

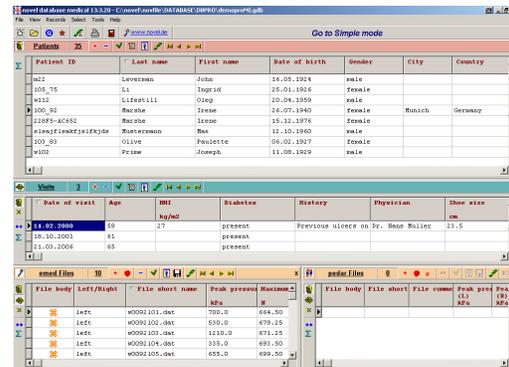
COLLECTION WITH THE novel database SOFTWARE AND pedar HARDWARE

1 Database Software

The database novel database medical organizes clinical patient information with pedar data files. It is possible to calculate biophysical parameters and to create user specified reports.



1.1 You can begin the database medical software by clicking on the icon located in the novel folder on the desktop. The software will begin in one of two viewing modes, the simple or advanced mode.



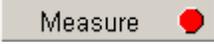
1.1.1. To begin entering patient information in the simple mode, simply click on the  button.

1.1.2. To begin entering patient information in the advanced mode, click the  icon in the **Patients** table.

1.2 Enter the patient information (a patient ID is required) and then click the  button.

1.3 Within the visit window the current date will be added. You may also add in any clinical data within this window. For a complete description of the information within this window please see the database medical manual.

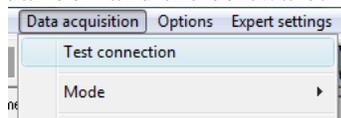
1.4 Once the patient information has been entered, choose the  (pedar) tab.

1.5 To begin data collection click the  button and the pedar collection software will begin.

For a complete explanation of all database options, please refer to the database medical manual.

2 pedar Online Data Collection Software

2.1 The pedar data collection software will open and it is first recommended to test the connection between the pedar box and the software.

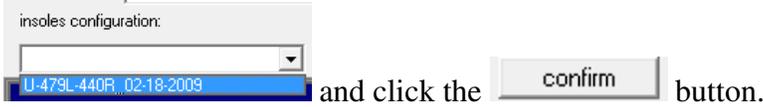


2.1.1 Go to  and either enter the appropriate Bluetooth or Fiber Optic Cable port (versions 10 or 11 of software), or choose the appropriate port from the drop

down menu (versions 12 or 19 of the software) and click . You should receive either a “connection OK” message (versions 10 or 11), or a response in the “flash configuration” Window (versions 12 or 19).

2.1.2 Instrument the subject according to the defined protocol for your study while sitting in a chair.

2.1.3 Choose the appropriate insole configuration from the drop down menu

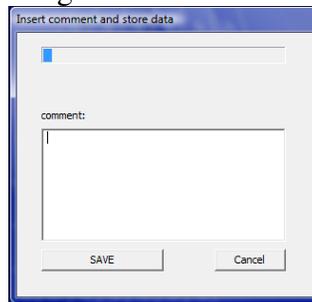


2.1.3.1 Unload both the right and left insoles

2.1.3.2 Instruct the patient to tie their shoes

2.1.4 Begin recording by clicking on the  button. Ensure to record the appropriate number of steps/repetitions for your activity and click the  button.

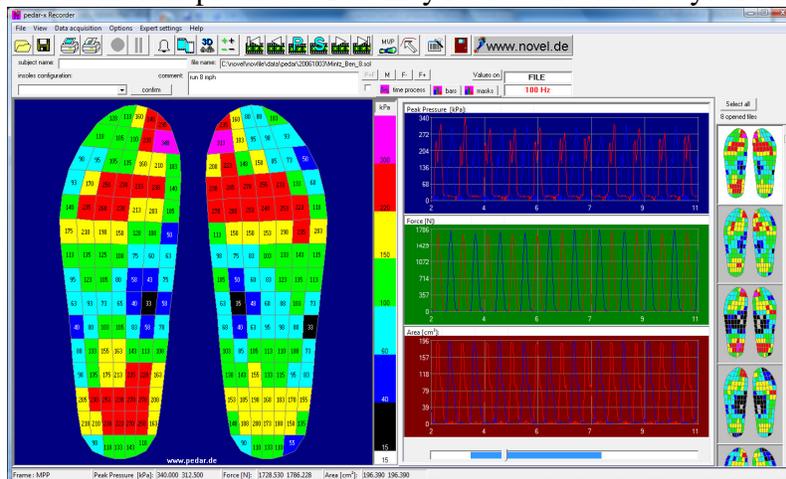
2.1.5 Enter a comment within the following window and click “Save”:



2.1.6 Record a second trial by clicking the  button again.

For more specific collection options, please refer to the pedar manual.

2.2 Once data collection has stopped all collected trials will be located in the right hand section of the collection screen as thumbnail pictures. You may review the trials at your leisure.



2.2.1 To play back an activity, choose the thumbnail on the right hand side of the screen and click the  button.

2.2.1.1 To move forward or backward one frame, use the  and  buttons, or move to the first or last frame with the  and  buttons

2.2.2 You can choose how to view the pressure picture by using the , , or  (isobar) buttons.

2.2.2.1 You can zoom in and look at the individual pressure values of each sensor by clicking on the pressure picture in the 2D mode. Right click to zoom back out.

2.2.3 The values of pressure, force, and area can be viewed in the graphs on the right hand side of the screen

2.2.3.1 You can zoom in on these graphs by clicking on the  button.

2.2.3.2 You can track (move) the cursor along the graph by clicking the  button.

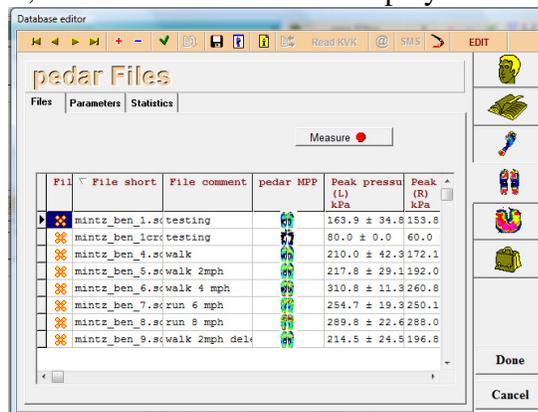
2.2.4 Alternatively you can view the values of pressure, force, and area in bar graphs by clicking the  button.

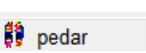
2.2.5 Once finished collecting trials, exit the pedar software by clicking the  or X button.

3 Post-processing the Steps within the step analysis program

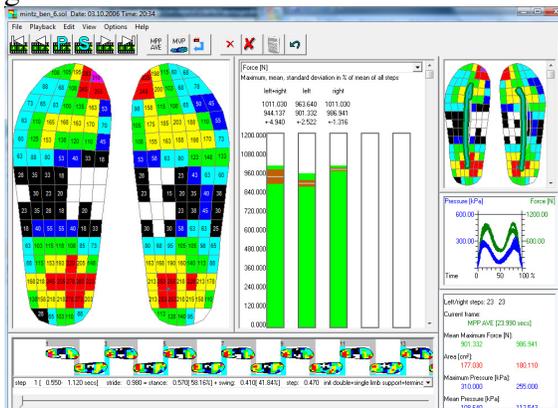
3.1 Sometimes unwanted steps, such as turn-around steps, are present within the trial. These may be post-processed and removed from the trial. If the trial only contains steps which should be analyzed, post-processing may not be necessary.

3.2 After finishing data collection, the database editor will display like so:

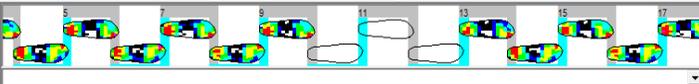


3.3 Click the  button to select all the trials to post-process and then click the Run Application  button and then the  button and then click the  button to begin the step analysis program.

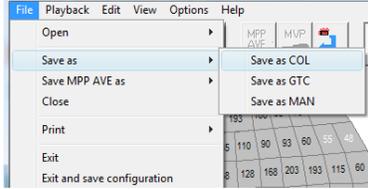
3.4 Review the steps by looking at the timing information, the force and pressure curves, the COP lines, etc, as in the following screen:



3.5 Delete the unwanted steps by selecting the  button and then clicking on the unwanted steps

such as  and click the  button to accept changes. Typically at least 10 steps for each foot should be analyzed.

3.6 Once finished post-processing save the trial as a .col file by going to



and save the trial under the appropriate patient and visit folder. It will be automatically returned to the database medical.

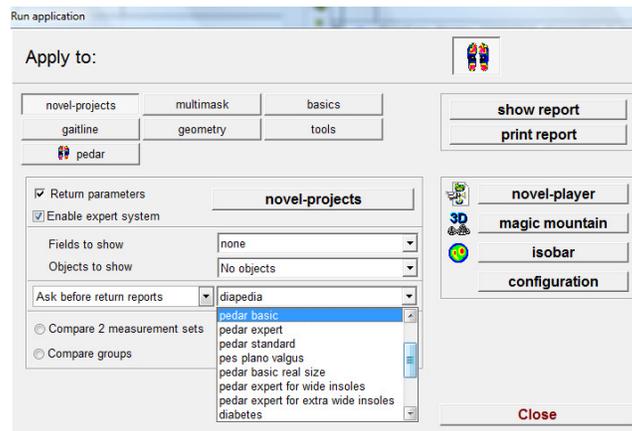
For more specific collection options, please refer to the pedar manual.

4 Creating Reports and analyzing data with post-processed data

4.1 A report can be created once the .sol or .col file is created.

4.1.1 Choose the appropriate file in which you would like to create a report and then click the

Run Application  button and you may choose a predefined report from the dropdown menu.



4.1.2 You may then choose to either **show report** or **print report**.

4.2 If you would like to process the data through novel projects and return this processed data to the database, or to create a new report, click the **novel-projects** button to open the novel projects software program.

4.2.1 Select the parameters of interest by clicking the  button. Select the parameters from the list of available parameters and use the  button to add the parameters to the Selected Parameters list. Once finished, click “OK”.

4.2.2 Apply the appropriate mask (if desired) by either:

4.2.2.1 Applying one mask to all files by choosing the  tab and then opening then selecting the mask by clicking the  button. Ensure to include the option to use the Mask Editor by selecting **Masks Editor**.

4.2.2.2 Creating a new type of mask for each file by choosing the  **Many files - many masks** tab and then choosing the type of mask to apply from

the drop down menu . Ensure to include the option to use the Mask Editor by selecting the  button.

4.2.3 If you would like to create a report for these parameters, click the  button and select pictures, tables and graphs to place on the report. For a complete explanation on creating reports, please refer to the novel scientific manual.

4.2.4 To calculate the parameters and return the parameters back to the novel database, click the  button. Review or change the mask within the Masks Editor window and click the  button.

4.2.5 To create the report, click either  or  to calculate the parameters, return them to the database and create the report. Review or change the mask within the Masks Editor window and click the  button.

4.2.6 Once processing is complete, close novel projects by clicking “Close”. Save the project, if required.

For a complete explanation on the novel projects program, please refer to the novel scientific manual.

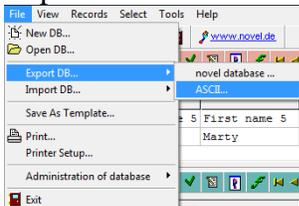
5 Exporting data from the novel database medical

5.1 Once data analysis is complete all parameters can be exported from the database to an ASCII format, which can be opened in Microsoft Excel (or the like).

5.1.1 It is important to view what parameters you would like to export within the novel database medical. Select the parameters of interest within each table (Patients, Visits, pedar Files, etc) by using the  button in each table.

5.1.2 You may save this exported list by using the  button and choosing “Save list to DB”.

5.2 Export the database using the menu item:



. Choose a location to save the database to and then click “Export”.

5.2.1 Files will be saved for each table: .avs – contains information from the Patients and Visits Table, .adt – from the emed table, .apd – from the pedar table, .apl – from the pliance table, .aur – from the user table. Open these in Excel (or the like) to view them in table delimited format.

For a complete explanation of all database options, please refer to the database medical manual.