

Software Help Manual

Virtual Corset™



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About

[Main] > Help > About

The About screen is for information purposes only and relates 1) the software name and version, 2) the copyright, and 3) the company name, address, email, web site and telephone.

To return to Main screen:

- Click <OK>.

Accelerometers

[Main] > Display > Accelerometers

The Accelerometers screen allows the user to visualize a bits sampling session of the three on-board accelerometers. The screen allows the user to start a session, record a session and stop a session.

To start sampling:

- Click <Data>.
- Click <Sample>. A check will occur to the left of the menu item indicating sampling is in progress.
- The application will start sampling the Virtual Corset and will display its X, Y and Z accelerometer bits.

To stop sampling:

- Click <Data>.
- Click <Sample>. The check to the left of the menu item will disappear indicating sampling has stopped.

To save data to a file:

- Click <Data>.
- Click <Save>.
- A “common dialog” box named Save As will appear.
- You may create a new name for the data file in the File Name textbox and select a file type in the Save As Type textbox or you may select an existing file as the data file. Click the Save button. The common dialog will disappear.
- A check will now appear to the left of the <Save> menu item indicating that a file is in place to receive data anytime sampling is active.

To stop saving data to a file:

- Click <Data>.
- Click <Save>. The check to the left of the menu item will disappear indicating saving has stopped.

To return to Main screen:

- Click <Data>.
- Click <Return>.

Angles

[Main] > Display > Angles

The Angles screen allows the user to visualize an X and Y angles sampling session. The screen allows the user to start a session, record a session and stop a session.

To start sampling:

- Click <Data>.
- Click <Sample>. A check will occur to the left of the menu item indicating sampling is in progress.
- The application will start sampling the Virtual Corset and will display its X and Y angles.

To stop sampling:

- Click <Data>.
- Click <Sample>. The check to the left of the menu item will disappear indicating sampling has stopped.

To save data to a file:

- Click <Data>.
- Click <Save>.
- A “common dialog” box named Save As will appear.
- You may create a new name for the data file in the File Name textbox and select a file type in the Save As Type textbox or you may select an existing file as the data file. Click the Save button. The common dialog will disappear.
- A check will now appear to the left of the <Save> menu item indicating that a file is in place to receive data anytime sampling is active.

To stop saving data to a file:

- Click <Data>.
- Click <Save>. The check to the left of the menu item will disappear indicating saving has stopped.

To tare/untare X or Y axis:

- Refer to the *Tare* section in the Virtual Corset User Manual before proceeding.
- Click <Data>.
- Click <Sample>. The application will start sampling the Virtual Corset for X and Y angles and the <Tare X> and <Tare Y> buttons will be enabled.
- The current tare of either angle is read out in the Tare frame.
- By clicking <Tare X> or <Untare X> and/or <Tare Y> and <Untare Y>, the user can add or remove tare to the Virtual Corset.

To return to Main screen:

- Click <Data>.
- Click <Return>.

Configuration

[Main] > Tools > Configuration

The Configuration screen allows the user to read the settable parameters on-board the Virtual Corset, view the default/minimum/maximum settable parameters and write the settable parameters to the Virtual Corset.

To read parameters:

- Click <File>.
- Click <Read>. The application will read the Virtual Corset and display a message box indicating the read has completed. Click <OK>.
- The current parameters on-board the Virtual Corset will be displayed in the various value scroll boxes on the screen.

To view default parameters:

- Click <Tools>.
- Click <Show Defaults>.
- The default parameters programmed in this software will be displayed in the various value scroll boxes on the screen.

To view minimum parameters:

- Click <Tools>.
- Click <Show Min>.
- The minimum allowable parameters programmed in this software will be displayed in the various value scroll boxes on the screen.

To view maximum parameters:

- Click <Tools>.
- Click <Show Max>.
- The maximum allowable parameters programmed in this software will be displayed in the various value scroll boxes on the screen.

To write parameters:

- Refer to the *Understanding Parameters* section of the Virtual Corset User Manual for details on the function of each parameter.
- Good practice dictates that you first perform the read function described above so that you are sure you are viewing current values on-board the Virtual Corset.
- Enter the appropriate new value in the value scroll box of the parameter you are setting. You may set one or more parameters at any time.
- Click <File>. Click <Write>. The parameters will be written to the on-board memory of the Virtual Corset. A message box will appear indicating the write has completed. Click <OK>.

To return to Main screen:

- Click <File>.
- Click <Return>.

Connect

[Main] > File > Connect

The Connect screen allows the user to auto detect the Virtual Corset or to manually select a serial port to communicate with the Virtual Corset.

To auto detect:

- Click <Auto Detect>. The application will search for the Virtual Corset from comm 1 to comm 16.
- If the Virtual Corset is found, a message box will appear indicating that the Virtual Corset was found. Click the message box <OK>. The radio button of the comm port will automatically be selected.
- Click <OK>. The application will read the Virtual Corset for certain on-board parameters and if successful, the Connect screen will disappear and the user may proceed with the application.
- If unsuccessful, a message box will appear indicating that the Virtual Corset was not found on any comm port. Click <OK> on the message box.
- Click <OK>. A message box will appear indicating no comm port has been selected or a communication failure has occurred. Click <OK> and troubleshoot the problem.

To manually select a serial port:

- Select the radio button of the comm port connected to the Virtual Corset.
- Click <OK>. The application will read the Virtual Corset for certain on-board parameters and if successful, the Connect screen will disappear and the user may proceed with the application.
- If unsuccessful, a message box will appear indicating that a communication failure has occurred. Click <OK> and troubleshoot the problem.

Download and Erase

[Main] > Tools > Download and Erase

To download the data on the Virtual Corset:

- Click <Data>.
- Click <Get Download Parameters>. The application will retrieve certain parameters on-board the Virtual Corset.
- If successful, a message box will appear indicating that the parameters have been retrieved. Click <OK>.
- Click <Data>.
- Click <Save>.
- A “common dialog” box named Save As will appear.
- You may create a new name for the data file in the File Name textbox and select a file type in the Save As Type textbox or you may select an existing file as the data file. Click the Save button. The common dialog will disappear.
- A check will now appear to the left of the <Save> menu item indicating that a file is in place to receive data download.
- Click <Data>.
- Click <Download>.
- The application will proceed to download all data in the Virtual Corset into the data file.
- When the download is complete, a message box will appear indicating download has completed. Click <OK>.
- N.B. The download will treat all data on-board the Virtual Corset as either “bin” or “linear” based on the current parameter setting.

To erase all data on the Virtual Corset:

- Click <Data>.
- Click <Erase>.
- A confirming message box will appear with a Yes/No choice.
- Click <Yes> to proceed with erase. Click <No> to cancel the erase.
- If Yes is clicked, the application will proceed to erase all data on-board the Virtual Corset.
- A confirming message will appear indicating erase is completed. Click <OK>.

To return to Main screen:

- Click <Data>.
- Click <Return>.

Graph

[Main] > Tools > Graph

The Graph screen allows the user to visualize both “bin” and “linear” Virtual Corset datalogging sessions. A “bin” download will allow the user to scroll through (and see the graph of) each data bin in a session. A “linear” download will graph the entire session to the screen.

To open a downloaded “bin” file:

- Ensure that you have downloaded a data file from the Virtual Corset using the method described in the *Download* section elsewhere in this manual.
- Click <File>.
- Click <Open>.
- An Open box will appear. Select a downloaded File Name from any that appear in the list by clicking its icon or by typing its name in the File Name text box.
- Click <Open>. The file will be loaded into the graph and the first bin of data in the file will be displayed.
- You may also click <Cancel> at this point to stop the transaction.
- Using the Next and Previous buttons contained in the Scroll Data Bins frame on the right hand side of the screen, scroll back and forth through each bin of data contained in the file. Each click of the scroll buttons will advance or regress the pointer in the downloaded file and will display its X data in the upper graph and its Y data in the lower graph.
- If you reach the end of the file, a message box will appear to alert you.

To open a downloaded “linear” file:

- Ensure that you have downloaded a data file from the Virtual Corset using the method described in the *Download* section elsewhere in this manual.
- Click <File>.
- Click <Open>.
- An Open box will appear. Select a downloaded File Name from any that appear in the list by clicking its icon or by typing its name in the File Name text box.
- Click <Open>. The file will be loaded into the graph and the entire session will be displayed.
- You may also click <Cancel> at this point to stop the transaction.

To return to Main screen:

- Click <File>.
- Click <Return>.

Main

The Main screen allows the user to navigate through all functions of the application including connect, download and erase, graph, configuration, launch, angles, accelerometers, about and exit.

To connect:

- Click <File>.
- Click <Connect>. The Connect screen will appear.

To launch:

- Click <Tools>.
- Click <Launch>. A confirming message box will appear with a Yes/No choice.
- **N.B.** All data on-board the Virtual Corset will be erased during launch.
- Click <Yes> to proceed with launch. Click <No> to cancel launch.
- If <Yes> is clicked, a message box will appear indicating the maximum duration of the session based on the Update Time Increment parameter on-board the Virtual Corset. Click <OK>.
- The application will issue the erase command and a message box will appear indicating that the user should disconnect the serial cable and begin the datalogging session. Click <OK> and disconnect.

To configure:

- Click <Tools>.
- Click <Configuration>. The Configuration screen will appear.

To download and erase:

- Click <Tools>.
- Click <Download and Erase>. The Download and Erase screen will appear.

To graph:

- Click <Tools>.
- Click <Graph>. The Graph screen will appear.

To sample accelerometers:

- Click <Display>.
- Click <Accelerometers>. The Accelerometers screen will appear.

To sample angles:

- Click <Display>.
- Click <Angles>. The Angles screen will appear.

To view About:

- Click <Help>.
- Click <About>. The About screen will appear.

To exit the application:

- Click <File>.
- Click <Exit>. The application will terminate.