Parkinson Analyzer(V1.0) User Manual

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Basic Introduction

Parkinson Analyzer is the data analysis and report generation app for the data generated in the Parkinson Testing app "Newlan". The Parkinson Analyzer app is designed by Hui Yan and this is the user manual for version 1.0 as this is the basic version developed as the basic version.

App Design Introduction

Picture 1: the user interface of the Parkinson Analyzer

Look at the main window. The first part is right below the name of "Parkinson Data Analyzer", which is the menu bar, which is the bar that has the choice "Basic

Info". The menu bar has two functions, which we will discuss later.

The second part is the user information part. It refers to the rectangle from the name line to the part before the line of the "Import folder" button. This part is designed for the user to input the patient's information, which will be used later in the export analysis part. You can input the information by yourself or through the function, which will be mentioned later.
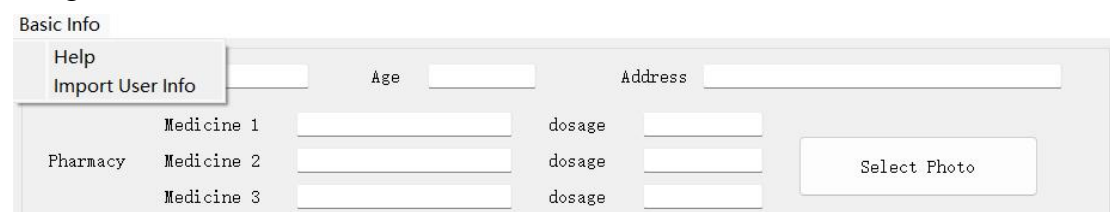
The third part is the analysis and graph part, which is from the line of the "Import folder" button to the division line above the knowledge learning part. This part has several main functions: first is the import button, which would let us import the folder of data to be analyzed and the path of the folder would be shown on the label on the right of the button. Below are the analyze buttons that are designed for the five kinds of data in the folder, and the analyze graph showing the performance of the data is below the line of the analyze buttons and used in the form of tab loops. Below the tab part are the clear button and the export button, which help clear all the graphs and export the analysis of the set of data respectively.

The last part is the knowledge learning part. The users can choose which aspect of Parkinson's Disease they would like to know in the following combo box, and then click the "Start Learning" button to visit the corresponding website or the corresponding part of the website.
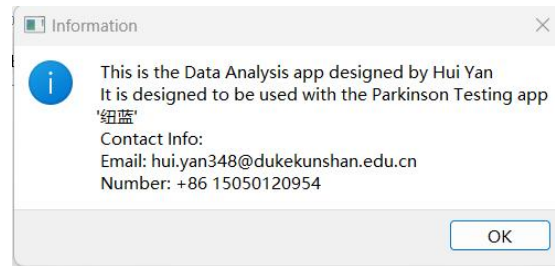
App Using Guidance

1. Menu Bar Part

The menu bar has two functions. The first function is the help action, and after you click the help button, there will be a window of the information of the app designer Hui Yan, and the contact information.

Picture 2: the menu bar with two functions

Picture 3: the box of producer information

The second action is Import User Info, and after you click the button there would jump out a window for you to choose the TXT file of information. After you choose the corresponding TXT file, the user information part will be filled with the given information in the file. If you found out that you don't have a corresponding TXT file and decided to exit choosing the file, there would jump out an information box noticing that you didn't choose any TXT file.
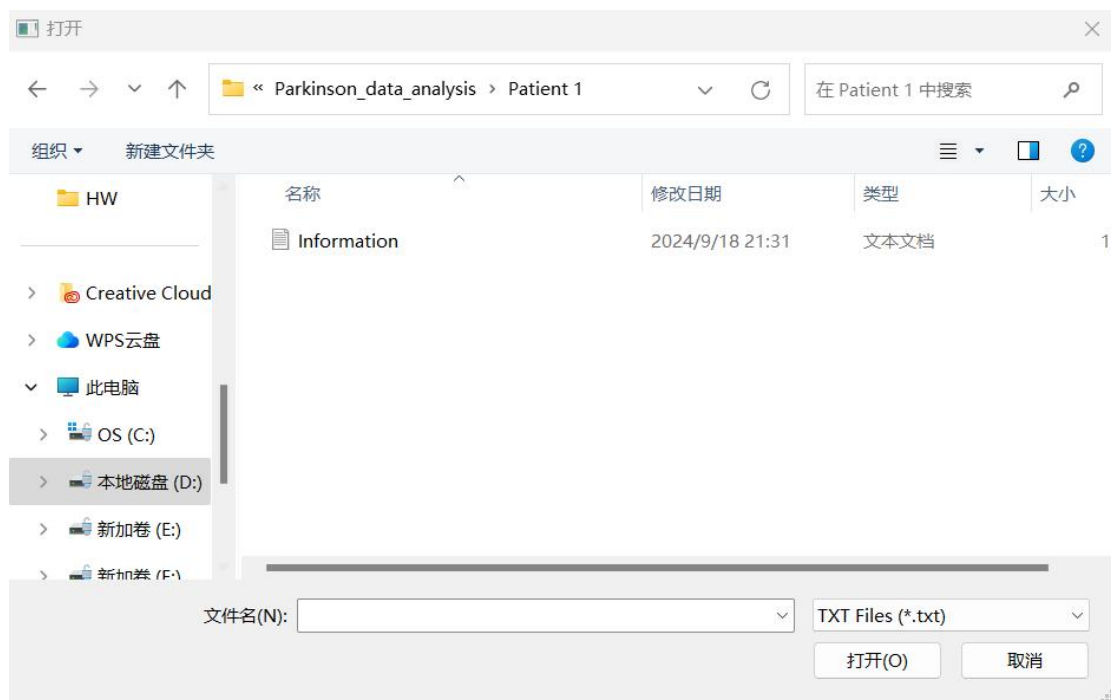
Picture 4: the choosing box of the TXT file

2. User Information Part

The user information part is designed for the user to input the information either with their keyboard or use the second function in the menu bar to set the information. But one thing to notice is that for both functions if we have a picture of the patient, we need to manually choose the picture of the patient. The only function in this place is the Select Photo function. After clicking the "Select Photo" button, there will be a

selection box to choose an image file. If the choosing process is canceled, there will also be a notice that no picture has been chosen.
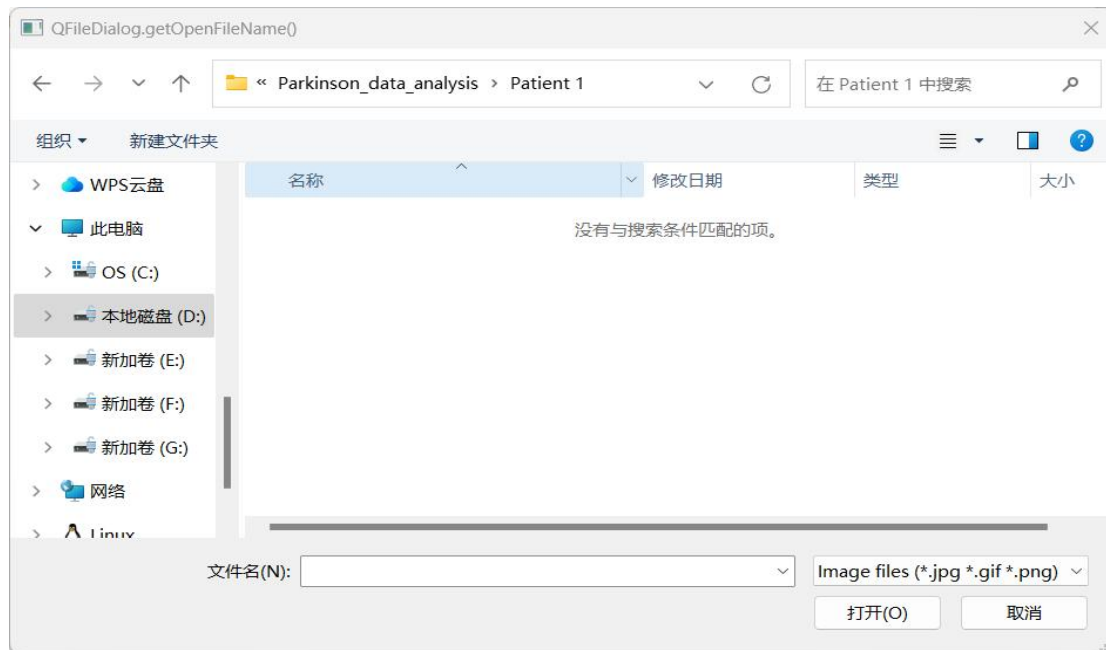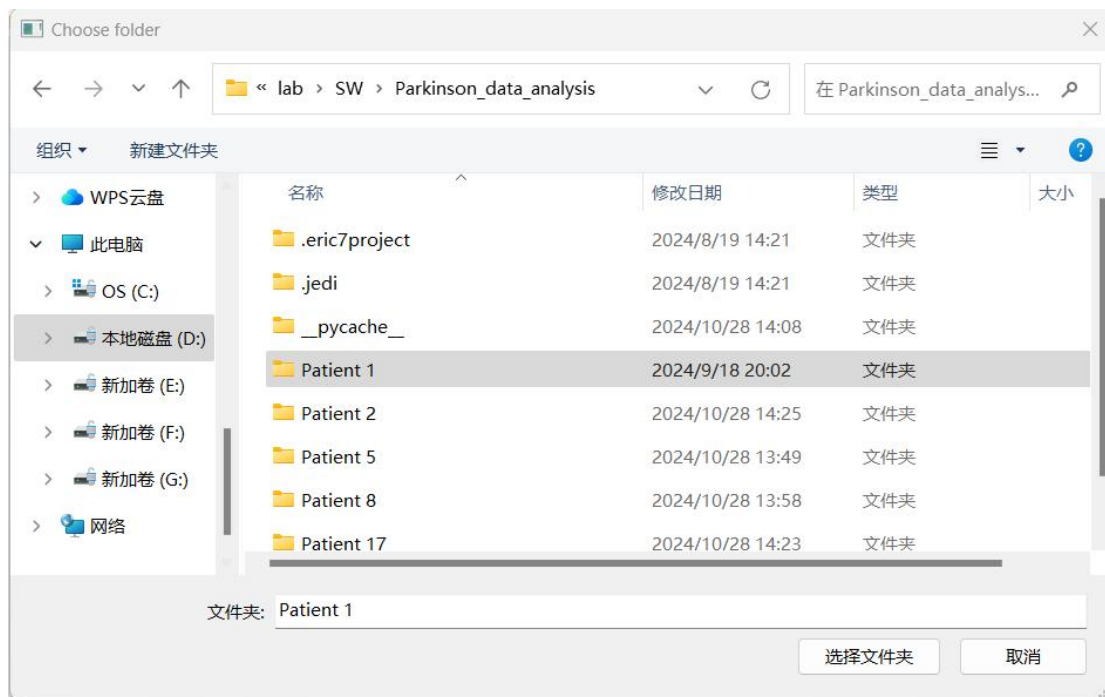

Picture 5: the choosing box of the patient's picture

3. Analysis and Graph Part

For this part, the majority of functions of this app are gathered here.

First is the Import function. Click the "Import Folder" button, and there will be a choosing box for you to choose a folder. After you choose the corresponding folder with the data files that you want to analyze, the right of the button will have the path of the currently chosen folder shown. The system would reset all variables to be used in the analysis part later on and would prepare the patient data for you. If you didn't choose a folder, there would also be a warning telling you no folder is chosen.

Picture 6: the choosing box of the data folder

The next are the five main analyze buttons. They are set as disabled initially since we don't have a corresponding set of data for analysis. The reason I designed five buttons is that some patients may not finish the whole process of the test, for example, after the tremor test, the patient has some urgent things to deal with and leaves the test, but the previous test results are generated and he/she wants to see the analysis, so they can simply analyze the test they took and generate the analysis. We can see there are five main tabs with canvases to show the test result of each test. The test results will be shown on the canvases, and there will also be sliding bars to help the user see the whole graph if needed. All test tabs show the result of treated data, but some test results would also have raw data and treated data if there are many variables, so they would have 2 sub-tabs. For the tremor test, since there are two kinds of tremor test (static and postural), it would have 4 tabs in all. All the tests would have different bars that indicate different quartiles: below 0%, 0%-25%, 25%-50%,50%-75%, and 75%-100%. There is also the line of the patient's data, and the bar intersects with the line showing the patient data is in the corresponding range. If no bar intersects with the line, it means that the patient data is beyond 100% of the healthy range.
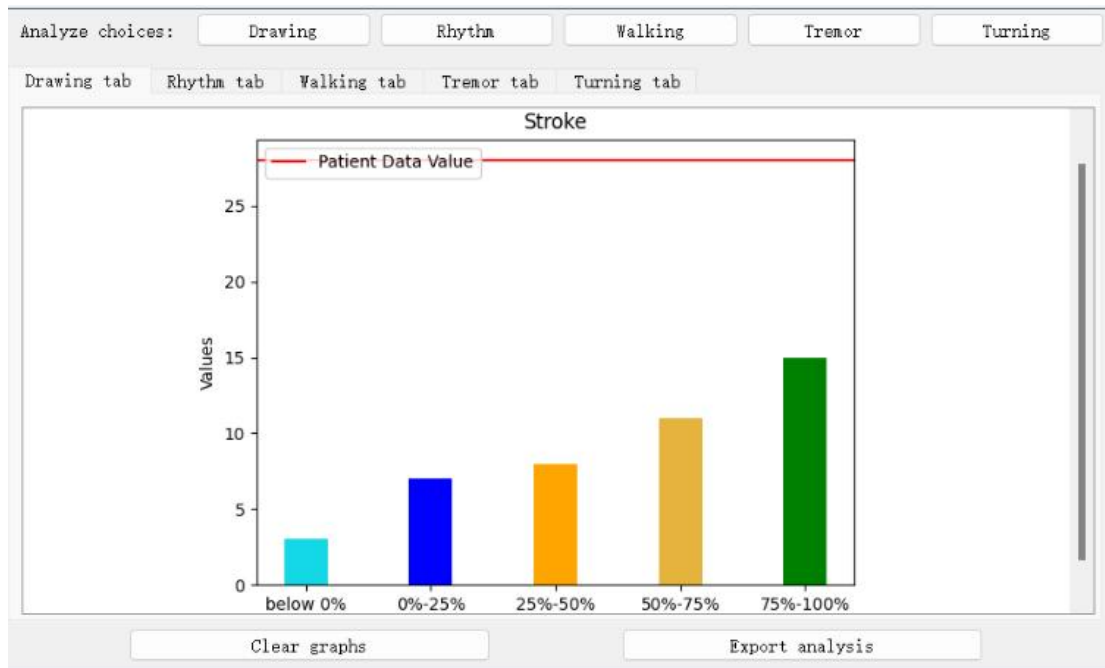
Picture 7: graphic view box with different tabs

Finally, there are the two buttons. The first button, the "clear graph" button, will clear all the graphs to the initial state after being clicked. The second button, the export button, will show a choosing box of PDF files after being clicked. The PDF file would be the file of the test analysis of the current input data. One thing to notice is that the function is set to overwrite the chosen PDF file out of the consideration that we may need to have several versions of the same test analysis, as there may be changes in the test situations if the user initially only took some of the tests, or the update in the part of user information. And just like the previous choosing box cases, if the choosing process is canceled, there would also be a warning that no PDF file is chosen.
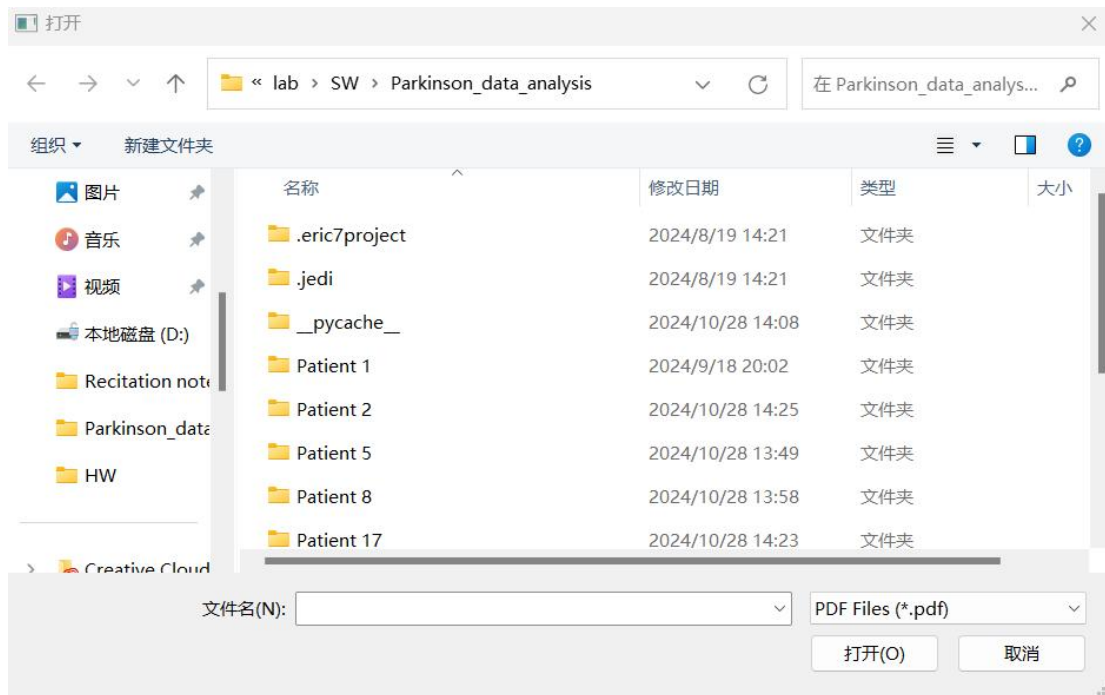
Picture 8: the choosing box of export analysis

4. Knowledge Leaning Part

The knowledge learning part is quite simple. For this part, the user can choose the aspect that he/she is interested in of Parkinson's Disease, and then click the button to visit the relevant website. The only function is connected to the "Start Learning" button, which after clicking, would detect the choice in the combo box to its left, and open the corresponding website. For some of the choices, the website would be the same but it would start at different parts since the website URL is different.
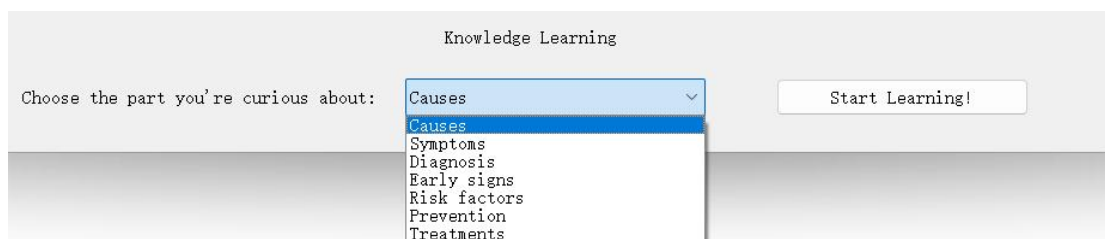
Picture 9: the choices of the combo box