin.

### 3.0 USB Driver Installation

### 3.1 Windows Vista installation

To install the driver follow the screen prompts below:



Select "Install this driver software anyway"



**USB Driver Installation continued**

**3.1 Windows Vista installation**



When the installation is complete attach the communication cable to a Panther tool and to a USB port on your computer. You will receive a similar message to the ones below after the tool has been connected. You are now ready to run the Panther USB Combined software in order to communicate to a Panther tool.

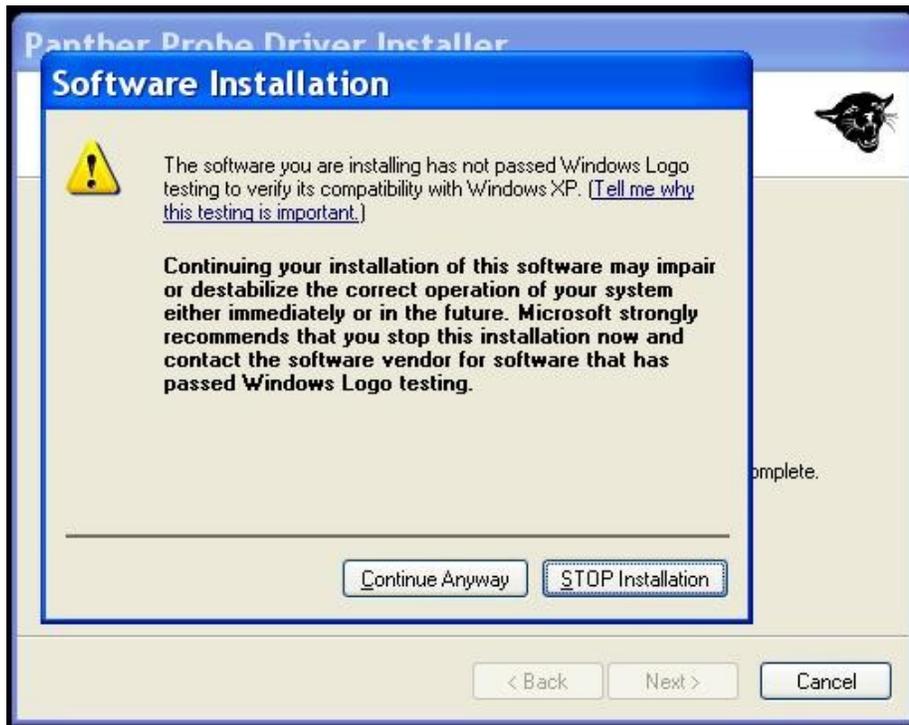


## USB Driver Installation continued 3.2 Windows XP SP3 installation

To install the driver follow the screen prompts below:

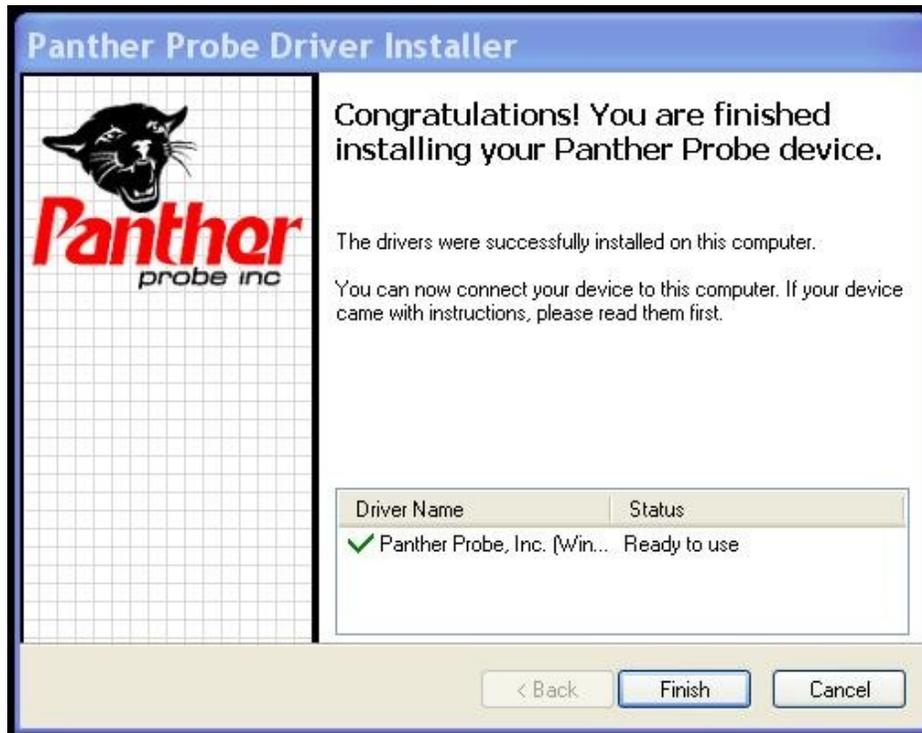


Select "Continue Anyway"



USB Driver Installation continued

Windows XP SP3 installation



Select "No, not this time"



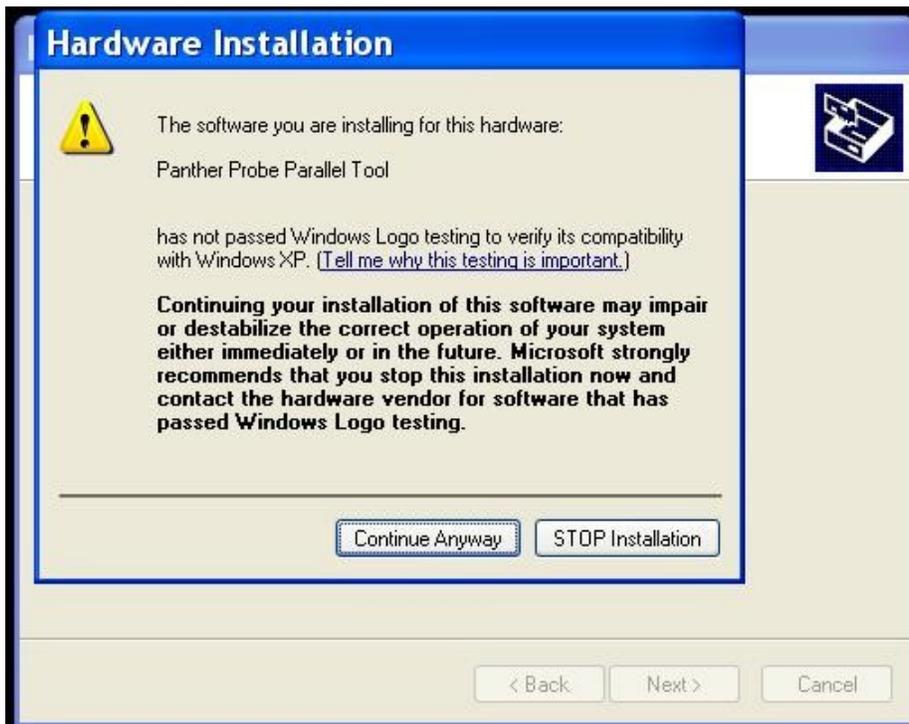
### USB Driver Installation continued

### Windows XP SP3 installation

Select "Install the software automatically (Recommended)"



Select "Continue Anyway"

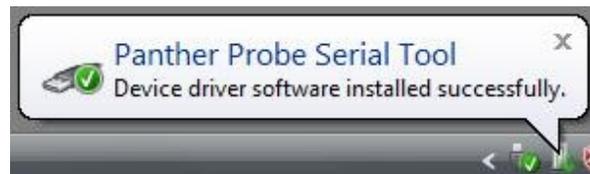


**USB Driver Installation continued**

**Windows XP SP3 installation**

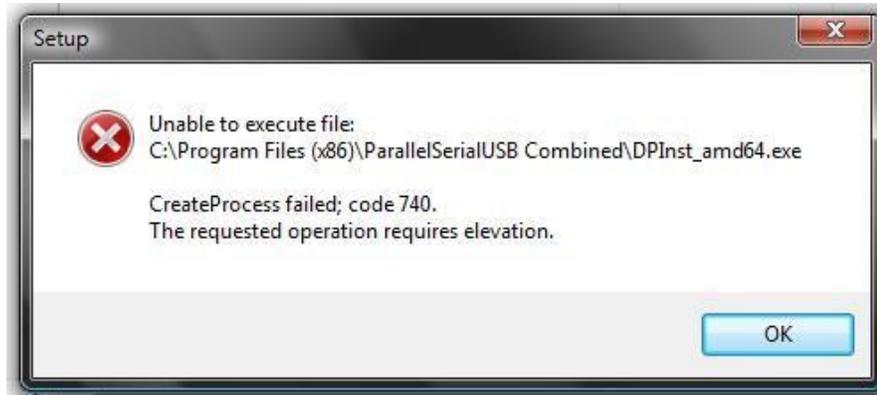


When the installation is complete attach the communication cable to a Panther tool and to a USB port on your computer. You will receive a message similar to the ones below after the tool has been connected. You are now ready to run the Panther USB Combined software in order to communicate to a Panther tool.



## 4.0 Installation Troubleshooting:

If you receive the following error during a Windows Vista installation:



Ensure that the current user of Vista has Administrator rights. You may also have to turn off the User Account Controls in Vista. To do so open the Control Panel from the Start Menu. Then select Users Accounts. Then select "Turn User Account Control on or off". De-select the "Use User Account Control (UAC) to help protect your computer". Then Run the installation file again.



## 5.0 Well Information

Panther Probe Software Application - [Panther1]

File Edit View Window Help

Panther Probe Pressure Survey

Company: ABC Energy Corp.

Wellname: ABC Field 10-10-10w5

Location: 100/10-10-010-10w5/0

Well License Number: 123456

Field: Field

Top Interval (mKB): 1000

Pool: Pool

Bottom Interval (mKB): 1002

Mid-point Perfs (mKB): 1001.00

KB Elevation (mKB): 500

CF Elevation (mKB): 495

Datum Depth (mKB): 0

Status: Gas

Top Run Depth (mKB): 1000.52

Bottom Run Depth (mKB): 1001.0

Header Comment: Sample Document

Top Recorder

File Name: C:\Users\rockdata\Documents\20503-0001-TOP.DT0

Graph View Data ASCII FILE CSV FILE Report Download Specs 1

Bottom Recorder

File Name: C:\Users\rockdata\Documents\20277-0001-BOT.DT0

Graph View Data ASCII FILE CSV FILE Report Download Specs 2

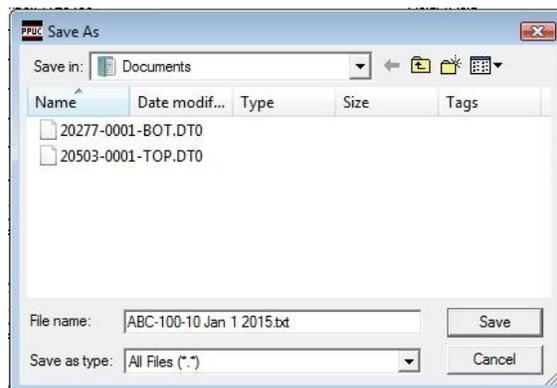
Program Tool Gradient Report

NUM

Completing the well information is not required if a report is not being prepared. If a pressure survey report or gradient report is being created the information should be entered.

Enter the company name and remainder of the information. The top and bottom recorder file names will appear after the gauges have been downloaded or may be browsed in if they were previously created.

When complete choose File from the menu system then Save As. The name which defaults is "Panther1". A more descriptive name appears below that was entered manually. Choose the location the file is to be saved in by clicking in the Save in: box.



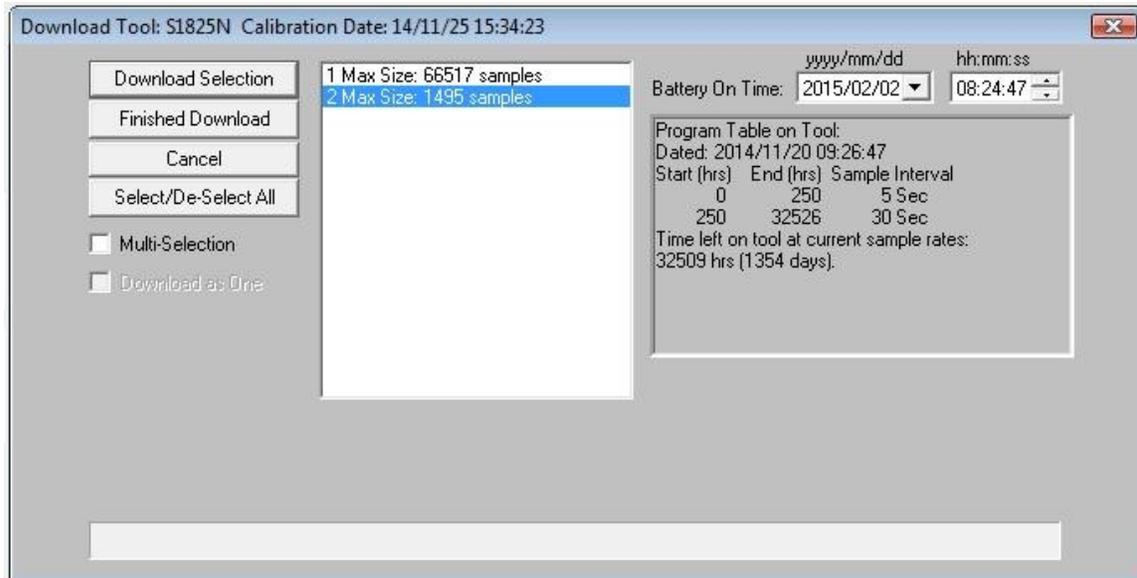
## 6.0 Download Tool

To download a test from a tool:

Connect the tool to the communication cable and the cable to a USB port on the computer.

On the main Section of the software, click on the **Download** button for either the top or the bottom recorder, correlating top and bottom with the gauges to be downloaded. The **Download Tool** dialog box will be displayed.

Select a test from the list of tests on the tool. The tests will be in sequence, with the last test done at the end of the list. Each time the battery has been connected and disconnected creates a test.



**Battery On Time:** Enter the battery on time.

**Multi-Selection:** Downloads more than one test at a time. Each test will be downloaded into its own file. You will be prompted to provide an initial filename and each subsequent file will be appended with “####” in the order they are downloaded. (i.e. the first test would be named S1825N-0001.-TOP.DTO, second test would be named S1825N-0002-TOP.DTO, and so on)

**Download as One:** All tests will be downloaded into the same file. Use this option to combine multiple test files into one combined file. Note: This option requires that the Multi-Selection option is checked.

**Download Selection:** Downloads the selected test(s).

**Finished Download:** Completes the download process.

**Cancel:** Closes the Download Tool dialog box.

Click on the **Download Selection** button to download the tool data. A submenu will appear showing the directory where your downloaded files will be saved to. You will then be prompted to provide a filename for your test (i.e. gauge (example: 9475)). The default file extension is **.DTO**. If the well information is entered the filename will default to the first 3 characters of the company name and first 5 of the location (ie. ABC100-1-0001-TOP.dtO)

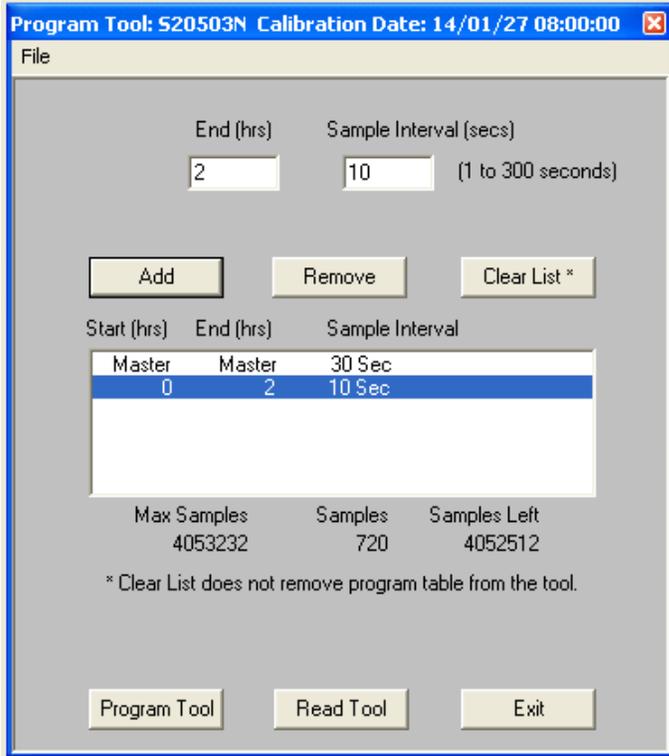
**Note:** The system will allocate the last directory or drive that a file was saved to. Thus, if a gauge was downloaded and saved to, for example, your My Documents folder, the system will default to your My Documents folder. Select **Cancel** and a submenu will appear listing the Desk Top, My Computer, etc. Select My Computer to access the directory that you want to download and save the gauge data to.

When the test is finished downloading, click on the **Finished Download** button to complete the download process.

You should see the file name in the **File Name** text box of the Top/Bottom Recorder section on the main Section of

## 7.0 Program Tool

ALL DATA WILL BE ERASED FROM THE TOOL WHEN REPROGRAMMED. ENSURE ALL DATA IS DOWNLOADED BEFORE THE TOOL IS REPROGRAMMED.



To program a tool, click on the **Program Tool** button on the main Section of the software. The **Program Tool** dialog box will be displayed.

**End (hrs):** This is the end time for the current sample rate. (i.e. 6 hrs)

**Sample Interval:** This is the sample rate for the program to the End (hrs) time.

**Add:** Inserts the End (hrs) and Sample Interval into the Program List. The Start (hrs) is automatically calculated based on the End (hrs) of the previous program item in the list. Each time you add an item to the program list the number of samples and samples left is recalculated and displayed under the program list. The samples can not be greater than the Max. Samples shown.

**Remove:** Removes the selected program from the list of program entries.

**Clear List:** Clears the list.

**Program Tool:** Stores the list of programs on the tool.

**Read Tool:** Reads the program information from the tool and displays it.

**Exit:** Closes the Program Tool dialog box.



**Note:** If you do not use all of the available samples, the remaining samples will be set to run at the Master Sample Interval of 30 seconds. If your last Sample Interval was 30 seconds, the remaining available samples will be added and the End (hrs) will be recalculated.

If a message appears stating 'TOOL NOT FORMATTED', exit out of this section and contact [Customer Support](#).

## Program Tool Continued

### 7.1 To program a 4MEG REV 3 tool with more than 1 sample per second

To program a tool with fast samples, click on the **Program Tool** button on the main Section of the software.

The **Program Tool** dialog box will be displayed. Some tools are capable of taking fast samples (more than 1 sample per second). If so, the dialog box to the left will be displayed. You can then select 16, 8, 4 or 2 samples per second for a time duration or still choose to program the tool to 1 sample every n seconds. You may program the tool with fast and standard sample rates within the same program.

If you select Pump Tool option the tool will be programmed to the standard pump tool rate for the entire duration of the test.

**End (hrs):** This is the end time for the current sample rate. (i.e. 6 hrs)

**Sample Interval:** This is the sample rate for the program to the End (hrs) time.

**Add:** Inserts the End (hrs) and Sample Interval into the Program List. The Start (hrs) is automatically calculated based on the End (hrs) of the previous program item in the list.

Each time you add an item to the program list the number of samples and samples left is recalculated and displayed under the program list. The samples can not be greater than the Max. Samples shown.

**Remove:** Removes the selected program from the list of program entries.

**Clear List:** Clears the list.

**Program Tool:** Stores the list of programs on the tool.

**Read Tool:** Reads the program information from the tool and displays it.

**Exit:** Closes the Program Tool dialog box.

**Note:** If you do not use all of the available samples, the remaining samples will be set to run at the Master Sample Interval of 30 seconds. If your last Sample Interval was 30 seconds, the remaining available samples will be added and the End (hrs) will be recalculated.

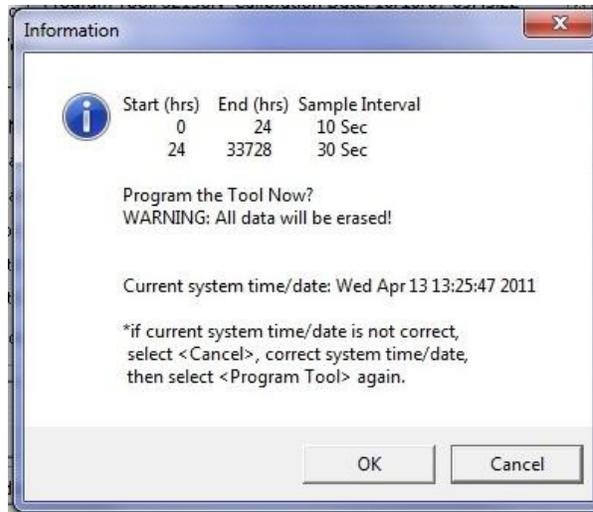
**ALL DATA WILL BE ERASED FROM THE TOOL WHEN REPROGRAMMED. ENSURE ALL DATA IS DOWNLOADED BEFORE THE TOOL IS REPROGRAMMED.**

If a message appears stating 'TOOL NOT FORMATTED', exit out of this section and contact [Customer Support](#).

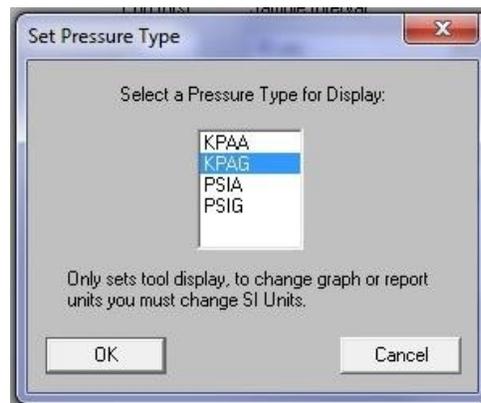
## Program Tool Continued

### 7.2 Single Channel Display Logger (only)

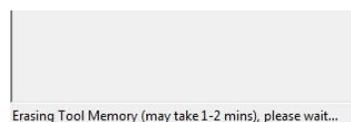
If you are programming the single channel display logger it contains a real-time clock that will set the date & time of the unit being programmed to the system date & time from the computer programming it. After the Program Tool button has been clicked a pop-up window will be displayed asking you to confirm the date & time from the computer. If the date & time is incorrect then click Cancel in order to re-set the computer's system date & time from your operating systems Date & Time properties window. To do this simply double-click on the time on your computer's system menu bar.



If the system date & time is correct then click OK. The next step is to select the pressure units desired to display and click OK.



The software will then program the tool. The status of the programming may be viewed near the bottom left of the screen.



## Program Tool Continued

### Typical Programs:

We suggest starting programs with a **10 second sample rate**.

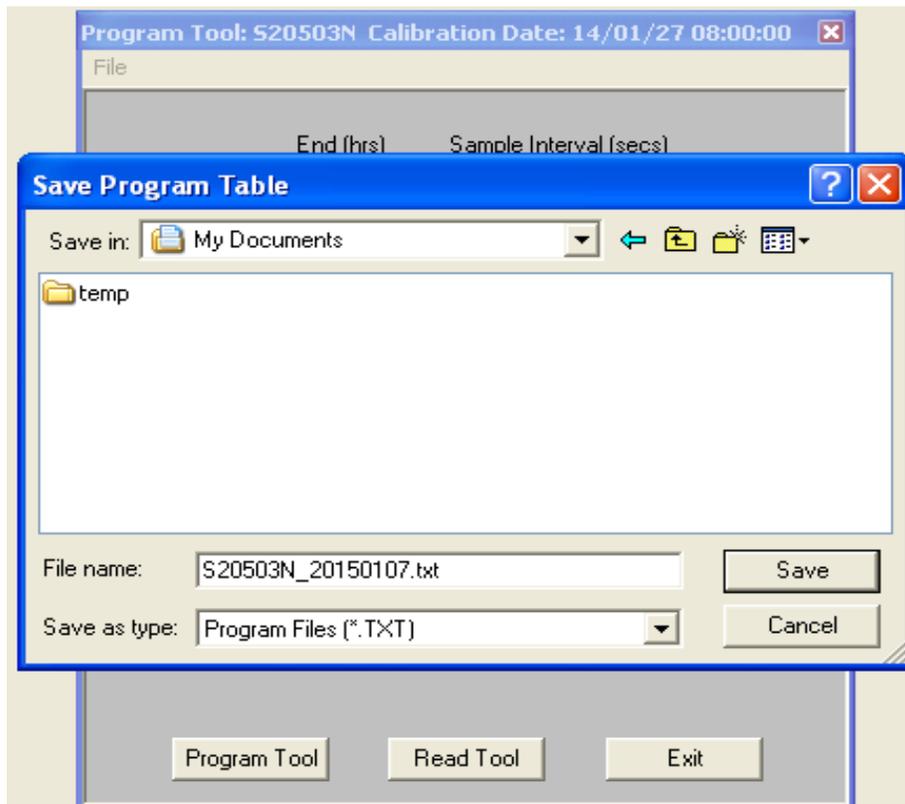
(An example of a typical program: 0 – 6 hours with a 10 second sample rate, defaulting to a 30 second sample rate on the 6th hour) NOTE: When a tool is reprogrammed, all prior data is erased from the tool.

### 7.3 Saving Program Table to Disk:

You can save your program table to disk by selecting File -> Save from the Program Table Menu Bar.

The default save file name is Serial Number + yyymmdd.txt.

This saved file can be viewed and printed using Microsoft® Notepad or WordPad.

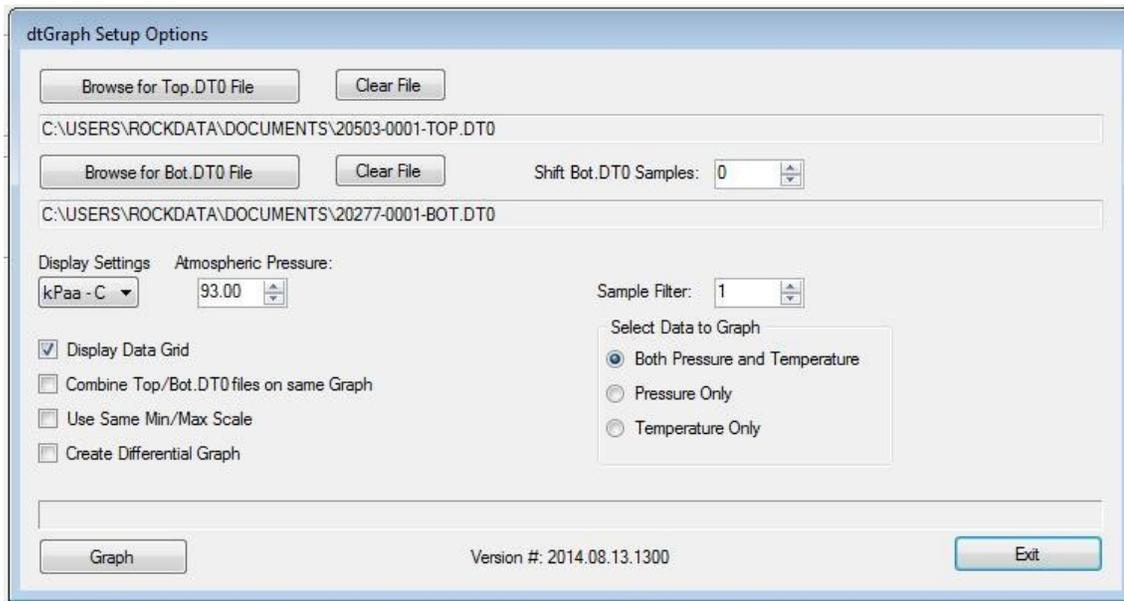


### 7.4 Battery Life:

Contact Rock Data Services for standard battery life or to obtain a chart with battery life expectancies.

## 8.0 Plotting Graphs

To graph a test, click on the **Graph** button on the main Section of the software from either the top or bottom recorder. This will cause an option screen to appear which will allow you to plot one or both gauges data. If a .DT file is not present you will be prompted for one.



### 8.1 Setup Options

If two .DT0 files are listed but you wish to plot only one gauge click “Clear File” to remove the gauge you do not wish to plot. If only one .DT0 file is listed and you wish to plot two gauge’s data then click “Browse for .DT0 file” above the empty file listing.

If the gauges were not started at the same time you may “Shift Bot.DT0 Samples” by a positive or negative amount in order to line up the two gauge’s data so that they pressure up and down at the same time.

You may select the display units of the data by selecting them from the drop down menu for “Display Settings”. If you are choosing to plot the data in Absolute units enter the imperial or metric value to convert the data from gauge units. The Alberta average for atmospheric pressure is 93.01 kPa or 13.49 psi.

If the gauge(s) contain a large amount of data you may choose to filter the data to not plot every data point by entering or adjusting the “Sample Filter” amount.

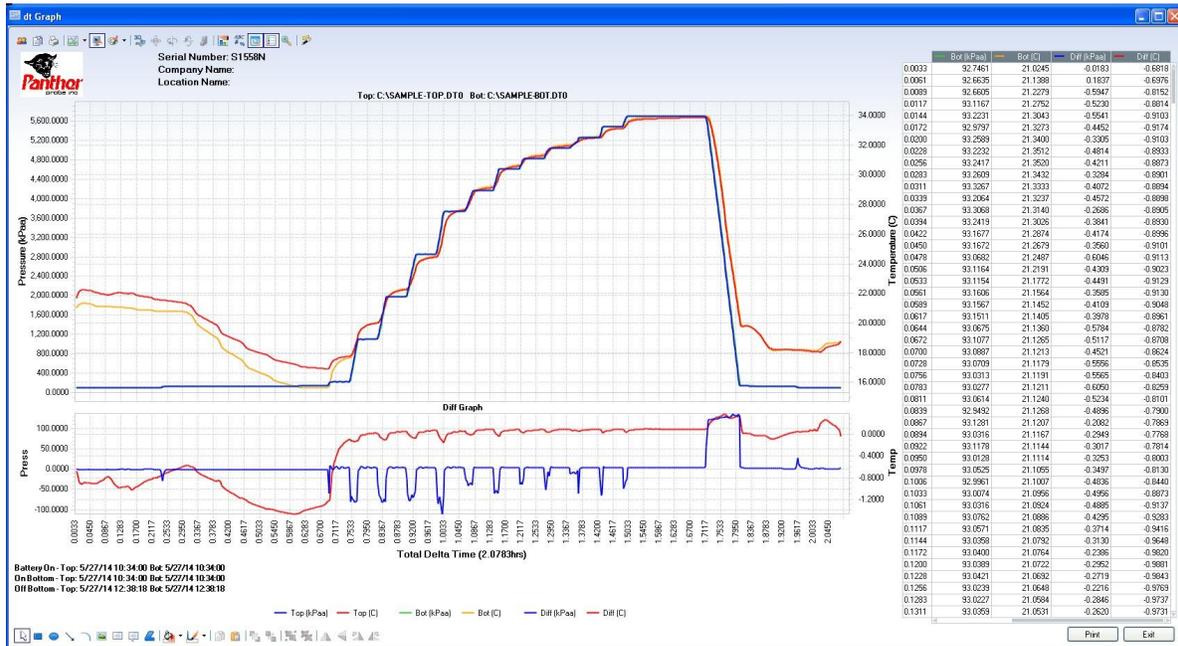
The “Display Data Grid” refers to a column listing of the gauge(s) data readings that can be displayed along side the plot. If you do not wish to see this data or would like to decrease the amount of time it takes to generate the plot uncheck the box next to it.

The “Combine Top/Bot .DT0 files on the same Graph” option will allow you to plot the top and bottom data recorder on the same plot or individual plots.

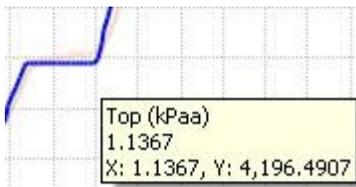
The “Use Same Min/Max Scale” option plots the pressure and temperature data using common axis scales if they are on individual plots.

The “Create Differential Graph” option will plot a pressure and temperature differential graph displaying the difference between the Bottom—Top gauge data. This is useful in determining if the gauges are reading similarly and properly.

## Plotting Graphs continued

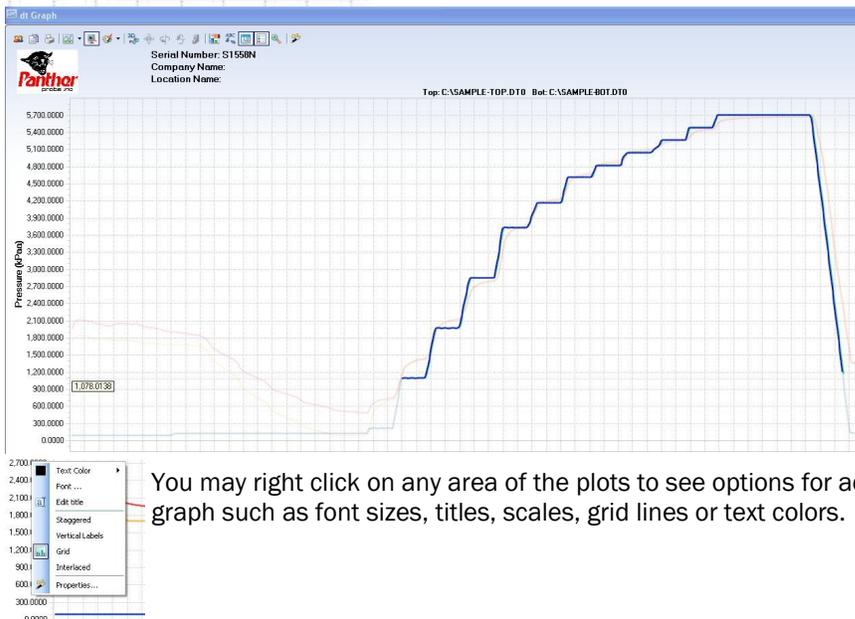


Click "Graph" to see the plot(s) with your desired items selected. A new window will appear. A legend of the data items and their corresponding colors is displayed near the bottom of the window. If the data grid is displayed on the right hand side but you do not see all of the data column items you may scroll left or right with the scroll bar at the bottom of the data grid. You may also maximize the window size by clicking the square button on the top right of the window which may display more columns.



### 8.2 Mouse Tips

If you hold the mouse pointer over a point and data series on the graph a pop up window will appear displaying the value of the data point the mouse is over. You may also hold the mouse over an item in the data grid in order for that data point to be highlighted on the plot.



You may right click on any area of the plots to see options for adjusting properties of the graph such as font sizes, titles, scales, grid lines or text colors.

If you hold the mouse over the pressure or temperature scale on the left or right of the plot all pressures or temperatures above that point will be highlighted with points below dimmed and a temporary line drawn. You may also do this with the time axis.

## Plotting Graphs continued



### 8.3 Zoom

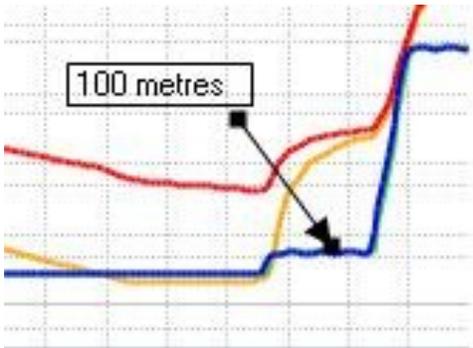
To zoom in on an area of the plot click the Zoom icon. Then move the mouse pointer over the graph's central location of the area you would like to zoom in on. Click and hold the left mouse button then move the mouse drawing a temporary box of the zoom area. Once the zoom area has been defined release the left mouse button. To return to the original plot click the Zoom icon again.



### 8.4 Adding Arrows

You may add items such as arrows, text boxes and balloons to the plot by clicking on an item in the bottom left corner of the window and then clicking a beginning and end point of the plot.

You can remove an added item by clicking delete while the item is selected.



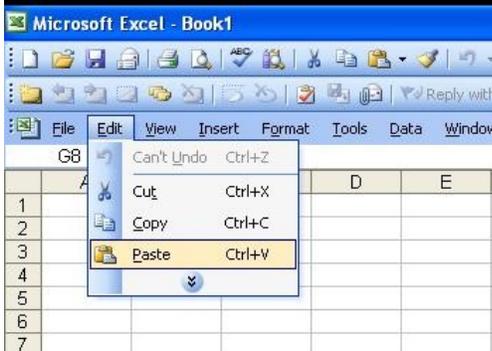
### 8.5 Printing Graph

The print button is found in the upper left corner of the graph window.



### 8.6 Saving Graph Image to File

If you do not have a .pdf file writer and would like to save an image of the plots to a file use the "Copy to Clipboard" button then click the "As a Bitmap" option.

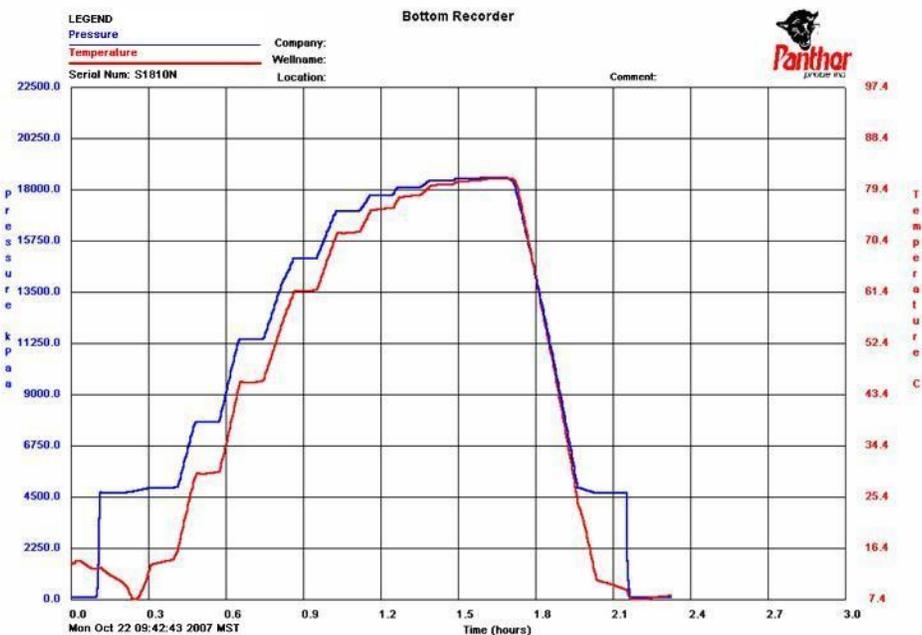


Once this is done then open MS Paint, Excel, Word, or whichever program you would like and Paste the image into the new file and save it.

## 9.0 Plotting Graphs—Previous style



If you wish to view the previous style of graphs, click either of the two icons near the top of the screen for the top or bottom recorder graph. This will cause a screen to appear with a graph of the selected gauge and test.



**9.1 Save as Bitmap** This is the **Save As Bitmap** button. It is located in the graphic toolbar at the top of the graph. To save a graph for later viewing, e-mailing or printing, click on the **Save As Bitmap** button. A submenu will appear, showing the directory which the DTOs were saved to.

The system will use the file name as a default for the bitmap. The file name can be changed though, to help identify which plot is being saved (i.e. PCP-100-02-24-059-05W4-plot.BMP). (Also see “To Save The Graph as a Bitmap and Print” on Section 8).



**9.2 Zoom In** This is the **Zoom In** button. It is also located in the graphic toolbar at the top of the graph. To zoom in on the data in the graph, click on the **Zoom In** button and then click and hold the left mouse button on a portion of the graph. Then drag the mouse pointer to the end of the section that you wish to view. When you release the left mouse button, the graph changes to the selected section.



**9.3 Zoom Out** This is the **Zoom Out** button. It is also located in the graphic toolbar at the top of the graph. To zoom out simply click the zoom out button. This will return the graph to its original size.



**9.4 Scale Adjustment** This is the **Scale Adjustment** button. Also located on the graphic toolbar, it is used to adjust the scale on each of the pressure, temperature and time axis. Click on the **Scale Adjustment** button to activate the submenu box containing the minimum and maximum values currently used on the graph. Tab thru each of the min. and max values for each axis to enter the new values for the graph. Once the adjustments have been entered, click on OK to view the adjusted graph. To return to the original scale, select the box for “Reset to Original Values” and click on OK. (Also see “To Change the Axis on a Graph” section on Section 9)

The data from the graph can also be used to produce a Static Gradient Report.

## 9.0 Plotting Graphs—Previous style continued

When the data has been downloaded and the graph is plotted in the Panther Software, it can be printed directly from the software. If the operating system does not allow this though, the graph must be saved as a bitmap and then printed.

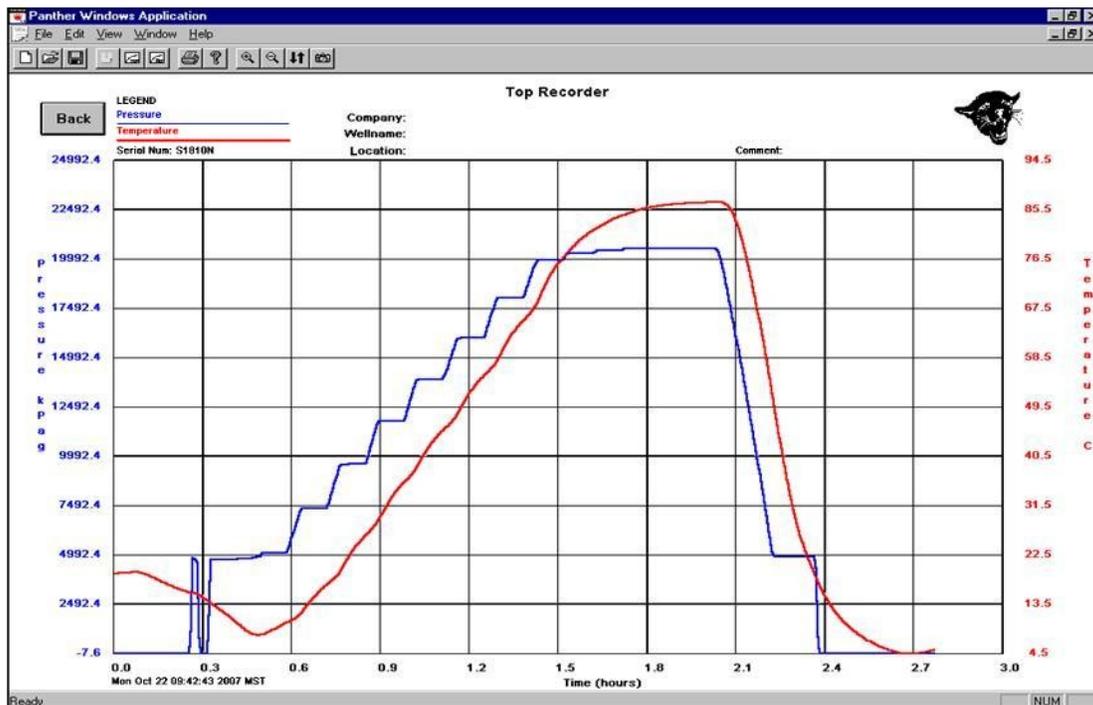
### 9.5 To Save The Graph As A Bitmap And Print

Plot graph in software.

On the Panther tool bar below the File/Edit/View.... toolbar, select the button on the far right with the camera icon on it.



A submenu will appear, asking for a file name and location to save the plot as. Chose the directory that you want the plot save in and a file name for the plot (the system will allocate a file name but you



can change it).

Select 'Save' when you have chosen the above. Another submenu will then appear indicating the file and the file path that has been created. Select OK.

Minimize the Panther Software.

Open Windows Explorer to enter the directory in which you saved the plot.

Select the file name (double click on it). The Microsoft® Paint screen will appear. If the screen is not full size, maximize it to view the entire graph.

Select the PRINTER icon to print out the graph.

### 9.6 To Print The Graph In The Panther Software

On the top toolbar, select **File** to access the print options.

Select **Section/Print Set-Up**.

Change the Print Orientation from **Portrait** to **Landscape**.

Select **OK**

Select **File** and then select **Print Preview** (this allows you to see what will be printed on paper). If the plot looks correct, select **Print**. If it needs to be changed, select **Close** and adjust your print settings accordingly (i.e. change from Portrait to Landscape).

Once the plot has been printed, close the bitmap file and return to the Panther Software to continue.

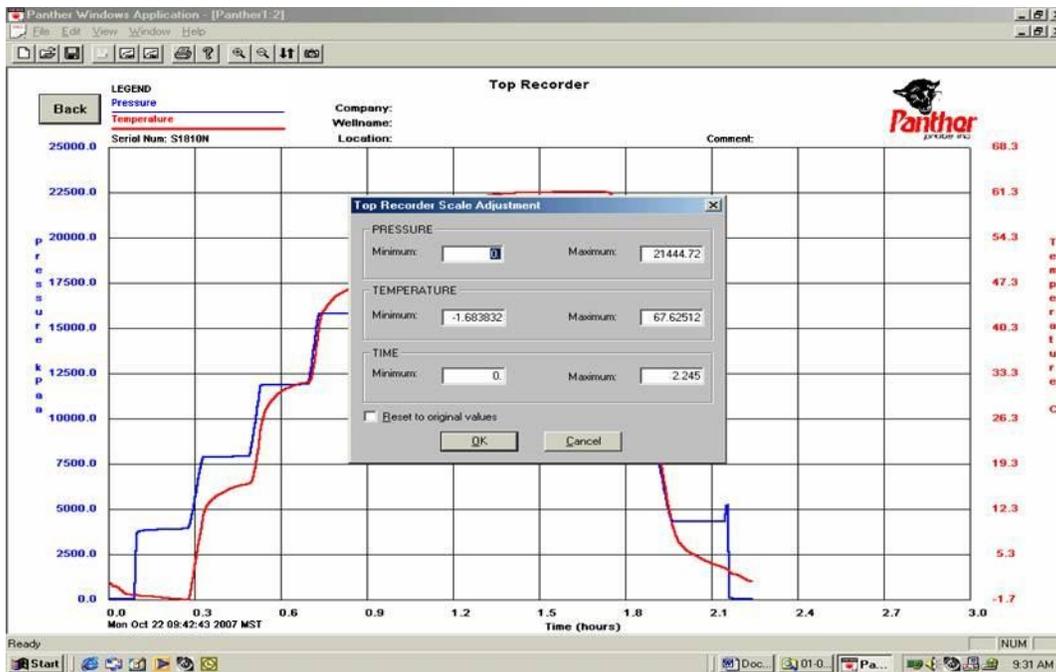
### 9.7 To Change the Axis on a Graph

Neither the pressure or the temperature axis can be removed from a graph, as this is part of the software. It is possible, though, to remove or alter the data plotted the graph. This can be done each time a graph is plotted in the Panther Software (the adjustment must be made with each new graph plotted).

Plot the graph.

On the toolbar for the Panther Software, select the button with the up/down arrows on it (the button is right beside the button with the camera icon on it).

A sub menu appears on the screen labeled "Top/Bottom Recorder Scale Adjustment".



**To Change the Axis on a Graph continued**

To change the range of the axis on the graph, you can change the minimum and maximum values in the temperature, pressure and time fields. This would assist in magnifying a specific area of a plot, for example,

To get a more detailed look at what is happening with one specific value (i.e. pressure).

To remove the data being plotted of one specific value, like temperature, enter a 0 for both the minimum and maximum values. The Temperature axis will remain on the graph, but the data will not be plotted.

Once the axis has been changed, select OK if the values are what you want.

This plot can now be saved as a bitmap image for printing.

If a mistake is made on resetting the values of the axis:

Go back into the "Scale Adjustment".

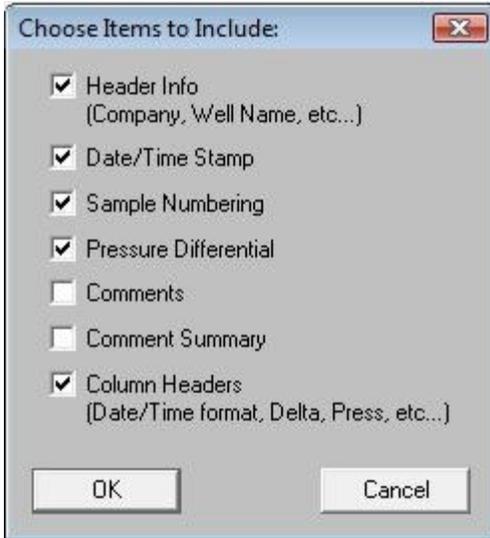
Select "Reset To Original Values" and click on OK.

This will return the graph to its original setup when first plotted.

---

## 10.0 View Test Data

To view a tool, click on the **View Data** button.



A pop-up will appear. Select which items you would like to view.

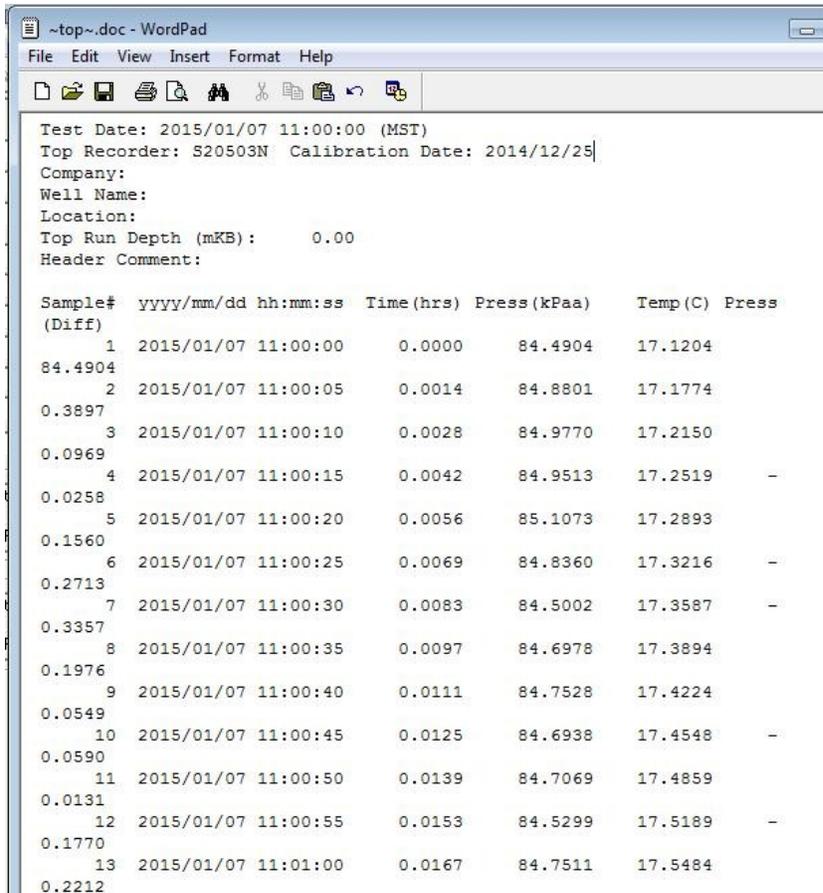
View Data displays the data using Microsoft® WordPad.

You can scroll through the data using all the options available in WordPad.

You can search your data, format, save, print, and email directly from within the View Data.

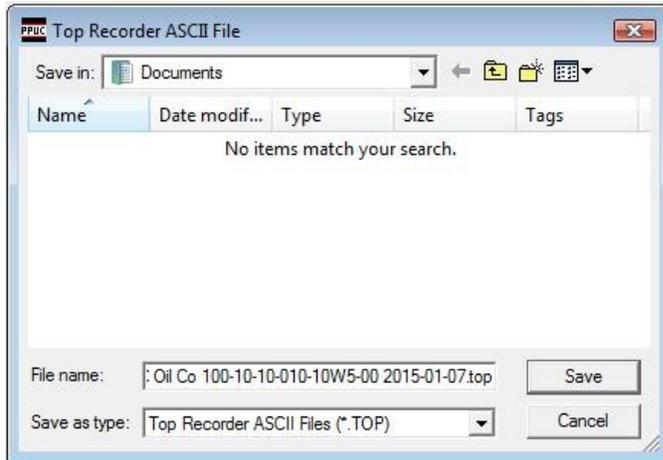
You can also have the Top and Bottom View Data displays open at the same time for side-by-side viewing.

**Note:** You can email directly from WordPad. See WordPad help for more information on this option.

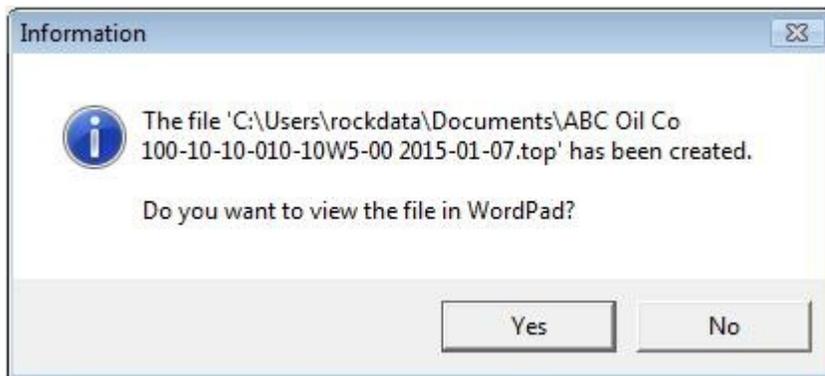
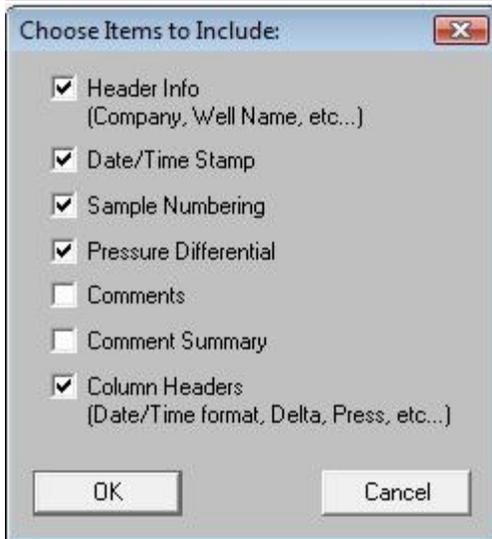


## 11.0 Create ASCII File

To create an ASCII file, click on the **ASCII File** button for either the Top Recorder or Bottom Recorder.

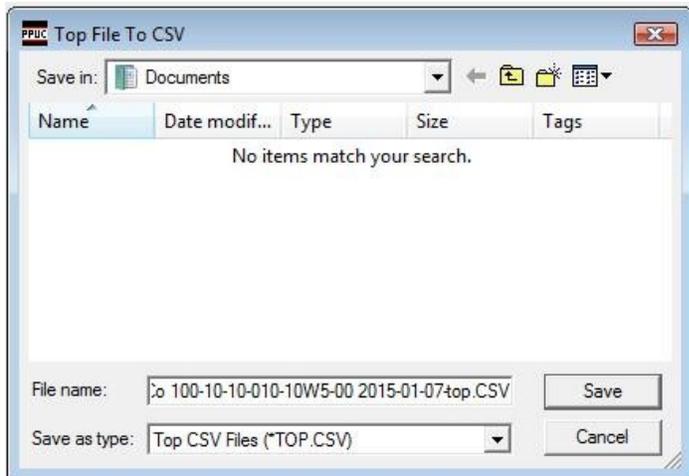


Select the destination folder from the Save In: window and then create a filename for the file. Click Save. A pop-up will appear. Select which items you would like saved. You will then be given the option to view the file saved.



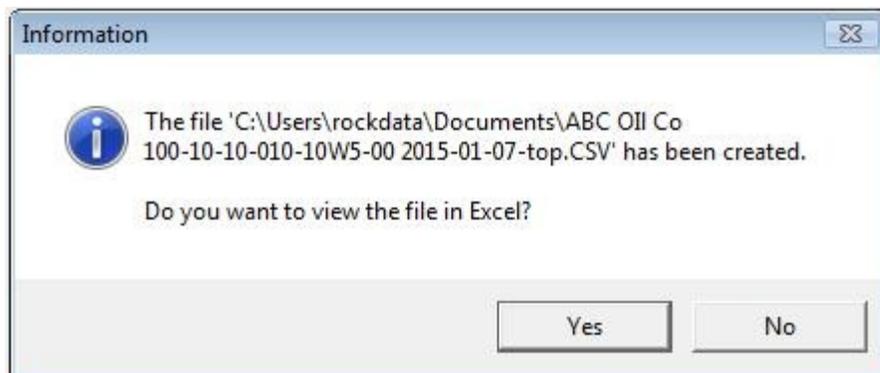
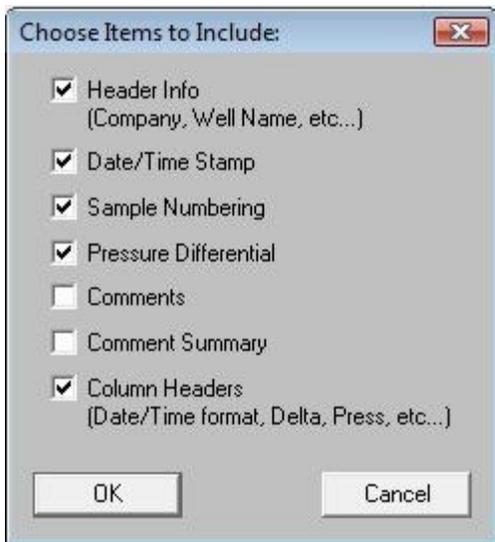
## 12.0 Create CSV File

To create a CSV (Comma Separated Values) file, click on the **CSV File** button for either the Top Recorder or Bottom Recorder. This file can be opened directly into Microsoft® Excel.



Select the destination folder from the Save In: window and then create a filename for the file. Click Save. A pop-up will appear. Select which items you would like saved. You will then be given the option to view the file saved.

**Note:** Microsoft® Excel can not import a CSV file that contains more than 65,535 entries. If there is more than this number of samples in your CSV file, you will need to filter the samples down first.



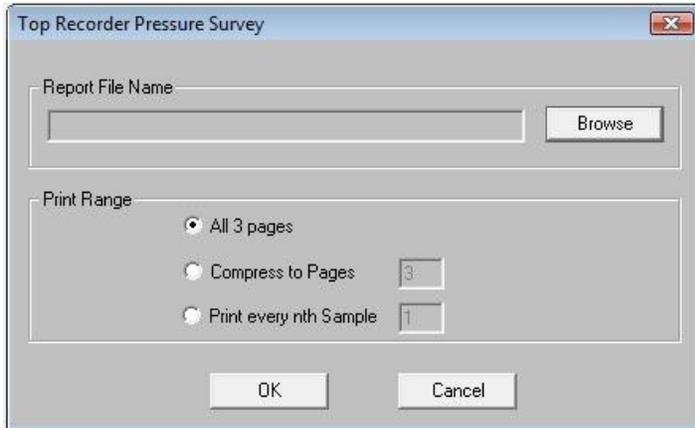
### 13.0 Create Pressure Survey (Report)

This option is usually used to generate a quick field report of the raw data as well as any additional comments for the report. To create a report, click on the **Report** button for either the Top Recorder or Bottom Recorder.

The **Pressure Survey** dialog box will be displayed prompting you to save the report as a HTML file.

#### When Saving Report (HTML):

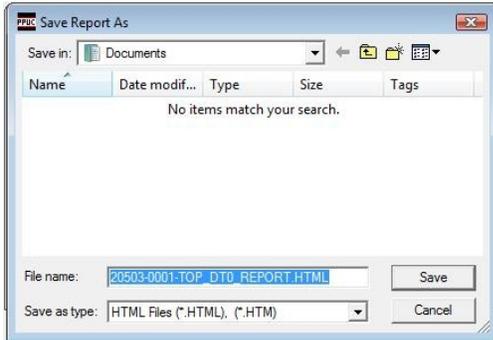
The **Top Recorder Pressure Survey** or **Bottom Recorder Pressure Survey** dialog box will be displayed.



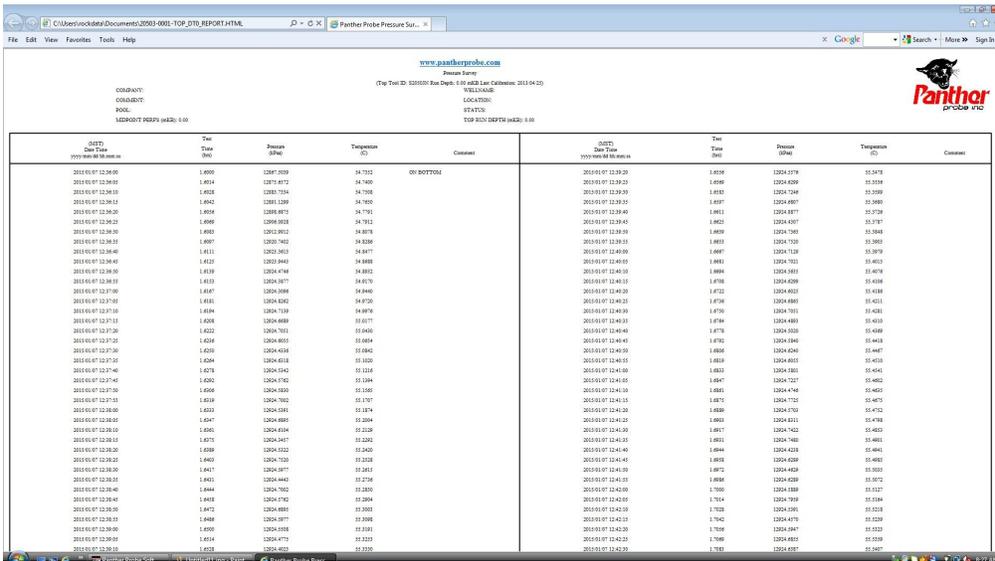
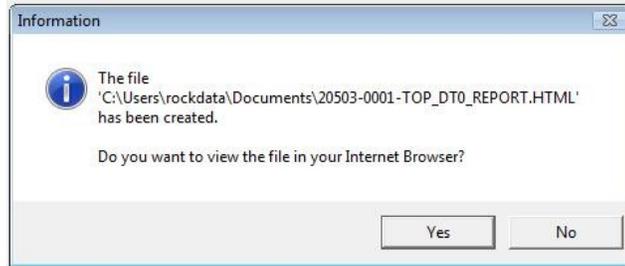
#### When Printing Report:

The print dialog box will be displayed. Choose your printer preferences and click 'OK'. You can choose to print all the data or compress it to an inputted number of Sections. You may also print every nth sample. For example, if the recorder is sampling every 30 seconds and you only require a reading every 15 minutes, you'd choose to print every 30th sample (2 samples per minute x 15 minutes).

Select the destination folder from the Save In: window and then create a filename for the file. Click Save. The file will save as



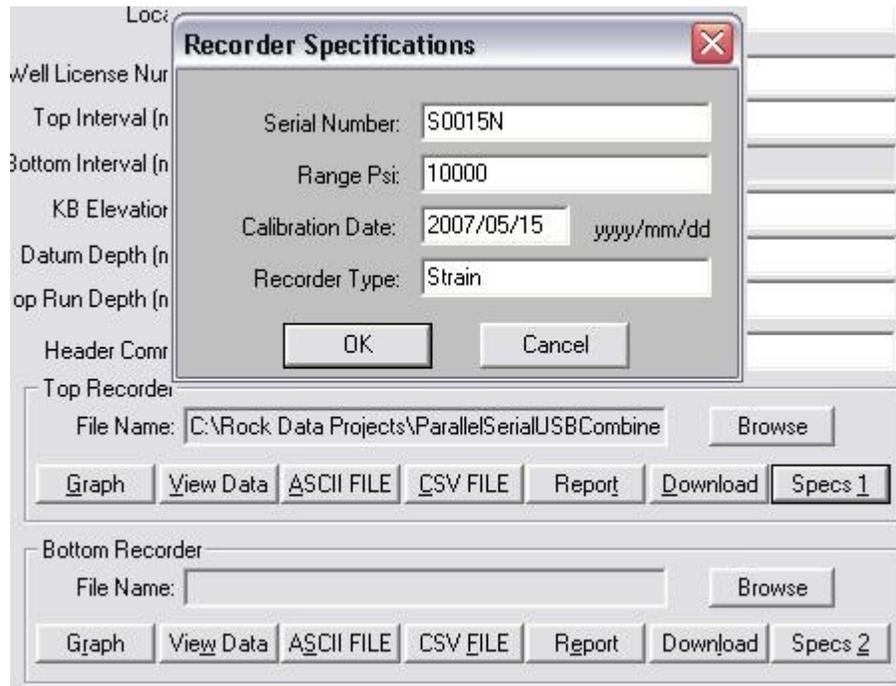
an .html file and you can choose to view it in your web browser.



## 14.0 Recorder Specifications

To display the Recorder Specifications, click on the **Specs 1** button for the Top Recorder or the **Specs 2** button for the Bottom Recorder.

The **Recorder Specifications** dialog box will be displayed for the gauge specified.



**Serial Number:** Displays gauge serial number.

**Range PSI:** Displays gauge range (PSI).

**Calibration Date:** Displays the last date the gauge was calibrated (yyyy/mm/dd).

**Recorder Type:** Displays the type of gauge used.

## 15.0 Static Gradient Reports

After downloading the data from the gauges (as per Section 4), the fields on the main Section of the software can be filled in if the information is available. If you have downloaded the data earlier though, and are preparing a field report later, you must retrieve the DTO files from your computer before starting on the report.

To open the DTO files, open the Panther Software to the main Section, as per picture:

Click on **BROWSE** in the **Top Recorder** section.

A submenu will appear, showing the last directory that you were in and the file names.

Select the DTO file for the top recorder and click on **OPEN**.

Repeat this procedure for the bottom recorder.

Click on **GRAPH** to view the plot of each recorder, or click on **VIEW DATA** to ensure that the correct DTO files have been retrieved.

To properly utilize the **Gradient Report**, ensure that the KB and CF Elevation fields are filled in. Also ensure that the run depths are entered as follows:

Top Run Depth (mKB) : Total Run Depth—Recorder Length

( Example: 1625.8 (run depth) - 0.5 (bottom recorder length) = 1625.3 mKB )

Bottom Run Depth (mKB) : Total Run Depth (As per example, would be 1625.8 mKB)

Once all available information has been entered into the fields, select **Graph** to view the plotted data and ensure that both sets of data correlate. To view the raw data, select **View Data** (as per Section 11).

Once the raw data has been checked, the stops can be entered in the **Graph** section of the software and the report can be completed, as discussed on Sections 17 thru 19.

To save the well and field report information, select **File** on the main toolbar. Then select **Save As**. A submenu will appear, with a default file name. The default name can be used or it can be changed. Once the file name is complete, click on Okay to save the file to the same directory as the DTO files.

**Note:** THE REPORT PRODUCED IS NOT AN OFFICIAL REPORT.

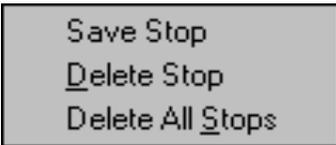
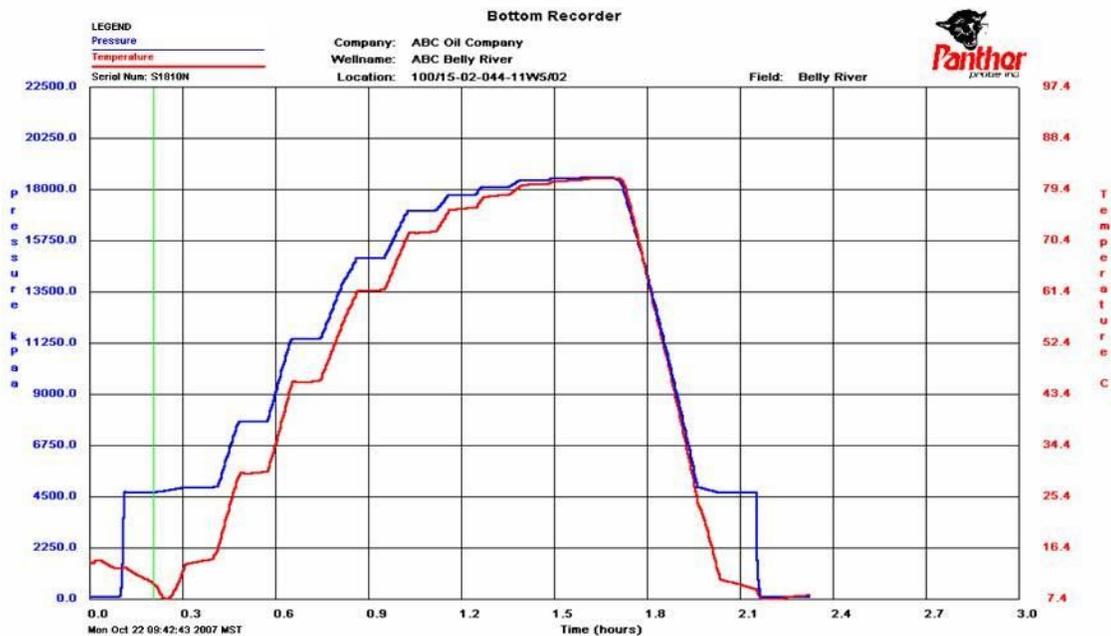
## Static Gradient Report Continued (Marking Stops)

In order for this portion of the software to work you must be in the [Graph](#) section to mark the stops from the test. It is recommended that the graph of the Bottom Recorder is used to select and enter the stops.



To mark a stop on the graph, **right-mouse click** on the graph. A sub menu will appear, as illustrated. Select the **Add Stop** option with a left-mouse click..

Starting with the first stop on the graph (i.e. the surface stop), move the mouse pointer to about half to two-thirds of the way thru the stop. Now **left-mouse click** on the graph to mark the stop. A green line will appear to act as a marker. You can continue to do this until satisfied with the stop. The line will change each time you left-mouse click.



When satisfied, **right-mouse click** again on the graph and select the **Save Stop** option. This saves the stop and places the stop in the Static Gradient Report.

You will then be prompted to enter some information about the stop. The values to enter are length of stop, stop depth and incremental depth. The stop pressure and temperature data for the time chosen is filled in automatically by the system. (as Explained in next section)

**Stop Information** [X]

Start Stop: 2000/02/17 11:57:

Time at Stop: [Dropdown]

Stop Depth (mKB): 0  KB  CF

Stop Pressure (kPag): 13913.58203125

Stop Temperature (C): 40.0304985046387

Incremental Depth (m): 0

[OK] [Cancel]

## Static Gradient Report Continued (Marking Stops)

For the STOP INFORMATION, enter as follows:

**Time at Stop:** Press on the Arrow Down button and then scroll thru the times to choose the length of the top (i.e. 5 minutes, 10 minutes, etc.).

**Stop Depth:** Enter the stop depth (i.e. 0 (at surface), 500, 1000, etc.)

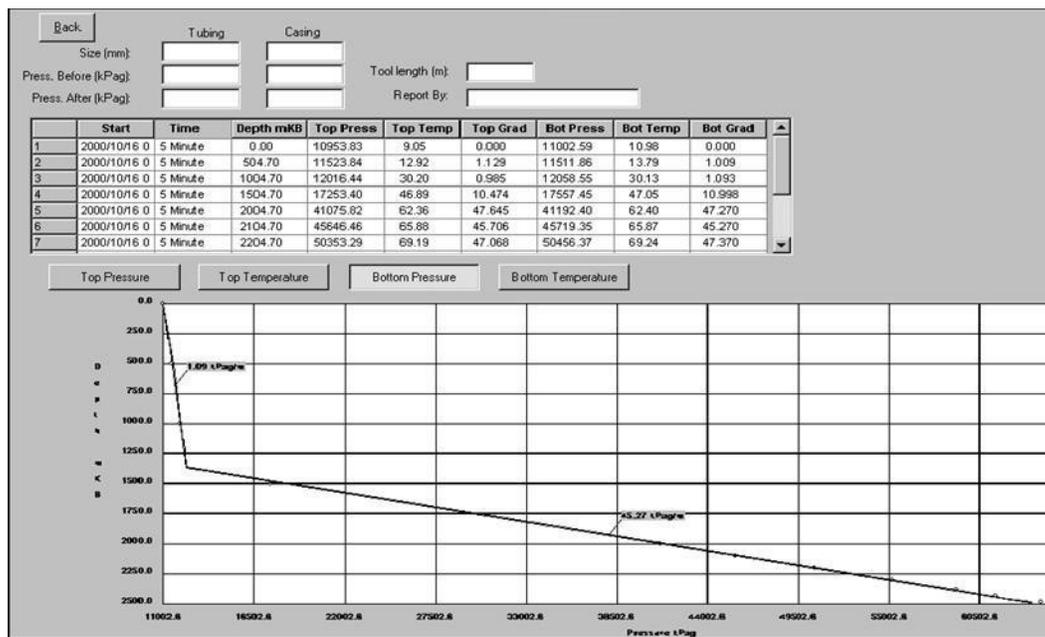
**Incremental Depth:** If there are several stops that increase by a specific amount (i.e. stop depths are 0, 100, 200, 300, 400, 500, etc), enter in the amount the depths increase (i.e. 100). This will make the depths increment automatically by this amount on the next stops. If the depths do not change by the same amount throughout the test, use '0' and enter in each stop depth individually.

When all of this information has been entered, click on the **OK** button to save the stop.

The **Delete Stop** option is used to delete the last stop that was added.

The **Delete All Stops** option is used to delete all stops that have been added.

This is the **Gradient Report** section of the software accessible by clicking on the **Gradient Report** button on the main Section of the software:



There are spaces for entering data about tubing and casing pressures. These can be entered if doing a field gradient report.

The grid of data is comprised of the stops that have been selected from the **Graph** and their corresponding gradient values.

Synchronization automatically happens when only one of the gauges has had the stops selected (i.e. the bottom gauge, as recommended at the start of this section), the stops are automatically added to the other gauge.

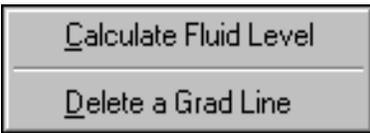
### Possible reports/graphs include:

- Top Gauge Pressure
- Top Gauge Temperature
- Bottom Gauge Pressure
- Bottom Gauge Temperature

## 15.1 Determining a Fluid Level

The software will calculate fluid levels for the top and bottom gauge pressures. To calculate a fluid level, **right-mouse click** on the graph portion of the Gradient Report screen. A submenu will appear as follows:

The **Calculate Fluid Level** option is used to calculate a fluid level.



The **Delete a Grad Line** option is used to delete any lines that are currently drawn on the graph. Fluid levels are not calculated for the temperature graphs.

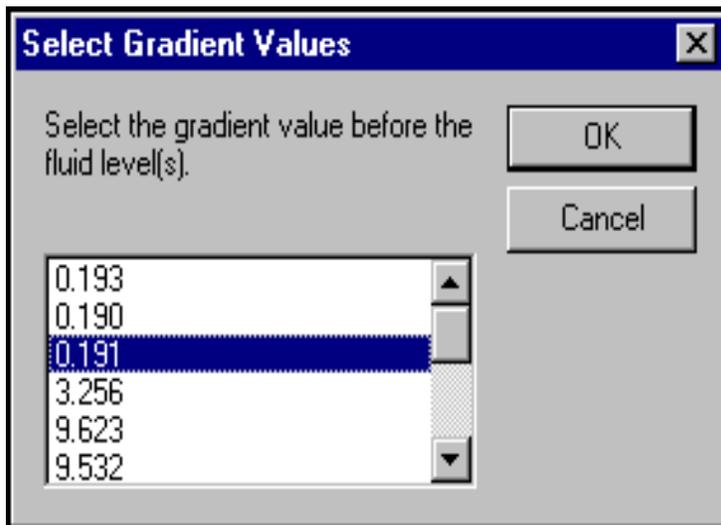
If you select the **Calculate Fluid Level** option, you will then be prompted to pick from the top or bottom recorder. It is recommended that the bottom recorder is selected, as in some cases, the top recorder may not be in fluid.

Once you have selected a recorder you will then be asked to decide where the fluid level occurs.

Up to three fluid levels may be chosen, though only one is needed in most tests.

To choose a fluid level, select the gradient value before the fluid interface.

In this example, we would select the 0.191 gradient value, as it is the last non-liquid gradient value in the sequence (i.e. the next value of 3.256 is heavier than gas indicating that the gauges are entering fluid).



### Common Gradients

Gas: 0.0 – 2.0 kPa/m

Oil: 6.0 – 9.0 kPa/m

Water: 9.7 – 11.5 kPa/m

Once you have finished click on the OK button and the fluid levels will be calculated and the graph will be plotted.

### To view the calculated fluid level and MPP Pressure (if applicable):

Select the recorder you wish to view.

In the **File** menu on the top tool bar select the **Print Preview** option.

This will display the **Static Gradient Report** for that recorder as well as the fluid level values.

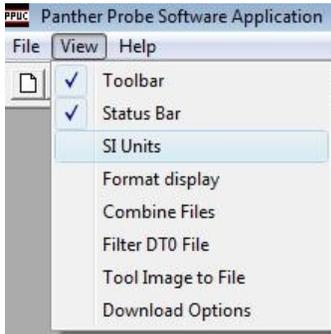
**Note:** Remember to save the gradient report once completed. In the **File** menu on the top tool bar, select **Save As**. Select the directory path in which you want to save the file (if it differs from what the default directory is listed), and enter the name of the file (i.e. Gradient04-26-035-05W5). This will be saved as a text file which can be opened and viewed at a later date. If the report is not saved, all information will be lost pertaining to the field report. Only the DTO/ascii files will remain.

**Note:** The gradient report produced is only a field report. It is not an official report.

## 16.0 SI Units

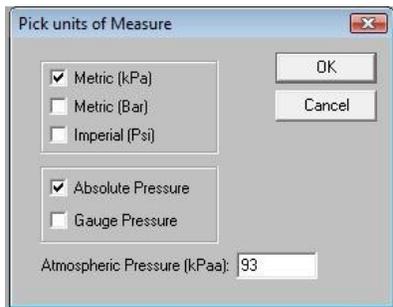
To change the units of measure, make sure that there are no tests currently open. The tests can not be minimized so they must be closed.

On the main Section of the software, in the right hand corner, will be two sets of buttons containing the minimize/restore/close buttons. To close the test section of the software, select the CLOSE (X) button in the inner set.

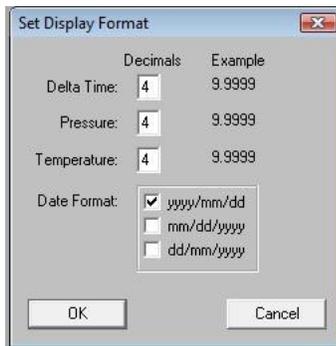
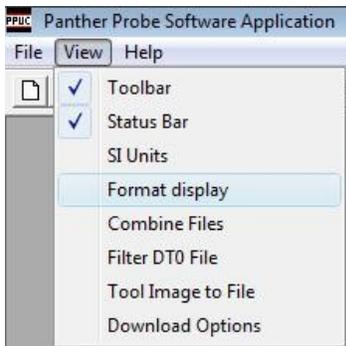


In the **View** menu on the top toolbar, select the **SI Units** option.

The **Pick units of measure** dialog box will open and from here you can select whether to display Metric (kPa), Metric (Bar), Imperial (kPa) units and Absolute (pressure minus atmospheric pressure) or Gauge Pressure. The value for Atmospheric Pressure (kPaa) can be changed if necessary in order to display Absolute pressure accurately. The Alberta Canada average for example is 93 kPaa.



## 17.0 Format Display



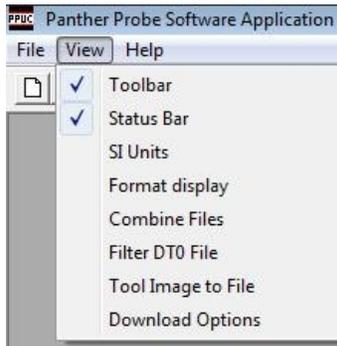
In the **View** menu on the top toolbar, select the **Format Display** option.

The Set Display Format dialog box will open and from here you can select the display format of the delta time, pressure, temperature and date for regional settings and preferences.

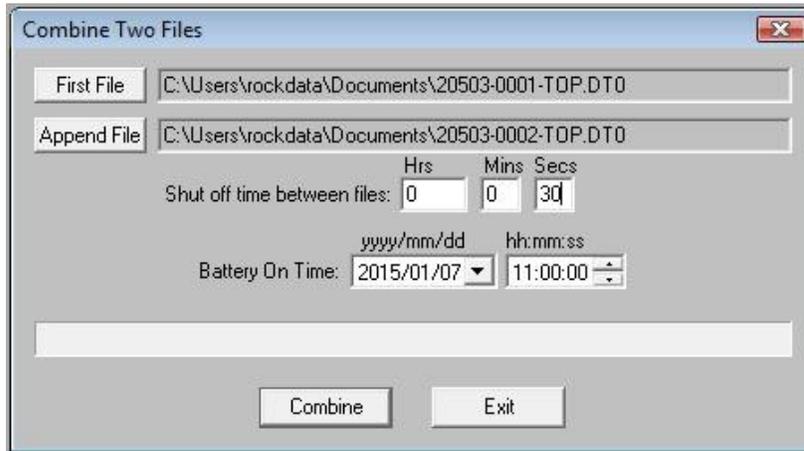
## 18.0 Combine Files

To combine DTO files, make sure that there are no tests currently open. The tests can not be minimized so they must be closed.

On the main Section of the software, in the right hand corner, will be two sets of buttons containing the minimize/restore/close buttons. To close the test section of the software, select the CLOSE (X) button in the inner set.



In the **View** menu on the top toolbar, select the **Combine Files** option. The **Combine Two Files** dialog box will open and from here the user can combine two DTO files together to make one file.



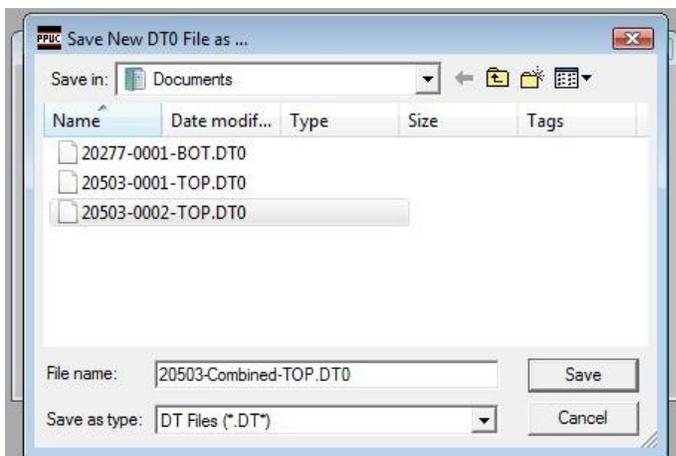
**First File:** Browse directory and choose DTO file detailing the first part of the test.

**Append File:** Browse directory and choose DTO file detailing the next part of the test.

**Shut off time between files:** This feature enables the addition of time between the two files ( hh:mm:ss ).

**Battery On Time:** Enter the battery on time for the new DTO file being created.

**Combine:** Combines the DTO files identified. Will prompt for a file name for the DTO file being created. Progress of the combine routine will be monitored with display bar above the Combine button.



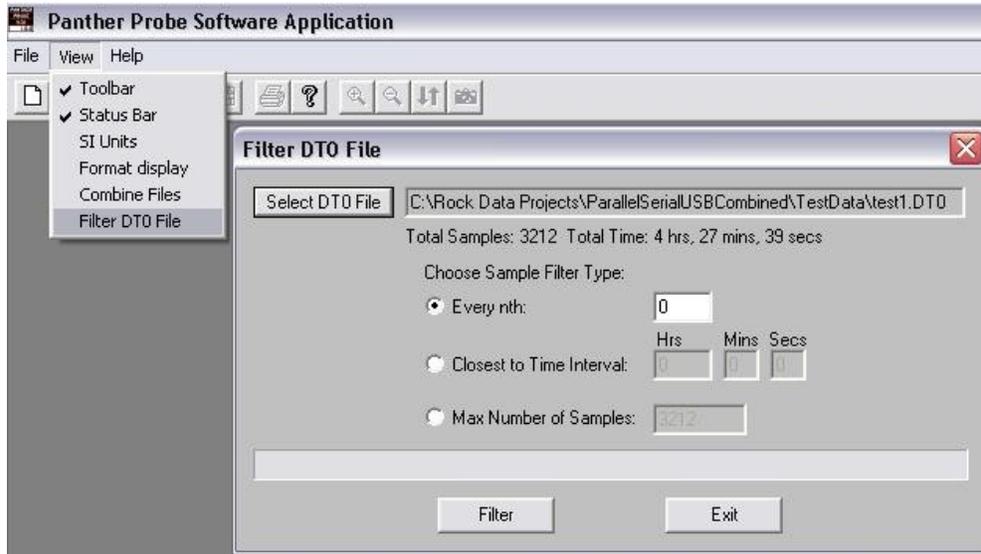
Select the destination folder from the Save In: window and then create a filename for the file. Click Save.

**Exit:** Closes the dialog box.

## 19.0 Filter DTO File

To filter a DTO file, make sure that there are no tests currently open.

On the main Section of the software, in the right hand corner, will be two sets of buttons containing the minimize/restore/close buttons. To close the test section of the software, select the CLOSE (X) button in the inner set.



In the **View** menu on the top toolbar, select the **Filter DTO File** option.

The **Filter DTO File** dialog box will open and from here the user can reduce the size or resolution of a file. This feature can filter by every nth reading, time interval, or the Max. Number of Samples. The first reading is always kept as the starting sample.

**Select DTO File:** Browse directory and choose DTO file that will be filtered.

**Choose Sample Filter Type:**

**Every nth:** Specify the filter rate to be applied [e.g. Filtering at a rate of '2' results in a every 1st, 3rd, 5th, etc. reading being displayed].

**Closest to Time Interval:** Specify the time interval the data will be filtered by. This feature will choose the reading that is closest to the time interval specified. (hh:mm:ss). i.e. If you entered 15 minutes and had a sample at 00:14:55 (hh:mm:ss) and one at 00:15:10 (hh:mm:ss), the sample at 00:14:55 would be kept as it is the closest.

**Max Number of Samples:** Enter the maximum number of samples you want the data file to contain when filtering is complete. This is similar to 'Every nth' filter type except that 'Every nth' is a calculated value to arrive at a specific number of samples.

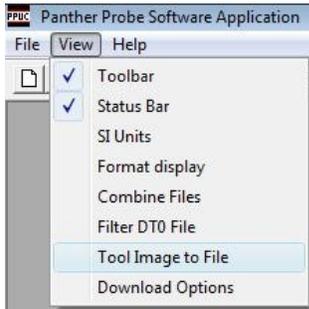
**Filter:** Filters the DTO data file by the number of readings or time interval specified. Will prompt for a file name for the DTO file being created. Progress of the filter routine will be monitored with display bar.

**Exit:** Closes the dialog box.

**Note:** Use the 'Max Number of Samples' filter type to filter a large data file down to a specific size before converting into a CSV file.

## 20.0 Tool Image to File

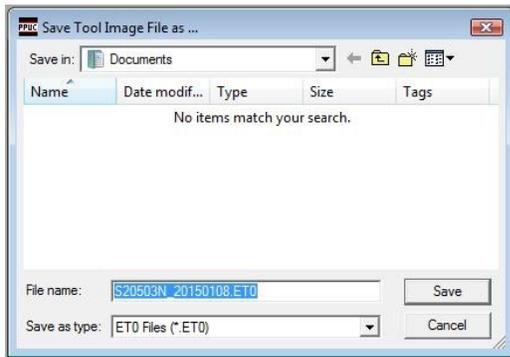
On the main Section of the software, in the right hand corner, will be two sets of buttons containing the minimize/restore/close buttons. To close the test section of the software, select the CLOSE (X) button in the inner set.



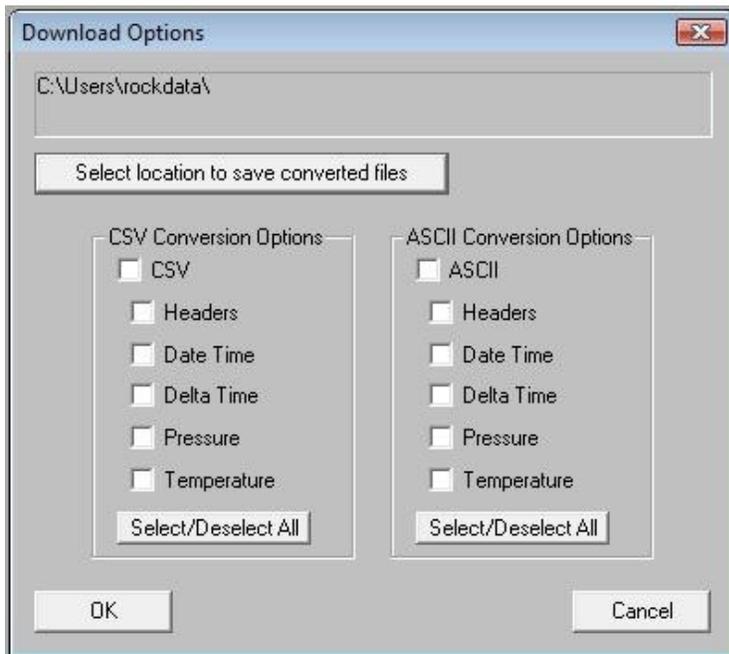
To save an image of a tool, first ensure the gauge is connected to the computer through the USB port and communication cable.

In the **View** menu on the top toolbar, select the **Tool Image to File** option.

A **Save Tool Image File as** dialog box will appear.



Select the destination folder from the Save In: window and then create a filename for the file. Click Save.



### Download Options

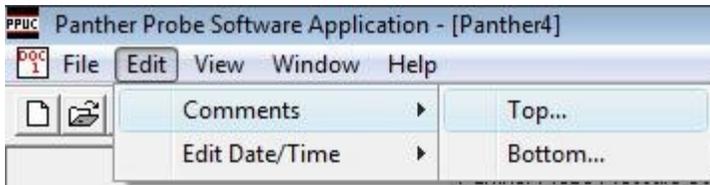
To revise download options. In the **View** menu on the top toolbar, select the **Download Options** option.

A **Download Options** dialog box will appear.

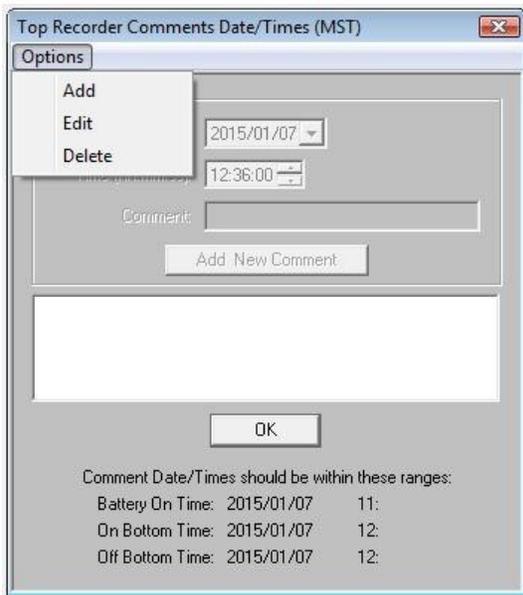
Select the CSV and/or Ascii Conversion Options you desire and click OK. By default the download options will save to the location listed (ie.

“C:\Users\rockdata\” folder). If you would like to change the default location the download options will be saved click the **Select location to save converted files** button and choose a new Save In folder and click OK.

## 21.0 Comments



To input comments into the test data, have your test information and DTO files browsed into the software. In the **Edit** menu on the top toolbar, select the **Comments** option for the gauge you would like to Edit (Top or Bottom...).

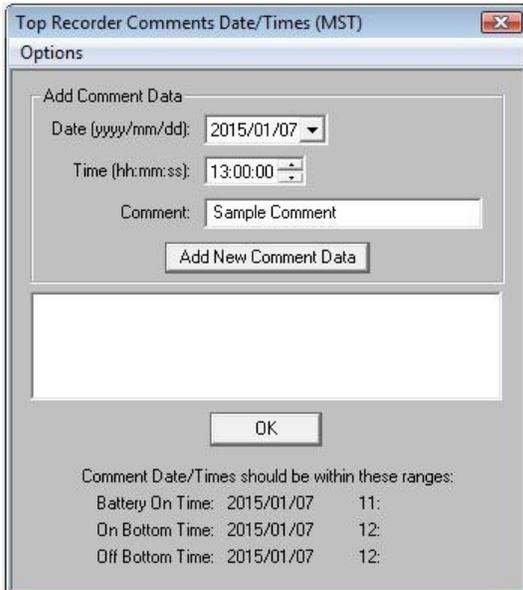


The **Recorder Comments** dialog box will open and from here the comments can be added, edited, or deleted in the Options menu on the toolbar.

**Add:** Allows the user to enter comments for a specific Date and Time in the pressure survey.

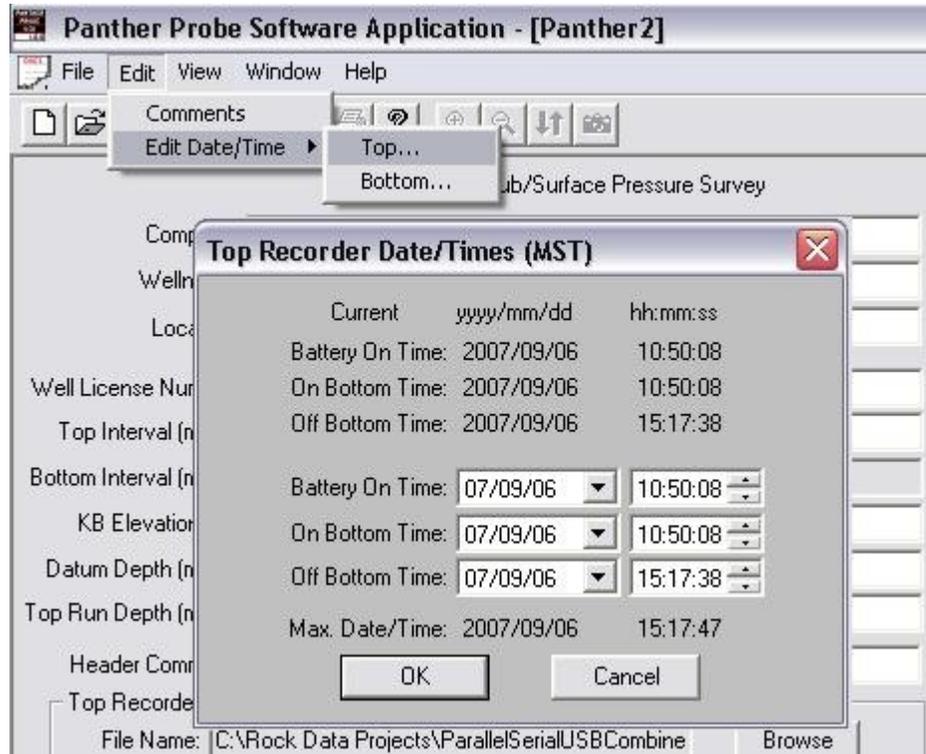
**Edit:** Allows the user to edit comments for a specific Date and Time in the pressure survey.

**Delete:** Allows the user to delete comments for a specific Date and Time in the pressure survey.



## 22.0 Edit Date/Time

To edit the Date/Time the recorders were ran, have your test information and DTO files browsed into the software.



In the **Edit** menu on the top toolbar, select the **Edit Date/Time** option and choose either the Top or Bottom recorder.

The **Top Recorder Date/Times (MST)** or **Bottom Recorder Date/Times (MST)** dialog box will open and from here the Date/Times can be edited (yyyy/mm/dd hh:mm:ss).

**Battery On Time:** Enter the Date/Time the recorder was turned on.

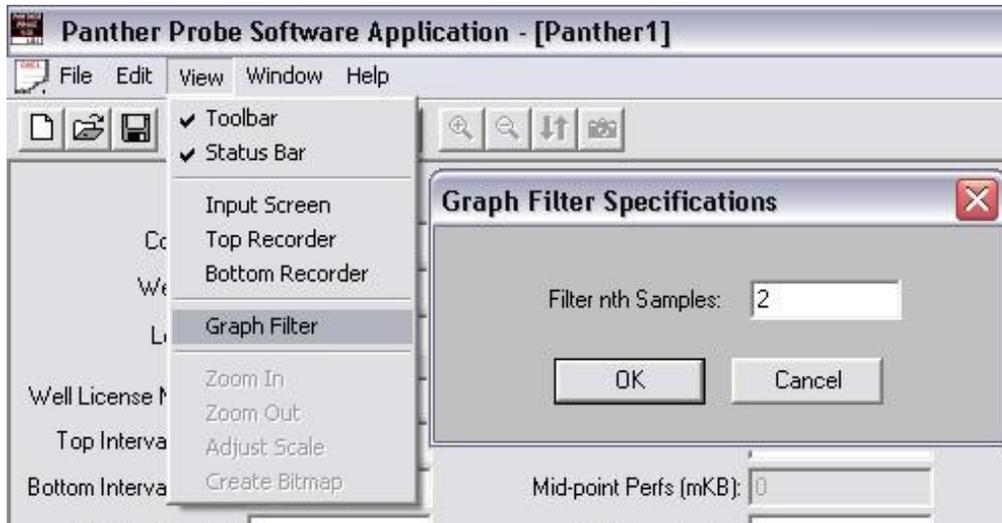
**On Bottom Time:** Enter the Date/Time the recorder was on bottom.

**Off Bottom Time:** Enter the Date/Time the recorder was off bottom.

**Max. Date/Time:** Informs the user of the Battery Off Time given the Battery On Time specified.

## 23.0 Graph Filter Specifications

To filter the graph, have your test information and DTO files browsed into the software.



In the **View** menu on the top toolbar, select the **Graph Filter** option.

The **Graph Filter Specifications** dialog box will open and from here the filter increment can be set.

**Filter nth Samples:** The number of samples in the data file will be filtered by the specified filter increment. If you enter 2—every 2nd sample will be graphed, 3—every 3rd, and so on.

**Note:** The Graph Filter has no effect on the actual data itself, only what or how much data is displayed.

## 24.0 Problem solving solutions

### 24.1 Tool Will Not Connect

Check to ensure that the USB dump cable is securely connected to the computer.

Check to ensure that the pins on the dump cable and the tool are not bent or dirty. Bent pins or foreign particles in the connectors will affect how the tool is read. Often, this will provide enough interference to prevent the tool from being detected by the software.

Check to ensure that the USB dump cable is securely connected to the tool. Carefully line up the notches on the dump cable and the tool, then gently connect them and turn the wide band around the dump cable connector until it clicks in place.

Check to ensure that the Panther Software has been fully booted up on the computer. Exit out of the program and then reopen the software.

**Note:** All Rock Data Service Tools use a USB cable.

When the USB cable is correctly installed and connected to the computer it should be listed as 'Panther Probe Tool' in the Device Manager. To check this go to Start\Control Panel\Device Manager and scroll down to the Universal Serial Bus devices item and click the + sign to expand.

**Note:** If your computer has gone into Hibernate or Sleep mode, you may need to disconnect the USB cable and reconnect.

If you are still unable to get the system to read the tool, call Customer Support.

### 24.2 Battery Life

One of the most effective ways to ensure that batteries have sufficient life for test is to keep track of the usage on each set.

Each time a battery is used in a test, mark the length of time that the battery was on for, directly on the battery. This allows one to monitor the amount of time that the battery was used for.

Keep a running record for each battery, listing the length of time that the battery was on for and the sample rate that was used in the test. This is a more detailed method of monitoring the battery life, especially when the batteries are used for a variety of tests at varied sample rates.

It is very important to monitor each battery's life, especially when running extended tests. It is best to avoid a battery stopping part way through a test. This will assist with the effort to ensure that the tools run efficiently and effectively during all test practices.

### 24.3 Unable to Print a Graph directly from the Panther Software

Occasionally, depending on the laptop or the system's hardware configuration, a graph can not be printed directly from the Panther software. If there is a conflict in the hardware configuration, or a printer is not available to print a plot on, a graph will have to be saved as a bitmap image file. This allows one to open the file as a bitmap and print the plot without causing further conflict. It also allows one to save a graph to a disk to transport to where it can be printed, or e-mailed if necessary. See "To Save a Graph as a Bitmap Image and Print" in the **Print a Graph** section on Section 7.2.

## Problem solving solutions continued

### 24.4 Locating DTO Files/Reports On Your Computer

When saving the data which you are downloading from the gauges, either make note of the directory in which the software is saving the files to, or change the directory to a specific directory or drive (i.e. if using a lap top in the field, and the data has to be downloaded to a disk so that the gauges can go back in the hole, save the files to the floppy drive (i.e. A: drive). This allows one the flexibility to transfer the data freely from one computer to another, or to e-mail the data if it is needed.) If you have difficulties changing the directory path to save the data to, call Customer Support.

To view the DTO files, click on BROWSE for either the top or the bottom recorder. This will bring up the location of the last DTO files that you saved. To view the files, click on either of the files. If you want to view other DTO files, click on the air down key displaying the file directory and then locate the directory or drive which contains the files. Once you have located the files, click on each of them, one under the Top Recorder and the other under the Bottom Recorder. The files are now loaded into the software, just as they were when they were initially dumped from the gauges. One can view the data, plot a graph, create a static gradient field report and convert these files to ASCII format.

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## Problem solving solutions continued

### 24.5 If the software is unable to locate the DTO Files which accompany the Field Report

The software will load in the information for the field report from this file. It will then ask for the corresponding DTO files which accompany the report:

A submenu box titled “Panther Windows Application” will appear stating :

The file “####top.DTO” was not found.

Would you like to look for the file?

Select “Yes” if you would like to load in the data to view the entire field report.

The software will first look in the file directory which the field report file was saved to. If the DTO files were saved to the same directory, select the DTO file which contains the data for the Top Recorder. If the DTO files have been saved to a different directory, you can Look In the computer’s file directories to locate the file you wish to view. Once the DTO file has been located, select the file for the Top Recorder.

A submenu box titled “Panther Windows Application will appear again, as per Step 1. Select “Yes” to load in the second data file for the report. As with Step 3, ensure that the DTO file selected contains the data for the Bottom Recorder.

Once the DTO files have been loaded into the Panther Software, the field report can be viewed. If gradient stops were entered and saved, the stops will appear when the graphs of the gauge data are plotted. All of the field report information will appear just as it was, before the report was saved. The report can be edited/adjusted further if required.

**Note:** Remember to save the file if any changes have been made to the field report. If the report is not saved, the adjustments will not appear the next time the report is opened. If you have any difficulties accessing saved field reports, call Customer Support for assistance.

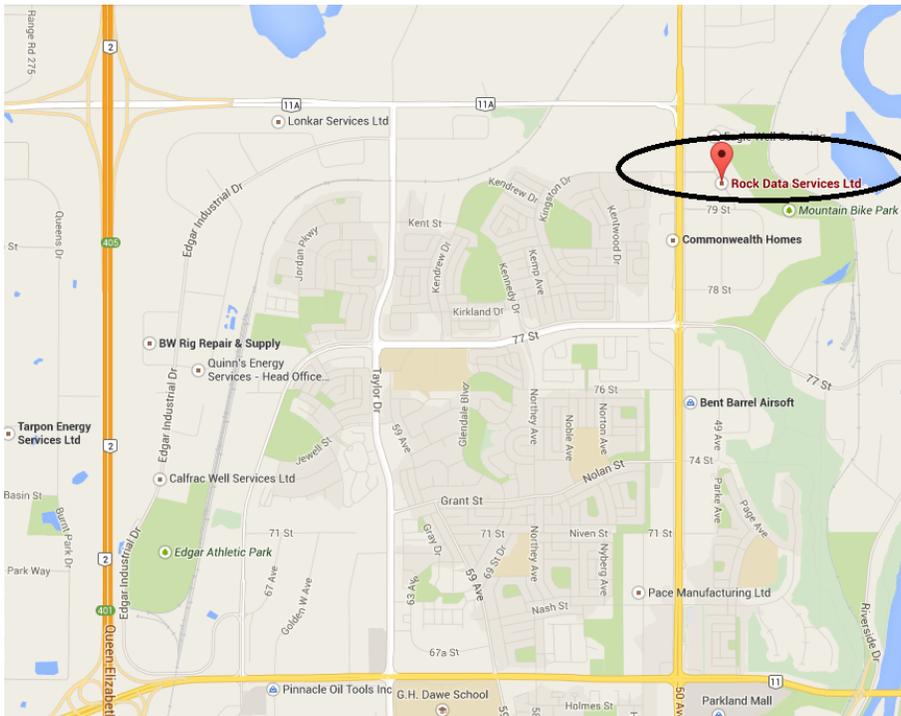
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**25.0 NOTES:**

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