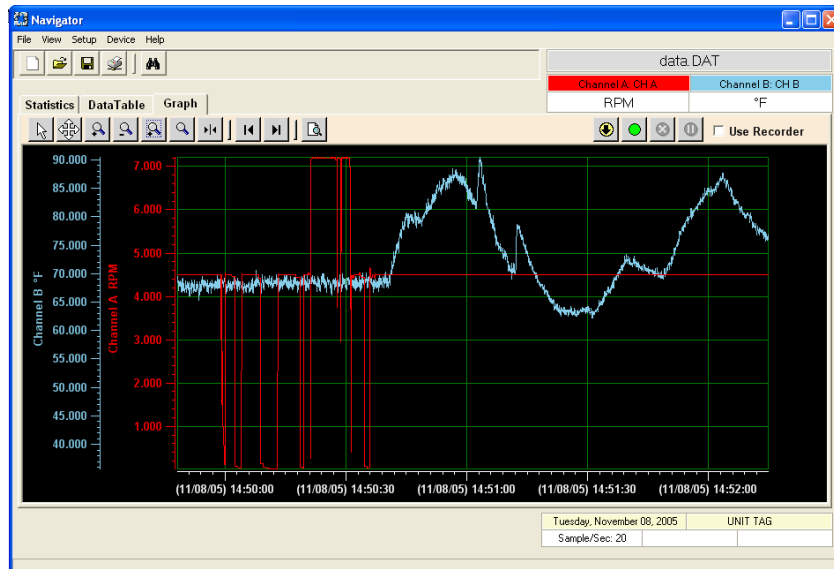


# Navigator Software

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## APPENDIX A – [LANGUAGE FILES](#)



## 1 NAVIGATOR SOFTWARE

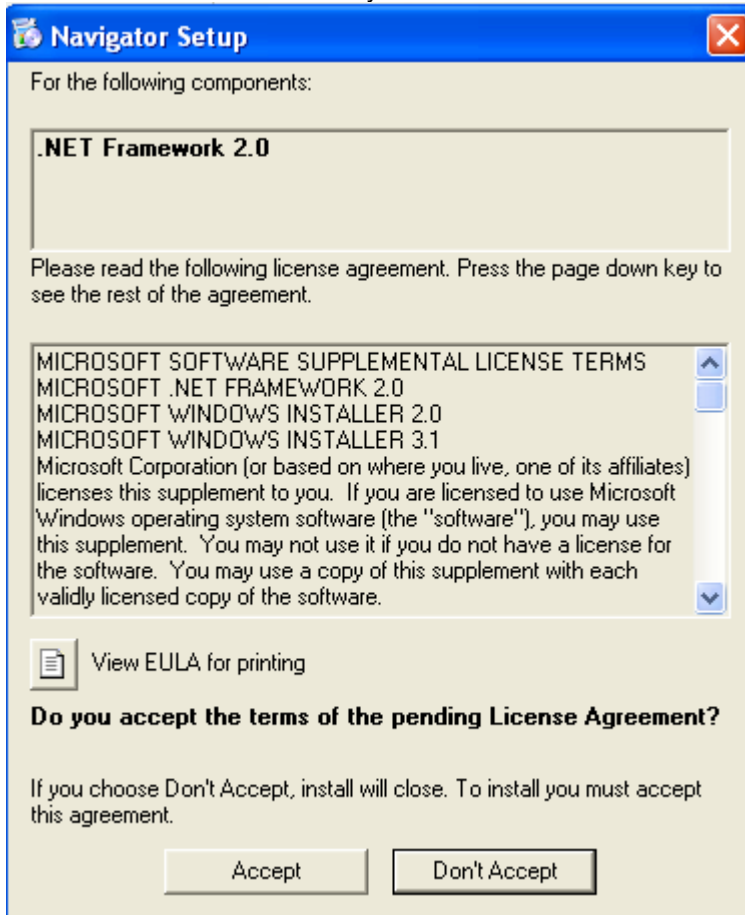
The Navigator Software is a program for viewing and exporting both real-time and non-real-time data from the recorder. It also enables recorders to be controlled and configured remotely.

## 2 INSTALLATION

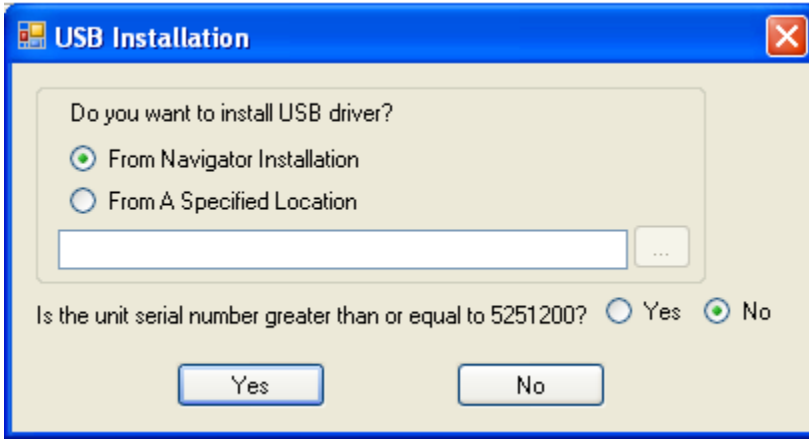
This program will run on Windows XP/2000 and later. It is not compatible with earlier versions of Windows.

To install the Navigator Software:

1. If you have the USB option on your recorder, make sure it is **not plugged in** during the installation.
2. Insert the Navigator CD into the CD drive. The setup program should launch automatically if your system is set to auto play CDs. If not, select the CD directory and run the setup.exe file.
3. Navigator Software needs .NET Framework 2.0 to run. If .NET Framework 2.0 is not installed on the PC, it will be installed first. This may take several minutes. Make sure you have network access.



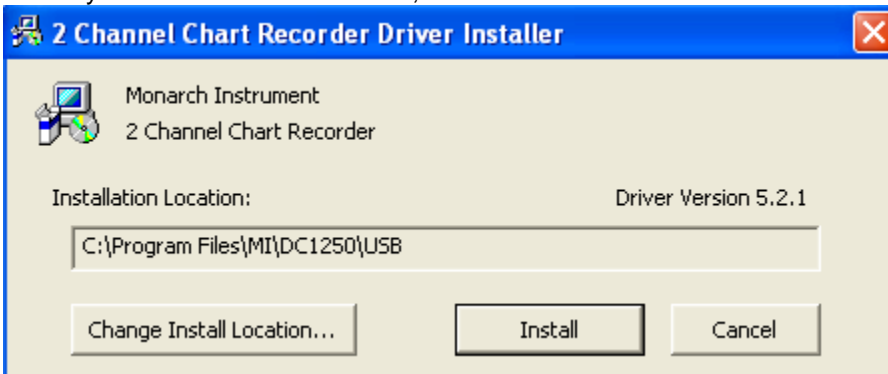
4. After .NET Framework 2.0 is installed, the installation will launch the "Welcome to Navigator Setup Wizard".
5. Accept the license agreement and the default install directory or modify it as needed.
6. Enter the installer's name and organization.
7. Accept the default start menu folder or modify it as needed.
8. Decide whether you want a desktop icon and check the box if you do.
9. The USB installation will be launched.



If you don't have the USB option, click the No button and the Navigator installation will be done.

If you have the USB option and want to install the USB drivers, follow these steps:

- a) Since the drivers are being loaded as part of the Navigator Installation, check the radio button "From Navigator Installation". The menu will explain what the option "From A Specified Location" is.
  - b) Verify the serial number of your unit. Select Yes or No for the question "Is the unit serial number greater than or equal to 5251200?" If your serial number is greater than 5251200 the USB driver installed will be from Silicon Lab. If your serial number is less than 5251200 the USB driver will be from TI.
  - c) Click the Yes button to continue.
10. To continue with the installation of the USB drivers from Silicon Lab (serial number  $\geq 5251200$ ), follow these steps:
- a) Once you click the Yes button, the 2 Channel Chart Recorder Driver Installer will launch.



- b) Change the Install Location if desired and then click the Install button. The installer will scan the system and the following warning message will appear.



- c) Click the Continue Anyway button and you will be asked to restart your computer.
- d) Once your computer has been restarted, turn the recorder on and plug the USB cable into the unit and your PC.
- e) The "Found New Hardware Wizard" will launch.

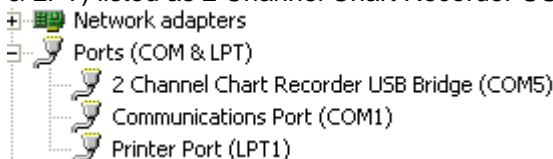


- f) Make sure the installation CD is still in the CD drive and select the "Yes, now and every time I connect a device" option. Then click the Next> button.
- g) Select the "Install the software automatically (Recommended)" option and click the Next> button.
- h) The following Hardware Installation warning will appear.



- i) Click the Continue Anyway button. When you are done click the Finish button to complete the installation.

**Note:** You can check the successful installation by right clicking on the **My Computer** icon in the Start menu and selecting **Properties**. Then choose the **Hardware** tab and click the **Device Manager** button. You should see one instance of the recorder device under Ports (COM & LPT) listed as 2 Channel Chart Recorder USB Bridge (COMx).



11. To continue with the installation of the USB drivers from TI (serial number < 5251200), follow these steps:
  - a) If this is your first installation, the recorder VCP Installer will launch and run. Accept the license agreement and continue.

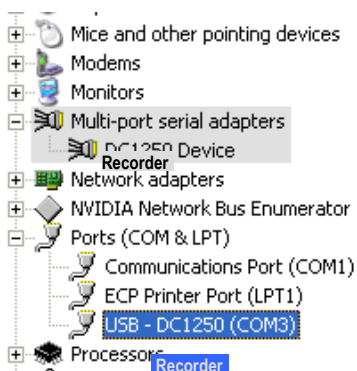
**Note:** If you have previously installed the TI USB driver, the installer will uninstall the old driver. You will then have to install the driver manually. To install the driver manually run setup.exe, which is located on the release CD in the Ti-Usb\_driver folder.

- b) Once the software has been installed, turn the recorder on and plug the USB cable into the unit and your PC.
- c) The "Found New Hardware Wizard" will launch (as shown in step 10e above).
- d) Make sure the installation CD is still in the CD drive and select the "Yes, now and every time I connect a device" option. Then click the Next> button.
- e) Select the "Install the software automatically (Recommended)" option and click the Next> button.
- f) The Wizard will search for the device – depending on your system this may take some time. Once the driver is found you will get the following warning message:



- g) Click the Continue Anyway button. When you are done click the Finish button to complete the installation.

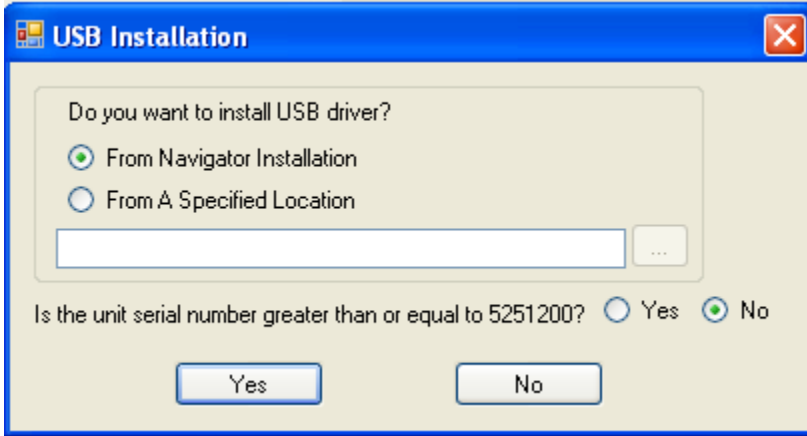
**Note:** Although the recorder connects via the USB port, the PC sees it as a virtual COM port. You can check the successful installation by right clicking on the **My Computer** icon in the Start menu and selecting **Properties**. Then choose the **Hardware** tab and click the **Device Manager** button. You should see two instances of the recorder device as shown below, one as "Multi-port serial adapters" and again under Ports (COM & LPT) as USB-recorder (COMx). For successful operation "x" should be 6 or less.



**Tip:** Make sure you have no other programs running that take control of the serial ports in the background (like some Hotsync programs), as these will prevent the Navigator Software from seeing the COM port.

Navigator Software is now installed in **Demo mode**. If you have purchased an upgrade license, you may activate it by running the software and selecting **Setup - Features - Update** on the toolbar and typing the license number provided.

**NOTE:** If you wish to load the USB Drivers after Navigator Software has been installed, there is a program called **DC1250USBInstallApp.exe** under the installation directory to do so. Run this executable to open the USB Installation application.



Select "From A Specified Location" and then click the browse (...) button to select the USB driver setup file.

Follow step 10 or 11 depending on which USB driver is being loaded.

### 3 USING NAVIGATOR SOFTWARE

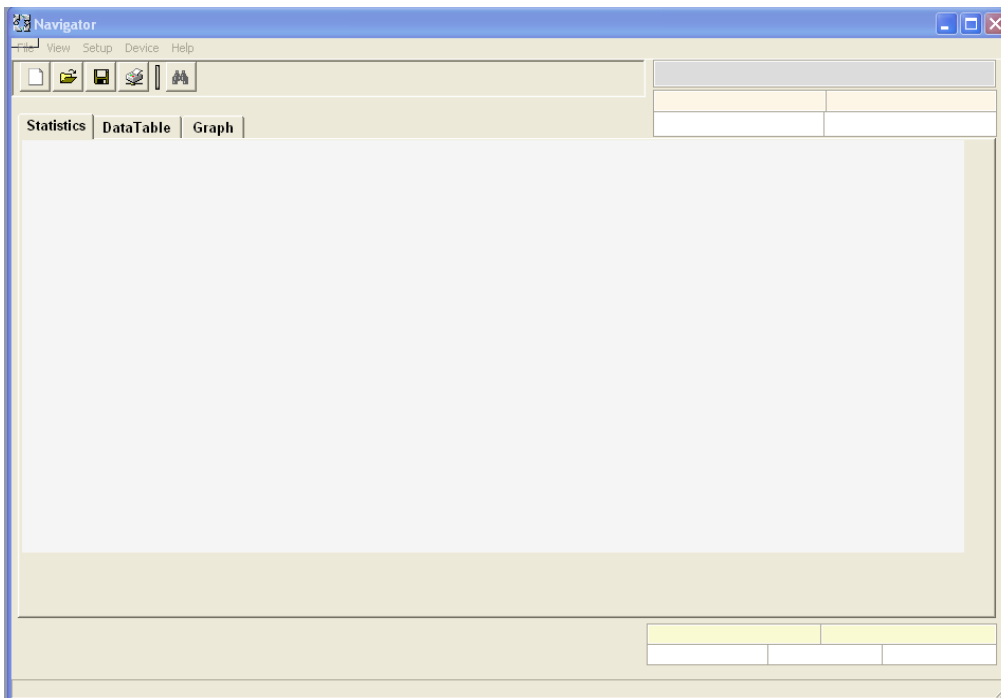
#### 3.1 STARTING THE PROGRAM

The Navigator Software has the following main features:

- It can display information from existing data files in summarized, tabular and graphic formats.
- It is capable of monitoring an external device and collecting real-time data (this requires the USB or Ethernet option on the recorder(s)).
- It can export the collected data to Excel™.



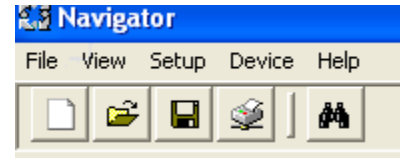
To start the program, click the desktop icon if installed (shown left), or use the Window's Start menu. This will launch the main dialog as shown below.



The main dialog consists of: a pull-down menu bar, a toolbar with basic icons and three tabs that determine what is displayed in the workspace below.

The pull-down menu items are:

- File** Allows the user to open or export a file, select the data source or Exit the program.
- View** Duplicates Icon options for the Graphics Screen.
- Setup** Allows the user to customize the program – [Section 3.2.](#)
- Device** Allows interaction with a remote recorder – [Section 3.6.](#)
- Help** Provides help files or information about the software.



The icons from left to right are: **New**, **Open File**, **Save**, **Print Table** and **Search**.

The tabs are:

- Statistics** Shows an overview of the loaded data
- DataTable** Shows a tabular layout of the data
- Graph** Shows a graphic representation of the data

### 3.2 SYSTEM SET-UP

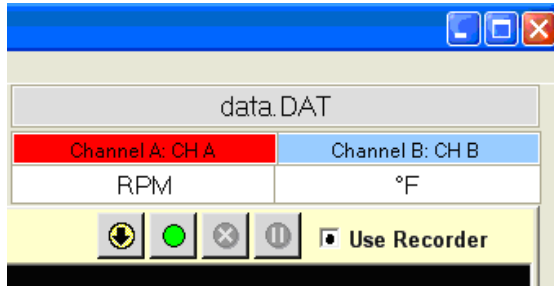
There are a number of items that can be set up before using the program, although these default to useable options.

The **Setup** menu has the following options:

- 3.2.1 Language** – Default is **English**. It is simple to add languages (see Appendix A). If there is a language file in the Navigator directory that contains languages besides English, these will be shown and the user can select the language of his/her choice.
- 3.2.2 Preferences** –
  - 3.2.2.1 Temperature** – Sets the default working temperature **Celsius or Fahrenheit**. Once selected, all temperatures will be in these units irrespective of how they were recorded. This is a start up setting and cannot be changed once selected without reloading the file. Default is Centigrade.
  - 3.2.2.2 Decimal Places** – Determines how numeric data will be displayed. Select **0, 1, 2 or 3** places after the decimal. Default is 2.
  - 3.2.2.3 Default Directory** – Sets the default directory where data files are saved or read from. The user can change the system default Program Files/Navigator/Data.
  - 3.2.2.4 Page Mode Size** – Select the maximum amount of data to load into memory at one time. Default is 1MB. This will determine how much free memory is available versus speed of operation.
- 3.2.3 Features** – Allows the user to upgrade from the free demo (default) version to the Lite or Full versions. Select **Update** and enter your serial number in the spaces shown. Upgrades can be purchased from your distributor. Use the menu **Help – About** to see what features you have.
- 3.2.4 CommPort** – Allows the user to override the default settings for the USB Com port if required. These values are set automatically from the registry entries made by the driver install routine and should not need to be changed.
- 3.2.5 Ethernet** – Allows the user to communicate in real time with a recorder over the Ethernet. Only one recorder can be connected at a time. The throughput is a function of network traffic and whatever else is communicating with the connected recorder, e.g. a web browser. It is recommended that the recorder be configured for sample speeds of 20 samples/second or less for reliable operation.
  - 3.2.5.1 IP Address** – Allows the user to enter the device IP address and assign a user-friendly name to the device.
  - 3.2.5.2 Connect** – Select the recorder you wish to connect to. If you do not see the IP address, go to IP Address above and add it. Once connected you can use all the remote functions described elsewhere in this manual.
  - 3.2.5.3 Disconnect** – Releases the remote recorder. You need to do this in order to connect to another machine or to a USB port.

### 3.3 LOAD DATA FILE

There are two sources for data, the local PC or the remote recorder. In order to load data from a remote recorder it is necessary to select **Use Recorder** from the **File** menu or go to the Graph window (click the Graph tab) and check the **Use Recorder** box on the top right as shown below. Obviously a recorder also needs to be connected to the PC via its USB or Ethernet port.

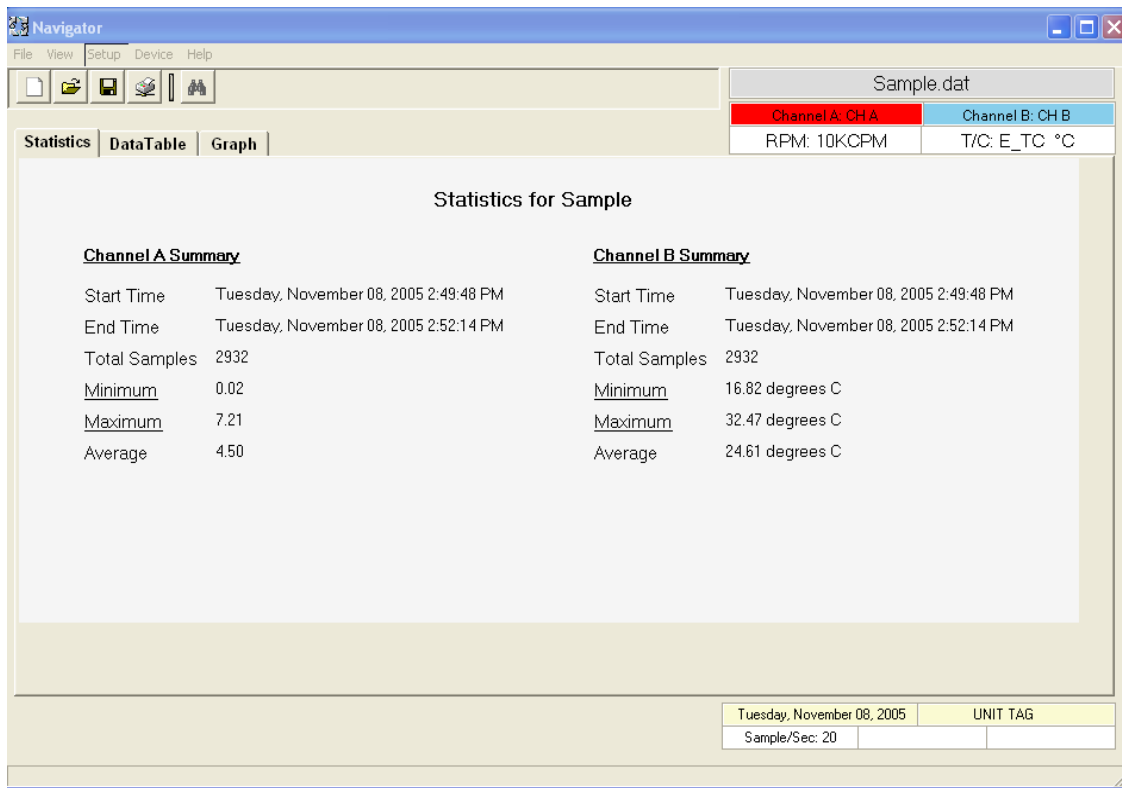


To load a data file, click the **File** menu then choose **Open** or click the File Open icon (shown right).



In the Open File dialog, choose the file that you want to load. If the “Use Recorder” box was checked the dialog box will only show files that are on the CompactFlash™ card on the remote recorder. Note that loading files from a remote recorder is a lot slower than loading them from the local hard drive or CompactFlash™ card plugged into the PC. It is possible to only load partial files to save time – [see below](#). If using files from the PC, simply browse to the directory in which the file to be loaded resides.

While the file is loading, a progress bar on the bottom of the screen will indicate loading progress. When loading large files, enough data will be loaded to fill the table or the graphics screen. When scrolling beyond these limits, additional data will be loaded as needed. Once data is loaded, the **Statistics** window will open showing a summary of the loaded data.



In the example above, the file Sample.DAT was loaded. The channel information is listed below the file name in the upper right corner. In this example there are two channels. Channel A is called CH A and its units are RPM with 10kRPM being the full scale. Channel B is called CH B and is a Type E Thermocouple measuring °C. The channel name section is the same color as the trace for that channel on the graph.



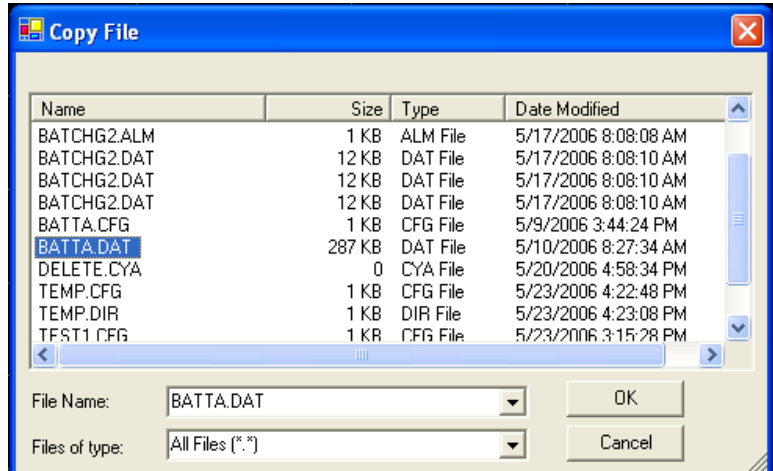
In the lower right corner the date the data was recorded, the recorder identification and sample rate are displayed. This sample recording was started on Tuesday, November 08, 2005 at 2:49:48 PM. The sample rate was 20 Samples/Sec and the recorder was identified by the UNIT TAG.

The summary information for each channel is displayed in the workspace section. By clicking on Minimum or Maximum you can jump directly to those points on the graph.

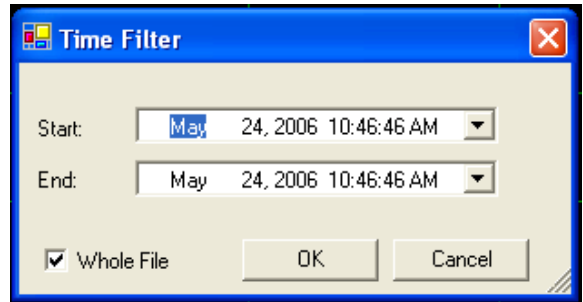
### 3.3.1 LOADING PARTIAL FILES

When opening files from the recorder, large files can take a long time to load. You can simply download the period of interest without the need to load the entire file. So if you need information for 12:00PM to 3:00PM on May 11<sup>th</sup>, 2006, you can request only this data – assuming it is in the data file you have chosen. Make sure Use Recorder has been checked – [see above](#), and go to **File – Open**.

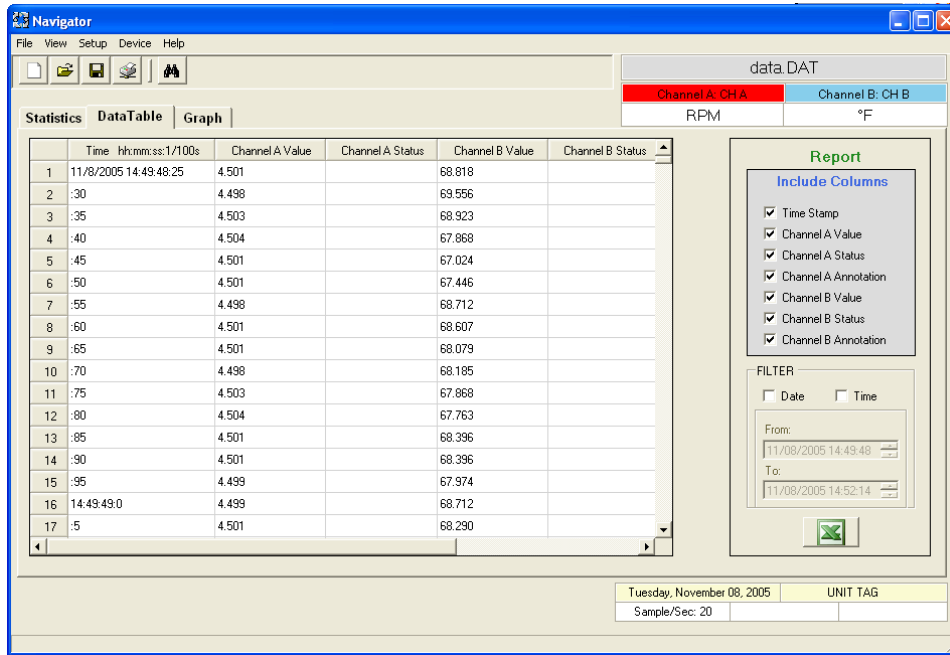
The Copy File dialog box will open as shown right showing files on the remote recorder. Data files are type .DAT.



Once you select a file and click **OK** you will get the **Time Filter** dialog box. If the **Whole File** box is checked you can click **OK** to load the entire file. Otherwise, uncheck this box and edit the **Start:** and **End:** times for the data you want. Click **OK**. If the data you are looking for is in the file, the information will be loaded; otherwise you will get an error message telling you that no such data can be found. Thus you can leave a recorder to record events and simply download the data when an exception occurs.



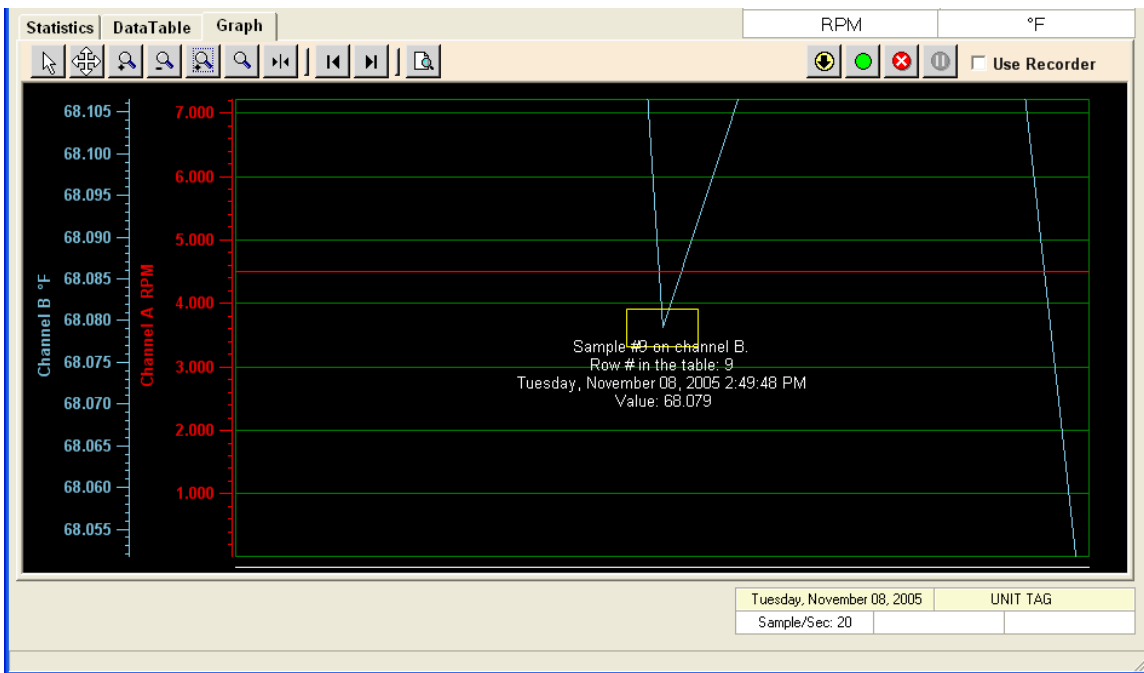
### 3.4 DATA TABLE WINDOW



The Data Table page shows the time and value of every data sample on each channel and any alarms associated with them. This window is also used to export data directly into an Excel™ spreadsheet and can be used to highlight a specific point on the graph.

#### 3.4.1 JUMPING TO A SPECIFIC POINT ON THE GRAPH


If you double-click a value in any **Channel Value** column in the **DataTable**, the program will highlight that point in the **Graph** window. The graph will be automatically scaled to show the unique point highlighted by a rectangular box as shown below:



Move the cursor into the rectangle for precise information about the point. The graph can be zoomed and panned to show the relationship of this point to the rest of the traces. (Refer to the [Graph Window](#) section).

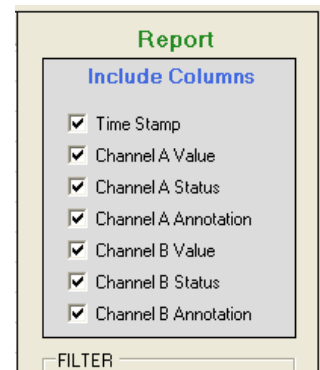
### 3.4.2 CREATING A REPORT

Select the **DataTable** tab. Navigator Software has the ability to create custom reports to be exported to Excel™ directly. The user can select the entire data set (beware of large files), highlight rows in the table, or choose specific dates and times using the filter. Also, the user can select what columns from the table to export.

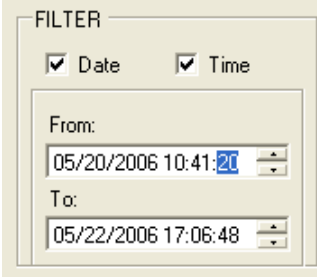
To export all the data simply click the Excel™ button  or choose **File – Export** from the pull-down menu. To select multiple rows from the DataTable, click the left edge of the starting row to export. This will highlight the row. Then scroll to the last row to export and **hold down the Shift key** and click the left edge of the last row. This will highlight all rows between the start and the end. Then click the Excel™ button. The data will be exported and the spreadsheet will open automatically.

The report can be further customized by selecting which columns to include in the report. This is done via the **Report** dialog box on the right side of the DataTable window – also shown right.

The **Include Columns** check boxes determine which columns of the DataTable will be exported to the spreadsheet. Simply select the data you want. The Channel status is the condition of the alarms, if any. The channel annotation is the content of any user comments attached to that point.



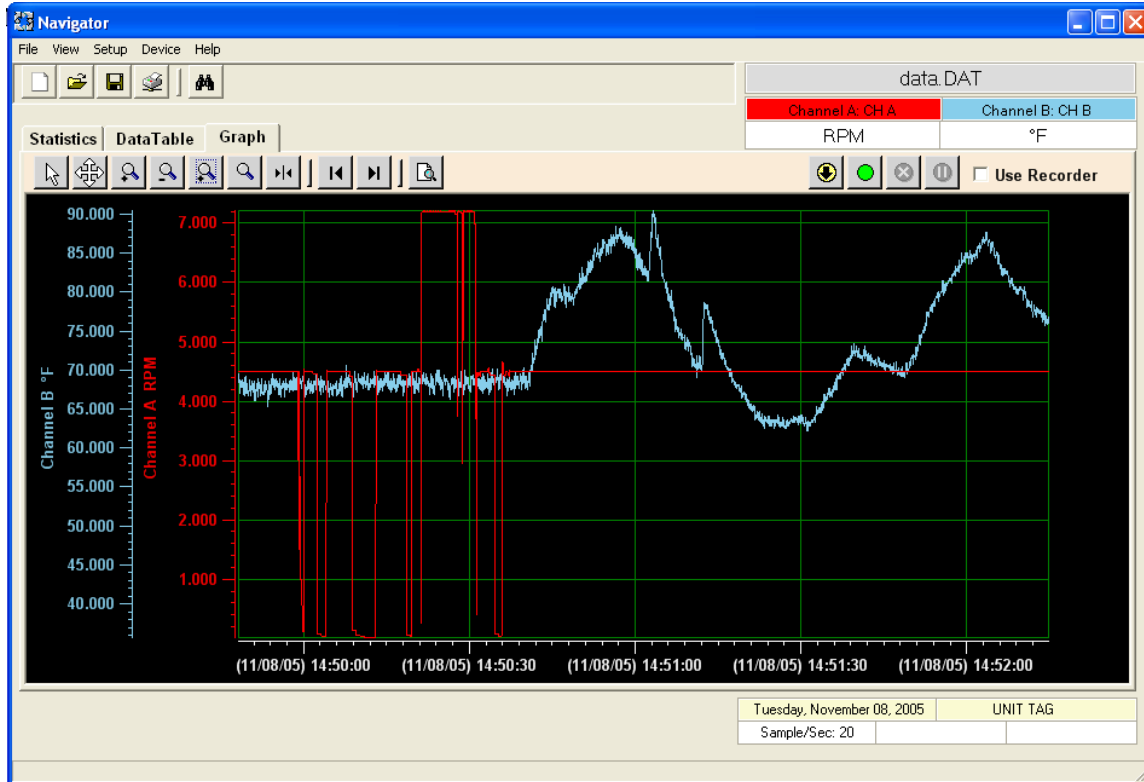
Below the Report dialog box is the **Filter** dialog box. This is yet another easy way to limit what data is exported to the spreadsheet. You can filter data by **Date** or **Time** or Both simply by checking the relative boxes as shown below.



The **From:** and **To:** data entry areas default to the start and end times of the data in the table to be exported and can be edited by the user to specify an exact timeframe for export. Once all parameters are set, press the Export button (the one with the Excel™ logo on it) and the data will open into an Excel™ spreadsheet. Note: you will need to have a valid copy of Excel™ on your PC, otherwise use the **File – Export** menu option to name a CSV (comma delimited) file for later use.

### 3.5 GRAPH WINDOW

A graphic representation of the information can be displayed by selecting the Graph tab. The following is an example of a Graph page.



There are two channels shown on the graph: Channel A and Channel B. The X-Axis is the time and the Y-Axis is the data sample value. Each channel has its own y-axis with matched color so it can be easily identified. On the top right corner of the screen is the information box giving the name of the file and identifying the two traces showing the original name and scale settings for each. The graphic data is loaded from a file or may be displayed in real time if connected to a recorder. See [3.5.5](#).

The graphic area is fully interactive. Data can be zoomed and scrolled, the interaction controlled by the icons in the toolbar above the graph. Also, specific points may be located using the [Search](#) option.

#### 3.5.1 GRAPH BUTTONS



- Select

The default cursor. This is used to scroll the trends horizontally and vertically by simply right clicking in the graph area. Traces can be scrolled individually by clicking and dragging the individual vertical scales or together by clicking and dragging in the graph area.



- Stretch

Click this button to stretch (zoom) or shrink the graph along the x-axis (time) and y-axis (scale). Traces can be zoomed individually by clicking and dragging the individual vertical scales or together by clicking and dragging in the graph area.



- Zoom In

Click this button to zoom in on the graph.



- Zoom Out

Click this button to zoom out on the graph.



**- Zoom Window**

Click this button to zoom to a user-defined window, when clicked the cursor will turn into a draw window tool. Draw a window around the area of interest by holding the right mouse button and dragging the window. On release the window area will fill the graphics screen.



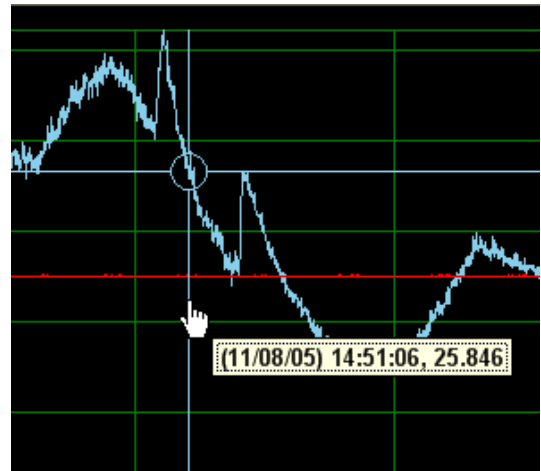
**- Zoom All**

Click this button to fit all data into one screen.



**- Cursor**

Click this button to enable the cursor. Once enabled, right click anywhere on the graph and select **Channel A – Setup** or **Channel B – Setup** to lock the cursor to that trace. As the cursor is dragged along the time base by right clicking, the cross-hairs will track the trace and the pop-up box will show details about the point in the cross-hairs as shown right. The cursor will turn to the finger pointer whenever the cursor can be dragged.



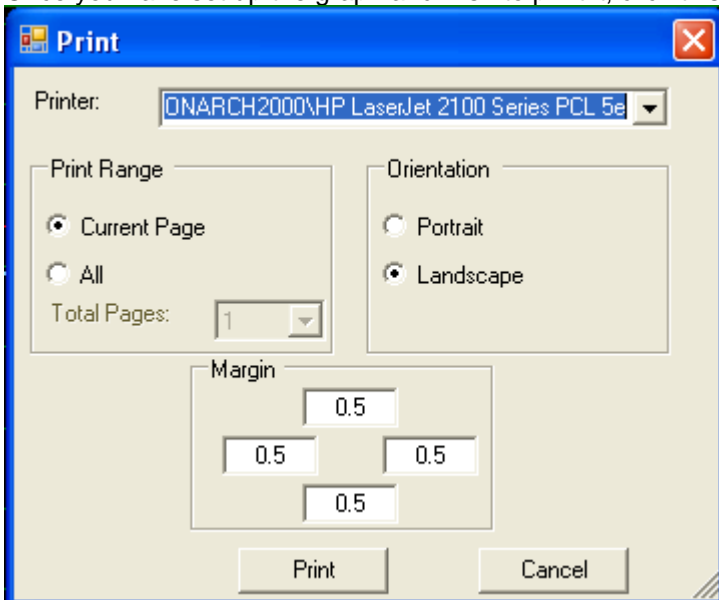
**- Scroll to end**

Click either the left or right scroll button to jump to the start or end of the data.



**- Print**

Once you have set up the graph and wish to print it, click this button to print.



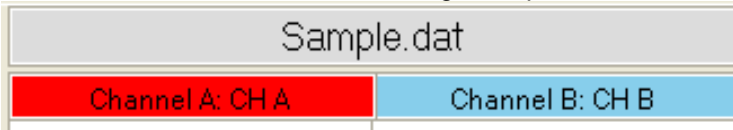
Print Range: Current Page – Only print the page you see.

All – Print all the data points that are plotted on the graph. Please specified how many pages onto which you want to split all the data points.

### 3.5.2 ZOOM TO FIT

Navigator Software allows the user to automatically zoom (scale) a channel to fit the vertical axis to the maximum and minimum values of that part of the trace on the screen.

There are two edit boxes on the dialog that specifies the channel tag in different colors as shown below:



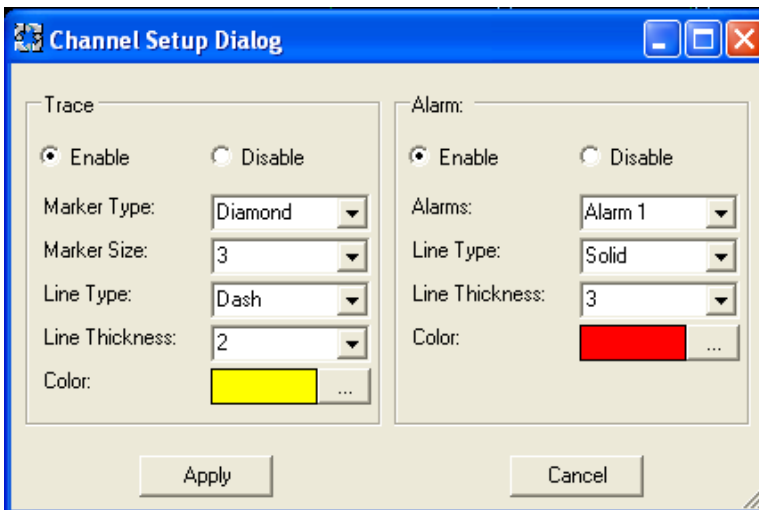
The colors match the channel trace colors. If the user changes the trace color, the corresponding edit box will change color accordingly. If the user double-clicks one of them, that trace will zoom to fit the screen in the vertical direction. The fit is – minimum value is placed at the bottom of the graph, maximum value at the top. Use the zoom and stretch tools above to fine-tune the fit.

### 3.5.3 CUSTOMIZING THE GRAPH PROPERTIES

You can modify the graph properties by right-clicking the mouse in the graphics area. A menu appears as shown below.



The user can modify Channel A or B properties, change the color of the background, or turn the grid on or off. Moving the cursor over the Channel A item pops up the Setup window. Click on this to modify the Channel A properties.



The trace can be turned off by selecting Disable. This will allow a single trace to be displayed.

If a trace is enabled it can be customized as follows:

**Marker Type** – Identifies the actual points recorded. The trace is extrapolated between these points. The points can be marked by a square, circle, or diamond, and the size can be adjusted. No marker can also be selected.

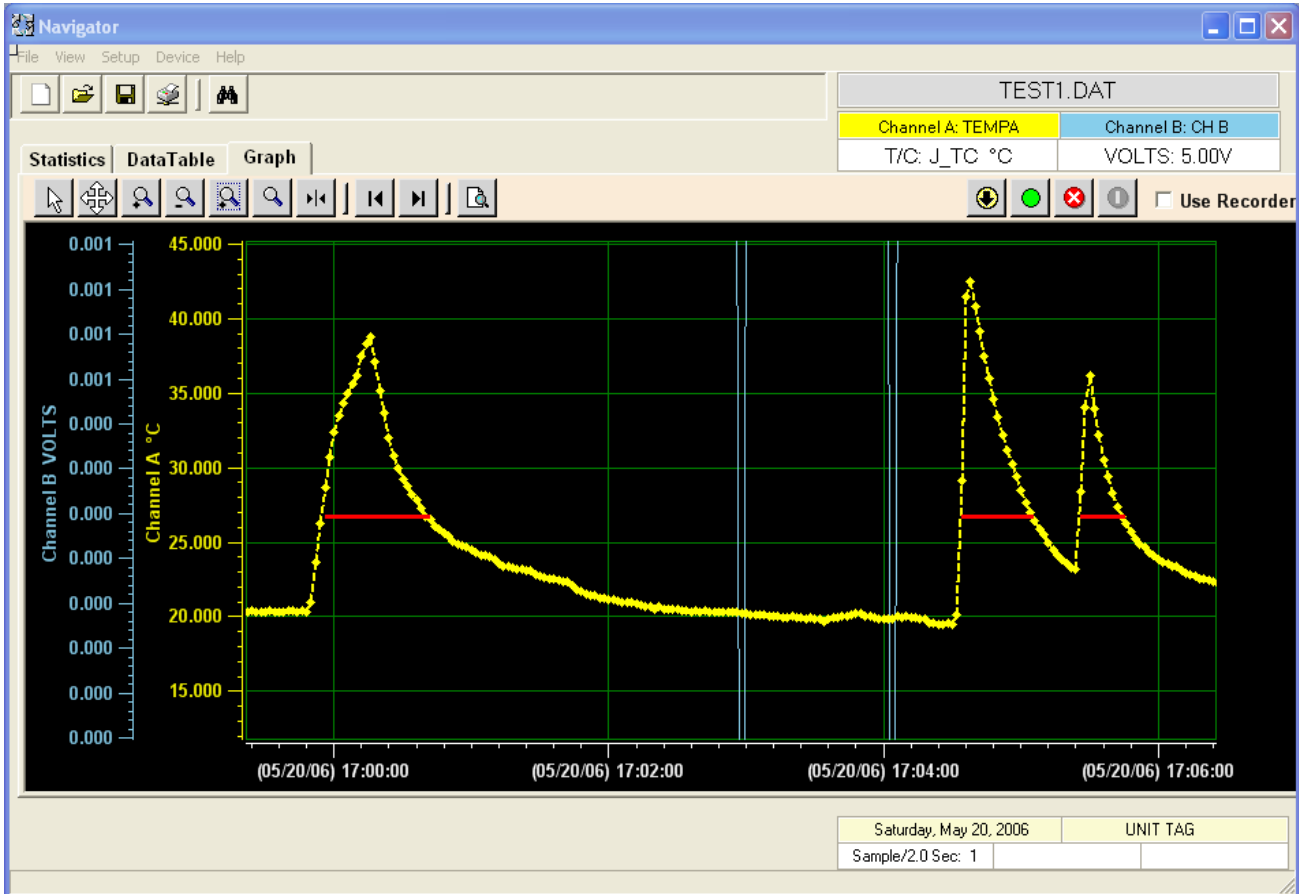
**Line type** – Can be solid, dashed, or dotted. The thickness and color can be selected to suit.

The **Alarm** section of the Channel Setup Dialog allows the display of alarm conditions **provided alarms were set on the original data** capture. Enable or disable the Alarm by checking the appropriate button.

The Alarms pull-down menu will show any alarms that were set in the original recording. These will be identified as Alarm 1, 2 and so on. You can select how these alarms will be indicated.

Note: The Alarms will only be visible in the event that a trace actually entered an alarm condition in which case that part of the trace in alarm will be indicated by the choices made in the setup. In the example above, Alarm 1 will be indicated by a solid red line 3 pixels thick.

If you apply the Trace and Alarm settings as shown in the Channel Setup Dialog above, the trace will look like that shown below. Note that the vertical scale is always in the same color as the trace.



Any data in the trace above the red line is in alarm.

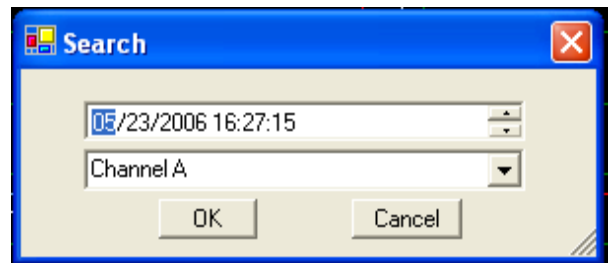
Note: Double-clicking on any point on the trend will take you to the corresponding entry in the DataTable.

### 3.5.4 SEARCH



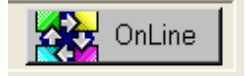
By using the search icon (shown left) the user can jump directly to time/date related information in the DataTable or on the Graph.

Enter the Date or Time required (select the Channel on the Graph) and click OK. The data will be rearranged and the point on the graph or in the DataTable will be highlighted. If no data can be found (out of the range selected) an error message to this effect will be displayed.



### 3.5.5 USING REAL TIME DATA

Data can be displayed in real time and recorded to a file on the local PC by connecting a Recorder to the PC via a USB or Ethernet port. If a remote recorder is connected to the PC you will see the OnLine icon as shown right. To connect via the Ethernet see [3.2.5](#)



Several of the buttons on the Graph window relate to this function.

In order to read files from the recorder or display data in real time it is necessary to check the “Use Recorder” box on the top right of the Graph window or in the **File** menu.



Once checked, the buttons to the left of the checkbox function as follows:

- Save to File

Click this button to save real time data to a file on the PC. It is necessary to name the file. Note – always choose a new name, it is not possible to append to an existing file.

- Start Real Time Data Display

Click this button to start the real time data trends. The PC will make connection with the recorder and start displaying real time data at the sample rate set in the recorder. The axes will auto scale to maximize the display resolution. The user can override these settings by pausing the display and zooming the display to suit.

- Stop Device

Click this button to stop the real time trend. Once stopped, all parameters are reset once the start button is clicked. To stop temporarily use the pause button.

- Pause

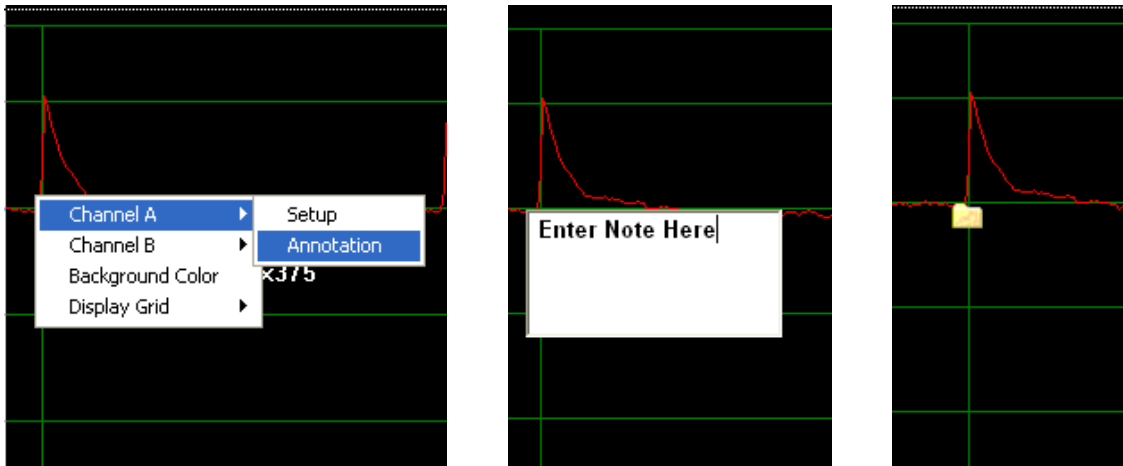
Click this button to temporarily suspend the real time update. Data will continue to be saved in the background. During pause it is possible to zoom or stretch the display to alter the time base and scale. It is also possible to append a note to the trend line – see below. Once this is done, press the Start button to resume. The pause button will be grayed out until the Start button is pressed.

### 3.5.6 ANNOTATING REAL TIME DATA

It is possible to add an annotation to the real time trend to explain an event or make notes. To do this it is necessary to **Pause** the display – see above.

Place the cursor at the point on the trend where you wish to add a message and right-click.

Select the channel, then select Annotation. This will pop up a note box where you can enter the information. Once done, press Enter and a folder icon will be placed at the selected point on the trend.

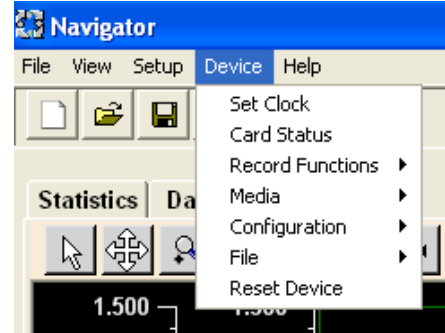




This folder will travel with the trend and can be reviewed at any time by double-clicking the folder icon. This information is also saved to the file if the file is currently recording to the PC.

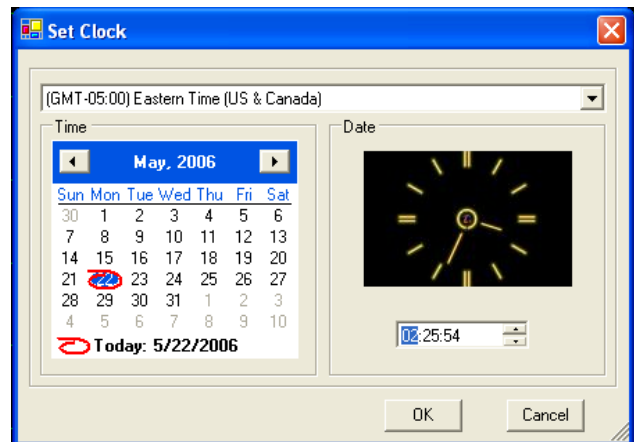
### 3.6 WORKING WITH REMOTE RECORDERS

The remote recorder can be controlled from the **Device** Menu. As shown at right, the user can set the clock, get the card status (CompactFlash™ card in the remote recorder), control the record functions, change the recorder configuration, manipulate files and reset the device. Note that a number of these functions cannot be executed if the remote recorder is in record mode or the real time graph is active. You will receive warning messages.



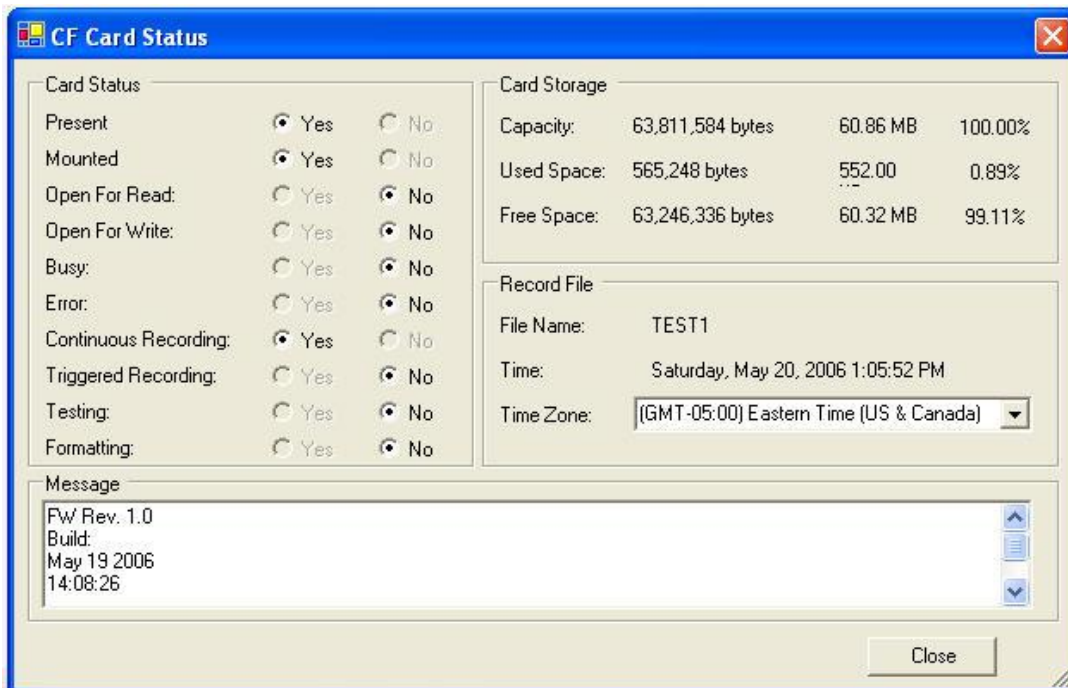
#### 3.6.1 SET CLOCK

Selecting this option will bring up the Set Clock window which will default to the current time and date of your PC. The user can change this as needed. Click the OK button to set the time and date on the remote recorder to this time. You cannot change time while the remote recorder is in record mode – the option will be grayed out.



#### 3.6.2 CARD STATUS

Clicking this option will display the status of the CompactFlash™ card in the remote recorder. This will bring up the status window shown below.



#### 3.6.3 RECORD FUNCTIONS

This option allows the user to stop or start recording in the remote recorder or set the triggered record mode on.

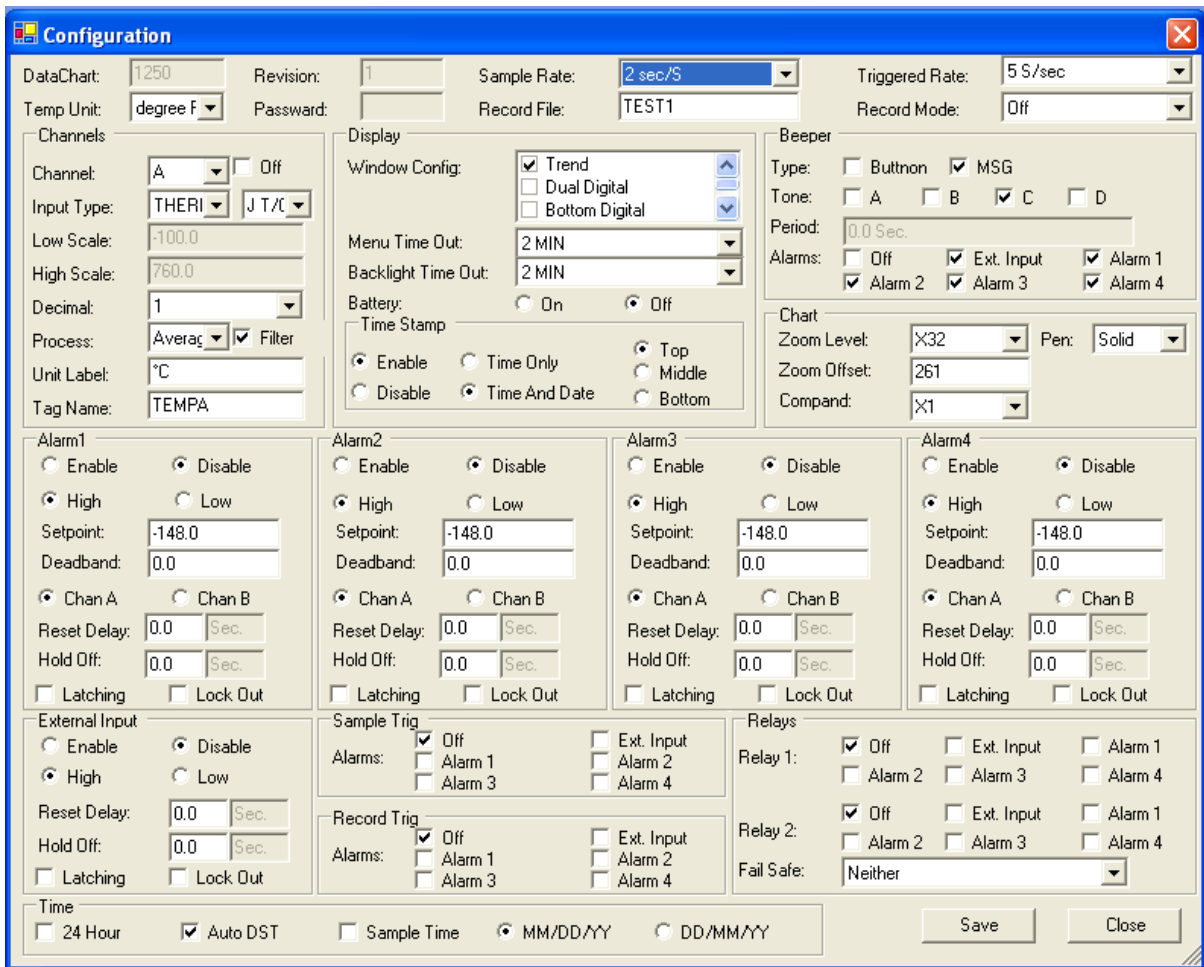
### 3.6.4 MEDIA

This option allows the user to format the CompactFlash™ card in the remote recorder. Use caution as this can destroy data. You can check the content of the card using the File option below. You cannot format a card while the recorder is in the record mode.

### 3.6.5 CONFIGURATION

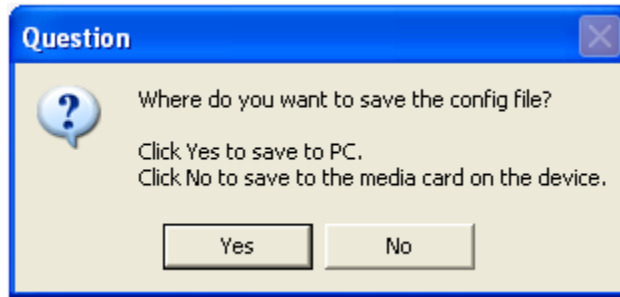
This option allows the user to read, write, save, change or send a configuration. The configuration file, designated by .CFG, is a copy of all the setups in the recorder. There needs to be a copy of the config file saved on the recorder's memory card in order to read or change the configuration.

3.6.5.1 **Read** - Allows the user to download the configuration file from the recorder to the PC. You will need to select the file from the file dialog box. Once the configuration file has been read the configuration popup dialog box will open. To edit a file remotely ensure the **Use Recorder** box is checked.



This is a representation of everything that is currently set up in the recorder. The parameters may be edited and saved (back to the recorder). Check the recorder manual for setting details. Note: In order to see the settings for Channel B, select “B” from the **Channel** pull-down menu.

3.6.5.2 **Save** – Remote and local.



Clicking Yes will save the configuration to the PC locally.

Clicking No will save the configuration as set up in the recorder onto the CompactFlash™ card.

3.6.5.3 **Change** – Allows the user to change the configuration on the recorder. This will present a dialog box with all the files on the remote recorder. Choose an alternate configuration file to load and press OK. The recorder will reset with the new configuration in place.

3.6.5.4 **Create** – This will bring up a default configuration window that the user can use to make a new configuration file.

3.6.5.5 **Send** – This will copy a configuration file from the PC to the remote recorder.

**3.6.6 FILE**

This option allows the user to read a file or delete a file from the CompactFlash™ card on the remote recorder.

**3.6.7 RESET DEVICE**

This option will force a reset of the remote recorder. This option is not available if the recorder is in the record mode.

## APPENDIX A - LANGUAGE FILES

Adding a language is a simple process. Navigator Software uses an Excel™ compatible file **Language.CSV**, which resides in the Navigator program directory, to read all text that is displayed in the program. The first column is the English words. To add a language, simply add a column and make sure the first entry in the column is the language. When the **Setup – Language** option is chosen, the program reads the first row of this spreadsheet and displays the languages available.

Below is an example of the format of a hypothetical language file. It has English, German and Spanish. The letter 'G' is added in front of the text for German and 'S' is added for Spanish. Selecting either German or Spanish from the Setup – Language menu will replace the English text with the corresponding German or Spanish text. The edited file must reside in the program directory.

	A	B	C	D	E	F	G	H	I
	ENGLISH	GERMAN	SPANISH						
2	File	GFile	Sfile						
3	Open	Gopen	SOpen						
4	Export	Gexport	Sexport						
5	Language	Glanguage	Slanguage						
6	Exit	Gexit	Sexit						
7	View	Gview	Sview						
8	Zoom In	Gzoom In	Szoom In						
9	Zoom Out	Gzoom Out	Szoom Out						
10	Zoom Window	Gzoom Window	Szoom Window						
11	Zoom Original	Gzoom Original	Szoom Original						
12	Set	Gset	Sset						
13	Help	Ghelp	Shelp						
14	Contents	Gcontents	Scontents						
15	About	Gabout	Sabout						
16	Statistics	Gstatistics	Sstatistics						
17	Channel 1 Summary	Gchannel 1 Summary	Schannel 1 Summary						
18	Start Time	Gstart Time	Sstart Time						
19	End Time	Gend Time	Send Time						
20	Total Samples	Gtotal Samples	Stotal Samples						
21	Minimum	Gminimum	Sminimum						
22	Maximum	Gmaximum	Smaximum						
23	Average	Gaverage	Saverage						
24	Channel 2 Summary	Gchannel 2 Summary	Schannel 2 Summary						
25	DataTable	GdataTable	SdataTable						
26	Report	Greport	Sreport						
27	Include Columns	Ginclude Columns	Sinclude Columns						
28	Time Stamp	Gtime Stamp	Stime Stamp						
29	Channel 1 Value	Gchannel 1 Value	Schannel 1 Value						
30	Channel 1 Status	Gchannel 1 Status	Schannel 1 Status						
31	Channel 2 Value	Gchannel 2 Value	Schannel 2 Value						
32	Channel 2 Status	Gchannel 2 Status	Schannel 2 Status						
33	FILTER	GFILTER	SFILTER						
34	Use Time	Guse Time	Suse Time						
35	From:	Gfrom:	Sfrom:						